



Accelerating
focussed growth

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80th Annual General Meeting

Date: Monday, July 8, 2019

Time: 3.00 P. M.

Venue:

Birla Matushri Sabhagar,
19, Sir Vithaldas Thackersey Marg,
New Marine Lines, Mumbai - 400 020.

Deep innovation expertise to harness the best of science and serve the society.

A passion to consistently push beyond existing limits and rise above.

Combine innovation and passion with scale and accelerated growth happens.

This is how Tata Chemicals has emerged to be one of the world's most reputed brands, revolutionising the industry segments it has operated in its 80-year journey.

As we continue to nurture our inherent strengths, we are undertaking many initiatives to accelerate our growth in focussed areas.

Our multi-pronged strategy of customer-centric product development and expansion into white spaces in our Consumer Products Business and capacity augmentation programmes in our Specialty Products Business has laid a strong foundation for growth. Aligning our organisational structure and strategies with the revised segment reporting and the exit from non-core businesses has simplified our portfolio and are driving stronger synergies. Strong innovation drive is enabling us to tap the emerging areas and nurture the newly-seeded portfolio.

Moving forward, we will consistently leverage our understanding of science as a key differentiator as we strengthen the basic chemicals business and aggressively grow the Specialty Products and Consumer Products Business. We will do this with our relentless focus on operational excellence, cost competitiveness, innovation and new product development centred around customers.

Our way forward is accelerating focussed growth.



To view or download this report, please log on to www.tatachemicals.com/Investors/Financial-reports



Icon to guide you to further details



Accelerating focussed growth with diverse, yet closely integrated businesses

Established in 1939, Tata Chemicals Limited (TCL) is a part of US\$ 110 billion Tata Group. A global company, we serve customers across 40+ countries in five continents. We bring together our knowledge, expertise and innovation prowess to positively impact industries, consumers and farmers with our science-led products spread across three business verticals. Our market capitalisation as on March 31, 2019 stood at ₹ 15,000 crore.

Inspiring our 80 years of growth

Values



S - Safety

P - Passion

I - Integrity

C - Care

E - Excellence

Vision



To be a sustainable Company with deep customer insights and engaging relationship with all stakeholders in industrial chemicals, branded agriculture and consumer products.

Mission



Serving society through science

Cultural Pillars



Proactive cost focus

Agile execution

Collaborative innovation

Trusting relationships

Approach to Business



Delivering high performance for stakeholders

Caring for the community

Nurturing a committed and passionate workforce

Business divisions



Basic Chemistry Products

Inorganic chemistry solutions to serve the world's leading downstream brands



Consumer Products

High-quality and branded everyday nourishing food products to positively impact the lives of consumers



Specialty Products

Agro Sciences

Crop protection and other agricultural inputs to farmers



Nutritional Sciences

An innovative range of prebiotics and healthier alternatives to regular sugar for consumers

Material Sciences

Value-added offerings leveraging Soda Ash value chain linkages

Energy Sciences*

Integrated offerings of cell manufacturing, battery recycling and battery active production

*Potential future endeavour

Organisation structure

Key Subsidiaries

Tata Chemicals North America (TCNA)

Amongst the world's leading producers of high-quality natural Soda Ash

Tata Chemicals Europe (TCE)

Amongst Europe's leading producers of Sodium Bicarbonate, Salt, light Soda Ash and other products

Tata Chemicals Magadi (TCM)

Africa's largest Soda Ash manufacturer and one of the leading exporters in Kenya

Tata Chemicals South Africa (TCSA)

A licensed bulk handling terminal, servicing a large part of customers' Soda Ash requirements and also a growing third party cargo handling business

Tata Chemicals International Pte. Ltd. (TCIPL)

Trading of Soda Ash, procurement of raw materials and holding investments of international subsidiaries

Rallis India Limited (Rallis)

Among India's leading agro chemicals companies

Ncourage Social Enterprise Foundation

Social Enterprise targeting improvement in social issues including clean drinking water and livelihood

CSR Implementors

Tata Chemicals Society for Rural Development (TCSRSD)

Undertakes activities to address various concerns of the communities and to preserve the environment and bio-diversity.

Okhai Centre

Women empowerment through livelihood generation

Uday Foundation

Undertakes activities to create sustainable employment opportunities for youths in rural areas and assist employees in improving skills.

Tata Chemicals Golden Jubilee Foundation

Medical and educational assistance to underprivileged



Key Highlights of FY 2018-19



Nearing completion of state-of-the-art ₹ 270 crore greenfield biotechnology manufacturing unit at Nellore, Andhra Pradesh having an installed capacity of 5,000 MT of Fructo-Oligosaccharides (FOS)



Approved capex of ₹2,400 crore towards debottlenecking and capacity expansion for all products at Mithapur plant



The Board of Rallis has approved a capex of ₹800 crore towards expansion of formulation capacity and building technical and associated intermediary products manufacturing capacity for backward integration



Signed Memorandum of Understanding with CSIR-CECRI, Karaikudi, ISRO and C-MET to strengthen lithium strategy



Set-up and dedicated to the Indian nation 'Centre of Excellence for Coastal and Marine Conservation' and 'Centre for Sustainable Agriculture and Farm Excellence' in commemoration of 150 years of the Tata Group



Completed acquisition of precipitated silica business and initiated process improvement initiatives of the silica plant in Cuddalore, Tamil Nadu having an annual manufacturing capacity of 900 TPM



Launched 'Ncourage Social Enterprise Foundation' targeting to improve social issues including clean drinking water and livelihood



Committed to Science Based Targets Initiative (SBTI) and revamping the sustainability strategy at all geographies for carbon conscious growth

Our Global Presence



America

1. Green River Basin, Wyoming, USA

Canada, USA, Mexico, Brazil and Argentina

Europe

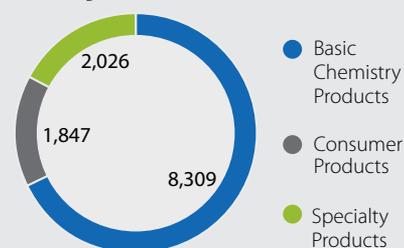
2. Winnington, Lostock, Middlewich, UK

Europe and the UK

Segmental Revenue break-up

Consolidated

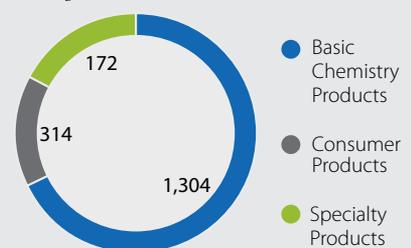
₹11,296 Cr.



Segmental Result (EBIT)

Consolidated

₹1,790 Cr.



Note: The chart does not take into account the unallocated revenue and inter-segment revenue.



Asia

Africa

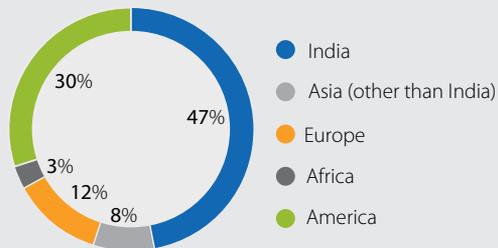
- 📍 3. Jorf Hasfar, Morocco (JV), North Africa
- 4. Magadi, Kenya
- 📍 South and East Africa, Sub-Saharan Africa

- 📍 5. Mithapur, Gujarat
- 📍 6. Cuddalore, Tamil Nadu
- 📍 7. Nellore, Andhra Pradesh
- 📍 8. Sriperumbudur, Tamil Nadu
- 📍 9. Ankleshwar, Gujarat (Rallis)
- 📍 10. Dahej, Gujarat (Rallis)
- 📍 11. Lote, Maharashtra (Rallis)
- 📍 12. Akola, Maharashtra (Rallis)
- 📍 13. Bengaluru, Karnataka (Metahelix)
- 📍 Mumbai, India
- 📍 India, Bangladesh, Indonesia, Malaysia, Thailand, Philippines
- 💡 1. TCL Innovation Centre, Pune
- 💡 2. TCL R&D Centre, Mithapur, Gujarat
- 💡 3. Rallis Innovation Chemistry Hub (RICH), Bengaluru, Karnataka
- 💡 4. Metahelix Life Sciences R&D facility, Bengaluru, Karnataka

Geographical Revenue

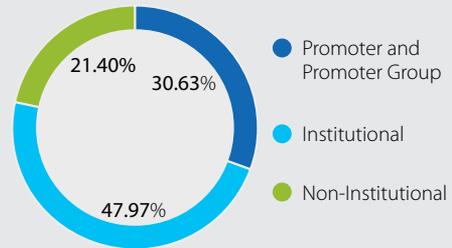
Consolidated

₹11,296 Cr.



Our Ownership Structure

Shareholding

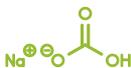


Our Diversified Science Led Portfolio



3rd largest

Soda Ash manufacturer in the world



6th largest

Sodium Bicarbonate manufacturer in the world*



Market leader

in Salt in India (Sales)



India's 1st

National pulses brand



Tata Salt

2nd most trusted food brand in India**



Pioneer

in FOS/GOS products in India

*IHS Chemical Sodium Bicarbonate Chemical Economics Handbook

**ET Brand equity results

Basic Chemistry Products

Category	End-user segments
Soda Ash	Detergent Float glass – construction and housing; commercial, office and retail space and the automotive sector, Container Glass - soft drinks, Indian-made foreign liquor, pharmaceuticals, tableware, glass etc., detergent chemicals - Sodium Bicarbonate, sodium silicates, other chemicals, dyes and intermediaries
Bicarb	Pharma (US Pharmacopoeia and British Pharmacopoeia), Pharmaceutical (Indian Pharmacopoeia), Food Animal and poultry feed, Foodgrade dust, Explosion suppressant, Haemo Dialysis, Flue Gas Treatment
Cement	Construction
Salt	Food Processing, industrial salt, de-icing, dairy products, water softening and industrial applications
Marine Chemicals	Agro Chemicals, Pesticides, Pharma Intermediaries, Fire Retardants
Crushed Refined Soda	Manufacturing of Sodium Silicate, Animal feed additive, Mining applications, Effluent treatment, Flue gas treatment, Compost heap treatment, battery manufacturing industry

Consumer Products

Category	Product profile
Salt	Vacuum evaporated salt, rock salt, black salt, crystal salt, low sodium salt, double fortified salt, solar salt, cooking soda, flavoured salt, herbal salt ¹
Pulses and besan	Unpolished dals - high protein dals range of 19 variants, Besan - low oil absorb besan, Organic dals range, Jeera Sattu flour ¹
Ready-to-cook mix	Range of mixes ² (khichdi mix, multigrain chilla mix, Low oil absorb pakoda mix, moong dal chilla mix, multi dal chilla mix)
Spices	Pure spices, blended spices
New products	Range of chutneys ² (spicy tomato chutney, chinese chutney and tamarind-date chutney), red rice poha ¹ , bran rich basmati rice ¹ , dal based snacks ¹ , 100% pure natural unrefined cold pressed extra virgin coconut oil ¹
Home care and fabric care	Detergents ¹

Specialty Products

Category	Product profile
Food	Nutritional solutions, Tata Nx brand, wellness foods, prebiotic products, Stevia based sweetener made of all natural ingredients
Wellness	Prebiotics: Fructo-Oligosaccharide (FOS), Galacto-Oligosaccharide (GOS), Animal feed supplements: FOS-based formulations
Agricultural	Crop protection solutions (herbicides, fungicides, insecticides), organic manure, seeds, plant growth nutrients (PGNs) and other agri-input solutions through Rallis
Advanced materials	Nano Zinc Oxide, Highly Dispersible Silica

1. Pilot stage in select markets and will be scaled up /continued if pilots successful

2. Successfully completed pilots and started scaling up

Brands/Products
DetMate
Dense Soda Ash, Light Soda Ash
Pharmakarb, Medikarb, Sodakarb, Alkakarb, Dessikarb, Hemokarb, Briskarb
Tata Shudh
Glacia, Granulite, Magadi Moore, Nyama and Magadi Moore Maziwa
Liquid Bromine
Crushed Refined Soda

Brands/Products
Tata Salt, Tata Salt Lite, Tata Salt Plus, Tata Salt Crystal, I Shakti, Flavoritz
Tata Sampann
Tata Dx

Brands/Products
Tata Nx
Gossence™, Fossence™, Gut Shakti
GeoGreen, Tata Metri, Tarak, Tata Panida, Contaf, Contaf Plus, Taqat, Ergon, Tata Master, Sultaf, Tata Asataf, Applaud, Takumi, Hunk, Nagata, Origin, Reeve 5, Sedna, Sonic Flo, Tata Mida, Zeeny, Rilon, Anant, Summit, Ralligold WP, Ralligold, Gr, Tata Bahaar, Uphaar, Solubor, Glucobita, Tracel, Surplus
Nano Zinc Oxide, Highly Dispersible Silica



We are present in every 5th Indian vehicle

The glass window in every 5th Indian vehicle is made from our Soda Ash



We are a preferred choice for Indian detergent manufacturers

Every month 47 million households use detergents made from our Soda Ash



We fortify iron and iodine sufficiency among Indians

Every year 170 million households in India consume iron and iodine fortified Tata Salt



We are present in the biscuits you eat and make them healthy

Our Sodium Bicarbonate and FOS are used by India's biggest biscuit manufacturers



We strive for farmer prosperity

We cover 80% of India's districts with 13 million farmer contacts through our Specialty Products



We facilitate in improving nutrition and health

We provide an innovative range of prebiotics, healthier alternatives of sugar, high protein unpolished dals, low oil absorb besan and healthy ready-to-cook nutrimixes

Performance Highlights for FY 2018-19



Financial capital#

Financial capital represents the pool of funds, including both debt and equity finance, that is available to our organisation. We rely on multiple sources of funds and put them to use for the acquisition of manufactured capital to strengthen the balance sheet.

EBITDA

₹2,095 Cr.

₹2,191 Cr.
FY 2017-18

PBT

₹1,742 Cr.

₹1,620 Cr.
FY 2017-18

PAT

₹1,395 Cr.

₹1,560 Cr.
FY 2017-18

Market capitalisation*

₹15,000 Cr.

₹17,251 Cr.
FY 2017-18

#For continuing operations only

*As on March 31, 2019



Manufactured capital

Manufacturing capital represents our plants, warehouses, logistics facilities and all the physical assets that we use for producing basic and agro chemicals, consumer food, nutritional products and seeds. We continue to invest in the manufactured capital to build capacities and enhance operational efficiency.

Soda Ash production

3,634 KT

Sodium Bicarbonate production

220 KT

Branded salt production*

1,131 KT

Cement production

409 KT

* includes I Shakti Salt



Intellectual capital

Intellectual capital represents our scientific knowledge, research & development capabilities and innovation quotient which is core to our business. We have put a strong emphasis on R&D to come up with new and better products that enhance our competitiveness.

Investment in R&D

₹38 Cr.

Patents filed

5



Social and relationship capital

Social capital represents our community engagements and investments in their development. We carry forward the ethos of Tata Group and strive to become a responsible corporate by undertaking activities that can bring a meaningful difference to the society.

Our relationship capital represents the long-term relationships with the supply partners, dealers and customers. We continue to nurture these relationships to make our business more sustainable. We work closely with our suppliers for sharing knowledge and capacity building. We engage closely with our customers (consumers, industries and farmers) and drive innovation and product quality to meet their needs and enhance satisfaction levels.

CSR Spend

₹26 Cr.

No. of people benefited

2,00,000



Human capital*

Human capital represents the knowledge, skills and experience of our strong workforce which enables us to create value. We invest in their welfare, engagement, skilling, health and safety to ensure the sustained outcome.

*The KPI's of human capital include all subsidiaries

Total on-roll employees**

4,698

Employee engagement score

73%

TRIFR***

1.61

Employee Productivity - PBT/Employee

0.37 ₹ in Cr./ employee

**As on March 31, 2019

***Total Recordable Incident Frequency Rate indicating the number of safety related incidents per million hours worked



Natural capital

Natural capital represents all the renewable and non-renewable resources on which our operations are dependent. This includes various raw materials (i.e. coal and limestone among other minerals extracted from mines), land and water that we use into our operations. Our intent is to minimise the use of natural resources and the impact of our operations on nature.

% of Process water supplied by Sea

73%

Energy generated from renewable sources

6,279 GJ

Recycled and co-processed packaging waste*

75%

Water recycled

66%

*For TCL India

Board of Directors



2

Mr. Bhaskar Bhat, Non-Executive Director

A mechanical engineer from IIT Madras with a post-graduate diploma in management from IIM Ahmedabad, Mr. Bhat joined the Tata Watch Project (initiated at Tata Press) in 1983, which is now Titan Company Limited. He has served as the Managing Director of Titan Company Limited since April 2002. Mr. Bhat has engineered the creation of many brands including pioneering the concept of franchising and retailing in Watches, Jewellery, Eyewear and Precision Engineering. He was awarded the Distinguished Alumnus Award of IIT Madras in 2008. He was appointed as a Director on the Board of Tata Sons in November 2017. He was appointed as the Non-Executive Director of Tata Chemicals in December 2016.



1 2

Mr. Nasser Munjee, Non-Executive Independent Director

With a Master's Degree from the London School of Economics, Mr. Munjee has held various positions at HDFC for more than 20 years, including serving as an Executive Director. He was the Managing Director of IDFC and served on the Board of various multinational companies and trusts. He was a technical adviser on the World Bank's Public Private Partnership Infrastructure and Advisory Fund. Mr. Munjee has been the chairman of DCB Bank since June 2005 and was appointed as a Non-Executive, Independent Director on the Board of Tata Chemicals in September 2006.



1 2 4

Dr. Y. S. P. Thorat, Non-Executive Independent Director

Dr. Thorat holds a Doctorate in Economics along with Degrees in Political Science and Law. He started his career with the Reserve Bank of India in 1972 and was appointed as its Executive Director in 2003. His major contribution has been in the field of policy support for agriculture finance, supervision and export credit. In the year 2004, he was appointed as the Managing Director of NABARD and later the Chairman. In the past, he has been associated with the Planning Commission, Government of India, for the 10th and 11th five-year plans. Dr. Thorat is also a director of several other companies and has been serving as a Non-Executive, Independent Director on the Board of Tata Chemicals since January 2010.



3 5

Ms. Vibha Paul Rishi, Non-Executive Independent Director

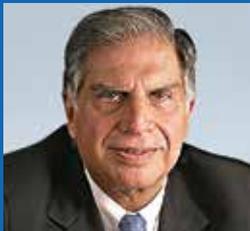
Ms. Vibha Paul Rishi holds a BA Degree in Economics from Delhi University and an MBA with specialisation in marketing from the Faculty of Management Studies, New Delhi. She is an experienced business leader who has worked with Titan, PepsiCo, Max India and Future Group with stints in India, the UK and USA. Her last role was as the Executive Director, Brand and Human Capital of Max India. She has worked at senior positions in branding, strategy, innovation and human capital around the world. She serves on the Boards of several reputed companies and is also on the Board of Pratham, an NGO that works to provide education to underprivileged children in India and was appointed as a Non-Executive, Independent Director on the Board of Tata Chemicals in September 2014.



1 3 4 5

Mr. S. Padmanabhan, Non-Executive Director

Mr. Padmanabhan is a distinguished alumnus of IIM Bangalore, a Gold Medallist and alumnus from PSG College of Technology, Coimbatore and has also completed the Advanced Management Program at Harvard Business School. During a 26-year stint with Tata Consultancy Services, Mr. Padmanabhan held several senior leadership roles. In the past, he has held the positions of Executive Director of Tata Power as well as the Group Chief Human Resources Officer at Tata Sons. He also serves on the Boards of several other Tata companies. Appointed as a Non-Executive Director of Tata Chemicals since December 2016, he is currently the Executive Chairman, Tata Business Excellence Group (TBExG).



Mr. Ratan N. Tata, Chairman Emeritus

Mr. Ratan Tata was the Chairman of Tata Sons from 1991 till his retirement on December 28, 2012. He was also Chairman of the major Tata companies, including Tata Motors, Tata Steel, Tata Consultancy Services, Tata Power, Tata Global Beverages, Tata Chemicals, Indian Hotels and Tata Teleservices. During his tenure, the Group's revenues grew manifold, totalling over US\$100 billion in 2011-12. He is the Chairman of the Tata Trusts which are amongst India's oldest, non-sectarian philanthropic organisations that work in several areas of community development. He is the Chairman of the Council of Management of the Tata Institute of Fundamental Research and also serves on the Board of Trustees of Cornell University and the University of Southern California.



1

Ms. Padmini Khare Kaicker, Non-Executive Independent Director

Ms. Padmini Khare Kaicker is a Certified Public Accountant (USA), a Chartered Accountant from the Institute of Chartered Accountants of India and a Diploma holder in Business Finance from the Institute of Chartered Financial Analysts of India. She is the Managing Partner of B. K. Khare & Co., one of the leading Indian accounting firms. She has a wide and varied experience in the areas of audit, taxation, corporate finance, risk management, corporate governance, M&A and restructuring. She serves on the board of several companies and has been a Non-Executive, Independent Director on the Board of Tata Chemicals since April 2018.



3 4 5

Mr. R. Mukundan, Managing Director & CEO

An engineer from IIT Roorkee, Mr. R. Mukundan joined the Tata Administrative Service in 1990, after completing an MBA from FMS, Delhi University. He is also an alumnus of the Harvard Business School. During his career with the Tata Group, he has held various responsibilities across the chemical, automotive and hospitality sectors. He was appointed as the Managing Director of Tata Chemicals in November 2008.



3 4

Mr. Zarir Langrana, Executive Director

An economics graduate from the University of Madras with post-graduation in business management from XLRI, Jamshedpur, Mr. Langrana has also attended advanced executive development programmes at Harvard Business School. During his association with Tata Chemicals of over 30 years, he has led the corporate strategy and business development functions and headed the global marketing function for the chemicals business. Appointed an Executive Director in April 2018, Mr. Langrana currently heads the Global Chemicals Business and the new ventures in Specialty Business.

Board Committees

- 1. Audit Committee
- 2. Nomination and Remuneration Committee
- 3. CSR, Safety and Sustainability Committee
- 4. Risk Management Committee
- 5. Stakeholders Relationship Committee

● Chairperson ● Member

Management Team

Mr. R. Mukundan

Managing Director & CEO

Mr. Zarir Langrana

Executive Director

Mr. John Mulhall

Chief Financial Officer

Mr. R. Nanda

Chief Human Resources Officer

Mr. Rajiv Chandan

General Counsel & Company Secretary

Mr. M. S. S. Rao

Chief Safety & Engineering

Mr. K. R. Venkatadri

Chief Innovation & Digital Officer

Ms. Alka Talwar

Chief Sustainability & CSR

Dr. Richard Lobo

Head - Strategy & Business Excellence

Mr. Shohab Rais

Chief Operating Officer, India
Chemicals Business

Ms. Richa Arora

Chief Operating Officer,
Consumer Products Business

Mr. Rino Raj

Chief Operating Officer,
Energy & Battery Business

Mr. Sanjiv Lal

Managing Director & CEO,
Rallis India Limited

Mr. Scott Ellis

Managing Director & CEO,
Tata Chemicals North America

Dr. Martin Ashcroft

Managing Director,
Tata Chemicals Europe

Mr. Harish Nair

Executive Director & COO,
Tata Chemicals Magadi

MD & CEO's Message

Dear Shareholders,

It is with energy and enthusiasm that I write to you about our performance, journey forward and future strategy. The last fiscal year marked 150 years of the Tata Group and to commemorate this we set up two centres of excellence, dedicated to the nation - one is a "Centre of Excellence for Coastal and Marine Conservation" and the other is "Centre for Sustainable Agriculture and Farm Excellence". The initial grant for these Centres is being contributed by the Tata Chemical Society for Rural Development with support from Tata Chemicals and its subsidiary, Rallis India.

This is also a landmark year as Tata Chemicals celebrates 80 years of business and 90 years of the Okha Salt Works, its birthplace. Through this time, we have navigated our business to meet the needs and expectations of all stakeholders. Our longevity and continued relevance epitomises the inherent strength of our Values and Purpose.

Overall business performance

FY 2018-19 has been one of the best years in terms of performance holistically. Our standalone operational profit (from continuing operations) has been the highest ever.

While TCL India's operations delivered to the plan, there is a need to improve the performance of subsidiaries. Our teams are focussed on the task on hand in terms of better reliability of operations and more focussed market efforts.

Our Basic Chemistry Business had good market conditions globally and maintained margins despite a surge in energy costs. We are progressing our plans to debottleneck and expand operations in Mithapur plant. We are also strengthening our product portfolio through the investment in Medikarb plant for Pharma grade Bicarbonate and the launch of Speckarb, an industrial grade Sodium Bicarbonate. These products are enabling us to tap newer customer segments and expand global operations.

Our Specialty Products Business is progressing well. We now have four verticals under it. The Agri Sciences Business run by our subsidiary Rallis faced tough market conditions within India, however, its exports grew at an excellent pace. Rallis has moved

forward with new vigour to strengthen its sales and marketing through several operational steps and new product additions. It is investing in its Dahej facilities to address the growing needs of Indian and overseas markets. In the Nutrition Science Business, our investment in the Nellore plant for FOS (Fructo Oligosaccharide) is nearing commissioning. In the Material Science Business, our acquisition of a silica plant in Cuddalore and subsequent upgrade is advancing as planned. We will make silica for food and HDS rubber (tyre) grade at this plant. In Energy Storage Science Business, our discussions with automotive players is advancing on the back of the new EV policy announced by the Government.

The Consumer Products Business performed extremely well. Our brands, Tata Salt and Tata Sampann achieved greater traction. We strengthened the business launching several new products like Ready-to-cook nutrimixes, Basmati Rice and Red Poha and expanding the portfolio from food to home and fabric care segments with Tata Dx Detergent. The year was memorable as Tata Salt crossed the milestone of clocking 1 million MT of packet sales.

Our financial performance reflected the steady operational performance. On a consolidated basis, our revenue from continuing operations grew by 9% to ₹ 11,296 crore. Net debt stands at ₹ 1,959 crore, EBITDA was ₹ 2,095 crore and PAT was ₹ 1,395 crore. Cash and cash equivalents at the end of the year stood at ₹ 1,952 crore.

Our strategy going forward

Our strategy going forward is to be a focussed science-led chemistry company. With this, our focus will be on strengthening the innovative funnel to ensure aggressive growth in the Specialty Products Business.

In our Basic Chemistry Products Business, we will continue to be most cost-efficient Soda Ash, Bicarbonate and Salt business. Our investment in a Bicarbonate unit in the United Kingdom using innovative carbon capture process and Mithapur plant expansion will provide significant thrust.

The Consumer Products Business will build food platform under the Tata Sampann Brand further.

In the Specialty Products Business, the Agri Sciences Business is undergoing significant transformation with an ambitious ₹ 800 crore investment plan and a rejuvenated management team who are focussed on driving excellence and growth. The upcoming plants of Nutrition Science and Material Science Businesses will add a new layer of growth. In the Energy Storage Sciences Business, we plan to build an integrated business that includes cell manufacturing, battery recycling and battery active production.

Focus on innovation, digital thrust and sustainability

As we seek to accelerate growth, our focus on building a sustainable, knowledge driven organisation that is anchored in futuristic technologies will be the key.

Leading our efforts in this path are our laboratories in Pune and Bengaluru. We are investing in them to scale product development keeping in mind our long-term sustainability focus. Digital technology is now at the heart of our business operations, as we seek to simplify and speed up operations and serve customers better.

We will continue to make headway towards responsible manufacturing to ensure zero harm to people, assets and environment across the business value chain.

In conclusion

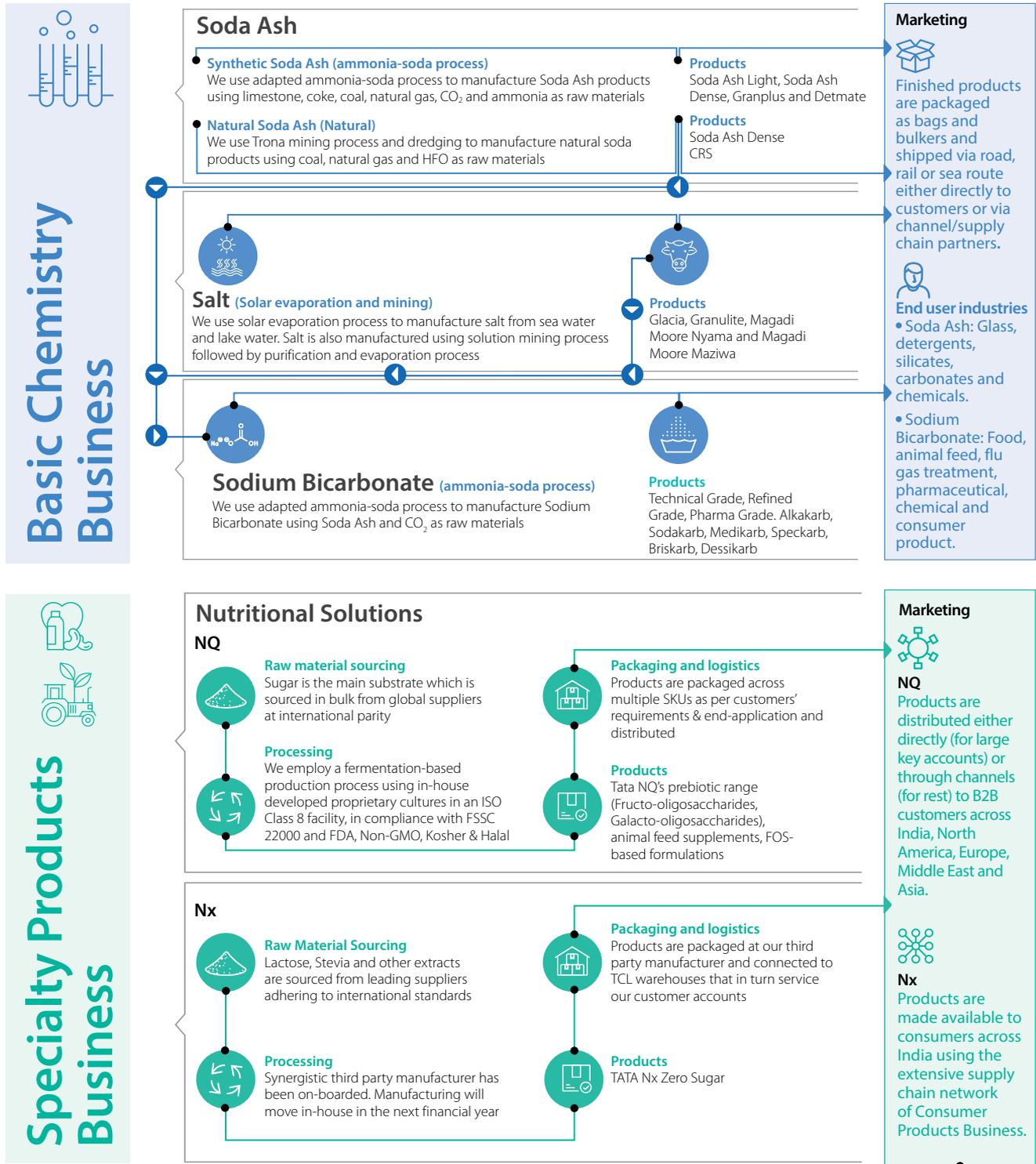
I thank all our shareholders for their unstinting support. We remain motivated to build a sustainable, long-term future, while upholding the Tata Values and Group Purpose. Engaged employees are our strength and we value the passion and enthusiasm they bring to their work.

We have travelled eight decades together and seek to continue our journey with optimism and enthusiasm for a better future.

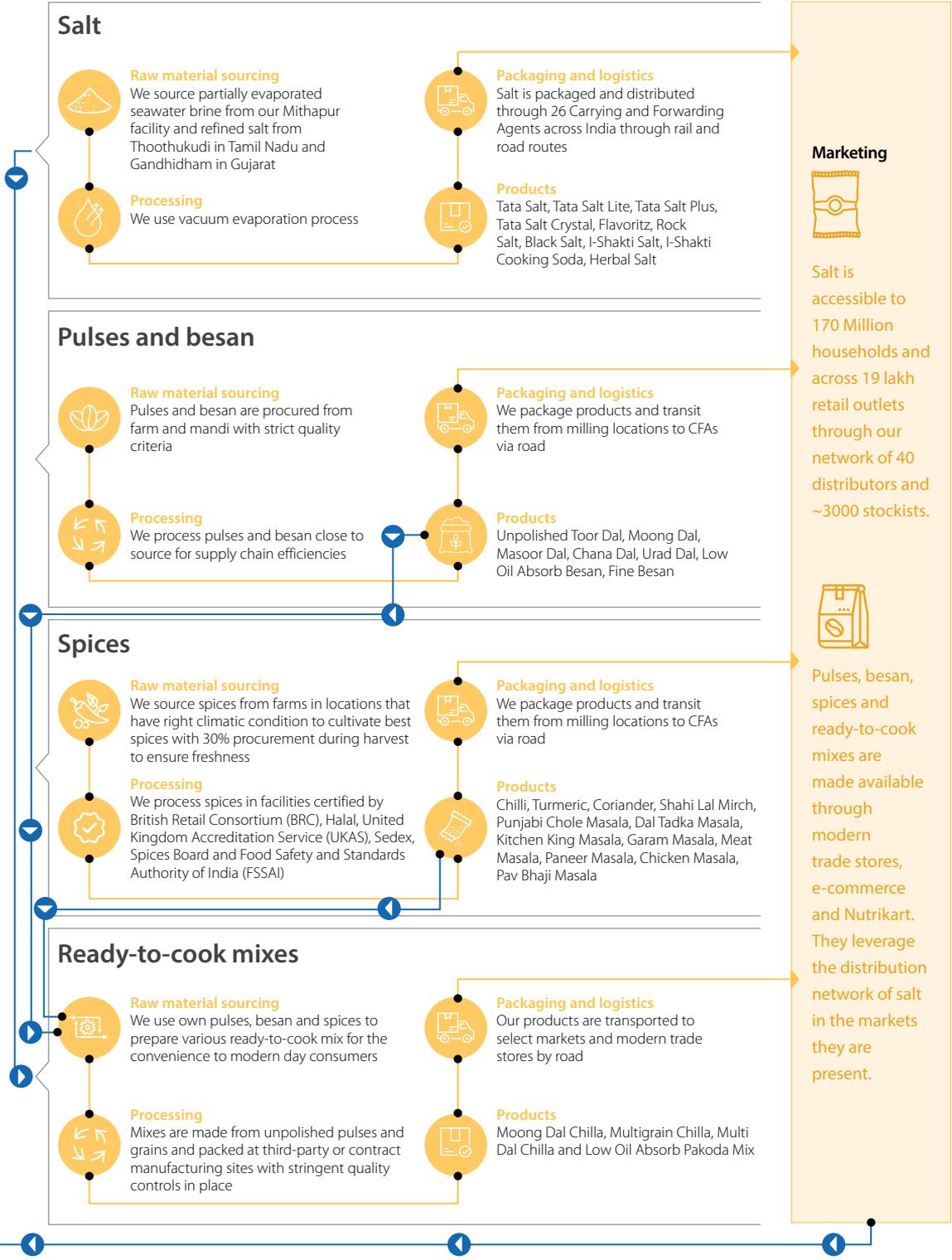
Best regards,

R. Mukundan
Managing Director & CEO

Integrated Value Chain



Consumer Products Business



Business Model explaining the Interlinkage of Capitals

INPUTS

MULTIPLE CAPITALS / KPIs	UoM	2018-19
FINANCIAL CAPITAL		
Total Capital Employed ¹	₹ crores	24,317
Capital Expenditure		
Standalone	₹ crores	589
Consolidated	₹ crores	1,082
MANUFACTURED CAPITAL		
Property, plant and equipment ²	₹ crores	13,551
Assets under construction ³	₹ crores	774
<i>Manufacturing name plate capacity:</i>		
Soda Ash	KT	4,138
Sodium Bicarbonate	KT	236
Branded Salt	KT	1,035
Cement	KT	440
INTELLECTUAL CAPITAL		
Investment in Research & Development (standalone)	₹ crores	38
R&D expenditure as % of revenues	%	0.9
Patents filed	Nos.	5
Employees in R&D	Nos.	224
HUMAN CAPITAL		
Employees on payroll	Nos.	4,698
Employees off payroll	Nos.	7,409
Functional Training Coverage (unique employees)	%	72
Training days per employee	Mandays/employee	3.4
Employees covered under manager/ leader development programme	Nos.	245
Safety Training	Mandays / employee	1.54
SOCIAL AND RELATIONSHIP CAPITAL		
Spent on CSR initiatives	₹ crores	26
Basic Chemistry Business		
No. of depots (TCL India: 13; TCNA: 2; TCSA: 1; TCE: 4; TCML: 3)	Nos.	23
Consumer Products Business		
Stockists	Nos.	3,282
CFAs	Nos.	26
Distributors	Nos.	42
Specialty Products Business (Nutritional Solutions)		
Distributors (India and global)	Nos.	13
NATURAL CAPITAL		
Rainwater harvesting capacity installed	MCFT	396
Saplings planted	Nos.	2.6 lakh

1. Capital Employed = Total Assets less Total Current Liabilities plus Current Borrowings plus Current Maturities from Non Current Borrowings and Finance Lease Obligation less Investment in Subsidiaries (Other than Rallis India Limited)
2. It includes Property, plant and equipment, Investment property, Goodwill on consolidation, Goodwill and Intangible assets
3. Assets under construction includes Capital work-in-progress and Intangible assets under development
4. Cash and Cash Equivalents (including Deposits with < 12 months maturity and current investments)

*TCL India



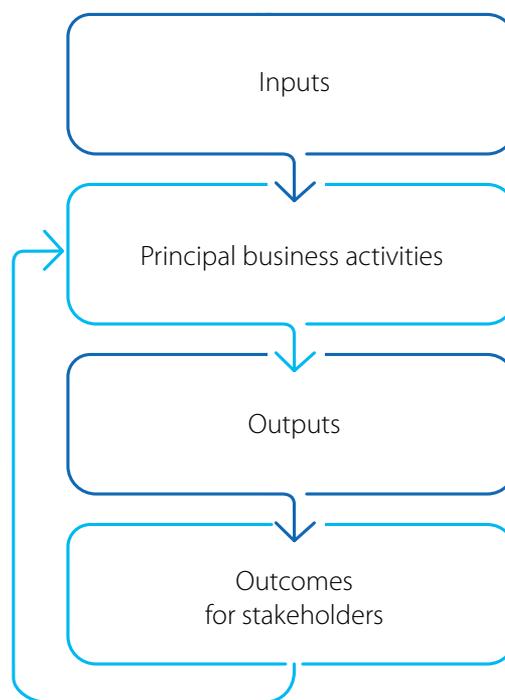
Governance

Mission, Vision, Values, Tata Code of Conduct, Board and its Committees, Tata Business Excellence Model, Quality Policy, Whistleblower Policy, Code of Corporate Disclosure Practices



Key aspects

- Stakeholder engagement
- Risks and opportunities
- External environment
- Strategy and resource allocation



OUTPUT

	Organisation Total	
	UoM	2018-19
Branded Salt production*	KT	1,131
Sodium Bicarbonate production	KT	220
Soda Ash production	KT	3,634
Cement production	KT	409

* includes I Shakti Salt



For deeper insights into our Value Chain, please refer to **page 14-15**



Sustainable development goal

Tata Chemicals' business model and outcomes are aligned with the United Nations Sustainability Development Goals (SDGs).



Support functions

- Business Excellence
- Corporate Communications
- Corporate Strategy & Planning
- Finance
- Human Resource & Administration
- Information Technology Services
- Internal Audit & Business Assurance
- Legal & Corporate Secretarial
- Research & Development
- Sustainability & Corporate Social Responsibility

OUTCOMES

MULTIPLE CAPITALS / KPIs	UoM	2018-19
FINANCIAL CAPITAL		
Revenue (Consolidated)	₹ crore	11,296 (t)
EBIDTA	₹ crore	2,095 (t)
PAT	₹ crore	1,395 (t)
Cash and cash equivalents ⁴	₹ crore	4,205 (t)
EPS (total continuing and discontinued operations)	₹/share	45.38
Dividend on face value of ₹10 per share	₹/share	12.50
Net worth	₹ crore	12,341 (t)
Market Capitalisation as on March 31, 2019	₹ crore	15,000 (t)
Gross Debt : Equity	Times	0.50 (t)
Net Debt : EBITDA	Times	0.93 (t)
MANUFACTURED CAPITAL		
Soda Ash sales	KT	3,526 (t)
Sodium Bicarbonate sales	KT	209 (t)
Branded salt sales	KT	1,155 (t)
Cement sales	KT	402 (t)
INTELLECTUAL CAPITAL		
Basic Chemistry Business		
New products launched	Nos.	3
Consumer Products Business		
New products launched	Nos.	10
Specialty Chemicals Business		
New products launched - NQ	Nos.	3
New products launched - Nx	Nos.	1
HUMAN CAPITAL		
Employee productivity (PBT per employee)	₹ crore / employee	0.37 (t)
Voluntary attrition	%	10 (-)
Employee Engagement scores	%	73 (t)
Incidents of labour unrest	Nos.	0 (-)
SOCIAL AND RELATIONSHIP CAPITAL		
CSR beneficiaries	Nos.	2 lakh
Students covered under educational programme	Nos.	24,800
Basic Chemistry Products Business		
TCL - Customer satisfaction index	Score	82 (t)
TCL - End user reach (no. of companies)	Nos.	3,399 (t)
TCL - Grievance resolution time	Days	4 (t)
TCNA - Customer satisfaction index	Score	90 (t)
TCNA - End user reach (no. of companies)	Nos.	71 (t)
TCNA - Grievance resolution time	Days	17 (t)
TCSA - Customer satisfaction index	Score	90 (t)
TCSA - End user reach (no. of companies)	Nos.	71 (t)
TCE - Customer satisfaction index	Score	96 (t)
TCE - End user reach (no. of companies)	Nos.	1,876 (t)
TCE - Grievance resolution time	Days	<28 (t)
TCML - Customer satisfaction index	Score	78 (-)
TCML - End user reach (no. of companies)	Nos.	409 (t)
TCML - Grievance resolution time	Days	2 (t)
Consumer Products Business		
Customer satisfaction index (retailers)	Score	76 (-)
Grievance resolution time	Days	3 (t)
Household reach	Million	170 (t)
Retail Outlets (direct and indirect)	Lakh	19 (t)
Tata Salt franchise (Tata Salt, Tata Salt Lite, Tata Salt Plus) market share in powdered salt segment	%	25.7 (t)
Specialty Products Business		
Nutritional Solutions		
Customer satisfaction index	Score	80% (t)
NATURAL CAPITAL		
Energy Savings (Global)	Gj	24,109 (t)
Energy generated from renewable sources*	Gj	6,279 (t)
Total Water Consumption (Global)	Mm ³	105 (t)
% of Sea Water Consumption (Global)	%	73 (t)
Water discharged (Global)	Mm ³	89 (t)
Water recycled (Global)	Mm ³	70 (t)
Responsible manufacturing index (Global)	score	0.47 (t)
Solid waste utilisation*	%	90 (t)
GHG emissions (Global)	mtCO ₂ /MT Produced	0.79 (t)
Packaging waste recycled and co-processed*	%	75

Note: (t) indicate change over previous year, - means no change

FINANCIAL CAPITAL

MANUFACTURED CAPITAL

INTELLECTUAL CAPITAL

HUMAN CAPITAL

SOCIAL AND RELATIONSHIP CAPITAL

NATURAL CAPITAL

Our Formula for Accelerating Focussed Growth

Our Strategic Planning Process, rooted in our mission, drives our vision, growth and sustainability. It sets the strategic direction to achieve organisational objectives and deliver long-term value to stakeholders.

Charting strategy process across horizons

Long-term horizon (> 5 years)

Enterprise level, strategic-oriented and focussed on the role of innovation and portfolio decisions

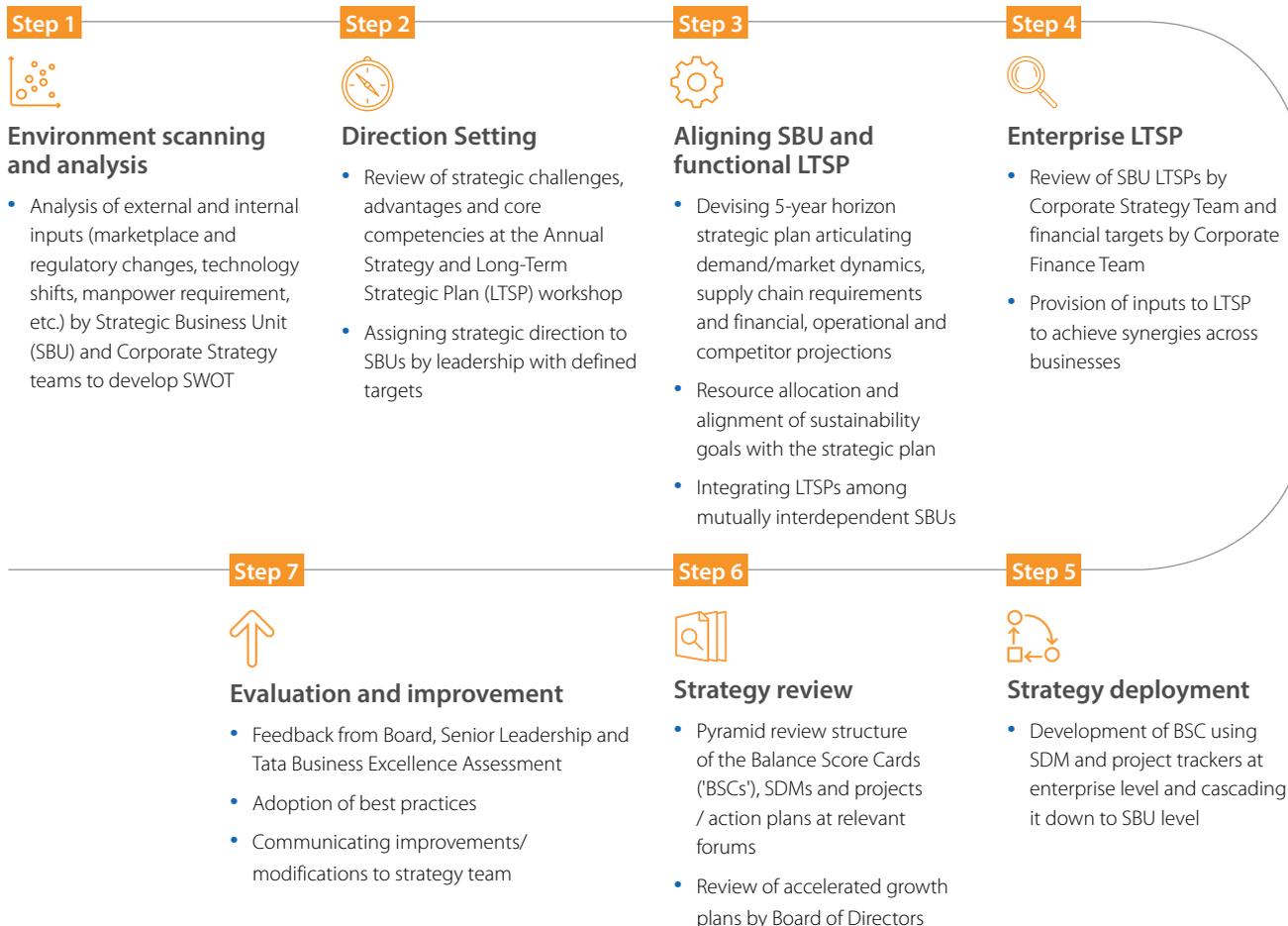
Medium-term horizon (2-3 years)

Granular and addresses revenue forecasts, growth dimensions and sustainability planning

Short-term horizon (1 year)

Tactical and uses annual business plan and Strategy Deployment Matrix (SDM) tools to translate five-year plans into specific actions

Strategy planning process at Tata Chemicals



Key market trends

 <p>Global growth is likely to remain softened in the near-term, followed by a pick-up in the second half of 2019 supported by significant policy accommodation by major central banks</p>	 <p>Growing Indian economy, supported by continued recovery of investment and robust consumption amidst an expansionary monetary policy stance and expected impetus from fiscal policy</p>	 <p>Consumer market push led by growing awareness, accessibility, changing lifestyles and need for convenience. Increasing rural consumption supported by rising income and aspiration levels is driving demand for branded products in rural India</p>	 <p>Push in Soda Ash demand driven by rising consumption from glass sector</p>	 <p>Growth in high intensity natural sweeteners due to increased awareness and consumption of dietary foods</p>
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Strategic objectives and enablers

Strategic objective (SO)	Enablers of our strategy
 <p>Maintain cost leadership and scale the Basic Chemistry Products Business</p>	 <ul style="list-style-type: none"> World's 3rd and 6th largest manufacturer of Soda Ash and Sodium Bicarbonate respectively with strong customer relationships Unique global supply chain advantage facilitating assured supply and efficient service at competitive prices to customers Access to vast natural resources in the US (TCNA) and Kenya (TCML) contributing to 2/3rd of the Company's manufactured Sodium Bicarbonate Approved capex of ₹ 2,400 crore for capacity expansion at Mithapur plant
 <p>Grow market share of Salt business, scale new products and seed new categories fuelled by science-led differentiation in the Consumer Products Business</p>	 <ul style="list-style-type: none"> Tata Salt portfolio reach to over 170 million Indian households and its market leadership exemplifies the enduring trust of brand among consumers Tata Sampann is the first national player in branded pulses Focussed movement towards a full range FMCG play, scaling up in spices and foods and also piloting products in home care Pan-India distribution Resource security e.g. salt from Mithapur
 <p>Aggressively grow through scientific innovation and acquisition of niche opportunities in Agro, Material, Nutritional and Energy Sciences of the Specialty Products Business</p>	<p>Established world-class R&D facilities housing experienced scientists at Tata Chemicals' Innovation Centre in Pune and R&D Centre in Mithapur, Rallis Innovation Chemistry Hub (RICH) and Metahelix Life Sciences R&D facilities in Bengaluru</p>  <p>Agro Sciences</p> <ul style="list-style-type: none"> Covers 80% of India's districts with 13 million farmer contacts through subsidiaries Rallis and Metahelix Capex of ₹ 800 crore approved by the Board of Rallis towards expanding formulation capacity to service growing global demand and build technical and associated intermediary products manufacturing capacity for backward integration



Material Sciences

- Green patented technology for manufacture of HDS for tyres
- Completed the acquisition of precipitated silica business



Nutritional Sciences

- Strong demand for nutrition rich products
- State-of-the-art greenfield biotechnology manufacturing unit at an investment of ₹ 270 crore at Nellore, Andhra Pradesh commissioning in 2019



Energy Sciences

- Need for new emission norms complaint products/ EV revolution in India
- MoUs signed with CSIR-CECRI, Karaikudi, ISRO and C-MET to strengthen our lithium based energy storage solution strategy

FY 2019-20: Key objectives

Leverage 'science' as the key differentiator to achieve our Strategic Objectives defined above



Strengthening the Basic Chemistry Products Business



Gaining stronger foothold in Consumer Products Business



Aggressively growing Specialty Products Business

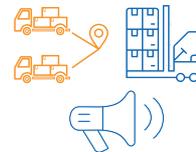
Areas of focus



Leverage technology and digitalisation to improve process efficiency and greater thrust on sustainability



Invest in digital capabilities to expand consumer reach, drive operational excellence, analytics for faster decision making and enhancement of people skill-set to make the Company future-ready



Distribution expansion, brand building initiatives and strengthening of supply chain in the Consumer Products Business

Drivers



Robust technology and R&D capabilities



Relentless focus on operational excellence and customer centricity



Developing engaging relationships with all stakeholders



Commitment to sustainability

Managing Risks, Maximising Returns

Risks are inherent to business and we are committed to effectively managing them in our pursuit to achieve strategic and business objectives aimed at enhancing stakeholders' value sustainably. Our focus on dealing with business uncertainties is to minimise the downside while striving to maximise the upside potential to attain our business objectives and ensure long-term sustainable growth.

The following section discusses various dimensions of TCL's Enterprise Risk Management. The risk-related information outlined in this section is not exhaustive and is for information purposes only. The discussion may contain statements which may be forward-looking in nature.

The Company's business model is subject to uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Our business' operational performance and financial results could also be harmed by risks and uncertainties not currently known to us or by risks that we currently do not believe are material. Readers are also advised to exercise their own judgement in assessing the risks associated with the Company.

Approach to risk management

Tata Chemicals recognises that effective risk management is essential to achieve its business objectives and long-term sustainable growth. The Enterprise Risk Management process aims to develop Risk Intelligent culture within the Company to encourage risk informed business decision-making.

The risk management policy of the Company lays down the framework of Risk Management promoting a proactive approach in identifying, evaluating, reporting and resolving risks associated with the business. Mechanisms for identification

and prioritisation of risks include scanning the business environment and continuous monitoring of internal risk factors. Risk management forms an integral part of Management focus and is an ongoing process and integrated with operations.

Risk management in action

We are exposed to risks arising out of the macroeconomic environment as well as from the internal business environment. We continually focus on addressing the same as we ensure value creation for our stakeholders. Information regarding key risks facing Tata Chemicals and their mitigation strategies are as under:



Strategic Risks

1 Failure to respond to sustainability and climate change related risks

Mitigation

- On the sustainability front, the objective is to go beyond compliance requirements
- Continuous monitoring of various environmental parameters with continued investment in environment related projects in plants
- Impact register is periodically reviewed for keeping it updated and for improving environmental performance

- The overall roadmap as well as specific issues of concern including those related to environment and climate change is reviewed in detail at CSR, Safety and Sustainability Committee of the Board regularly
- The Company has also adopted ISO 14001 and is a signatory to Responsible Care which guides the Company as and when required
- Environmental Management Plan (EMP) is in place for mitigating the

- environmental impacts thus reducing operational environmental risks
- We are scaling up recyclable packaging capacity of our Consumer Products and will replicate the same to Chemical Products in a phase-wise manner
- Taking proactive steps to drive waste management initiatives including collection, segregation and safe disposal of plastic waste as per Extended Producer's responsibility norms

2 Missing the opportunity to embrace digitalisation pace supporting business growth

Mitigation

- Plans are underway to make digital technology a core part of the Company's operations
- Using technology to make processes simpler for customers and internal stakeholders in the digital age

- Various digitisation initiatives are taken by the Company to focus on improving efficiency, enhancing customer engagement and having better analytics to make informed decisions
- Enhancement of the business intelligence platform with visual

- analytics tools to support business decision-making is also underway
- New-age systems to enable the next level of digitalisation are being implemented in operations

3 Failure to have a robust and flexible succession planning process

Mitigation

- The Company invests on internal talent and nurtures them through the culture of continuous learning and career path development initiatives, thereby building capabilities for creating future

- leaders. We have talent management strategies in place for attracting and retaining talent
- Succession planning for Senior Management to ensure continuity in business is in place

- We have leveraged technology to enable continuous learning via e-platforms such as e-learning and mobile app based courses

 **Operational Risks**

4 Cyber Security Risk

Mitigation

- Regular security compliance check, periodic third-party assessment, upgrading fire walls, having threat monitoring systems, regular patch updates, periodic cyber security

- awareness programme, benchmarking against ISO 27001 (global standard for Information Security Management System)
- Cyber security war room exercise for Senior Leadership team

- Steps taken by the Management to address cyber security risks is periodically reviewed by the Risk Management Committee of the Board

5 Failure to retain market leadership and miss growth opportunities

Mitigation

A. Basic Chemistry Products

- We are maintaining cost leadership
- Scaling capacity both in India and at Global Chemistry Business units

- through brownfield expansion and debottlenecking and supplying in India through cost efficient supply chain
- Cost control initiatives, creating a portfolio of value-added products, continued focus on R&D

B. Consumer Products

- Continuous brand building initiatives, micro market interventions and innovative offerings for nutritional needs of the consumer

 **Financial Risks**

6 Disciplined capital allocation and cost effective financing structure inability to secure sufficient, cost effective funding

Mitigation

Business planning with special focus on cash flow and liquidity management

Regulatory Risks and Compliance

7 Frequent amendment of statutory rules and regulations

Mitigation

- Deployment of comprehensive digital-enabled compliance framework for monitoring compliances
- Periodic review of compliances at leadership forums

8 Government policy change which could impact the Company's operation

Mitigation

- Continuous dialogue with regulatory authorities for greater clarity
- Advocacy meetings with governments and ministries, seminars, membership in regulatory affairs bodies, membership in industry bodies

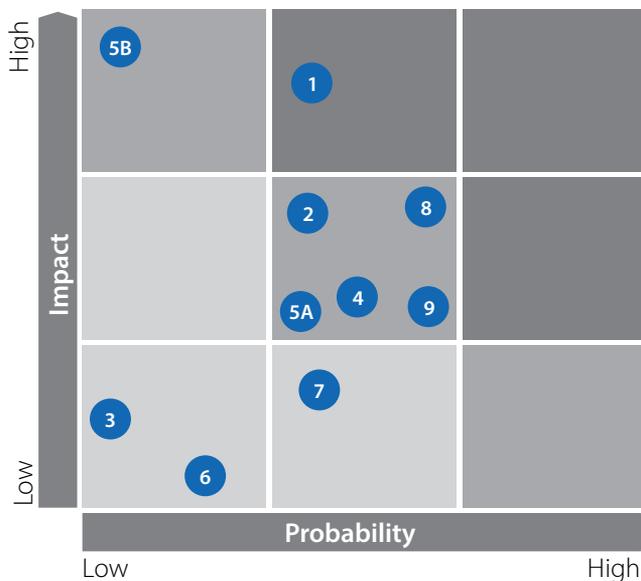
Reputational Risks

9 Failure to ensure Containment of Safety Hazards - Employee Safety (Behaviour issues), Workplace Safety (Fire Safety, Asset Integrity), Process Safety & Product Safety Hazard Chemicals – Transportation

Mitigation

- Safety is periodically reviewed by the CSR, Safety and Sustainability Committee as well as Risk Management Committee of the Board
- TCL's Corporate Safety Health and Environment Policy is the overarching policy, with the subsidiaries aligning it to the local regulatory and safety directorates
- We are driven by voluntary standards such as OHSAS 18001, Responsible Care and the British Safety Council guidelines
- Various safety improvement initiatives covering behavioural safety, structural and equipment safety and process safety management and benchmarking with companies that are best in the business are in place and are continuously evaluated for effectiveness
- Hazards are identified using techniques such as Hazard and Operability Study (HAZOP), Hazard Identification and Risk Analysis (HIRA), What-if-Analysis, Failure Mode Effect Analysis and addressed by following hierarchy of risk control.
- Unsafe conditions and hazards are reported in an e-enabled portal
- For product safety and transportation of hazardous chemicals, we have installed GPS system in bromine tanker. We support our customers by doing safety audits in their premises for handling of chlorine

Risk Mapping



Listening to and Engaging with the Stakeholders

We engage with our stakeholders continually across different mediums, which helps us understand and cater to their requirements and build a rich network of relationships. With this, we support the values on which we were founded and build a sustainable business.

	Engagement method	Relevant matters
 <p>Shareholders and investors To provide accurate, transparent and timely information to enable them take informed investment decisions and ensure business decisions are taken considering their interests</p>	<ul style="list-style-type: none"> · Annual General Meeting, Report to shareholders, · Investor/analysts meet, Quarterly results, Media releases, Company website, Report to stock exchange 	<ul style="list-style-type: none"> · Appreciation in share price and growth in dividends, Business profitability and sustainability, High-level of corporate governance
 <p>Suppliers and partners To develop mutually-beneficial, long-term relationships</p>	<ul style="list-style-type: none"> · Supplier pre-qualification/vetting, Supplier plant visits, MoUs, Trade association meets/seminars, Professional networks, Bhagidhari Sabha, Contract management/review, Product workshops/ on site presentations, Framework agreements 	<ul style="list-style-type: none"> · Timely payment and delivery, Sustained business and growth, Vendor selection process, Safety, health and wellbeing and human rights of employees of contracting companies/suppliers
 <p>Community To uplift the quality of all communities impacted by our business</p>	<ul style="list-style-type: none"> · Community meetings/visits, Local authority and town council meetings, Location head's meet, Strength, Weakness, Opportunities and Threat Committee meetings, Community projects, Seminar/conferences, Partnership with local charities, Volunteerism 	<ul style="list-style-type: none"> · Legal compliance, especially on safety, health and environmental performance, creating jobs, sustained contribution to community development, progress on implementation of social and labour plans
 <p>Customers To execute our commitment to the Tata Group's ethos of Customer promise</p>	<ul style="list-style-type: none"> · Distributor/retailer/direct customer meets, Senior leader customer meets/visits, customer plant visits, Chief Operating Officer's club, achievers meet, KAM workshops, focus group discussion, membership in trade organisation/associations, complaints management, helpdesk, conferences, information on packaging, complaints management, Joint business development plans, customer surveys 	<ul style="list-style-type: none"> · Consistent quality, Responsiveness to needs, After sales service
 <p>Employees To have fully-engaged and committed workforce to drive organisation's growth, while providing them professional growth opportunities</p>	<ul style="list-style-type: none"> · Senior leaders' communication/talk, Senior leadership forum, Town hall briefing, Goal setting and performance appraisal meetings/performance review, Exit interviews, Arbitration/union meetings, Wellness initiatives, Focus on workplace safety, Employee engagement survey, Email updates, intranet, flat screens, websites, poster campaigns, house magazines, confluence, circulars, quarterly publication, intranet, theatre workshops (Oorja), newsletters 	<ul style="list-style-type: none"> · Engagement, Training and development, Career progression, Health and safety
 <p>Government and regulatory bodies To ensure proactive approach towards compliance and regulatory requirements, setting industry benchmarks and engaging with authorities in policy-making</p>	<ul style="list-style-type: none"> · Advocacy meetings with local/state/national government and ministries, Seminars, media releases, conferences, Membership in local enterprise partnership, Membership industry bodies such as ICC, BCCI, CII, CIA, ESAPA, EU Salt Association 	<ul style="list-style-type: none"> · Timely contribution to exchequer, Proactive engagement, Contribution to local infrastructure, Skill and capacity building, Sustainable livelihood, clean and safe environment

Addressing Material Issues

Material matters are the issues with the capability to substantially impact our business outcomes and competitiveness. These issues affect our ability to create value in the short, medium or long term, if not addressed strategically.

Materiality process at Tata Chemicals



Materiality matrix

Importance to Tata Chemicals		Energy ● Climate change ●	● Safety and health ● Employee engagement ● Ethics
	Customer ● Performance standards for contractors/suppliers ● Biodiversity ●	Community engagement ● Product stewardship ● Biodiversity ●	● Water ● Waste ● Employee benefits
	Spills ●	Diversity ● Logistics ●	
Low to high	Low to high Importance to stakeholders		

Identifying and mapping material issues

At Tata Chemicals, we identify material issues by engaging with multiple stakeholders – investors, shareholders, media, government, global employees, suppliers, contractors, customers and the community. These engagements are conducted through meetings, tele and video conferencing, interviews of top management and external stakeholder surveys across geographies.

We review whether these issues are aligned with our vision, brand portfolio and geographical footprint and map them against key stakeholder priorities and internal business priorities. We then review the business goals and challenges to finalise the materiality matrix. This exercise is carried out every alternate year. We work on all the issues highlighted in the materiality matrix and focus additionally on the issues in the top 4 quadrant.

Addressing materiality

We have taken a strategic call to revisit these material aspects on a periodical basis to track their current status. Our long-term strategy roadmaps are developed keeping these aspects. These initiatives, while accelerating our business growth, are also strengthening our fundamentals and our value creation ability.

Basic Chemistry Business



Trusted global partner

Industrial concerns globally are increasingly wanting to partner trusted manufacturers for their essential input requirements. We are leveraging the strong foundation of our Chemicals Business built over eight decades to cater to these clients and propel growth. We understand the unique needs of customers to deliver pioneering products of outstanding quality and value and delight them with great experiences.



Business overview

We are a leading global chemical player with over 4,138 KT of Soda Ash and 236 KT of Sodium Bicarbonate capacities. With operations spread across India (Tata Chemicals), US (Tata Chemicals North America), UK (Tata Chemicals Europe), Kenya (Tata Chemicals Magadi) and customer base across the globe, we are one of the most geographically diversified players.

Our business model is underlined by a continuous focus on cost optimisation, lean supply chain practices and enhancement of portfolio with value added and branded products targeted at specific customer needs. This, complimented by continuous enhancement in service offerings, ensures our business sustainability and profitability.

Business environment

Soda Ash and Sodium Bicarbonate are key products for the global chemicals business, being consumed by many downstream companies as raw materials for diverse industrial and consumer applications. The global markets for these products are characterised by worldwide trading with manufacturing concentrated in China, US, European Union, Turkey and India.

In FY 2018-19, the world Soda Ash demand was almost flat for the year, however, the demand grew 2.8% over the last year for markets excluding China, on the back of strong growth in Western Europe, South America, South East Asia, Africa and the Indian subcontinent. The Chinese and CIS markets experienced negative growth. The demand of Sodium Bicarbonate remained high, with the Indian market growing by

6% over the last year. Addition of new Sodium Bicarbonate capacities in India led to reduced imports.

The present global Soda Ash and Sodium Bicarbonate demand-supply scenario are moderately balanced. Their prices are expected to move in a narrow band globally. The CAGR for Soda Ash demand growth is expected to be 1.9% between 2018 and 2028 and that of Sodium Bicarbonate volume growth is expected to be above GDP levels. In India, the demand for both the products is expected to be healthier with forecasts of strengthening economic activity and their significantly low per capita consumption. We expect a stable market both in India and globally with little capacity additions.

Performance highlights FY 2018-19

During the year, we continued servicing our customers globally with our focus on manufacturing excellence and continuous improvement with processes such as Lean Six Sigma. We retain our competitive edge in terms of providing quality products at the most competitive prices along with world-class service, customised solutions and customer relationship management.

Key business developments across our global companies include:

TCL

- Executed operational excellence initiatives and throughput optimisation of all key products within prevailing operational constraints to achieve greater cost control
- Entered the niche segment of industrial grade Sodium Bicarbonate with the launch of Speckarb, which is high in purity and low on chloride, sulphate and heavy metal content
- Launched new cement products – Tata Shudh OPC with the enhanced value proposition of very high one-day strength and Tata Shudh PPC
- Successfully established Medikarb, India's first branded pharmaceutical grade Sodium Bicarbonate, which is now used by many Pharma companies
- Achieved highest ever production and sale of Bicarb led by an encouraging market response of our new foray into specialty pharma grade Bicarb – Medikarb – as we leveraged customer connect and market knowledge
- Our online customer portal and app – Chem Connect – launched in FY 2017-18 has recorded over 98% customer engagement
- Recorded highest-ever sales of bromine with ~99% volumes shipped in ISO tankers and ~100% increase in bulk movement of Soda Ash

TCNA

- Implemented project DSI (Dry Sorbent Injection) to use ground trona as a SO_x sorbent for emission compliance
- Commenced project MAP for plant-wide modernisation of DCS systems over the next five years
- Undertook engineering studies to investigate potential of solution mining in existing trona bed 14
- Re-established corporate office in Sandy, Utah to improve synergy with manufacturing in Green River Wyoming

TCE

- Rationalised sales of imported Soda Ash in line with the margin plans
- Soda Ash production slightly below par largely due to operational issues in the first quarter of the year
- Strong performance of associated energy business generated good income and contributed to the Soda Ash/energy BU performance

TCML

- Undertook extensive marketing efforts to stabilise markets for existing products – Magadi Moore Nyama salt and Magadi Moore Mazawi crushed refined soda, which were introduced in the previous year
- Successfully scaled animal feed grade crushed refined soda market in the US while exploring new markets in India, Africa, Europe and the far east
- Undertook major marketing activities, including radio campaigns and 14 farmer training forums, to boost sales of fortified salt resulting in higher distribution and trials. Fortified salt sales in FY 2018-19 increased by 25%

Tata Chemicals advantage

Our manufacturing facilities have a strategic advantage in terms of raw material security and a good mix of manufacturing processes with lower carbon footprint, in line with our long-term sustainability target.

70% of our Soda Ash capacity is manufactured through natural sources at our plants in the US and Kenya, which ensures lower manufacturing costs along with lesser energy and environment footprint. Both these plants have access to huge raw materials resources – the US plant is in Wyoming which has the world's largest deposits of trona and Kenya plant is near Magadi Lake which is a regenerating lake.

Our Mithapur plant in India and Northwich plant in the UK manufacture synthetic Soda Ash and Sodium Bicarbonate. This process uses raw salt/brine (salt water) and limestone as key raw materials. While the UK plant has the availability of natural salt, Mithapur plant uses salt manufactured using solar heat.

 Risks

Profitability risk

- Impact on Kenyan operations due to increased royalty rates, possibility of shorter lease period and disruption in rail logistics due to unviability of Rift Valley Railways. A proposed land rate increase may further impact profitability

- Stringent health & safety norms and competitive pricing threats in Europe

Environmental risk

- Rising stringency in environmental regulations in India
- Implementation of EU-Emission Trading System Phase 4

Macro-economic risk

- High energy price volatility and uncertain economic times in the UK
- UK exiting EU without a deal
- Impact on global demand-supply balance and price fluctuation driven by the addition of new Soda Ash and bicarb capacities by domestic players in India and uncertainty in Chinese production



 Magadi plant

Opportunities

- Our strong pipeline of investment projects in salt and Sodium Bicarbonate/ Soda Ash/energy will sustain the momentum into FY 2019-20 and beyond, driving cost competitiveness and enhanced customer service
- Initiated Projects to grow Sodium Bicarbonate and Salt sales opportunities in Asia
- Key ongoing projects will strengthen competitiveness – salt power station, carbon capture and recovery plant at coal handling plant to optimise operations and new warehousing proposals to enhance customer and demand satisfaction, cost and safety
- Planned capacity expansion programme for all products at Mithapur facility, the statutory permissions of which are either received or are in an advanced stage. This will enable us to meet rising demand. A dedicated team (Project Pragati) has been formed for the same to ensure timebound execution

Strategies

Grow leadership position

- Execute LEAP (Lead, Engage, Aspire and Perform) strategy to strengthen leadership position, address risks and exploit opportunities
- Grow volume of subsidiaries

Optimise costs

- Continue ongoing operation optimisation initiative and improvement programmes

- Manage variable costs like fuel, salt and limestone through raw material securitisation
- Exploit new opportunities in Sodium Bicarbonate and sesquicarbonate
- Build a market for the newly developed variants for specialised industrial applications and flue gas treatment, which is an emerging area due

to increasing awareness and the anticipated legislations on air pollution

- Invest in capacities to pursue value-driven growth opportunity in food, animal feed and pharma variants



For deeper insights into our product portfolio, please refer to **page 06-07**



Bulk transportation of salt in UK

Picture Credit: Abbey Logistic Group

GROWTH STORY



Nurturing crushed refined soda (CRS) portfolio, exploring international opportunities

By successfully tapping Kenya's abundant salt resource, Tata Chemicals Magadi (TCML), has created a new growth vertical with its CRS that caters to the livestock as a rumen buffer leading to high production in dairy animals. While the product was widely popular in Kenya, we leveraged its effectiveness to create export opportunities.

Establishing the US market

After a successful pilot study in the US, we were faced with the challenge of meeting product quality and specification requirement and logistics management. These were tackled by our cross-functional teams who undertook intensive planning to develop sustainable solutions to meet customer requirements and ensure business profitability. We undertook shallow trona mining to meet low fluoride content specification and revived part of the mothballed premium ash plant to attain desired particle size. The supply chain was optimised by creating new storage spaces in redundant silos and in Mombasa, along with reviving the trans-shipment facility at Kajiado to enable the parallel transfer of product by both rail and trucks.

These efforts paid-off and we have received several orders in the US. Our CRS

sales have grown significantly from 19,813 tonnes in FY 2016-17 to 42,174 tonnes in FY 2018-19 with a total of 8,000 tonnes shipment to the US. More importantly, our product has received positive customer feedback with a high rating. Potential customers are completing necessary due diligence and our plant has received Good Manufacturing Practices (GMP) certification for animal feed imports into Europe, providing scope to explore new markets.

Growing the US market

While the addressable opportunity for low-fluoride CRS is tremendous in the US market, we faced constraints on the production side due to bottlenecks in the grinding and screening process. To overcome this, we held consultations with our customers to arrive at an agreement to supply unscreened standard fluoride CRS. The move shall help us enhance shipment to the US while opening access to other international markets as well.

Exploring new market

We see significant potential for growth going forward as we explore markets in Africa, India, Europe and the far east. We have already received enquiries from Indian, European and other international markets, where samples for trial use have been despatched.

GROWTH STORY



Reinforcing cement business, moving up the value chain

We started the cement manufacturing business in 1993 with the strategic intent of consuming solid waste generated in the Soda Ash plant, restricting sales to Saurashtra, Kutch and central Gujarat. To enhance cement availability and expanding our presence in the value chain, we have launched new products namely Tata Shudh PPC and Tata Shudh OPC.

Tata Shudh PPC marks our entry into a new segment, which is witnessing growth. Tata Shudh OPC is a new variant that offers the additional value proposition of having the highest one day strength. Along with the launches, we have enhanced our service levels significantly by strengthening channel and supply chain infrastructure.

GROWTH STORY



Expanding Sodium Bicarbonate application areas

Industries globally have a need for high-purity industrial grade Sodium Bicarbonate with low chloride, sulphate and heavy metal content. This product meets stringent quality and regulatory standards, requiring a high level of expertise to manufacture them. Our newly launched product 'Speckarb' is our solution for these industrial customers. A specialty grade Sodium Bicarbonate, it is a versatile pure powder alkali intended for specialised industrial applications like specialty chemical synthesis, high-quality

dyes, leather, metallurgy, electronics. The product adheres to the superior quality specifications of IS 2124: Sodium Bicarbonate: Bureau of Indian Standards and is not intended for applications, directly or indirectly, related to human consumption.

Speckarb marks our presence in the niche segment of industrial grade Sodium Bicarbonate and will provide us with significant demand opportunities in both the domestic and export markets.

Picture Credit: Chirag Parmar

Consumer Products Business



Reaching more households, improving everyday experiences

Household stories in India are changing. Millions of consumers are increasingly demanding high-quality products that are safer, healthier, tastier and more convenient. We are building our Consumer Products Business (CPB) around these aspirations with innovation, branding and distribution capabilities to cater to the new age Indian consumers.



Business overview

Our CPB houses a range of high-quality, daily use products that bring goodness to the lives of consumers. Beginning with the iconic Tata Salt that pioneered the crusade for iodisation in India and has now become one of the most trusted food brands, we have extended our portfolio to include salt variants, nourishing food items and detergents.

Our salt portfolio, including specialty salt products, is marketed under the Tata Salt brand and addresses the various nutritional needs of consumers. We market our food products including pulses, spices, besan, chutneys, basmati rice, red rice poha, snacks and ready to cook nutrimixes under the Tata Sampann brand. With this portfolio, we bring the traditional wisdom of Indian foods in a contemporary package to deliver the best of taste, nutrition and convenience.

In FY 2018-19, we ventured into the fabric care segment with the pilot launch of Tata Dx Detergents to touch the lives of customers with differentiated offerings across the FMCG landscape.

Business environment

Salt

The Indian salt industry is one of the largest in the world with several producers and a complex delivery network. Taking this as an opportunity, the Government promotes iodisation of salt under the National Iodine Deficiency Disorders Control Programme (NIDDCP) to reduce prevalence of iodine deficiency disorders (IDD) in the country. The Government is further exploring the possibility of using double fortified salt with iron and iodine in nutritional programs to combat the twin challenge of IDD and anaemia.

This regulatory support along with rising health awareness is resulting in an increased shift towards branded packaged salt, with the segment growing by ~5% in FY 2018-19 and branded salt accounting for 88% of the total edible salt market.

Pulses and besan

Pulses, having high-protein content, are an important food crop globally and an indispensable constituent of India's daily diet. India is also one of the world's

largest producers and consumer of pulses. But, the industry is largely unbranded and there is a need for high quality, hygienically packed products. This presents a significant business opportunity.

Besan is India's leading snack food ingredient. But, the industry is largely unbranded with consumers seeking healthier options.

Spices

India is globally recognised as the home of spices. However, the industry is highly fragmented and regional in nature with consumer taste changing across markets. The industry is also largely dominated by regional and unbranded products that are suspect in terms of quality, consistency and purity. This opens opportunities for brands that can address these gaps.

Tata Chemicals advantage

Salt

We have one of the largest salt production capacities. This scale of production when combined with our diverse salt portfolio, high quality and purity, wide distribution network and brand equity gives us immense strategic advantages and capabilities to grow the business and cater to the requirements of a large section of Indian households.

Pulses

Tata Sampann is India's first national pulses brand, offering a variety of high-quality, unpolished and nutritious dals apart from an organic range. We also provide high-quality, low-oil absorb besan that ensures homogeneous batter and makes food healthier. Our differentiation of quality and unique offerings makes us a preferred brand for consumers.

Spices

Tata Sampann offers a range of high-quality, pure Spices and innovative blends. Our pure Spices, sourced from locations where climatic conditions and terrain benefit its natural flavour, are 100% pure and have a higher percentage of active ingredients as we never use 'Spent' ingredients. Our blends are developed with pure, fresh and authentic ingredients with recipes designed by renowned celebrity chef, Padma Shri Sanjeev Kapoor. Additionally, we offer the value proposition of unique 5-in-1 sachets packaging that retains the freshness of spices. Our unique and value-added offerings as well as our robust marketing and distribution make us the brand of choice.

Performance and business highlights FY 2018-19

Overall Branded salt sales volume

1,154,601 MT
1,058,772 MT
FY 2017-18

Tata Salt Outlet reach

19 lakh
17.8 lakh
FY 2017-18

Customer (retailer) satisfaction index

76
76
FY 2017-18



Tata Salt enjoys leadership with 25.2%* market share in overall packaged powdered salt market. It continues to be India's largest distributed salt brand reaching out to 170 million households through 19 lakh retail outlets.

*Moving Annual Total March '19



For deeper insights into our product portfolio, please refer to **page 06-07**



Strengthening portfolio, bringing goodness to consumers

We continued with our efforts to respond to the consumers' needs by launching several products focussed on improving their everyday experiences across wider facets.

Nutrimixes

(Moong Dal Chilla, Multigrain Chilla, Multi Dal Chilla and Low Oil Absorb Pakoda Mix)

Made from unpolished pulses and grains, rich in protein and fibre

Chutneys

(Spicy Tomato, Tamarind-Date and Chinese Chutney)

Natural with no preservatives and artificial colours and a shelf life of 6 months

Organic Pulses

(Toor Dal, Chana Dal, Masoor Dal, Moong Dal, Urad Dal, Urad Dal Whole)

100% Organic unpolished dals, adhering to India Organic and USDA standards

Basmati Rice

Goodness of rice bran, a source of Gamma Oryzanol and Dietary Zinc

Red Rice Poha

Naturally rich with high fibre

Jeera Sattu

Made with unpolished Chana, High in protein, iron, dietary fibre, zinc and phosphorous

My Gudness, a Dalicious Snack

(Toofani Tamatar, Masala Dhamaka and Sassy Salsa)

Baked snacks made of 62% dal (moong, urad, chana) with 2X protein and 40% less fat*

Herbal Salt

(Amla Coriander Chilli, Rosemary Thyme Basil Oregano, Lemon Mint Ginger)

Adds taste, flavour and goodness of herbs in everyday meals

Tata Dx Detergent

'Quick Wash' – Needs only 15 minutes of soaking

Virgin Coconut Oil

100% pure, natural, unrefined, cold pressed, extra virgin coconut oil

**compared to ordinary extruded (packaged) snacks available in the market*



Business risks

Environmental risks

- Changes in regulatory and environmental norms

Profitability risks

- Rising fuel and labour costs
- Volatility in commodity prices

Competition risks

- Increasing competition from the unorganised market, regional players and private labels

Opportunities

- Increasing awareness of health and wellness among consumers and their need for pure, consistent quality and convenient choices is leading to expanding market share of trusted brands like ours

- Expanding our footprint along with a focus on scaling-up portfolio with differentiated offerings across various segments will enable us to reach more homes and cater to diverse regional needs

- Cost optimisation and service-level improvement that helps us deliver an unmatched value proposition to customers and channel partners
- Leveraging digital technology across the value chain

Strategies

Consolidate position in Tata Salt and strengthen market share

- Undertake brand campaigns and market-specific activities
- Nurture thought leadership to offer innovative products like Tata Salt Lite and Tata Salt Plus to address consumer nutritional needs
- Leverage interesting new formats like Herbal Salt, Rock Salt and Black Salt to address specific consumer needs

Grow Tata Sampann portfolio

- Continue delivering pure and authentic products with natural ingredients that are tasty, nourishing and in keeping with consumer needs
- Expand offerings across various food categories in innovative formats to enhance convenience and elevate the consumer's cooking experience
- Scale-up new products to drive rapid growth

Wider reach and efficient operations

- Continue building a future-ready distribution network and scale up modern retail and e-commerce channels
- Leverage digital platforms and technologies to connect and engage with customers, share product knowledge and improve our presence across the value chain



Delivering the goodness of pulses and besan



Our products are differentiated from other products in the market due to our expertise in pulses and spices, the right choice of ingredients and authenticity in taste.



Tata Sampann Moong Chilla Mix is a dry spiced mix which can be made into a batter with the addition of water, thus eliminating all the other steps and be ready to be served in less than 15 minutes



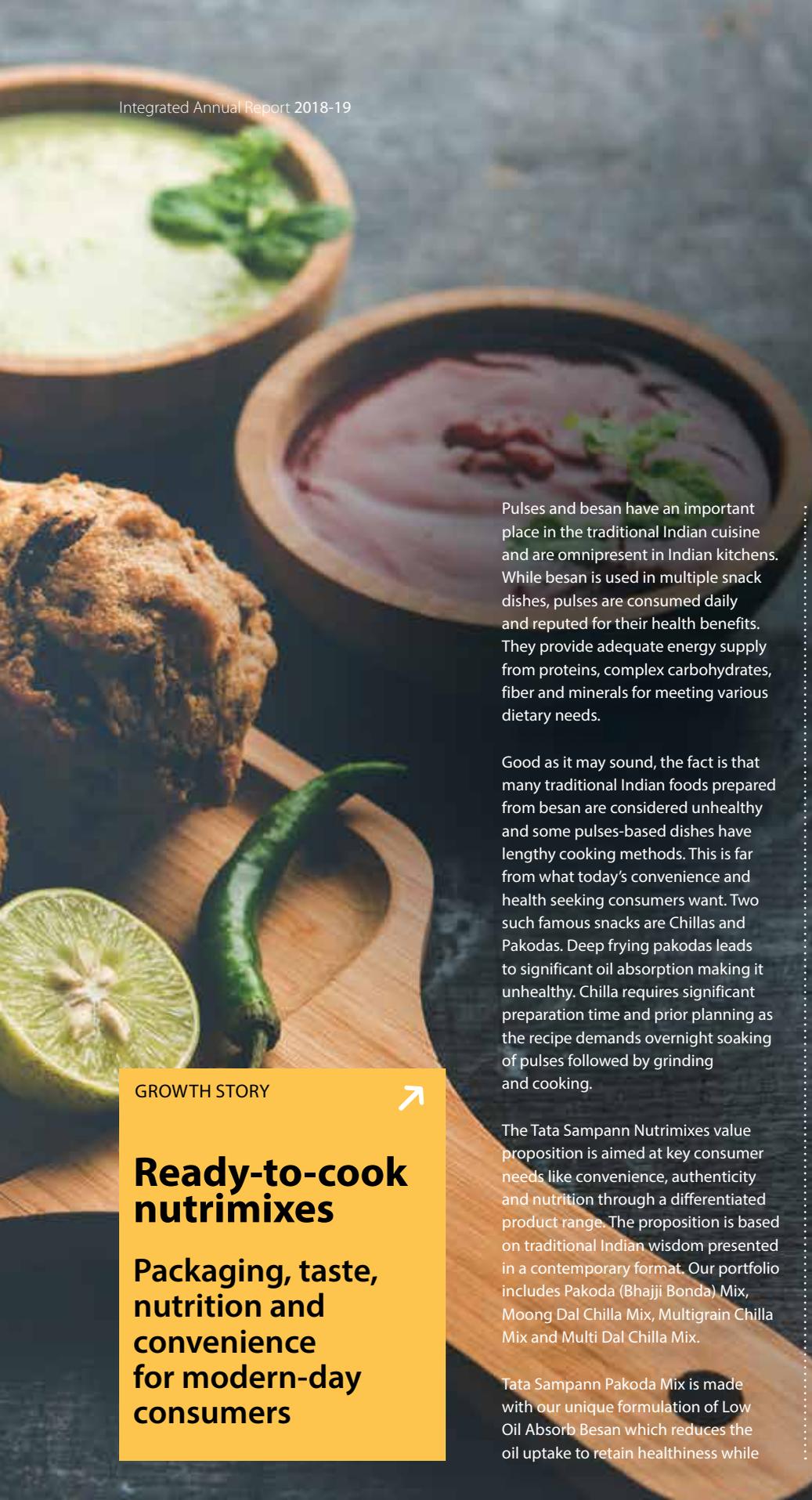
Pakoda Mix is a unique formulation of Low Oil Absorb Besan for low oil uptake to retain healthiness, while delivering authentic taste and crispiness.



The Multigrain Chilla Mix is a high protein ready-to-cook convenient mix offering a fast way to boost body with a good 20% of calories coming from the protein and not the sugars.



Multidal Chilla Mix has the goodness of multiple common pulses consumed by Indian population and is a rich source of protein and fiber.



Pulses and besan have an important place in the traditional Indian cuisine and are omnipresent in Indian kitchens. While besan is used in multiple snack dishes, pulses are consumed daily and reputed for their health benefits. They provide adequate energy supply from proteins, complex carbohydrates, fiber and minerals for meeting various dietary needs.

Good as it may sound, the fact is that many traditional Indian foods prepared from besan are considered unhealthy and some pulses-based dishes have lengthy cooking methods. This is far from what today's convenience and health seeking consumers want. Two such famous snacks are Chillas and Pakodas. Deep frying pakodas leads to significant oil absorption making it unhealthy. Chilla requires significant preparation time and prior planning as the recipe demands overnight soaking of pulses followed by grinding and cooking.

The Tata Sampann Nutrimixes value proposition is aimed at key consumer needs like convenience, authenticity and nutrition through a differentiated product range. The proposition is based on traditional Indian wisdom presented in a contemporary format. Our portfolio includes Pakoda (Bhajji Bonda) Mix, Moong Dal Chilla Mix, Multigrain Chilla Mix and Multi Dal Chilla Mix.

Tata Sampann Pakoda Mix is made with our unique formulation of Low Oil Absorb Besan which reduces the oil uptake to retain healthiness while

delivering the authentic taste and crispiness.

Chillas made out of besan or moong paste is a very popular dish in north India. Compared to traditional laborious method of chilla preparation, Tata Sampann Moong Chilla Mix is a dry spiced mix which can be made into a batter with the addition of water, thus eliminating all the other steps. It is ready to be cooked and served in less than 15 minutes.

The Multigrain Chilla Mix is a high protein, ready-to-cook, convenient mix offering a fast way to boost body with a good 20% of calories coming from the protein and not the sugars. It has the goodness of multigrain and extra protein content in comparison to the besan chilla mix.

The Multidal Chilla Mix combines the goodness of the multiple common pulses consumed by the Indian population and is again a rich source of the protein and fiber.

Our products are differentiated from other products in the market due to our expertise in pulses and spices, the right choice of ingredients and authenticity in taste. We have ensured none of our products have artificial colours or preservatives and remain true to the promise of being "Sarvagun Sampann" and bringing traditional nutrition into everyday meals. Our focus going forward, will be to capitalise on our differentiators and grow the Tata Sampann mixes portfolio.

GROWTH STORY



Ready-to-cook nutrimixes

Packaging, taste, nutrition and convenience for modern-day consumers

Specialty Chemicals Business

Nutritional solutions



Innovating to nourish everyday life

The Nutraceuticals space is booming. Products that supplement the diet with vital nutritional values, essential for healthy and active life, are in demand. This is more so in India's case where traditional diets lack such nutritional values and irregular eating habits and lifestyle of modern-day consumers are causing health problems. We are leveraging our food science knowledge and strength in consumer products to reimagine the dietary and nutritional needs with innovative natural products specific to Indian consumers.



Business overview

We entered into the nutritional solutions business with our brand – Tata Nx that targets new-age Indians demanding food that provides nourishment.

We leveraged the intellectual expertise of the scientists and food technologists at our Innovation Centre in Pune to gain better insights into the human body and develop solutions for addressing health-related problems from a nutritional standpoint rather than medicinal. We utilise the innovative bio-easy format as a delivery mechanism which enables optimal absorption and assimilation of nutrition.

We have a young and energetic team with deep market understanding. We have maintained a lean and agile business model by capitalising on the Consumer Products Business' extensive supply chain network for faster and deeper penetration

and partnering 2P Manufacturers for sweeteners and functional foods.

Business environment

The Nutraceutical and dietary supplements market is still at a nascent stage in India, accounting for ~2% of the global share. Dietary supplements dominate the market with a 65% share and functional food and beverages account for 35% of the overall nutraceuticals market.

However, the use of nutraceutical products is growing fast in India, especially in the urban areas where the youth are keen to maintain fitness and build a stronger physique, resulting in a penetration of nutraceutical products at 22.15% in the urban areas, higher than the 6.32% in rural areas. The segment's growth is further reinforced by an increase in the purchasing power and rising disposable income of Indians.

It is expected that India's nutraceuticals market, valued at ₹ 26,000 crore in 2017, will expand sharply at a CAGR of ~17% to reach ₹ 80,800 crore by 2023. The subsegment of High-Intensity Sweeteners ('HIS') market currently is about ₹ 500 crore and expected to grow at 6% driven by the growing population of overweight, obese and diabetic patients. On an average 5% of the Indian population is obese, but in the urban context, the numbers are incredibly high. HIS is the fastest growing segment due to the rising health concerns with aspartame and sucralose being the most famous sweeteners.

In recent years, stevia has witnessed major demand due to the advantage of being a natural sweetener, making it an ideal alternative of high sugar consuming nation. Besides, stevia's natural make provides it with the advantage of not falling under the product category as 'artificial sweetener'.

Risks

Competitive risk

- Increasing competitive intensity with domestic and global players who are introducing stevia-based products
- Stringent health & safety norms and competitive pricing threats in Europe

Dynamic regulatory environment

- With Nutraceuticals being an emerging category, it is critical that the authorities understand the efficacy and effectiveness of the product by leveraging the expertise of academic

institutes ICT (Mumbai) and CFTRI (Mysore) and appropriate FICCI and CII networks. We continue to work closely with regulatory authorities to ensure our products meet all compliances and we remain abreast of incoming regulatory changes

Opportunities

- With increasing disposable incomes and rising awareness for health and dietary needs, the consumers are increasingly adopting Nutraceuticals. The segment is witnessing significant investment and

is expected to provide immense growth potential

- FSSAI's notification to products using artificial sweeteners (excluding stevia) be labelled as not safe / not

recommended for children and other immunocompromised adults provides unique positioning to our product, Zero Sugar - a stevia-based sweetener, which is made from 100% natural ingredients

Strategies

Target IP protected and differentiated offerings

With more F&B companies resorting to new technologies to reduce sugar content in their products, our strategy is to:

- Maintain a competitive advantage by developing science-based IP protected offerings in nourishment, correction and replacement domains
- Launch stevia-based formulations labelled as low sugar/low calorie

Strengthen pipeline

- With rampant protein deficiency in Indians and increasing consumption of gummy vitamins, we will target strengthening pipeline with functional foods, probiotics and gummy vitamins

Enhance distribution and customer engagement

With the trend of retailers increasingly investing in own private labels to drive

margins and loyalty and the emergence of new points of sale that integrates with daily experience, our strategy will be to:

- Explore new and unconventional channels to supplement existing distribution network
- Engage with end-users in new and personal ways such as digital media, at schools, offices, etc.



GROWTH STORY

Accelerating growth by scaling Zero Sugar



Tata Nx Zero Sugar has been recognised with the Ayush Kamal Ratna for India's Best Natural Sweetener in Swadeshi National Award ceremony in April 2017

Tata Nx Zero Sugar is a one-of-its-kind offering made from non-artificial sugar substitute – lactose (natural milk sugar), steviol glycosides (extracted from stevia herb) and a fruit extract. 100% natural, with no sugar, this product has a low Glycaemic Index as compared to regular sugar, making it appropriate for people who have been advised to avoid or reduce their sugar intake.

Post its successful pilot run in FY 2017-18, we relaunched the product in July 2018, exclusively on Amazon and at select stores in Bengaluru, Chennai and Hyderabad. Vital for individuals seeking health or fighting ailments, the product has been well-received. We are now focussing on scaling-up distribution and supplying it on a pan-India basis.

For deeper insights into our product portfolio, please refer to **page 06-07**



Bringing wellness to life

Consumers globally are increasingly demanding natural, convenient and safe foods and supplements that can support their lifestyle, while delivering adequate nutrition. We are bringing our knowledge in fermentation, food technology and biogenomics to offer solutions for such needs supported by our dedicated Research & Innovation Centre and greenfield manufacturing facilities.



Business overview

Tata NQ, our Nutritional Solutions brand, offers innovative, natural and science-backed prebiotics, gut health and sugar reduction ingredients having extensive health benefits. Our solutions find application across multiple categories of food and beverages (F&B) and nutraceuticals. We are amongst the few manufacturers of prebiotic dietary fibres using a nature inspired fermentation route. Our presence spans across North America, Australia, Europe, Middle East and Asia.

Business environment

The human gut has more neurotransmitters than the brain and trillions of residing microbes that has an impact on our digestive system, health and immunity related aspects, psychology and overall well-being. Driven by its importance to human body, gut health

has become an intensely studied research theme for finding solutions to modern day health and lifestyle challenges.

As a result, there is a growing global trend of wellness products entering the mainstream consumer sector. The segment is witnessing surge in new product launches and new entrants. Its application areas have widened in the niche fields of skin, oral, surface microbiome and in sugar reduction driven by consumer's healthier choices and regulatory push.

Performance highlights FY 2018-19

FY 2018-19 has been an encouraging year marked by positive operational development and growth in revenues to ₹ 41 crore. Strong plant operations and encouraging customer responses on new

products drove growth as we focussed on collaborating and co-creating with them in a project mode. We maintained a track record of zero injury and incident across sites.

Our Fructo-Oligosaccharide (FOS), a mix of own manufactured FOS and complementary food ingredients, garnered wider acceptance as a prebiotic dietary fibre and healthy sweetener in dairy, bakery and confectionery sectors.

We established a global distribution network and initiated customer engagement in South East Asia, China and USA to gain insights on their qualifications process and regulatory approvals needed to begin sales. Our Animal Nutrition segment started on a strong footing with FOS-led formulations finding customer acceptance in aqua and poultry space.

Tata Chemicals advantage

Tata Chemicals has expertise in the human nutrition field backed by its near decade of R&D experience. This is exemplified in our commissioning of 1,000 cohort study mapping of the Indian gut microbiome, a first of its scale effort in India. It provided interesting insights about Indian gut and its similarities and differences with global counterparts. We are focussed on furthering our knowledge around prebiotics and their health impact by partnering research institutes and universities globally.

We have undertaken extensive work in the bio-informatics field as well, developing huge databases with millions of data-points. We are linking them with other available databases globally and using advanced computational techniques and machine learning algorithms for gaining critical insights which can be used in preventive healthcare practices and customised nutrition.

We have been developing broad-based application and food-technology capabilities to integrate prebiotics in various F&B formats. Our focus now will be to leverage our strong technical know-how, portfolio and credibility (11 patents and 9 research papers globally) to adopt a solutions-provider approach and support customers with curated application development.

⚠ Risks

Capacity risk

- Unavailability of FOS powder for seeding in international markets

Raw material risk

- Pricing fluctuations and supply risk for cocoa

Regulatory risk

- Delays in regulatory approval
- Differing health-related regulations across different countries

Competition risk

- Cheaper competing products in sugar reduction and fibre fortification

🔒 Opportunities

- Completion of ongoing greenfield facility at Nellore plant to enhance FOS powder and FOS liquid capacity and help meet global demand

- Initiation of clinical research to understand mechanism and pathway through which FOS and GOS improves human health will facilitate in converting international

customers and building a formulation portfolio targeted at improving gut and immunity health through preventive measures

🔬 Strategies

Explore new business opportunities

- Nutraceuticals, herbals, health formulations and confectionery in India
- FOS in animal feed segment for aqua and poultry customers in India and Asia and pet food customers in European Union

Target international opportunities

- Initiate technical qualification process for replacement opportunity and new product development
- Establish distribution network for driving demand through customer engagements

and application-based sales in food, beverages and nutrition segment

Scale new product

- Undertake techno-commercial feasibility and scale-up of yeast and its derivatives at Sriperumbudur for utilising fermentation facility



GROWTH STORY



Mambattu plant becomes a reality!

FY 2018-19 became a milestone year towards incremental investments in infrastructure and capabilities. With a committed outlay of ₹ 270 crores, we are nearing completion of our world-class 5,000 MTPA (expandable up to 20,000 MTPA) FOS manufacturing plant near Nellore, Andhra Pradesh. This plant reflects our vision and aspirations to service demanding global customers.

Designed to be the best

- **Global quality compliance:** ISO Class 8 facility complying with FSSC 22000, FDA, Non-GMO, Kosher and Halal standards
- **Best-in-class technologies:** It employs one of the best purification technologies SSMB (Sequential Simulated Moving Bed) and state-of-the-art equipment
- **Automation and digitisation:** It is fully automated and digitised with minimal manual interference, eliminating chances of errors. Its best-in-class IT systems and quality control processes ensure high quality control, product traceability and paperless tracking. Its system is designed to leverage innovative content formats and technologies to establish the brand's social presence and to reach customers globally
- **Sustainable:** The plant will have zero fossil fuel usage and carbon emission. It is equipped with adequate solar power capacity to meet daily needs. It has deployed measures like MVR / TVR Evaporation and installation of rainwater harvesting structures (45,000 KL capacity) to achieve sustainable water availability and reduce ETP load
- **Safety:** The plant's safety systems and procedures to be aligned with the Tata Group's standards to achieve 'Target Zero Harm' through a well-defined safety road map. It will focus on various safety training programs, safety initiatives and seminars along with carrying out BBS and HIRA studies. Further, the plant shall practise tracking of all the incidents and give special thrust to road safety



3D rendition of Mambattu plant

GROWTH STORY



Rallis pursues big ideas to solve for agriculture

Digital solutions to support farmers

Samadhan App

Provides farmers direct access to Rallis' product details, Package of Practices developed by R&D and real-time weather and mandi prices.

Drishti

Provides weather forecast, crop and crop stage, forecast the current and projected crop health, soil moisture, nutrient index, plant stress and likely pest and disease.

Low agricultural productivity is a challenge for India. The problem is about knowing the right way of using the agricultural inputs, adopting productive farming methods and having access to necessary expert support services.

Gathering the knowledge gained through years of R&D and farmer engagement, Rallis has developed a holistic approach for this – Rallis Samrudh Krishi® (RSK). With efforts directed to addressing farmer needs in a programmed manner, RSK facilitates in enhancing farm productivity and farmer income.

With RSK, Rallis engages with a select set of farmers at an individual level. It assists them in determining their soil quality based on geography and provides right soil health enhancing products, high-quality seeds and helps them adopt right

agronomy practices. It analyses crop growth pattern and forecasts crop health to provide right plant growth nutrients to enhance health. It determines plant stress and likely pest and disease impacts to provide right crop protection products. It thus provides them necessary intervention initiatives across the crop life cycle. Further, post-harvest, the farmers are provided with market price information for selling their produce optimally

This kind of intervention and hand holding has benefited several farmers by enhancing their productivity and income levels. Our focus now is to systematise this initiative and deliver the gains consistently across geographies.

GROWTH STORY



Metahelix delivers growth and prosperity with Maha-Sambhav

Metahelix, a wholly-owned subsidiary of Rallis, has significant presence in hybrid seeds and in the biotech space. It has benefited millions of farmers across India with its innovative hybrid seeds and outreach programme.

'Maha-Sambhav' was the rallying call taken in 2018 which helped it in expanding volumes of its new flagship cotton hybrid 'Aatish' in Maharashtra and catapulted it into the million-packet league.

Metahelix being a relatively late entrant in the ~₹ 3,000 crore cotton seed market was a small player in the segment. However, with efforts to understand farmer requirements, develop right products and take it to farmers through innovative means, it emerged as a key player in Maharashtra. The Company developed a new cotton hybrid seed, Aatish, that delivers the attributes of early yield, 'big boll' and 'easy picking' which are the most favoured requirements of cotton farmers today. This product gives handsome yields in lesser time, enabling farmers to have the produce for sales by Diwali (the festival of wealth) and also avoid problems relating to low rainfall and pest & disease incidence.

Communication messaging based on the hybrid's key attributes was consistently undertaken through the campaign – "Aatish Yani Khushiyo Ka Aasman" ("Aatish stands for Happiness")

across various product demonstration and pre-season activities. It enabled the team to reach out to about 6 lakh farmers and 4,000 retailers and create top of the mind recall. The campaigns were accentuated by outdoor media and hoardings, point of sales communication and WhatsApp videos. All these efforts paid rich dividends and the Company was able to grow the 'Aatish' brand by more than six times last year, making 'Maha-Sambhav' possible.



Intensifying Focus on Health & Safety

Safety is an important part of our value system. We are relentlessly improving our world-class safety performance based on a strong foundation of leadership, strengthened by our 'Zero Harm' target for people, assets and environment.

Health and safety management

At Tata Chemicals, health and safety initiatives are a key agenda. Specially formed committees work towards reinforcing safety standards. Our dedicated Board Committees on CSR, Safety and Sustainability periodically review organisational safety and drive strategic direction. Besides, the Apex Safety Committees at sites and Office Safety Committees at offices review health and safety of the employees, safety aspects and implementation of new policies and guidelines.

Assessing and managing safety risks

We are constantly working towards evolving and upgrading our safety processes through periodic reviews and benchmark them towards the Zero Harm goal. We identify top safety risks and their mitigation plans are reviewed by the CSR, Safety and Sustainability Committee and Risk Management Committee. Considering our use of hazardous chemicals, we have implemented structured Risk Assessment and Management processes and mitigation plans across high risk areas. We engage trained functional teams for identifying and managing hazards in routine and non-routine activities.

We prepare annual plans for asset management, besides workplace and process safety improvement programmes. We also identify training needs at various levels through structured processes. Safety is an inherent part across all stages of the project life cycle and is ensured through implementation of systematic processes and executed through trained personnel.

Incident / Near-miss management

This identifies critical contributing factors in an incident or high potential near-

miss through root cause analysis and in implementing preventive actions. Employees identify unsafe conditions and report them on an e-enabled portal – WSO, which is regularly tracked to ensure risk control. We carry out internal / external audits, inspections, surprise checks and engage experts to identify lapses and improvement areas and ensure effective implementation of safety systems. Although we constantly strive to improve safety in working conditions, we faced two unfortunate fatal incidents in FY 2018-19. We implemented corrective actions to prevent such recurrences and also supported the family of the deceased under the Suraksha Scheme, a financial assistance scheme. We are also targeting implementation of IoT solutions in FY 2019-20.

Emergency and crisis preparedness

Our operations encompass comprehensive processes for emergency preparedness, response and crisis management. We undertake proactive measures to identify possible emergency scenarios and calculate risk quantum. This is to prevent them with engineering controls and maintenance practices, supported by a systematic inspection regime and also assists us in being prepared in responding to emergencies in real-time situations.

TRIFR* (No. of TRI/million man-hours worked)

2018-19	1.61
2017-18	0.88
2016-17	1.09

LTIFR* (1-day away from work)

2018-19	0.87
2017-18	0.46
2016-17	0.55

*The above numbers include all subsidiaries

Key safety initiatives FY 2018-19

Global

- Cross-site safety audits and offsite
- Implementation of Work Safe Online across sites
- Dedicated third-party packaging centres
- Daily safety rounds and communication of safety observations to management
- CFTs for safety improvements

Mithapur

- Systematic implementation of Process Safety & Risk Management
- Sensitisation on softer safety aspects through 'Suraksha Samvad'

Magadi

- Safety projects under LASER workshop
- Employee engagement drives for near miss identification, reporting and closure

TCE

- Integration of dynamic risk assessment with work permits
- Layer of Protection Analysis and CDM (Construction Design and Management) implementation
- Introduced Golden Safety Rules

TCNA

- Articulation of life critical policies
- Hazard Identification Tours

Way forward

During FY 2019-20, we aim to focus on Process Safety Management at Mithapur plant. This is to strengthen our safety systems and horizontal deployment of improvements and to revisit risk management processes and mitigation plans across global sites.

United Nations' Sustainable Development Goals



Innovating for a Better World

Innovation at Tata Chemicals encompasses multiple facets of business, communities and environment to develop solutions for a better world and ensure sustainable value creation for stakeholders. Innovation lies at the core of our businesses as the key differentiator in a competitive market.

Tata Chemicals' R&D activities are undertaken at three state-of-the-art centres – Tata Chemicals Innovation Centre (IC) in Pune, Rallis Innovation Chemistry Hub (RICH) and Metahelix Life Sciences in Bengaluru.

R&D focus areas and key developments

IC Pune

Undertakes multi-disciplinary research in applied sciences to seed new businesses, support the existing ones and facilitate development of products and services.

RICH

A DSIR recognised centre undertaking research in Agri Sciences for developing solutions aimed at enhancing farm productivity and farmer income.

Metahelix

Undertakes research in agricultural biotechnology.

R&D focus areas



- Food science research to enhance nourishment
- Inorganic chemicals and material science research to develop new products/businesses
- Productivity enhancing Agro Chemicals
- Eco-friendly formulations
- Cost-effective processes for synthesising molecules
- New products evaluation and registration
- Process improvements for manufacturing
- Crop breeding research to develop superior hybrids seeds
- Biotech research for superior trait development through GM (Genetically Modified) and non-GM methods and enhancing seed yield

Key initiatives FY 2018-19



- Low sodium salt, double fortified salt
- Scale-up and range extensions of extruded snacks, chutney and mixes
- Launched new cereals, pulse-based and home care products (detergent)
- Undertook research in priority growth areas of Highly Dispersible Silica (HDS) and pipeline silica products for tyres, lithium battery actives and recycling, pharma grade NaCl and bicarbonate, food sciences & technology and Fructo-Oligosaccharides (FOS) in areas of microbiome, immunity, gut and metabolic health
- Created a strong pipeline of products for process and formulation development and bio-efficacy evaluation
- New collaboration on six projects
- Development of advanced formulations
- Precision agriculture experiments (Drone)
- NABL accreditation application
- Dossiers submitted for new registrations
- Worked on reducing GOT results, TAT and unwanted inventories and increasing accuracy
- Focussed on MDR (Market Development Representatives) productivity
- Village mapping
- Robust screening system for salt and disease tolerance
- Strengthening germplasm base for various mandate crops



Innovation statistics

	IC	RICH	Metahelix*
Patents filed	90	30	4
Patents granted	22	14	2
R&D team members	53	53	118

*Plant Variety Protection (PVP) filed since inception is 59. PVP is the provision under Protection of Plant Variety & Farmers' Rights Act (PPVFR) for protecting IP relating to plant varieties.

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Way forward

Innovation Centre, Pune

- Support businesses in launching new/ value-added products and driving quality
- Intensify research in priority growth areas
- Capitalise on patent strategy to create competitive advantage in focus areas

RICH

- Intensify new technology products development with R&D geared up with investment for long-term vision
- Target off-patented molecules opportunity and innovation protection by patent filing
- Strengthen product pipeline by collaboration and own research, especially in environment-friendly formulations, bio-pesticides and crop nutrition products

Metahelix

- Undertake Rapid Generation Advancement to achieve more crop cycles completion annually to fast track inbred development
- Utilisation of genomic resources for smart breeding
- Intensifying focus on molecular and genomic information-based projects

Creating new growth verticals

IC's R&D efforts in chemistry-based, nano-material solutions have paved the path to new business avenues – advanced materials (HDS and Specialty Silica), nano zinc and lithium-ion batteries. These business areas will let us participate in the fast expanding specialty products market and thrust our growth.

Advanced materials

Our venture in the advanced materials segment is driven by the trends of tightening automotive emission standards in the tyre application industry. It will allow us to leverage our Soda Ash value chain linkages for value-added offering. To strengthen foothold in the segment, we have acquired the 900

TPM precipitated silica plant at Cuddalore in Tamil Nadu, commercial trials for which have commenced. We are undertaking process improvement initiatives at the plant, to further enhance its operational readiness for maximising throughput and meeting safety and quality specifications.

Targeting attractive global opportunity

The global silica market is pegged at US\$ 4.5 billion (₹ 1,000 crore for domestic market). With our silica products, we are targeting the high-growth market of tyres, especially the green tyre made of HDS whose demand is being propelled by stringent emission norms and tyre labelling.

TREADSIL™, our HDS brand, is targeted at Passenger Car Radial (PCR) and Truck & Bus Radial (TBR) tyres, which are energy efficient and provide better safety and mileage. Our products also find application in rubber and non-rubber goods – TYSIL™, our conventional silica brand for tyres and other rubber goods applications and TAVERSIL™ for non-rubber applications like food, feed, detergents, oral care and agro chemicals.

We are undertaking collaborative R&D with leading tyre manufacturers in India for the next generation of HDS. Having developed novel applications of functional nano silica, we are working with leading end users on various innovative applications.



Innovation Centre, Pune

Growing Together

The skills, experience and passion of our people facilitate deeper customer understanding and engaging relationships and strengthen our brand value as a preferred employer. We continue to step up efforts to accelerate our value-based growth strategy and the overall development of human capital. We nurture our people by investing in their empowerment through learning and development, wellness and safety besides providing contemporary workplace facilities.



FY 2018-19 has been a milestone year on “people” front. During the year, we successfully managed issues arising out of organisational restructuring and leadership transitions. We also tackled the issues on acquisition and foray into new segments.

Our teams, within and across business units and functions, accomplished high-level collaboration milestones. Some of these were: setting up the Greenfield nutritional solutions plant; acquisition of Silica plant; divestment of agri-business; launch of new categories under Tata Sampann; recent ventures in Specialty Chemicals Business; expanding the reach and presence of Tata Nx; and launch of our first product in the Homecare segment through Tata Dx Detergent.

Leadership Development & Capability Building

During the year, we undertook senior leadership transitions across businesses and conducted a series of workshops – Art of Feedforward. This enabled our managers to coach and guide their teams for superior performance and skilling their managerial capabilities.

We are creating an ecosystem of learning through accessible mobile driven content, experiential learning and gamification. Last year, we introduced ‘en-rich’, our online learning platform offering certification courses from the world’s best universities. We incentivise certified learning on business, functional and digital competencies. With no approvals required

for undertaking the curated content available on this platform, our employees are empowered to upskill themselves.

Our Board of Directors and the Senior Management jointly participated in a workshop anchored by a senior faculty member from the Harvard Business School.

Empowering employees

In line with our ‘Refresh 2020’ theme to enhance our people processes, a Cross-Functional Team (CFT) worked on enhancing our performance management process. This “bottoms up” change management process included hearing employees’ voice, conducting one-on-one interviews, making presentations to the management team and communicating changes.

Ensuring employee engagement

As a people-centric organisation, we measure employee engagement through our survey, ‘X-prESS’, conducted in partnership with an external agency to ensure confidentiality. Our X-prESS 2019 scores, covering over 3,000 white-collared employees globally, increased from 70% in the previous cycle to 73% this year, with a response rate of 95%. Additionally, discussion on Manager Score Cards also helped improve work-group engagement to sustain and build on the change momentum.

Aligning people with the Organisation's goals

Our key focus areas from a peoples' perspective is aligned to our long-term strategy of the enterprise, as below:

Evolving organisational structure to support strategy

- Recast the organisation structure in line with our new vision – emphasising on functional expertise, maintaining a close connect with customer and expediting product development
- Build a flat, agile and cost competitive structure
- Retain core values of integrity and ethics
- Deploy systems and processes including continuous training and building awareness on ethical practices, corporate governance, regulatory compliances to cover all stakeholders

Building future capabilities

- Address competency and skill gaps in a diverse and multi-generational workforce through opportunities and platforms for re-skilling, learning, experimenting and re-inventing themselves
- Enhance leadership and managerial capabilities for a rapidly changing external environment

- Build digital capabilities to minimise the impact of technology on work processes
- Promote transformation at the individual level and mindset change in line with organisational transformation

Nurture and enhance employee engagement

- Align workforce with the new strategic thrust and organisation agenda
- Provide career growth opportunities and meaningful roles
- Support managers to create an engaging team climate
- Undertake reward and recognition programmes
- Focus on wellness, diversity and people-friendly workplace policies

Enhance HR operational effectiveness

- Design business segment and industry relevant people practices
- Adapt to the changing regulations in respect of workforce and automation of work processes to improve productivity
- Enhance employee experience by investing in an integrated cloud technology HR platform

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On-roll Employee headcount as on March 31, 2019

TCL India 1,989	TCNA 561	TCSA 13
Ncourage 17	TCM 244	Rallis 1,001
TCE 397	TCIPL 3	Metahelix 473



Diwali celebrations at Tata Chemicals

Our Commitment to Sustainable Growth

At Tata Chemicals, sustainability goes much beyond the regulatory aspect and the triple bottomline objective of People, Profit and Planet. It exemplifies our acknowledgement of environmental responsibility. It remains at the core of our business strategy as we strive to attain leadership across all aspects of business and return better value to our stakeholders.



At Tata Chemicals, sustainability encompasses stakeholder engagement, corporate governance and ethical practices. It also includes responsible manufacturing safety, health and

well-being of employees and the communities and product stewardship. We engage with stakeholders to identify opportunities for meeting ‘essential needs’ relating to economic, environmental and

social aspects. These inputs are combined with PESTLE (Political, Economic, Social, Technological, Legal and Environmental) analysis to have a holistic perspective.

Sustainability challenges, advantages and opportunities

Strategic challenges

- Talent management
- Energy/raw material security and costs
- Increased stakeholders and community expectations
- Changes in environmental norms like circular economy, recycling plastic waste and other regulations

Strategic advantages

- Operational excellence
- Access to low cost raw materials in Basic Chemistry Products Business
- Brand equity
- Robust customer engagement process and relationship
- Leadership in key markets and products

Opportunities

- Conducted climate change risk assessment and waste mapping study
- Revamped energy and emissions roadmap at plant level
- Environmental risk assessment to identify operational blind spots
- Energy audits to identify energy / carbon saving opportunities

Emissions Management

We have set challenging internal norms and adhere to all environmental regulations. We monitor stacks as per the ISO 14001 schedule and ensure results are well within limits across geographies. A third-party is engaged bi-annually for measuring and monitoring combustion process emissions and reporting it to the US EPA, UK Environment Agency (EA), IMA/NA and CDP and for Sustainability reporting. We ensure our operations release particulate matter, NOx and SOx emissions in permissible level. Air conditioning systems use is restricted to office.

Initiatives to reduce emissions

TCL

Mithapur plant

Modification of Fluid Bed Dryer in Make-up Water (MUW) plant and Vacuum system; replacement of flash vessel and its bypass system at power plant; energy efficient lights; solid effluent utilisation in cement manufacturing; renewable wind energy generation and scaling bicarbonate production; and equipped plant with online monitoring system to capture the stacks, effluent and ambient air quality.

Despatching over 60% of production volume through rail transport and the remaining by road using trucks, highly efficient Lupa Bulkers and ISO tankers along with sensitising customers for their support in unloading products from Lupa bulkers.

CPB has put in place the process to capture GHG emissions. This year, they have released 420 tCO₂ emissions (Scope 1 & 2).

TCE

Invested in a contemporary boiler plant at the British Salt plant due for commissioning by Q1 FY 2019-20. It will have an efficiency of almost 94% (80% currently), translating to 8,500 TPA reduction in CO₂ emissions. Winnington CHP, part of TCE's Northwich operations, is developing a Carbon Capture and Utilisation scheme for capturing food and pharmaceutical grade CO₂ and will use it in the Sodium Bicarbonate plant. This global first initiative will contribute to a 40,000 TPA reduction in CO₂ emissions.

TCNA

Practising bulk deliveries, 95% by rail and 5% by diesel semi-trucks of Soda Ash and use of bag-houses and scrubbers to control fugitive emissions.

TCM

Ensuring zero NO_x, SO_x and other significant air emissions and planting of trees (53,722 planted) to tackle dust problem in Magadi. Initiated process of acquiring CEMS online monitoring system for reducing emissions.

Energy conservation

We monitor company-wide energy consumption and generation through Responsible Manufacturing. Energy generation sources for TCE and Mithapur plant include natural gas and coal respectively along with co-generation facility. Mithapur plant additionally generates energy from wind power at its township. Its cement production falls under the Perform, Achieve & Trade scheme. TCM, TCNA, TCE and Sriperumbudur plants use fossil fuels for energy supplemented by grid power.

Initiatives across geographies

Mithapur

Installation of 2,504 energy efficient lights, which collectively saved 1,189 TJ of energy, 5Kw roof top solar panel and co-processing facilities in cement plant for utilising plastic waste and used oil.

TCE

Installed a new steam turbine (£5.5m) which, on an average, generates nearly 12.5 MW of additional power, saving around £4.8 million in energy costs. This CHP (Combined Heat and Power) plant has an overall efficiency over 80%. Installation of new river water pumps and compressors was completed to reduce energy consumption.

TCM

Introduced solar street lighting and LEDs across the plant premises and township and installed waste oil recycling plant for reducing fresh HFO usage. Started PAM plant for few processes and practising sun drying of crushed Soda Ash to reduce energy cost.

Waste management

Hazardous and non-hazardous waste

We practice on-site segregation of waste at all the sites. All hazardous waste is disposed through authorised and registered dealers, while organic waste from canteen is composted. We undertake

a monthly SHE Performance Matrix and Audit to track the performance of waste minimisation activities and audit the storage and segregation of waste on site.

Consumer product business covered 12 states under plastic waste management (PWM) programme along with engaging respective state Producers Responsibility Organisations for collection and safe disposal of plastic waste. In Punjab, we are working with Punjab Plastic Waste Management Society, a collaborative model with the Punjab Pollution Control Board and other FMCG companies, for collecting and recycling plastic waste. In these 12 states, we are collecting 78% of the total waste generated, in comparison to the 20% mandated by the regulatory body. The recyclable packaging operations of Tata Salt was scaled to five more CFAs covering 32,000 MT. The plan is to further scale up the PWM to more states.

Mithapur plant initiated utilisation of effluents and fly ash in cement operations. Initiatives have been undertaken to make cities and communities sustainable. In Dwarka, a PWM project 'Clean & Plastic free' city was initiated, the Phase 1 of which is completed with mapping of waste in Okha, Mithapur and Dwarka. For phase 2, a 30 MT waste management cum shredding unit is being set-up to treat plastics collected in a 100-km radius. Gaps and strategic priorities have been identified accordingly and awareness in collaboration with local municipal authorities is being carried out.

TCE ensures effluent discharges to water courses and sewers are as per permissible standards. Waste ash and lime are sent to third-parties for re-usage. TCM has waste matrix data to capture hazardous waste such as waste oil, batteries, electronic waste that are sent for recycling.



Lesser Flamingos are the smallest flamingo species also spotted at the Mithapur wetland area

Picture Credit: Chirag Parmar

Water conservation

We have set stringent yearly targets to reduce water consumption and review it on a weekly basis. TCL India carried out a detailed water footprint and sustainability assessment as per Water Footprint Network Netherlands methodology post which direct product and site water footprints were established for blue, green and grey water.

Mithapur plant sustained its efforts for zero dependence on groundwater by adopting in-house water conservation measures, managing rain-fed lakes and innovative seawater desalination technologies. 100% of its industrial process water needs are met by sea water and around 89% of water utilised which includes spent sea water used for dilution of treated waste water is recycled. TCM maps water right from the intake to its flow to the Magadi town's water tank station, treatment and distribution to the various areas where it is utilised. Plan to install Sewage Water Treatment is being tracked for implementation.

Initiatives across geographies

Mithapur

Installed 40 rainwater storage structures of 12,000 litres each in new housing development at township.

TCE

The British Salt site at Middlewich harvested rainwater for use within the plant. The Sodium Bicarbonate plant returns water abstracted from the river Weaver for cooling purposes, incurring a net zero consumption.

TCSR

Implemented various water conservation projects, especially in Mithapur region where quality water availability is a concern.

TCM

Water from natural springs used for washing product spillages from conveyors and dissolving soluble salts in the washery stage is recycled back untreated to the lake.

TCNA

Approximately, 84% of the water that was lost to the evaporation ponds as part of tailings disposal is now recovered.

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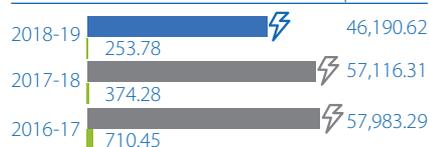
Emission intensity

tCO₂q/tonne produced



Energy consumption

TCL India TJ produced

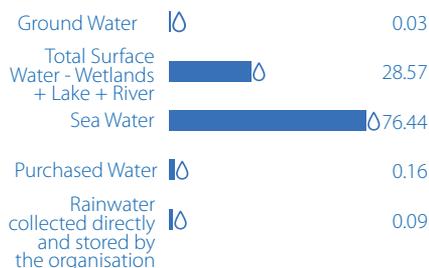


■ Direct Energy (TJ) ■ Indirect Energy (TJ)



Water consumption

MM³



Corporate Social Responsibility

At Tata Chemicals, social development is an important agenda. We touch the lives of millions globally and address pressing development challenges through social programmes that are replicable and scalable to maximise their impact and reach.

Our CSR programme is represented as BEACoN – Blossom, Enhance, Aspire, Conserve and Nurture. It encompasses our enduring commitment towards enriching the quality of life by touching the aspects of health, sanitation, nutrition, livelihood generation, education, environment and bio-diversity. Empowerment is the cross-cutting theme across all our initiatives and targeted towards development of the society's weaker sections, especially women and socially backward communities.

Empowering communities: Blossom

Through Okhai Centre for Empowerment, TCSRSD promotes handicraft products with the objective of providing sustainable livelihoods to the artisans and keeping these traditional skills alive. The Centre supports nearly 1,500 artisans in India, providing them with skill enhancement training and facilitating market linkages

to customers through Okhai website and outlets. Today, the Okhai brand is recognised as a sustainable and online fashion brand, with over 1,50,000 online followers and 18,000 online customers. In Kenya, TCML engaged 40 women with bead work to help them earn a sustainable livelihood.

Promoting livelihood: Enhance

TCL promotes livelihood opportunities for households dependent on income from agriculture and allied activities, along with taking up infrastructure development projects.

Agriculture development

In FY 2018-19, over 4,000 farmers directly benefited from our training, exposure visits, field demonstration and support with seeds and agri-equipment interventions. TCL promoted various cultivation programmes to support farmers. In

Uttar Pradesh, pulses, oil seeds and vegetables were promoted to help farmers enhance their income. In West Bengal, the SRI method of paddy cultivation was promoted as a second crop and at Sriperumbudur in Tamil Nadu, vegetable were promoted to be grown in the kitchen garden. In Mithapur, TCSRSD in partnership with Coastal Salinity Prevention Cell is implementing the Okhamandal Samriddh Gram Project, which is aimed at doubling farmers' income in four years.

Livestock management

To improve livestock health, TCL supported OPD, FMD and HS Vaccination programme, deworming camps and animal health camps at different locations. In West Bengal, it supported over 200 families with poultry farming, helping them enhance their family income. During the year, nearly 1.30 lakh cattle were covered under the cattle health and breed improvement initiatives.

Infrastructure development

TCL supported repair of a 71 km road in Kenya, which helped in improving connectivity and travel for people.

Learning and skill development initiatives: Aspire

Under this programme, we encourage functional education and skills necessary for sustainable socio-economic development of individuals.

Skill development

TCL runs skill development programmes in different locations to train unemployed





youths to facilitate in their employment or entrepreneurial development. In FY 2018-19, over 2,110 youths were provided vocational skill training in the areas of mobile, computer, air condition and refrigerator repairing, electrical fittings, tailoring, beautician course and nursing training. TCL also supports the Tata Strive Centre in running the skill development centre at Aligarh.

Education

TCL undertook various need-based educational programmes across locations, focussed on improving the quality of education and ensuring zero drop-out of students right from pre-primary level. These include e-library, Learning Enhancement Program (LEP), teacher training, scholarships, child learning and improvement, adult literacy, residential summer camp on spoken English and personality development, career resource center, SNDT (Shreemati Nathibai Damodar Thackersey Women's University) centre, Shala Pravesh Utsav and project for primary school children with Sir Ratan Tata Trust. A total of 13,500 students benefited from these programmes.

The Learning & Migration Programme is focussed on strengthening the community school management system and improving the learning capabilities of students. Under this, nearly 6,000 children have been benefited.

In Kenya, TCML provided infrastructure support to schools and scholarship support to more than 100 students at various levels. In UK, TCE provided students opportunities to showcase their talents in science and technology. It also created direct connection with the "all-girls" Loreto Grammar School in Altrincham, Cheshire, providing opportunity to engage an audience under-represented in the UK's manufacturing industry and help them make important career choices. TCE is also one of the big sponsors and promoters of STEM education. It became the headline sponsors of 'Make It In Enterprise Challenge Grand Final' at Manchester and its Cheshire specific version, giving school-going pupils a chance to test skills and knowledge in real-world applications.

Biodiversity protection: Conserve

At TCNA, we continue to protect the habitat of the sage grouse under Wyoming State Law. TCL continued with coral reef recovery, whale shark conservation, mangrove plantation, indigenous flora rejuvenation and environmental education initiatives at Mithapur. With these initiatives, natural resources are conserved through a participatory approach for environmental sustainability. On the Group's 150th Anniversary, the Tata Centre of Excellence for Coastal and Marine Biodiversity Conservation was inaugurated at Mithapur.

Protecting Whale Sharks and Sea Lions

The Whale Shark project focusses on its habitat study, research on migratory pattern and breeding biology. During the year, 19 Whale Sharks accidentally caught in the fishing nets along the Saurashtra coast were rescued. We also work with the ECO Clubs in schools at Mithapur to raise awareness on environment conservation.

TCE donated PDV Salt pellets for enhancing water salinity for RSPCA's Sea Lion rescue centres and Welsh Mountain Zoo's (WMZ) Sea Lion habitats. TCE also partnered with WMZ to help them reduce raw material cost for creating the habitat and deliver cost-effective conservation environment/ programme for the Sea Lions.

Greening, water conservation and land reclamation

TCL planted 2.25 lakh mangroves in Dwarka (Gujarat) and Sundarbans (West Bengal) and 53,722 trees in Kenya under the greening programme. Water management and conservation initiatives like Mission Jal and drip irrigation were carried out at Uttar Pradesh and Gujarat. Further, in Uttar Pradesh, more than 2,500 acres of land was reclaimed with the help of laser levelling and deep ploughing.

Health and Sanitation: Nurture

TCL undertakes initiatives aimed at improving the health and sanitation of people unable to afford private health services or avail the government health services.

Healthcare

Improving health of rural community is an important part of TCL's overall strategy. This year, 38,426 people benefited through health awareness camps, counselling and treatment in Mithapur and Babrala. Further, eye camps were organised at these locations, in which 1,941 people got eye check-ups done and were supported with spectacles and 252 patients were supported for cataract operation.



Tata Chemicals Mithapur coral reef restoration project is helping strengthen the marine ecosystem

Picture Credit: Wildlife Trust of India

In Kenya, the Magadi Hospital provided healthcare services to 30,000 community people. In UK, TCE organised fund-raising volunteering activities for charity-funded St Luke's Hospice and Myeloma. Fund raising initiatives included scaling the three largest peaks in Cheshire, 150 km Bike Ride over 2 days and a bake sale and clothes collection drive to celebrate Tata Founder's day. Substantial funds were raised through these events which helped St. Luke in delivering high service of care and support.

Nutrition

TCL undertook activities like screening of women for anaemia, identification of severely and moderately acute malnourished children and facilitating their treatment. In FY 2018-19, more than 9,000 women and 6,000 children were benefited. Around 300 households were supported to develop kitchen garden to ensure supply of nutritious vegetables and fruits for reducing the occurrence of anaemia in women and malnutrition in children.

TCML supported with 15 tonnes of unimix for 3,000 nursery school children in Magadi. TCE donated a large range of food, collected from employees, to a foodbank for distribution to the needy over the Christmas period. With over 1.3 million people receiving food bank

parcels during the year, the initiative is vital to fight poverty and malnutrition in the UK.

Water and sanitation

TCL provided tap connection to supply water to 1,254 households and supported the construction of toilets for 350 households. The Samridhhi and Swach Tarang initiatives, which focus on use of clean and safe drinking water benefited 2.16 lakh people of different regions across India.

TCML supplies 60,000 litres of treated drinking water per day to 18 public primary schools, 40 ECDE, 7 dispensaries and 17 community water points using the Company water boozler. TCL also supplies 1,50,000 litres of treated drinking water per week for the hard to reach population between Magadi and Singiraine.

Empowerment

TCL's women empowerment programme aims at their inclusion through various CSR initiatives. It works with more than 200 women self-help groups and is facilitating women participation in different economic activities. The Kasturi initiative is helping develop women farmers in self-leadership, family management and ability to serve as community catalyst in Agripreneurship. In FY 2018-19, the project facilitated 279 women representing 13 institutions led by women farmers across eight regions of two states in India.

TCL undertakes Affirmative Action programme, which focusses on improving the lives of the marginalised population through its Employment, Employability, Entrepreneurship Development, Education and Essential Amenities initiatives. TCL has touched the lives of more than a lakh marginalised population through its various initiatives.

Other initiatives

During the year, TCL provided relief support to disaster affected people in Tamil Nadu, Kerala and Gujarat. We provided ample opportunities to employees and family members to volunteer on different social and environmental issues. TCL, TCML and TCE organised various programmes focussed on environment, bio-diversity, health and education. TCNA undertook programmes to support single mothers, senior citizens, children in need and veterans.

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Basis of Reporting

In recent years, the principles of Integrated Reporting <IR> have come to prominence as a benchmark for global best practice in corporate reporting. In line with this trend, we have adopted these principles as the basis for our annual report in an attempt towards transparency and disclosures beyond statutory norms with FY2018-19 being the fourth year of such reporting. Through <IR>, we intend to enrich our reporting for all stakeholders by providing information on our value creation process using the interlinkages of multiple capitals.

We have prepared this report in accordance with the Companies Act, 2013 (and the Rules made thereunder), Indian Accounting Standards, the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 and the Secretarial Standards. Along with these, we have followed internationally recognised frameworks and guidelines such as United Nations Global Compact, Global Reporting Initiative (GRI) and AA1000

Framework for Accountability and the Integrated Reporting <IR> framework of the International Integrated Reporting Council (IIRC). We apply the following principles of AA 1000 AS (2008):

Inclusivity

We are committed to be accountable for stakeholders who are impacted directly or indirectly by our organisation. We map our stakeholders and have processes to ensure inclusion of their concerns and expectations. Additionally, we continue to develop our stakeholder engagement and sustainability capacity at corporate and manufacturing levels.

Materiality

We cover the key material aspects that have been identified through our ongoing stakeholder engagement and are addressed by various programmes or action points with measurable targets.

Responsiveness

We reach out to a wide range of stakeholders through our reporting. Each group has its own specific needs and interests. This report is one element of our interaction and communication. It reacts how we manage our operations in ways that take account and respond to stakeholder concerns.

Reporting period and scope

The Report covers financial and non-financial information and activities of Tata Chemicals Limited and its subsidiaries during the period April 1, 2018 to March 31, 2019.

The financial figures of the report have been audited by B S R & Company LLP, Chartered Accountants and the non-financial information have been assured by Ernst & Young Associates LLP.

Assurance Statement

The non-financial information disclosed in this Report, on a voluntary basis, is as per the Integrated Reporting <IR> Framework of the International Integrated Reporting Council (IIRC) and has undergone independent assurance by Ernst & Young Associates LLP. This assurance has been done as per the 'Limited' criteria of the ISAE3000 assurance standard (International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information) as well as the 'Type 1, Moderate' criteria of the AccountAbility AA1000 AS assurance standard. The specific environmental and social performance data subjected to this assurance, approach, limitations as well as the assurance conclusion are presented in the Assurance Statement available at https://www.tatachemicals.com/upload/content_pdf/tata-chemicals-limited-independent-assurance-statement-2018-19-ey.pdf.

Forward-Looking Statements

Certain statements in this Report regarding our business operations may constitute forward-looking statements. These include all statements other than statements of historical fact, including those regarding the financial position, business strategy, management plans and objectives for future operations. Forward-looking statements can be identified by words such as 'believes', 'estimates', 'anticipates', 'expects', 'intends', 'may', 'will', 'plans', 'outlook' and other words of similar meaning in connection with a discussion of future operating or financial performance.

Forward-looking statements are necessarily dependent on assumptions, data or methods that may be incorrect or imprecise and that may be incapable of being realised and as such, are not intended to be a guarantee of future results, but constitute our current expectations based on reasonable assumptions. Actual results could differ materially from those projected in any forward-looking statements due to various events, risks, uncertainties and other factors. We neither assume any obligation nor intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Results at a Glance

₹ crore

	Standalone		Consolidated	
	FY2019	FY2018	FY2019	FY2018
Revenue from Continuing Operations	4,081	3,524	11,296	10,345
EBITDA from Continuing Operations	1,002	922	2,095	2,191
Profit Before Tax (PBT) including exceptional gain:				
- Continuing Operations	1,220	904	1,742	1,620
- Discontinued Operations	(11)	1,652	(11)	1,652
Profit After Tax (PAT):				
- Continuing Operations	918	624	1,395	1,560
- Discontinued Operations	(8)	1,142	(8)	1,142
Other Comprehensive Income ¹	233	1,032	453	1,098
Share Capital	255	255	255	255
Other Equities	11,541	11,069	12,086	10,847
Net Worth (Equity)	11,796	11,324	12,341	11,102
Borrowings	708	1,097	6,143	6,108
Non-Current	13	681	4,783	5,394
Current	1	1	352	140
Current Maturities ²	693	415	1,008	574
Cash and Cash Equivalents (incl. Deposits with < 12 months maturity and current investments)	3,247	3,769	4,205	4,575
Capital Employed ³	9,370	9,657	24,317	23,201
Borrowings : Net Worth (Equity)	0.06	0.10	0.50	0.55
Net Worth per share	463.04	444.51	484.43	435.78
Earnings Per Share (in ₹)				
Basic & Diluted				
- Continuing Operations	36.02	24.51	45.69	50.66
- Discontinued Operations	(0.31)	44.85	(0.31)	44.85
Basic & Diluted (Total)				
- Continuing & Discontinued Operations	35.71	69.36	45.38	95.51
Proposed Dividend per share (in ₹)	12.50	22.00	12.50	22.00
No. of Shares	25,47,56,278	25,47,56,278	25,47,56,278	25,47,56,278

Notes:

1. Other Comprehensive Income is of Equity Shareholders of the Company
2. Current Maturities includes Finance Lease Obligation
3. Capital Employed = Total Assets less Total Current Liabilities plus Current Borrowings plus Current Maturities from Non-Current Borrowings and Finance Lease Obligation less Investment in Subsidiaries (Other than Rallis India Limited)

Board's Report

TO THE MEMBERS OF TATA CHEMICALS LIMITED

The Directors hereby present their Eightieth Annual Report on the performance of the Company together with the audited financial statements for the Financial Year ('FY') ended March 31, 2019.

Financial Results

(₹ in crore)

Particulars	Standalone		Consolidated	
	Year ended March 31, 2019	Year ended March 31, 2018	Year ended March 31, 2019	Year ended March 31, 2018
Revenue from operations	4,080.86	3,524.17	11,296.33	10,345.36
Profit after exceptional gain, before depreciation and finance costs	1,458.60	1,116.65	2,577.03	2,414.49
Depreciation and amortisation expense	143.23	126.55	571.39	518.01
Profit before finance costs	1,315.37	990.10	2,005.64	1,896.48
Finance costs	95.54	86.51	363.10	325.58
Profit before share of profit of joint ventures and tax	1,219.83	903.59	1,642.54	1,570.90
Share of profit of joint ventures	-	-	99.21	49.23
Profit before tax	1,219.83	903.59	1,741.75	1,620.13
Tax expense	302.11	279.12	346.92	60.13
Profit from continuing operations after tax	917.72	624.47	1,394.83	1,560.00
Profit from discontinued operations after tax	(7.98)	1,142.49	(7.98)	1,142.49
Profit for the year	909.74	1,766.96	1,386.85	2,702.49
Attributable to:				
- Equity shareholders of the Company	909.74	1,766.96	1,155.91	2,433.08
- Non-controlling interests	-	-	230.94	269.41
Other comprehensive income ('OCI')	232.99	1,031.58	586.13	1,108.80
Total comprehensive income	1,142.73	2,798.54	1,972.98	3,811.29
Balance in retained earnings at the beginning of the year	6,435.12	4,072.61	4,626.08	1,509.39
Profit for the year (attributable to equity shareholders of the Company)	909.74	1,766.96	1,155.91	2,433.08
Remeasurement of defined employee benefit plans	(1.93)	21.42	82.14	116.94
Transfer from OCI - sale of non-current investment	2.98	903.98	4.39	903.98
Dividends including tax on dividend	(670.66)	(329.85)	(675.66)	(337.31)
Balance in retained earnings at the end of the year	6,675.25	6,435.12	5,192.86	4,626.08

Dividend

For FY 2018-19, the Board of Directors has recommended a dividend of ₹12.50 per share i.e. 125% (previous year ₹22 per share i.e. 220% including a special dividend of ₹11 per share i.e. 110% to reflect one time income on account of the sale of the Fertiliser Business) on the Ordinary Shares of the Company. If declared by the Members at the ensuing Annual General Meeting ('AGM'), the total dividend outgo during FY 2019-20 would amount to ₹378.90 crore including dividend distribution tax (previous year ₹670.66 crore including dividend distribution tax).

Divestment of Fertiliser Business

The Board of Directors of the Company, at its meeting held on November 6, 2017, approved the sale of its Phosphatic Fertilisers Business and the Trading Business comprising bulk and non-bulk fertilisers and all related assets situated at Haldia in West Bengal ('Divestment Business') to IRC Agrochemicals Private Limited ('IRC'), wholly owned subsidiary of Indorama Holdings BV, Netherlands. In terms of Section 180(1)(a) of the Companies Act, 2013 ('the Act'), approval of the Members of the Company was obtained on January 10, 2018 for the proposed transaction under the provisions of Section 110 of the Act read with applicable Rules through postal ballot.

During the year under review, the Company received requisite regulatory approvals and pursuant to fulfillment of conditions precedent as provided in the Business Transfer Agreement, the Company transferred the Divestment Business to IRC after receiving the consideration on June 1, 2018.

Transfer to Reserves

The Board of Directors has decided to retain the entire amount of profits for FY 2018-19 in the Retained Earnings.

Deposits from Public

The Company has not accepted any deposits from public and as such, no amount on account of principal or interest on deposits from public was outstanding as on the date of the balance sheet.

Performance Review & State of Company's Affairs

Standalone:

For FY 2018-19, the revenue from Continuing Operations was ₹4,080.86 crore as against ₹3,524.17 crore for FY 2017-18, up by 16%. Earnings before interest, tax, depreciation and amortisation (EBITDA) from Continuing Operations increased from ₹922.16 crore in FY 2017-18 to ₹1,001.66 crore in FY 2018-19, an increase of 9%. Profit before tax from Continuing Operations increased from ₹903.59 crore in FY 2017-18 to ₹1,219.83 crore in FY 2018-19, an increase of 35%. Profit after tax from Continuing Operations increased from ₹624.47 crore in FY 2017-18 to ₹917.72 crore in FY 2018-19, an increase of 47%. Profit for the year (Continuing Operations and Discontinued Operations) decreased from ₹1,766.96 crore (includes exceptional pre-tax gain of ₹1,213.99 crore relating to Discontinued Operations) in FY 2017-18 to ₹909.74 crore in FY 2018-19, decrease of 49%.

Consolidated:

For FY 2018-19, the consolidated revenue from Continuing Operations was ₹11,296.33 crore as against ₹10,345.36 crore for FY 2017-18, up by 9%. EBITDA from Continuing Operations decreased from ₹2,190.69 crore in FY 2017-18 to ₹2,095.06 crore in FY 2018-19, registering decrease of 4%. Profit before tax from Continuing Operations was ₹1,741.75 crore in FY 2018-19, an increase of 8% over ₹1,620.13 crore in FY 2017-18. Profit after tax from Continuing Operations decreased from ₹1,560.00 crore in FY 2017-18 to ₹1,394.83 crore in FY 2018-19, decrease of 11%. Profit for the year (Continuing Operations and Discontinued Operations) decreased from ₹2,702.49 crore in FY 2017-18 (includes exceptional pre-tax gain of ₹1,213.99 crore relating to Discontinued Operations) to ₹1,386.85 crore in FY 2018-19, decrease of 49%. Profit for the year attributable to equity shareholders of the Company decreased from ₹2,433.08 crore in FY 2017-18 (includes exceptional pre-tax gain of ₹1,213.99 crore relating to Discontinued Operations) to ₹1,155.91 crore in FY 2018-19, decrease of 52%.

Change in Segment Reporting

During the year under review, post divestment of the Fertilisers Business and based on the recommendation of the Audit Committee, the Board of Directors revised the segment reporting of the Company as under:

- Basic Chemistry Products consisting of Soda Ash and other Bulk Chemicals
- Consumer Products consisting of Branded Consumer Products
- Specialty Products consisting of Nutritional Solutions, Agri Solutions and Advanced Materials

1. Basic Chemistry Products

1.1 India Operations

For FY 2018-19, the Basic Chemistry Products ('BCP') business achieved a strong growth of 16% in the revenue from operations of ₹3,071.92 crore against ₹2,653.74 crore in the previous year.

In FY 2018-19, Indian Chemistry Operations reported a strong financial and operational performance. The market momentum of previous year continued till the first half of FY 2018-19. In the second half of FY 2018-19, domestic capacity additions in Soda Ash and Sodium Bicarbonate increased the availability of these products. This performance was achieved largely through operational excellence with relentless focus on optimising costs and serving customers efficiently.

The business continued to maximise throughput of all key products. A significant rise in the input energy costs led to some pressure on profitability which was adequately mitigated by a strict control on the Company's operational costs and market price revisions.

All the products except Cement achieved a strong financial and operational performance largely on account of firm demand growth in end user segments. In the second half of FY 2018-19, challenges in input costs from increase in energy costs and currency depreciation affected the profit margins.

Soda Ash

After achieving a phenomenal growth of 12% in the domestic demand of Soda Ash in FY 2017-18, the domestic demand for Soda Ash during FY 2018-19 grew at 4%, driven by a broad based growth in key application industries including glass, detergents and chemicals. Both, the manufacturing

volumes at 8.17 lakh tonnes p.a. and the sales volume at 6.94 lakh tonnes p.a. in Mithapur remained flat compared to the previous year. During the year under review, the internal consumption of Soda Ash was 1.26 lakh tonnes. In addition, the Company supplemented its Mithapur Soda Ash volumes with imports from its overseas subsidiary companies to meet customer requirements. The strong growth in demand and firming up of the international prices during the year contributed to better price realisations.

Sodium Bicarbonate

Domestic Sodium Bicarbonate ('Bicarb') demand registered a growth of just under 6% p.a. in FY 2018-19. New domestic capacities increased Bicarb availability in second half of the year which resulted in pressure on prices. However, the Company maintained its realisations and volumes with some changes in target markets. The Company continued to focus on both volume and value growth of Bicarb in line with long term growth prospects of Bicarb and its variants. Mithapur registered the highest ever Bicarb production of 1.11 lakh tonnes and sales of 1.03 lakh tonnes during the year. The price realisation for Bicarb showed good gains as the share of value added and differentiated brands targeted towards specific consumer segments of the Bicarb portfolio continued to show strong growth. "Medikarb", which is the Company's pharma grade Bicarb completed one year of market presence and the response is encouraging. The Company aims to scale up the volumes in this specialised pharma segment.

Salt

The Company achieved a production landmark by crossing 1 million tonnes of Iodised salt production in Mithapur in FY 2018-19. The Iodised salt production in Mithapur was 10,68,338 tonnes, 9% higher than the previous year.

Marine Chemicals

In Marine Chemicals, Bromine registered its highest ever production of 2,440 tonnes and sales of 2,439 tonnes during the year under review.

Cement

The Cement production volume remained low at 4.09 lakh tonnes during FY 2018-19 which was 18% lower than the production for FY 2017-18 on account of a shutdown due to plant maintenance. While the market demand for the Cement was higher by 7% during FY 2018-19, the profitability was affected on account of prices remaining flat.

1.2 Overseas Operations

1.2.1 Tata Chemicals North America Inc.

The production volumes at Tata Chemicals North America Inc. ('TCNA') were lower by 7.30% during the year, principally due to two potentially insurable break-downs in the power plant and other planned and unplanned maintenance. The expectation for the coming year is that production volumes would be restored to levels in FY 2017-18 as reliability is improved, partially through capital spending.

During FY 2018-19, the sales volumes were lower by 4.40%, due to decreased production levels, yet TCNA sold-out all production due to positive market conditions. TCNA posted gross revenue of US\$ 475.82 million (₹3,325.79 crore) for the year ended March 31, 2019 against US\$ 497.60 million (₹3,207.27 crore) in the previous year. Revenue decreased for the year due to lower sales volumes and increased to a lesser extent, about US\$ 11 million (₹76.89 crore), due to favourable pricing and market mix.

For FY 2018-19, EBITDA at TCNA was US\$ 97.90 million (₹684.28 crore) against US\$ 106.70 million (₹687.73 crore) in the previous year due to reduced production and sales volumes. More specifically, reductions in pension expenses, selling general & administrative expenses, variable costs and planned reductions in fixed costs were more than offset by decreased revenue, decreased operating leverage (spreading fixed costs over lower production volumes), increased maintenance expenses and increases in energy prices.

Profit Before Tax and Profit After Tax and non-controlling interest for FY 2018-19 were at US\$ 82.30 million (₹575.24 crore) and US\$ 54.60 million (₹381.63 crore) respectively against US\$ 73.70 million (₹475.03 crore) and US\$ 70.50 million (₹454.41 crore) respectively in the previous year. Profits for the year included an unusual US\$ 16.43 million (₹114.86 crore) gain from writing-off, upon dismissal by a court, a liability acquired with the purchase of the company in 2009. TCNA received significant benefits from US tax reforms with the continuation of the mining percentage depletion allowance, removal of Alternative Minimum Tax ('AMT') applicable to businesses and a reduction of the corporate tax rate such that the effective tax rate expected in future years is roughly 5%.

1.2.2 Tata Chemicals Europe Limited and British Salt Limited

Tata Chemicals Europe Limited's business consists of Soda Ash, Sodium Bicarbonate and energy units while

British Salt Limited manufactures and sells industrial and food grade salt. Together they are referred as UK Operations of the Company in this Report.

The turnover of the UK Operations for FY 2018-19 was ₹157.93 million (₹1,448.79 crore) against ₹168 million (₹1,436.53 crore) in the previous year. The reduction was mainly due to the planned reduction in sales of low margin, imported Soda Ash. Availability of Soda Ash at Lostock facility was also lower due to a fire incident in June 2018.

Sodium Bicarbonate sales were strong throughout the year, especially from the Winnington plant. The UK Operations maintained its core UK market share and experienced growth in exports into Europe and the rest of the world.

The combined heat and power facility at Winnington performed well throughout the year. However, sudden unexpected changes in government regulations caused an unanticipated reduction in income of approximately ₹0.60 million (₹5.50 crore).

In the Salt business, sales volumes were strong throughout the year but lower realisation in certain markets and increase in energy costs resulted in reduced profitability.

The participation in the EU Emissions Trading Scheme has been affected significantly by Brexit. The absence of free allowances for offset against actual emissions of carbon dioxide and the advanced Brexit-related timetable for surrendering allowances resulted in an additional cash outflow of ₹7.20 million (₹66.05 crore) and exceptional charge to the statement of profit and loss of ₹4.20 million (₹38.84 crore).

EBITDA for FY 2018-19 for the UK Operations was ₹14.50 million (₹133.02 crore) as against ₹25.50 million (₹218.04 crore) for FY 2017-18. The loss after tax for FY 2018-19 was ₹4.20 million (₹38.53 crore) as against profit after tax of ₹6.90 million (₹59.00 crore) for FY 2017-18.

1.2.3 Tata Chemicals Magadi Limited

During the year under review, the production volumes at Tata Chemicals Magadi Limited (TCML) were lower by 8% and sales volumes were lower by 15% against the previous year.

TCML achieved total sales of US\$ 73.79 million (₹515.76 crore) for FY 2018-19 as against the sales of US\$ 76.54 million (₹493.34 crore) in the previous year, a decrease of 3.59%.

For FY 2018-19, TCML registered an EBIDTA of US\$ 9.87 million (₹68.99 crore) as against the EBIDTA of

US\$ 13.14 million (₹84.69 crore) in the previous year, lower by 25%. Decline in EBIDTA was on account of lower sales volume, higher fixed costs and higher rail haulage charges.

Net Profit at TCML was at US\$ 2.66 million (₹18.59 crore) as against the Net Profit of US\$ 6.20 million (₹39.96 crore) in the previous year due to higher finance costs (rising LIBOR) and other costs.

The county government issued a demand during the year for an arbitrary increase in land rates which was subsequently struck down and quashed by the local Court, on TCML taking up the matter legally. TCML would be working with the appropriate national authorities and the county government to arrive at a fair, transparent and appropriate process and resolution through mediation.

1.2.4 Tata Chemicals International Pte Limited

The primary activities of Tata Chemicals International Pte Limited (TCIPL), a wholly owned subsidiary of the Company, constitute trading, procurement and holding investments in overseas subsidiaries. TCIPL engages in trading of Soda Ash in South East Asia, Middle East and India and manages procurement of some key raw materials. TCIPL is also exploring opportunities in allied products in these markets.

For FY 2018-19, TCIPL's revenue was US\$ 117.98 million (₹824.63 crore) as against US\$ 86.75 million (₹559.14 crore) and Other Income representing dividend from its wholly owned subsidiaries was US\$ 18.40 million (₹128.61 crore) as against US\$ 14.90 million (₹96.04 crore), for the previous year. For FY 2018-19, the Profit after tax was US\$ 1.24 million (₹8.67 crore) as against US\$ 5.30 million (₹34.16 crore) for FY 2017-18.

2. Consumer Products

Salt and Related Products

The Company achieved a landmark of crossing 1 million tonnes of Iodised salt production in Mithapur in a span of one year in FY 2018-19. The Iodised salt production in Mithapur was 1,068,338 tonnes, 9% higher than the previous year. The milestone was complemented with the Tata Salt brand crossing 1 million tonnes of sales, another historic achievement for the Company. Overall, branded salt sales were at 1,154,645 tonnes in FY 2018-19. The Company retained a strong market share in the Salt market.

Tata Salt grew by 11% in sales volume over the previous year to reach sales volume of 1,024,660 tonnes in FY 2018-19. It continues to be the largest distributed brand reaching

19 lakh retail outlets and 170 million households across India. Tata Salt Lite grew by 13% in sales volume and achieved volumes of 22,821 tonnes in FY 2018-19. I Shakti salt continued to address the iodisation movement, complementing Tata Salt with a sale of 81,039 tonnes in FY 2018-19.

Pulses

Tata Sampann Pulses have a unique advantage and position as the only national player in the branded packaged pulses space. Although the category is still dominated by loose dals, increasing consumer awareness about health and the importance of protein quality in the diet is driving the growth in branded packaged pulses. The Company has achieved healthy growth in revenues and volumes in Tata Sampann Pulses.

Spices

Branded Spices category in India witnessed a double digit growth and the trend is expected to continue next year as well. It forms more than 25% of the total market and presents a huge opportunity for a branded offering.

The sales revenue and volumes of Tata Sampann Spices have grown at a healthy rate over the previous year.

3. Specialty Products

Agri Solutions

The Agri Solutions business is carried through Rallis India Limited ('Rallis') and Metahelix Life Sciences Limited ('Metahelix'), subsidiaries of the Company.

The consolidated revenues of Agri Solutions business for FY 2018-19 was at ₹1,983.96 crore as against ₹1,808.46 crore in the previous year, up by 10.78%. Consolidated net profit as on March 31, 2019 stood at ₹154.78 crore, lower by 7.32% over the consolidated net profit of ₹167.02 crore in the previous year. Standalone revenue from operations for FY 2018-19 was at ₹1,671.50 crore, 11.55% higher than the previous year's revenue of ₹1,515.94 crore. The Net Profit at ₹128.98 crore for FY 2018-19 was lower by 8.84% against the net profit of ₹141.49 crore in the previous year.

Despite the irregular monsoon pattern and constrained acreages of few key crops in important geographies, Rallis was able to grow in the Herbicides segment by 6.50% against the previous year. Even in areas where the industry faced regulatory issues, Rallis managed to maintain its business due to acceptance of Rallis Samrudh Krishi at both channel and farmer level. Rallis' International Business Division achieved a revenue growth of 35.80% during the year, growing to ₹650 crore, against

₹479 crore for FY 2017-18. During the year under review, Rallis gained 11 registration approvals in several countries. Rallis also launched one new product during the year. Oliver, a herbicide used for post emergence control of grasses, which causes significant losses to the commercial crops.

Plant Growth Nutrients consists of Biologicals, Bio stimulants, Micronutrients and water soluble fertilisers which are gaining farmer level acceptance as part of Integrated Crop Management. This year, Rallis registered a 51% growth in its bio stimulant, Tata Bahaar and a 57% growth in its micronutrient surplus. As one of the branding initiatives, to reflect the image and value perception, new packs of Tata Bahaar and Solubor were launched during the year and were well appreciated by the customers.

Rallis performed as per the seeds revenue plans for the year and generated 3% higher gross contribution over previous year. Despite restrictions on co-marketing of products in certain states, Rallis managed to liquidate the cotton seeds planned for its brand in Maharashtra by supporting and complementing the efforts of Metahelix. Rallis will henceforth focus on building and growing the Seeds portfolio through the Metahelix. Rallis will ensure that the farmers and channel partners are served without any discontinuity by closely co-ordinating with the Metahelix ecosystem.

Nutritional Solutions

Tata NQ:

Nutritional Solutions Business offers science-backed innovative ingredients and formulations. Leveraging its knowledge in at-scale biotechnology, food technology and biogenomics, the Company caters to multiple end segments around gut microbiota modulation and personalised health solutions.

Fructo-oligosaccharides ('FOS') have garnered wide acceptance as a prebiotic dietary fibre and a healthy sweetener for categories such as dairy, bakery and confectionery. The business performance was driven through a mix of FOS manufactured at Sriperumbudur and complementary products in the food ingredient space. Strong plant performance backed by encouraging customer response on new products increased revenues to ₹41.18 crore for FY 2018-19. This has been achieved by collaborating and co-creating with customers in a project mode.

FY 2018-19 was a milestone year towards incremental investments in infrastructure and capabilities. With a

committed capital outlay of ₹270 crore, the construction of a world-class 5,000 tonnes p.a. manufacturing plant at Nellore, Andhra Pradesh, is in the last stage of completion. During the year, various clinical research were undertaken to understand the mechanisms and pathways through which FOS and Galacto-oligosaccharide ('GOS') improves human health. This will enable the Company to convert key international customers and build a portfolio of formulations targeted at improving gut health through preventive measures such as reduction in the onset of early-stage inflammation. The business has established global distribution network and initiated customer engagement.

Tata Nx:

Tata Nx, a new age range of nutritional solution specially crafted for today's health-conscious generation is the Company's foray into Indian nutraceuticals for retail. It promises to deliver nutrition in its best form, backed by science. Tata Nx is the result of applying innovative food science, combined with the Company's traditional strengths in consumer products. Tata Nx has been designed to meet the nutritional needs of the new age Indian and will have product offerings in replacement, correction and nourishment areas of food.

Tata Nx Zero Sugar, launched in July 2018, is a 100% natural table-top sweetener made from lactose, Steviol Glycosides (naturally occurring extracts from stevia leaves) and a fruit extract. A one of its kind, non-artificial sugar substitute, Tata Nx Zero Sugar has a low Glycaemic Index ('GI'), which makes it an ideal sweetener for people who have been advised to reduce their sugar intake or avoid sugar and for people who are calorie conscious.

FY 2018-19 was a milestone year towards redesigning the product, price, pack and the brand offer basis the learning's of a small scale test pilot. The business kicked off with healthy margin contribution, affordable pack selling units and setting up channels for selling in India like the Amazon, Big Basket and Medplus in the online market and modern trade channels in select cities. New capabilities for digital marketing are being enabled in house to service the online channels as the brand Tata Nx is expanding its reach.

Advanced Materials

Silica

Over the last few years, the Company's Innovation Centre at Pune has focused its R&D efforts on chemistry based nano-material solutions to help seed new businesses.

The Company's Advance Materials - Silica business is the result of such efforts and is the youngest addition to the new Specialty Products business segment. In addition to leveraging the Company's expertise in nano-chemistry, the entry into Silica business facilitates participation in a large global and domestic market poised for significant growth through specialty, differentiated and customised products leveraging the Company's unique proprietary know-how. The Company believes that trends such as tightening automotive emission standards in the tyre application segment and increasing demand for high performance products across diverse application segments are among the key macro-drivers for growth. Additionally, Silica allows the Company to leverage its Soda Ash value chain linkages while offering significant value addition.

The Company completed the acquisition of a Precipitated Silica plant at Cuddalore in Tamil Nadu in the first half of FY 2018-19. Subsequently, the Company focused on enhancing the site's operational readiness to maximise throughput of the existing product portfolio while meeting requisite safety and quality specifications. In parallel, the Company worked to accelerate the business development and production of the specialty grades of Highly Dispersible Silica ('HDS') developed at the Innovation Centre in Pune. The Company is targeting commercial production with significant ramp-up of volumes in FY 2019-20.

This acquisition is part of a larger planned investment in the business including planned expansion of capacity and continued investment in R&D and Sales & Distribution capability.

Nano Zinc Oxide

Under the Specialty Products Business, the Company has entered into Nano Zinc Oxide, which was developed at the Innovation Centre and finds multiple applications for its anti-microbial, anti-fungus and UV blocking properties. The Company is presently working with paints, coatings & adhesives, plastics & polymers and personal care & cosmetics industries to build the portfolio.

Lithium

In line with the Company's strategy to grow its Specialty Products Business, the Company is considering entry into the Lithium-ion battery sector to develop cell chemistries to meet Indian applications. The Government of India has started promoting the use of Electric Vehicles ('EV') in the country through incentives, policy changes and own consumption with a view to achieve a major shift to EVs by 2030.

The Company intends to set up operations in Li-ion Batteries, Battery Actives and Li-Recycling, to cater the growing EV revolution in India at the appropriate time. Through established collaborations with Central Electro Chemical Research Institute ('CECRI'), Indian Space Research Organisation ('ISRO') and Centre for Materials for Electronics Technology ('CMET'), the Company is planning to develop state-of-the-art technology for manufacture of cathode materials and the recovery and purification of cathode (Lithium, Cobalt, Manganese and Nickel compounds) and anode active ingredients from spent lithium-ion cells / batteries.

Finance

During the year under review, the Company continued to focus on working capital management. Backed by a focused and robust cash management, the Company generated other income of ₹254.59 crore from the pool of cash surplus investments in money market instruments (FY 2017-18: ₹91.71 crore).

There was no requirement for raising long term borrowing or availing short term finance. In the month of October 2018, the Company repaid, upon maturity, the second installment of US\$ 63.27 million out of the external commercial borrowings of US\$ 190 million raised during FY 2013-14. The loan of ₹307.95 crore availed against subsidy receivables under the Special Banking Arrangement Scheme from the Department of Fertilizers, Government of India, during March 2018, was liquidated during April 2018. The gross outstanding balance of subsidy receivables as on March 31, 2019 was ₹282.45 crore (March 31, 2018: ₹858.69 crore).

During the year under review, Tata Chemicals Magadi Limited, the Kenya based overseas subsidiary of the Company, refinanced US\$ 48 million loan, amortising over 30 to 60 months and repaid the existing loan of US\$ 47.20 million.

Dividends from subsidiaries/joint ventures

During FY 2018-19, Rallis India Limited, a subsidiary of the Company and IMACID, a joint venture, paid dividends of ₹24.34 crore (FY 2017-18: ₹36.50 crore) and ₹58.43 crore (FY 2017-18: ₹9.82 crore) respectively to the Company. Tata Chemicals North America Inc., a step-down subsidiary of the Company, paid a dividend of US\$ 20 million (₹139.79 crore) [FY 2017-18: US\$ 12.34 million (₹79.54 crore)]; its utilisation includes operational requirements and external finance costs at Tata Chemicals International Pte. Ltd., Singapore. Another step-down overseas subsidiary of the Company, Tata Chemicals South Africa (Proprietary) Limited paid a dividend equivalent to US\$ 1.42 million (₹9.93 crore) during the year.

Credit Ratings

There were no changes in the credit ratings of the Company. As on March 31, 2019, the Company had the following credit ratings:

- Long Term Corporate Family Rating of Ba1/Stable from Moody's Investors Service
- Long Term Issuer Default Rating (IDR) of BB+ with Stable outlook from Fitch Ratings
- INR denominated Non-Convertible Debentures of ₹250 crore are rated at CARE AA+ with Stable outlook by CARE Ratings and BWR AA+ (Stable) by Brickwork Ratings
- Long Term bank facilities (fund-based limits) of ₹1,897 crore and short term bank facilities (non-fund based limits) of ₹2,448 crore are rated at CARE AA+ (Outlook: Stable) and CARE A1+, respectively, by CARE Ratings
- Commercial Paper of ₹600 crore is rated at CRISIL A1+ by CRISIL Ratings

As on March 31, 2019, the credit ratings of Tata Chemicals North America Inc. was as under:

- A Corporate Family Rating and rating on Senior Secured Term Loan B & Revolving Credit Facility: Ba3/Stable from Moody's Investors Service
- Issuer Credit Ratings of B+/Stable from S&P Global

Management Discussion and Analysis

Pursuant to Regulation 34 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('Listing Regulations'), the Management Discussion and Analysis is presented in a separate section forming part of this Annual Report.

Business Responsibility Report

Pursuant to Regulation 34(2)(f) of the Listing Regulations, the Business Responsibility Report initiatives taken from an environmental, social and governance perspective in the prescribed format is available as a separate section of this Annual Report.

Related Party Transactions

The Company has formulated a Policy on Related Party Transactions and manner of dealing with related party transactions which is available on the Company's website at the link:

https://www.tatachemicals.com/upload/content_pdf/tcl-related-party-transactions-policy-February-5-2019.pdf During the year under review, the Company amended the said Policy in line with the amendments to the Listing Regulations.



All related party transactions entered into during FY 2018-19 were on an arm's length basis and in the ordinary course of business. No material related party transactions were entered into during the financial year by the Company. Accordingly, the disclosure of

related party transactions as required under Section 134(3)(h) of the Act in Form AOC-2 is not applicable to the Company.

All transactions with related parties were reviewed and approved by the Audit Committee. Prior omnibus approval is obtained for related party transactions which are of repetitive nature and entered in the ordinary course of business and on an arm's length basis. The transactions entered into pursuant to the omnibus approval so granted are reviewed by the internal audit team. Thereafter, a statement giving details of all related party transactions, entered pursuant to omnibus approval so granted, is placed before the Audit Committee on a quarterly basis for its review.

The details of the transactions with related parties are provided in the accompanying financial statements.

Risk Management Policy

The Enterprise Risk Management process aims to develop Risk Intelligent culture within the Company to encourage risk informed business decision-making.

The Risk Management Policy of the Company lays down the framework of Risk Management promoting a proactive approach in identifying, evaluating, reporting and resolving risks associated with the business. Mechanisms for identification and prioritisation of risks include scanning the business environment and internal risk factors. Analysis of the risks identified is carried out by way of focused discussion at the meetings of the empowered Risk Management Group (Senior Leadership team), respective Business level/ Subsidiary level Committee and Risk Management Committee ('RMC') of the Board.

The Risk Management Policy is periodically reviewed for its relevance in a continuously changing business environment.

The robust governance structure has also helped in the integration of the Enterprise Risk Management process with the Company's strategy and planning processes where emerging risks are used as inputs in the strategy and planning process.

Identified risks are used as one of the key inputs for the development of strategy and business plan. The respective risk owner selects a series of actions to align risks with the Company's risk appetite and risk tolerance levels to reduce the potential impact of the risk should it occur and/or to reduce the expected frequency of its occurrence. Mitigation plans are finalised with target dates, owners are identified and progress of mitigation actions are monitored and reviewed. The risk management process has been rolled out to overseas subsidiaries including domestic business.

Although non-mandatory during the year, the Company constituted a RMC to oversee the risk management efforts in the Company under the Chairmanship of Dr. Y. S. P. Thorat, Independent Director. The RMC meets quarterly to review key strategic and tactical risks and assess the status of mitigation measures. RMC assists the Audit Committee and the Board of Directors in overseeing the Company's risk management processes and controls. Some of the risks identified are set out in the Management Discussion and Analysis which forms part of this Annual Report. In the opinion of the Board there is no risk which may threaten the existence of the Company.

Dividend Distribution Policy

In accordance with Regulation 43A of the Listing Regulations, it is mandatory for the top 500 listed entities, based on market capitalisation, as on March 31 of every financial year to formulate a Dividend Distribution Policy ('Policy') and disclose the same in the Annual Report and on the website of the Company.

Accordingly, the Board of Directors of the Company has adopted the Policy which endeavours for fairness, consistency and sustainability while distributing profits to the shareholders. The Policy is attached to this Report as **Annexure 1** and same is available on the Company's website at https://www.tatachemicals.com/upload/content_pdf/dividend-distribution-policy-clean-mode-amended-on_july-25-2018.pdf During the year, the Company amended the Policy to provide a target range of total dividend payout.



Corporate Social Responsibility

The Corporate Social Responsibility ('CSR') activities of the Company are governed by the CSR, Safety and Sustainability Committee of the Board. The Corporate Social Responsibility Policy ('CSR Policy') approved by the Board guides in designing CSR activities for improving quality of life of society and conserving the environment and bio-diversity in a sustainable manner.

The Company has adopted a participatory approach in designing need based CSR programs which are implemented through Tata Chemicals Society for Rural Development ('TCSRSD'), Okhai Centre for Empowerment, Uday Foundation, Ncourage Social Enterprise Foundation and in partnership with various government and non-government institutions. The Company carried out its CSR activities in Gujarat, Uttar Pradesh, West Bengal, Tamil Nadu, Maharashtra, Madhya Pradesh, North Eastern states, etc.

The Company has an integrated approach to community development which helps in touching all aspects of society such as livelihood, education, health, environment and empowerment of the weaker section of the society especially women, scheduled caste and scheduled tribes.

The overall CSR activities of the Company have been named as BEACoN which stands for Blossom, Enhance, Aspire, Conserve and Nurture.

- **Blossom:** The programme focuses on promoting livelihood of the rural artisans by enhancing their skills and establishing market linkage to handicraft and other products produced locally in the rural areas. The programme started from Mithapur, Gujarat and has been scaled up in other states of India like Uttar Pradesh, Maharashtra, etc. Okhai is the flagship programme which at present is working with more than 1,500 artisans across India.
- **Enhance:** The programme focuses on enhancing the quality of life of the rural households dependent on agriculture and allied activities. The program has been designed to improve the land and livestock productivity through improved agriculture development initiatives and introducing new livestock management systems. The agriculture development programme with Coastal Salinity Prevention Cell and Cattle Breed improvement programme in Uttar Pradesh are few of the high impact programs. The Centre of Excellence for Sustainable Agriculture & Farm Excellence ('C-SAFE') has been established under TCSRSD for supporting the marginalised communities.
- **Aspire:** The programme focuses on the education aspect of students of all levels starting from primary to the post-graduation level and skill aspect of unemployed youth for improving their employable skills. Education support is provided for 100% enrollment of children, improving quality of education and scholarship for poor but meritorious students. Youth who are looking for employment are supported with skill trainings and facilitation for employment.
- **Conserve:** The programme focuses on Natural Resource Management & Environmental Conservation through land and water management activities, preservation of biodiversity and mitigation of climate change impacts. 'Dharti Ko Arpan' is the flagship programme under Conserve. During the year, the Company has established the Centre of Excellence for Coastal & Marine Diversity through TCSRSD in Mithapur.
- **Nurture:** The programme focuses on healthcare, nutrition, sanitation and drinking water solutions to the rural masses. The Holistic Nutrition Program has been taken up with special focus on the first 1,000 days of the child.

The Company provides volunteering opportunity for the employees and family members to contribute to the social

well-being of the masses and environment conservation. Every year more than 25,000 volunteering hours are contributed by the volunteers in India. The international presence of the Company also helps raise funds for charities that support health care, education and biodiversity conservation.

The Company also responds to disasters that hit any part of India.

The CSR Policy is available on the Company's website at https://www.tatachemicals.com/upload/content_pdf/csr-policy_20161012071424.pdf The Annual Report on CSR activities is annexed as **Annexure 2** to this report.



Whistleblower Policy and Vigil Mechanism

The Company has adopted a Whistleblower Policy and Vigil Mechanism to provide a formal mechanism to the Directors, Employees and its Stakeholders to report their concerns about unethical behaviour, actual or suspected fraud or violation of the Company's Code of Conduct. Protected disclosures can be made by a whistleblower through several channels. The policy provides for adequate safeguards against victimisation of employees who avail of the mechanism and also provides for direct access to the Chairman of the Audit Committee. It is affirmed that no personnel of the Company has been denied access to the Audit Committee. During the year under review, the Company amended the Whistleblower Policy to provide a clause wherein all employees of the Company are eligible to report any instance of leak of Unpublished Price Sensitive Information.

The details of the Policy are given in the Corporate Governance Report and the Policy is also posted on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/whistle-blower-policy-5-feb-2019.pdf



Prevention of Sexual Harassment ('POSH')

The Company is an equal opportunity employer and consciously strives to build a work culture that promotes the dignity of all employees. The Company has zero tolerance for sexual harassment at workplace and has adopted a Policy on prevention, prohibition and redressal of sexual harassment at workplace. This is in line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Rules framed thereunder.

Three complaints of sexual harassment were received during the year for which the Company has taken appropriate actions ranging

from minor (counselling) to major actions (termination). Various modes like the screen savers, skit, drawing competition and classroom trainings were conducted across locations to spread POSH awareness for the permanent, contractual, third party employees as well as interns.

In addition, the Company also conducted a 2-day session for capability building of the Members of the POSH Committee.

The Company has complied with the provisions relating to the constitution of Internal Complaints Committee under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

Particulars of Loans, Guarantees and Investments

The Company has not given any loans during the year under review. The details of investments made during the year are given hereunder:

Sr. No.	Name of the Party	Nature of Transaction	₹ in crore
1.	Ncourage Social Enterprise Foundation	Investment in Equity Shares through Rights Issue	2.50

During the year under review, the Company did not provide any additional corporate guarantees.

Details of loans, guarantees and investments covered under the provisions of Section 186 of the Act are given in the notes to the financial statements.

Consolidated Financial Statements

The consolidated financial statements of the Company and its subsidiaries for FY 2018-19 are prepared in compliance with the applicable provisions of the Act and as stipulated under Regulation 33 of the Listing Regulations as well as in accordance with the Indian Accounting Standards notified under the Companies (Indian Accounting Standards) Rules, 2015. The audited consolidated financial statements together with the Auditor's Report thereon forms part of this Annual Report.

Pursuant to the provisions of Section 136 of the Act, the financial statements of the Company, consolidated financial statements along with relevant documents and separate annual accounts in respect of subsidiaries are available on the website of the Company.

The annual accounts of the subsidiaries and related detailed information will be kept at the registered office of the Company and will be available to investors seeking information till the date of the AGM. The same will also be available at the venue of the AGM.

Subsidiary Companies and Joint Ventures

As on March 31, 2019, the Company had 36 (direct and indirect) subsidiaries (5 in India and 31 overseas) and 5 joint ventures.

There were following changes pertaining to subsidiaries during the year:

- Name of Homefield 2 UK Limited was changed to TCE Group Limited w.e.f. July 17, 2018;
- Name of Tata Chemicals Europe Holdings Limited was changed to Natrium Holdings Limited w.e.f. July 17, 2018;
- Natronx Technologies LLC, a joint venture company, was dissolved w.e.f. December 5, 2018;
- Consequent to Tata Industries Limited ('TIL') having obtained approval of its shareholders at a General Meeting held on March 27, 2019, the Company along with Tata Sons Private Limited will exercise joint control over the key activities of TIL. Accordingly, the investment in TIL has been reclassified as a joint venture.
- During the year under review, Rallis Chemistry Exports Limited, wholly owned subsidiary of Rallis, has made an application to the Registrar of Companies for removal of its name from the Register of Companies, for which the approval is awaited.

With a view to reduce the number of subsidiaries and rationalising the group structure, the Company is in the process of the merger of Bio Energy Venture – 1 (Mauritius) Pvt. Ltd., a wholly owned subsidiary, with the Company under the provisions of Section 234 read with Sections 230 to 232 of the Act through a Scheme of Merger, subject to the approval of the Reserve Bank of India, if required and the Hon'ble National Company Law Tribunal ('NCLT'). The Scheme is in the process of being filed with NCLT.

The Company's Policy on determining material subsidiaries, as approved by the Board, is uploaded on the Company's website at

https://www.tatachemicals.com/upload/content_pdf/policy-on-determining-material-subsidiaries-february-5-2019.pdf The Policy was amended during the year in line with the amendments to the Listing Regulations.



A report on the financial position of each of the subsidiaries and joint ventures as per the Act is provided in Form AOC-1 attached to the financial statements.

Details of Significant and Material Orders

No significant and material orders were passed by the regulators or the courts or tribunals impacting the going concern status and Company's operations in future.

Internal Financial Controls

Internal financial control systems of the Company are commensurate with its size and the nature of its operations. These have been designed to provide reasonable assurance with regard to recording and providing reliable financial and operational information, complying with applicable accounting standards and relevant statutes, safeguarding assets from unauthorised use, executing transactions with proper authorisation and ensuring compliance of corporate policies. The Company has a well-defined delegation of authority with specified limits for approval of expenditure, both capital and revenue. The Company uses an established ERP system to record day-to-day transactions for accounting and financial reporting.

The Audit Committee deliberated with the members of the management, considered the systems as laid down and met the internal auditors and statutory auditors to ascertain, their views on the internal financial control systems. The Audit Committee satisfied itself as to the adequacy and effectiveness of the internal financial control system as laid down and kept the Board of Directors informed. However, the Company recognises that no matter how the internal control framework is, it has inherent limitations and accordingly, periodic audits and reviews ensure that such systems are updated on regular intervals.

Details of internal control system are given in the Management Discussion and Analysis Report, which forms part of this Annual Report.

Directors and Key Managerial Personnel

Directors

Appointment

During the year under review, the Company appointed Ms. Padmini Khare Kaicker as an Independent Director for a period of five consecutive years w.e.f. April 1, 2018. The Company also appointed Mr. Zarir Langrana as an Executive Director for a period of five years w.e.f. April 1, 2018. These appointments were approved by the Members at the AGM of the Company held on July 25, 2018.

Re-appointment

In accordance with the provisions of Section 152 of the Act and the Articles of Association of the Company, Mr. S. Padmanabhan, Non-Executive Director of the Company, retires by rotation at the ensuing AGM and being eligible, has offered himself for re-appointment.

The Members had appointed Ms. Vibha Paul Rishi as an Independent Director of the Company to hold office for five consecutive years from September 1, 2014 upto August 31, 2019. Pursuant to the provisions of the Act and based

on the recommendation of the Nomination and Remuneration Committee ('NRC'), the Board recommends for the approval of the Members through a Special Resolution, the re-appointment of Ms. Rishi as an Independent Director of the Company for a second term of five consecutive years from September 1, 2019 to August 31, 2024.

Independent Directors

In terms of Section 149 of the Act, Mr. Nasser Munjee, Dr. Y. S. P. Thorat, Ms. Vibha Paul Rishi and Ms. Padmini Khare Kaicker are the Independent Directors of the Company. The Company has received declarations from all the Independent Directors confirming that they meet the criteria of independence as prescribed under Section 149(6) of the Act and Regulation 16(1) (b) of the Listing Regulations and are independent from the management.

Mr. Nasser Munjee and Dr. Y. S. P. Thorat were appointed as Independent Directors at the 75th AGM of the Company held on August 21, 2014 for period of 5 years and are holding office till August 20, 2019. The Board places on record its appreciation for their invaluable contribution and guidance during their tenure as Independent Director.

Details of Familiarisation Programme for the Independent Directors are provided separately in the Corporate Governance Report.

Key Managerial Personnel ('KMP')

In terms of the provisions of Section 2(51) and Section 203 of the Act, the following are the KMP of the Company:

- Mr. R. Mukundan, Managing Director & CEO
- Mr. Zarir Langrana, Executive Director
- Mr. John Mulhall, Chief Financial Officer
- Mr. Rajiv Chandan, General Counsel & Company Secretary

Governance Guidelines

The Company has adopted the Governance Guidelines on Board Effectiveness to fulfill its corporate governance responsibility towards its stakeholders. The Governance Guidelines cover aspects relating to composition and role of the Board, Chairman and Directors, Board diversity, definition of independence, Director term, retirement age and Committees of the Board. It also covers aspects relating to nomination, appointment, induction and development of Directors, Director's remuneration, subsidiary oversight, code of conduct, review of Board effectiveness and mandates of Committees of the Board.

Procedure for Nomination and Appointment of Directors

The NRC is responsible for developing competency requirements for the Board based on the industry and strategy of the Company.

The Board composition analysis reflects in-depth understanding of the Company, including its strategies, environment, operations, financial condition and compliance requirements.

NRC conducts a gap analysis to refresh the Board on a periodic basis, including each time a Director's appointment or re-appointment is required. The Committee is also responsible for reviewing the profiles of potential candidates vis-à-vis the required competencies and meeting potential candidates, prior to making recommendations of their nomination to the Board. At the time of appointment, specific requirements for the position, including expert knowledge expected, is communicated to the appointee.

During the year under review, the Board has also identified the list of core skills, expertise and competencies of the Board of Directors as are required in the context of the businesses and sectors applicable to the Company and those actually available with the Board.

Constitution of the Scientific Advisory Board

The Board has constituted a Scientific Advisory Board consisting of scientists with relevant domain expertise under the Chairmanship of Dr. C V Natraj with a view to synergise the Research & Development initiatives at the Company's Innovation Centre, Research & Development Centres of Rallis India Limited and Metahelix Life Sciences Limited, subsidiaries of the Company. Further details in this regard are provided in the Corporate Governance Report.

Criteria for determining Qualifications, Positive Attributes and Independence of a Director

The NRC has formulated the criteria for determining qualifications, positive attributes and independence of Directors in terms of provisions of Section 178 (3) of the Act and the Listing Regulations. The relevant information has been given in **Annexure 3** which forms part of this Report.

Board Evaluation

The Board has carried out the annual evaluation of its own performance and that of its Committees and individual Directors for the year pursuant to the provisions of the Act and the corporate governance requirements prescribed under the Listing Regulations.

The performance of the Board and individual Directors was evaluated by the Board after seeking inputs from all the Directors. The criteria for performance evaluation of the Board was based on the Guidance Note issued by SEBI on Board Evaluation which included aspects such as Board composition and structure, effectiveness of Board processes, contribution in the long term strategic planning, etc. The performance of the Committees was evaluated by the Board after seeking inputs from the

Committee Members. The criteria for performance evaluation of the Committees was based on the Guidance Note issued by SEBI on Board Evaluation which included aspects such as structure and composition of committees, effectiveness of committee meetings, etc.

In a separate meeting, the Independent Directors evaluated the performance of Non-Independent Directors and performance of the Board as a whole. They also evaluated the performance of the Chairman (as elected by the Board for each meeting of the Board of Directors) taking into account the views of Executive Directors and Non-Executive Directors. The NRC reviewed the performance of the Board, its Committees and of the Directors. The same was discussed in the Board Meeting that followed the meeting of the Independent Directors and NRC, at which the feedback received from the Directors on the performance of the Board and its Committees was also discussed.

Significant highlights, learning and action points with respect to the evaluation were discussed by the Board.

Remuneration Policy

The Company has in place a Remuneration Policy for the Directors, KMP and other employees pursuant to the provisions of the Act and the Listing Regulations which is set out in **Annexure 4** which forms part of this Report.

Directors' Responsibility Statement

Based on the framework of internal financial controls and compliance systems established and maintained by the Company, work performed by the internal, statutory, cost and secretarial auditors and external consultant(s), including audit of internal financial controls over financial reporting by the statutory auditors and the reviews performed by the Management and the relevant Board Committees, including the Audit Committee, the Board is of the opinion that the Company's internal financial controls were adequate and effective during FY 2018-19.

Accordingly, pursuant to Section 134(5) of the Act, the Board of Directors, to the best of their knowledge and ability, confirm that:

- (a) in the preparation of the annual accounts, the applicable accounting standards have been followed and that there are no material departures;
- (b) they have selected such accounting policies and applied them consistently and made judgements and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profit of the Company for that period;

- (c) they have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- (d) they have prepared the annual accounts on a going concern basis;
- (e) they have laid down internal financial controls to be followed by the Company and that such internal financial controls are adequate and are operating effectively; and
- (f) they have devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems are adequate and operating effectively.

Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo

The particulars relating to conservation of energy, technology absorption, foreign exchange earnings and outgo, as required to be disclosed pursuant to the provisions of Section 134 of the Act read with the Companies (Accounts) Rules, 2014, are provided in **Annexure 5** to this Report.

Particulars of Employees

Disclosures pertaining to remuneration and other details as required under Section 197(12) of the Act read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014 ('Rules') are enclosed as **Annexure 6** to this Report.

The statement containing particulars of employees as required under Section 197(12) of the Act read with Rule 5(2) and 5(3) of the Rules forms part of this Report. Further, the Report and the Accounts are being sent to the Members excluding the aforesaid statement. In terms of Section 136 of the Act, the said statement is open for inspection at the Registered Office of the Company. Any Member interested in obtaining such particulars may write to the Company Secretary at the Registered Office of the Company.

Auditors

I. Statutory Auditors:

At the AGM held on August 9, 2017, M/s. B S R & Co. LLP, Chartered Accountants (Firm Registration No. 101248W/W-100022) were appointed as Statutory Auditors of the Company for a period of five consecutive years. As per the provisions of Section 139 of the Act, they have confirmed that they are not disqualified from continuing as Auditors of the Company.

Further, the report of the Statutory Auditors along with notes to Schedules is a part of the Annual Report. There has been no qualification, reservation, adverse remark or disclaimer given by the Auditors in their Report.

II. Cost Auditors:

As per Section 148 of the Act read with the Companies (Cost Records and Audit) Rules, 2014, the Company is required to prepare, maintain as well as have the audit of its cost records conducted by a Cost Accountant and accordingly it has made and maintained such cost accounts and records. The Board on the recommendation of the Audit Committee has appointed M/s. D. C. Dave & Co., Cost Accountants (Firm Registration No. 000611) as the Cost Auditors of the Company for FY 2019-20 under Section 148 and all other applicable provisions of the Act.

M/s. D. C. Dave & Co., have confirmed that they are free from disqualification specified under Section 141(3) and proviso to Section 148(3) read with Section 141(4) of the Act and that the appointment meets the requirements of Section 141(3)(g) of the Act. They have further confirmed their independent status and an arm's length relationship with the Company.

The remuneration payable to the Cost Auditors is required to be placed before the Members in a General Meeting for their ratification. Accordingly, a resolution for seeking Members' ratification for the remuneration payable to M/s. D. C. Dave & Co. is included at Item No. 6 of the Notice convening the AGM.

III. Secretarial Auditor

In terms of Section 204 of the Act and Rules made thereunder, M/s. Parikh & Associates, Practising Company Secretaries, have been appointed as Secretarial Auditors of the Company. The report of the Secretarial Auditors is enclosed as **Annexure 7** to this Report.

There has been no qualification, reservation, adverse remark or disclaimer given by the Secretarial Auditor in their Report.

Reporting of Fraud

During the year under review, the Statutory Auditors, Cost Auditors and Secretarial Auditors have not reported any instances of frauds committed in the Company by its Officers or Employees, to the Audit Committee under Section 143(12) of the Act details of which needs to be mentioned in this Report.

Other Disclosures

I. Details of Board Meetings

During the year under review, 9 (nine) Board Meetings were held, details of which are provided in the Corporate Governance Report.

II. Composition of Audit Committee

During the year under review, the Audit Committee comprised four (4) Members out of which three (3) were Independent Directors and one (1) was a Non-Executive Director. During the year, nine (9) Audit Committee meetings were held, details of which are provided in the Corporate Governance Report. During the year under review, there were no instances when the recommendations of the Audit Committee were not accepted by the Board.

III. Composition of CSR, Safety and Sustainability Committee

The Committee comprises four (4) Members out of which one (1) is an Independent Director. During the year, four (4) CSR, Safety and Sustainability Committee meetings were held, details of which are provided in the Corporate Governance Report.

IV. Secretarial Standards

The Directors have devised proper systems and processes for complying with the requirements of applicable Secretarial Standards issued by the Institute of Company Secretaries of India and that such systems were adequate and operating effectively.

Extract of Annual Return

Pursuant to Section 92(3) of the Act read with the applicable Rules, the extract of Annual Return in Form MGT 9 is attached as **Annexure 8** to this Report.

Further, the extract to the Annual Return of the Company can also be accessed on the Company's website at <https://www.tatachemicals.com/Investors/AGM-documents>



Acknowledgements

The Directors wish to place on record their appreciation for the continued support and co-operation by Financial Institutions, Banks, Government Authorities and other stakeholders. Your Directors also acknowledge the support extended by the Company's Unions and all the employees for their dedicated service.

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

Dividend Distribution Policy

Scope and Purpose

Tata Chemicals Limited ('the Company') shares are listed on the BSE Limited and the National Stock Exchange of India Limited. The Securities and Exchange Board of India ('SEBI') vide its notification dated July 8, 2016 has inserted Regulation 43A in SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 and has made it mandatory for the top 500 listed entities, based on market capitalisation, as on March 31 of every financial year to formulate a Dividend Distribution Policy ('Policy'). The Board of Directors of the Company has adopted the Policy which endeavours for fairness, consistency and sustainability while distributing profits to the shareholders.

Objective

The Policy defines the conditions for paying a dividend. The Board of Directors will recommend any annual dividend based on this Policy as well as any specific financial or market conditions prevailing at the time. The intention of the Policy is to set out the broad criteria to be considered when determining what dividend to declare or not declare to the shareholders of the Company.

The Company has had a consistent dividend policy that balances the objective of appropriately rewarding shareholders through dividends and to support the future growth.

Parameters adopted with regards to various classes of shares	The Company has one class of equity share and no preference share capital. Any declared dividend will be divided equally among all shareholders, on the record date.
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Frequency	Dividends will generally be declared once a year after the announcement of full year results but before the Annual General Meeting. In years of exceptional gains or other events a special dividend may be declared.
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Internal and External Factors	<p>When determining the annual dividend, the Company will consider, amongst other matters:</p> <ul style="list-style-type: none"> • The level of dividends paid historically • Actual results for the year and the outlook for business operations • Providing for anticipated capital expenditures or acquisitions, to further enhance shareholder value or meet strategic objectives • Setting aside cash to meet debt repayments • Retaining earnings to provide for contingencies or unforeseeable events • The overall economic environment • Changes in the cost and availability of external financing • Changes in government policy, industry rulings and regulatory provisions
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Financial Parameters	As in the past, subject to the provisions of the applicable law, the Company's dividend payout will be determined based on available financial resources, investment requirements and taking into account optimal shareholder return.
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Based on the above, the Company will endeavour to maintain the steady level of dividend per share over the medium term.

Utilisation of retained earnings	<ul style="list-style-type: none"> • Capital expenditure • Organic/Inorganic growth • General corporate purposes, including contingencies • Investments in the new/existing business • Any other permitted use under the Companies Act, 2013
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Dividend Range	As in the past, subject to the provisions of applicable laws, the Company's dividend payout will be determined based on availability of financial resources, investment requirements and also take into account optimal shareholder return. The Company would endeavour to target a total dividend payout ratio in the range of 30% to 50% of the Annual Standalone Profits after Tax (PAT) of the Company.
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Disclosure

The Board of Directors will review the Policy annually. Any revisions in the Policy will be communicated to shareholders in a timely manner. The Policy shall be disclosed in the Annual Report and on the website of the Company at www.tatachemicals.com/upload/content_pdf/dividend-distribution-policy-clean-mode-amended-on_july-25-2018.pdf

Disclaimer

The Policy does not constitute a commitment regarding the future dividends of the Company, but only represents a general guidance regarding dividend policy. The statement of the Policy does not in any way restrict the right of the Board to use its discretion in the recommendation of the Dividend to be distributed in the year and the Board reserves the right to depart from the Policy as and when circumstances so warrant.

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

Annexure 2 to Board's Report

Annual Report on CSR Activities

(Pursuant to Section 135 of the Companies Act, 2013 ('the Act') & Rules made thereunder)

A. CSR Report

1. A brief outline of the Company's CSR policy, including overview of projects or programs proposed to be undertaken and a reference to the web-link to the CSR policy and projects or programs	<p>Tata Chemicals Limited ('the Company') is committed to upholding the highest standards of CSR. The Company endorses the Tata Group purpose of improving the quality of life of the communities it serves through long term stakeholder value creation. The Company believes in positively impacting the environment and supporting the communities it operates in, focusing on sustainability of our programs and empowerment of our communities.</p> <p>The Company has framed a CSR Policy in compliance with the provisions of the Act, which is available on the Company's website and the web-link for the same is http://sustainability.tatachemicals.com/assets/pdf/csr-policy_20161012071424.pdf</p>
2. The Composition of the CSR Committee	<ol style="list-style-type: none"> 1. Mr. S. Padmanabhan (Chairman) 2. Ms. Vibha Paul Rishi 3. Mr. R. Mukundan 4. Mr. Zarir Langrana (appointed w.e.f. August 13, 2018)
3. Average net profit of the Company for last three financial years	₹992.84 crore (as per Section 198 of the Act)
4. Prescribed CSR Expenditure (two percent of the amount as in item 3 above)	₹19.86 crore
5. Details of CSR spent for the financial year:	<ol style="list-style-type: none"> a. Total amount spent for the financial year ₹25.68 crore b. Amount unspent, if any Nil c. Manner in which the amount spent during the financial year The manner in which the amount spent is detailed in Part B to the Annexure
6. In case the Company has failed to spend the two percent of the average net profit of the last three financial years or any part thereof, the Company shall provide the reasons for not spending the amount in its Board's Report	NA
7. A responsibility statement of the CSR Committee that the implementation and monitoring of CSR Policy, is in compliance with CSR objectives and policy of the Company	The implementation and monitoring of CSR Policy is in compliance with CSR objectives and Policy of the Company

B. CSR Expenditure for FY 2018-19

Sr. No.	CSR project / Activity Identified	Sector in which the project is covered	Location of Projects or programs	Amount Outlay and Budget (₹ in lakhs)	Amount spent on projects or programs (₹ in lakhs)	Cumulative Expenditure upto reporting period (as on March 31, 2019) (₹ in lakh)	Amount spent
			Local Area/ District & State		Direct on project/overheads		
1.	Okhai and Cluster development program	Promotion and development of traditional handicrafts	Mithapur: Devbhoomi Dwarka, Gujarat Babrara: Sambal, Uttar Pradesh Haldia: Midnapur, West Bengal Mumbai: Maharashtra	110.00	123.38	123.38	Amount spent through the following channels: Direct: <ul style="list-style-type: none"> Tata Chemicals Limited Implementation Agencies Internal: <ul style="list-style-type: none"> Tata Chemicals Society for Rural Development Ncourage Social Enterprise Foundation OKHAI- Centre for Empowerment UDAY Foundation Tata Chemicals Golden Jubilee Trust Employee volunteers Implementation Agencies External: <ul style="list-style-type: none"> Government agencies Local Panchayats NGOs Community based organisations Skill development agencies Environment Conservation Groups Other Resource agencies (Also refer the names listed below)
2.	Poverty alleviation programs	Poverty alleviation, livelihood enhancement & infrastructure support	Mithapur: Devbhoomi Dwarka, Gujarat Haldia: Midnapur, West Bengal Mumbai: Maharashtra	140.00	164.45	164.45	
3.	Infrastructure support program	Poverty alleviation, livelihood enhancement & infrastructure support	Mumbai: Maharashtra Sriperumbudur: Tamil Nadu Farrukhabad: Uttar Pradesh	35.00	78.90	78.90	
4.	Education & vocational skill development programs	Education and vocational skill development	Mithapur: Devbhoomi Dwarka, Gujarat Aligarh: Uttar Pradesh Haldia: Midnapur, West Bengal Sriperumbudur: Tamil Nadu Nellore: Andhra Pradesh Mumbai, Thane, Nagpur, Pune: Maharashtra Jaipur: Rajasthan Ranchi: Jharkhand Coimbatore: Tamil Nadu	440.00	506.96	506.96	
5.	Natural Resource Management & Dharti Ko Arpan	Environmental Sustainability	Mithapur: Devbhoomi Dwarka, Gujarat Haldia: Midnapur, West Bengal Mumbai: Maharashtra Tamil Nadu	350.00	422.41	422.41	
6.	Health care, drinking water & sanitation projects	Health care, nutrition, sanitation and safe drinking water	Mithapur: Devbhoomi Dwarka, Gujarat Haldia: Midnapur, West Bengal Mumbai & Amravati: Maharashtra, Barwani: Madhya Pradesh Sriperumbudur: Tamil Nadu Cuddalore: Tamil Nadu North Eastern States	627.00	601.19	601.19	
7.	Affirmative action for the socially backward communities & Self-help group promotion	Inclusive growth & empowerment	Mithapur: Devbhoomi Dwarka, Gujarat Haldia: Midnapur, West Bengal North Eastern States	280.00	91.51	91.51	
8.	Need Based (Disaster & other relief) donations & Donation to CSR Corpus Fund	Relief/ All community development programs under BEACoN	Mithapur: Devbhoomi Dwarka, Gujarat Cuddalore : Tamil Nadu	350.00	466.13	466.13	
9.	Administration & miscellaneous expenses	-	-	210.00	113.04	113.04	
Total				2,542.00	2,567.97	2,567.97	

Names of Implementing Agencies:

- District Rural Development Agency
- Water and Sanitation Management Organisation
- Gujarat Green Revolution Corporation
- Government of Gujarat Irrigation Department
- Gram Technology
- Taluka Panchayat
- Krishi Vikas Kendra
- Sarva Shiksha Abhiyan
- Gujarat Agriculture University
- Gujarat Forest Department
- District Animal Husbandry Department
- District Education Department
- Coastal Salinity Prevention Cell
- Ambuja Cement Foundation
- American India Foundation
- Wildlife Trust of India
- Tagore Society for Rural Development
- Tata Trusts/Tata Strive

On behalf of the Board of Directors

R. Mukundan
Managing Director & CEO

S. Padmanabhan
Chairman – CSR, Safety and Sustainability Committee

Mumbai, May 3, 2019

Annexure 3 to Board's Report

Criteria for Determining Qualifications, Positive Attributes and Independence of Directors

1. Definition of Independence

- A director will be considered as an 'Independent Director' ('ID') if the person meets with the criteria for 'Independent Director' as laid down in the Companies Act, 2013 ('the Act') and SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015 ('Listing Regulations').
- The definition of Independent Director is as provided in the Act and Listing Regulations.
- Current and ex-employees of a Tata company¹ may be considered as independent only if he/she has or had no pecuniary relationship with any Tata company (due to employment/receipt of monthly pension by way of Special Retirement Benefits/holding consultant or advisor positions) during the two immediately preceding financial years or during the current financial year.

2. Qualifications of Directors

- Boards will ensure that a transparent board nomination process is in place that encourages diversity of thought, experience, knowledge, perspective, age and gender.
- It is expected that boards have an appropriate blend of functional and industry expertise.
- While recommending appointment of a director, it is expected that the Nomination and Remuneration Committee ('NRC') consider the manner in which the function and domain expertise of the individual contributes to the overall skill-domain mix of the Board.
- IDs ideally should be thought/ practice leaders in their respective functions/ domains.

3. Positive attributes of Directors

Directors are expected to comply with duties as provided in the Act. For reference, the duties of the Directors as provided by the Act are as follows:

1. "Act in accordance with the articles of the company.
2. Act in good faith in order to promote the objects of the company for the benefit of its members as a whole and in the best interests of the company, its employees, the shareholders, the community and for the protection of environment.
3. Exercise duties with due and reasonable care, skill and diligence and exercise independent judgement.
4. Not be involved in a situation in which he may have a direct or indirect interest that conflicts, or possibly may conflict, with the interest of the company.

5. Not achieve or attempt to achieve any undue gain or advantage either to himself or to his relatives, partners, or associates.
6. Not assign his office."

Additionally, the Directors on the Board of a Tata company are also expected to demonstrate high standards of ethical behaviour, strong interpersonal and communication skills and soundness of judgement

IDs are also expected to abide by the 'Code for Independent Directors' as outlined in Schedule IV to Section 149(8) of the Act and adopted by the Board. The Code specifies the guidelines of professional conduct, role and function and duties of Independent Directors. The guidelines of professional conduct specified in the Code are as follows:

"An Independent Director shall:

1. uphold ethical standards of integrity and probity;
2. act objectively and constructively while exercising his duties;
3. exercise his responsibilities in a bona fide manner in the interest of the company;
4. devote sufficient time and attention to his professional obligations for informed and balanced decision making;
5. not allow any extraneous considerations that will vitiate his exercise of objective independent judgement in the paramount interest of the company as a whole, while concurring in or dissenting from the collective judgement of the Board in its decision making;
6. not abuse his position to the detriment of the company or its shareholders or for the purpose of gaining direct or indirect personal advantage or advantage for any associated person;
7. refrain from any action that would lead to loss of his independence;
8. where circumstances arise which make an independent director lose his independence, the independent director must immediately inform the Board accordingly;
9. assist the company in implementing the best corporate governance practices."

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

¹ 'Tata company' shall mean every company in which Tata Sons Private Limited or Tata Industries Limited or any company promoted by Tata Sons Private Limited or Tata Industries Limited is promoter or a company in which such companies whether singly or collectively hold directly or indirectly 26% or more of the paid-up equity share capital OR in which the shareholding of such companies represents the largest Indian holding apart from holdings of financial institutions/mutual funds OR a company which is permitted by Tata Sons Private Limited to use the Tata brand name.

Remuneration Policy for Directors, Key Managerial Personnel and other Employees

The philosophy for remuneration of Directors, Key Managerial Personnel ('KMP') and all other employees of Tata Chemicals Limited ('Company') is based on the commitment of fostering a culture of leadership with trust. The remuneration policy is aligned to this philosophy.

This remuneration policy has been prepared pursuant to the provisions of Section 178(3) of the Companies Act, 2013 ('Act') and Listing Regulations, 2015. In case of any inconsistency between the provisions of law and this remuneration policy, the provisions of the law shall prevail and the Company shall abide by the applicable law. While formulating this policy, the Nomination and Remuneration Committee ('NRC') has considered the factors laid down under Section 178(4) of the Act, which are as under:

- (a) the level and composition of remuneration is reasonable and sufficient to attract, retain and motivate directors of the quality required to run the company successfully;
- (b) relationship of remuneration to performance is clear and meets appropriate performance benchmarks; and
- (c) remuneration to directors, key managerial personnel and senior management involves a balance between fixed and incentive pay reflecting short and long-term performance objectives appropriate to the working of the company and its goals.

Key principles governing this remuneration policy are as follows:

◆ Remuneration for Independent Directors and Non-Independent Non-Executive Directors

- Independent Directors ('ID') and Non-Independent Non-Executive Directors ('NED') may be paid sitting fees (for attending the meetings of the Board and of Committees of which they may be members) and commission within regulatory limits.
- Within the parameters prescribed by law, the payment of sitting fees and commission will be recommended by the NRC and approved by the Board.
- Overall remuneration (sitting fees and commission) should be reasonable and sufficient to attract, retain

and motivate directors aligned to the requirements of the Company (taking into consideration the challenges faced by the Company and its future growth imperatives).

- Overall remuneration should be reflective of size of the Company, complexity of the sector/ industry/ Company's operations and the Company's capacity to pay the remuneration.
- Overall remuneration practices should be consistent with recognised best practices.
- Quantum of sitting fees may be subject to review on a periodic basis, as required.
- The aggregate commission payable to all the NEDs and IDs will be recommended by the NRC to the Board based on company performance, profits, return to investors, shareholder value creation and any other significant qualitative parameters as may be decided by the Board.
- The NRC will recommend to the Board the quantum of commission for each director based upon the outcome of the evaluation process which is driven by various factors including attendance and time spent in the Board and Committee meetings, individual contributions at the meetings and contributions made by directors other than in meetings.
- In addition to the sitting fees and commission, the company may pay to any director such fair and reasonable expenditure, as may have been incurred by the director while performing his/her role as a director of the Company. This could include reasonable expenditure incurred by the director for attending Board/Board Committee meetings, general meetings, court convened meetings, meetings with shareholders/ creditors/management, site visits, induction and training (organised by the Company for directors) and in obtaining professional advice from independent advisors in the furtherance of his/her duties as a director.

◆ **Remuneration for Managing Director ('MD')/ Executive Directors ('ED')/KMP/rest of the employees¹**

The extent of overall remuneration should be sufficient to attract and retain talented and qualified individuals suitable for every role. Hence remuneration should be -

- Market competitive (market for every role is defined as companies from which the company attracts talent or companies to which the company loses talent)
- Driven by the role played by the individual
- Reflective of size of the company, complexity of the sector/industry/company's operations and the company's capacity to pay
- Consistent with recognised best practices and
- Aligned to any regulatory requirements.

In terms of remuneration mix or composition,

- The remuneration mix for the MD/EDs is as per the contract approved by the shareholders. In case of any change, the same would require the approval of the shareholders.
- Basic/fixed salary is provided to all employees to ensure that there is a steady income in line with their skills and experience.
- In addition to the basic/fixed salary, the company provides employees with certain perquisites, allowances and benefits to enable a certain level of lifestyle and to offer scope for savings and tax optimisation, where possible. The company also provides all employees with a social security net (subject to limits) by covering medical expenses and hospitalisation through re-imburements or insurance cover and accidental death and dismemberment through personal accident insurance.

- The Company provides retirement benefits as applicable.
- In addition to the basic/fixed salary, benefits, perquisites and allowances as provided above, the Company provides MD/EDs such remuneration by way of commission, calculated with reference to the net profits of the Company in a particular financial year, as may be determined by the Board, subject to the overall ceilings stipulated in Section 197 of the Act. The specific amount payable to the MD/EDs would be based on performance as evaluated by the Board or the NRC and approved by the Board.
- The Company provides the rest of the employees a performance linked bonus. The performance linked bonus would be driven by the outcome of the performance appraisal process and the performance of the Company.

◆ **Remuneration payable to Directors for services rendered in other capacity**

The remuneration payable to the Directors shall be inclusive of any remuneration payable for services rendered by such Director in any other capacity unless:

- a) The services rendered are of a professional nature; and
- b) The NRC is of the opinion that the Director possesses requisite qualification for the practice of the profession.

◆ **Policy implementation**

The NRC is responsible for recommending the remuneration policy to the Board. The Board is responsible for approving and overseeing implementation of the remuneration policy.

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

¹ Excludes employees covered by any long term settlements or specific term contracts. The remuneration for these employees would be driven by the respective long term settlements or contracts.

Conservation of Energy, Technology Absorption and Foreign Exchange Earnings and Outgo

[Pursuant to Section 134(3)(m) of the Companies Act, 2013 read with Rule 8 (3) of the Companies (Accounts) Rules, 2014]

A. Conservation of Energy

(i) The steps taken or Impact on Conservation of Energy:

Following Lean Six Sigma ('LSS') and non-LSS projects were undertaken during FY 2018-19

- ◆ Reduction of Salt wastage, optimisation of de-superheating steam temperature and improved operation of evaporator in Make-Up Water (MUW) Plants
- ◆ Conversion of double effect evaporation into triple effect evaporation in MUW 4 plant
- ◆ Reduction of power consumption in the Bromine Plant
- ◆ Reduction of specific energy consumption in the Cement Plant mainly on account of the following:
 - Installation of Variable Frequency Drive for Coal Mills, Raw Mill, Drier Crusher and Cement Mill Bag House Fan to reduce power consumption
 - Raw Mill and Cement Mill separator overhauling to improve separation efficiency and reduction in power consumption
 - Cooler Fan and root blowers replaced with the ones with high efficiency
 - Power metering system linked to DCS for better measurement and control
- ◆ **Power plant energy efficiency projects**
 - Revamping of B&W boiler leading to higher efficiency and increase in loading
 - Major overhauling of Low Pressure Turbine ('LPT') No. 10 and replacement of the air cooler
 - Economiser replacement at Combustion Engineering High Pressure ('CEHP') Boiler No. 2
 - Automation of blow down in High Pressure Boiler 3 and 4
- ◆ New capital projects being done with energy efficient motors, energy efficient lighting, high efficiency distribution transformers and Intelligent Motor Control Centers
- ◆ Conducted Energy efficiency audit
- ◆ At Sriperumbudur, the Company undertook Water Conservation Projects to reduce the groundwater consumption by utilising the water from the Effluent Treatment Plant. After implementation of the Water Conservation Projects at various stages of the manufacturing process and reusing the water, the Company managed to reduce the ground water consumption thereby saving water of around 5,280 KL from August 2018 to March 2019.

(ii) The steps taken by the Company for utilising alternate sources of energy:

- At Mithapur, the Company installed Solar lighting across Transformers, Control Room and Township
- At Sriperumbudur, the Company installed solar street lights, auto day night timer for the lighting in the production area and installation of occupancy sensor in control and parking room

(iii) Capital Investment on Energy Conservation Equipments:

		₹ in crore
Sr. No.	Projects description	Capex cost
1.	Caustic soda electrolyser technology upgradation	5.60
2.	Converted double effect evaporation to triple effect evaporation in MUW 4 plant	145.00
3.	Revamping of B&W boiler phase II	6.43
4.	LPT 10 Turbine major overhauling	2.73
5.	CEHP-2 Economiser replacement	0.70
6.	Installation of Solar Lighting System and Water Conservation Project at Sriperumbudur	0.04
Total		160.50

B. Technology Absorption**(i) The efforts made towards Technology Absorption**

- Nano sea water technology for brine purification in Soda Ash plant
- Solar Salt Washery Project is under execution
- Recovery of Salt from Salt Washery Liquor
- Upgradation of Caustic Plant in view of change in technology

(ii) The benefits derived like product improvement, cost reduction, product development or import substitution

- Data generation for process scale up and commercial plant feasibility evaluation
- R&D efforts to attain objectives of cost reduction, energy conservation, waste minimisation / recycling & reuse, related value added products, reduction in carbon footprints and environmental improvement

(iii) In case of imported technology (imported during the last three years reckoned from the beginning of the financial year)

(a)	The details of technology imported	Palletiser for IVSD 50 kg bags at Peripheral Yard
(b)	The year of import	2017-18
(c)	Whether the technology been fully absorbed	Yes
(d)	If not fully absorbed, areas where absorption has not taken place and the reasons thereof	NA

(iv) The expenditure incurred on Research & Development

		₹ in crore	
		2018-19	2017-18
Capital expenditure		5.69	8.45
Revenue Expenditure		31.96	33.75
Total R&D expenditure		37.65	42.20
Total R&D expenditure as a percentage of net sales		0.80%	0.56%

C. Foreign Exchange Earnings and Outgo

The foreign exchange earned in terms of actual inflows during the year and the foreign exchange outgo during the year in terms of actual outflows:

		₹ in crore	
		2018-19	2017-18
Foreign Exchange Earned		82.10	34.99
Outgo of Foreign Exchange		976.46	1,261.72

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

Disclosure of Managerial Remuneration

[Pursuant to Section 197 of the Companies Act, 2013 and Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

- A. Ratio of remuneration of each Director to the median remuneration of the employees of the Company for FY 2018-19 as well as the percentage increase in remuneration of each Director, Chief Financial Officer (CFO) and Company Secretary are as under:**

Name of Director / Key Managerial Personnel	Ratio to median remuneration	% increase in remuneration over previous year
Non-Executive Directors		
Mr. Nasser Munjee	21.72:1	42.21
Dr. Y. S. P. Thorat	21.85:1	42.02
Ms. Vibha Paul Rishi	9.24:1	12.30
Mr. Bhaskar Bhat*	-	-
Mr. S. Padmanabhan*	-	-
Ms. Padmini Khare Kaicker	9.48:1	N.A.#
Executive Directors		
Mr. R. Mukundan, Managing Director & CEO	123.49:1	12.78
Mr. Zarir Langrana	57.54:1	N.A.#
Key Managerial Personnel		
Mr. John Mulhall, CFO	-	25.29
Mr. Rajiv Chandan, General Counsel & Company Secretary	-	12.47

Note: Commission relates to the Financial Year ended March 31, 2019, which will be paid during FY 2019-20.

* In line with the internal guidelines, no payment is made towards commission to Mr. Bhaskar Bhat and Mr. S. Padmanabhan, Non- Executive Directors of the Company, who are in full-time employment with other Tata companies.

Ms. Padmini Khare Kaicker and Mr. Zarir Langrana were appointed on the Board of the Company w.e.f. April 1, 2018 and hence not stated.

- B. Percentage increase in the median remuneration of employees in FY 2018-19: 6.45%**
C. Number of permanent employees on the rolls of the Company as on March 31, 2019: 1,989
D. Comparison of average percentile increase in salary of employees other than the managerial personnel and the percentile increase in the managerial remuneration:

Particular	% change in remuneration
Average increase in salary of employees (other than managerial personnel)	6.78
Average increase in remuneration of managerial personnel	12.78**

** Since Mr. Zarir Langrana was appointed as the Executive Director w.e.f. April 1, 2018, the average increase in the remuneration of managerial personnel does not include his remuneration.

- E. Affirmation:**

It is affirmed that the remuneration paid to the Directors, Key Managerial Personnel and other employees is as per the Remuneration Policy of the Company.

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

Annexure 7 to Board's Report

Form No. MR-3

Secretarial Audit Report for the financial year ended March 31, 2019

[Pursuant to Section 204(1) of the Companies Act, 2013 and Rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,
The Members,
TATA CHEMICALS LIMITED

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by Tata Chemicals Limited (hereinafter called 'the Company'). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company, the information provided by the Company, its officers, agents and authorised representatives during the conduct of secretarial audit, the explanations and clarifications given to us and the representations made by the Management, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2019, generally complied with the statutory provisions listed hereunder and also that the Company has proper Board processes and compliance mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records made available to us and maintained by the Company for the financial year ended on March 31, 2019 according to the provisions of:

- (i) The Companies Act, 2013 ('the Act') and the rules made thereunder;
- (ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder;
- (iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;
- (iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;
- (v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act')
 - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
 - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
 - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009 and The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018 and amendments from time to time; **(Not applicable to the Company during the audit period)**
 - (d) The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014; **(Not applicable to the Company during the audit period)**
 - (e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008;
 - (f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client; **(Not applicable to the Company during the audit period)**
 - (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009; **(Not applicable to the Company during the audit period)** and
 - (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998; Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018; **(Not applicable to the Company during the audit period)**
- (vi) Other laws applicable specifically to the Company namely:
 1. Food Safety and Standards Act, 2006, rules and regulations thereunder;

2. Legal Metrology Act, 2009 and rules and regulations thereunder;

We have also examined compliance with the applicable clauses of the following:

- (i) Secretarial Standards issued by The Institute of Company Secretaries of India with respect to Board and General Meetings.
- (ii) The Listing Agreements entered into by the Company with BSE Limited and The National Stock Exchange of India Limited read with the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

During the period under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards etc. mentioned above.

We further report that:

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors and Independent Directors. The changes in the composition of the Board of Directors that took place during the period under review were carried out in compliance with the provisions of the Act.

Adequate notice was given to all directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance for meetings other than those held at shorter notice, and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

Decisions at the Board Meetings were taken unanimously.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations guidelines etc.

We further report that during the audit period there were no events occurred which had bearing on the Company's affairs in pursuance of the above referred laws, rules, regulations, guidelines etc.

**For Parikh & Associates
Company Secretaries**

**P. N. Parikh
Partner**

Mumbai, May 3, 2019

FCS No: 327 CP No: 1228

This Report is to be read with our letter of even date which is annexed as Annexure A and forms an integral part of this report.

'Annexure A'

To,
The Members,

TATA CHEMICALS LIMITED

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial record is the responsibility of the management of the Company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and process as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the process and practices, we followed provide a reasonable basis for our opinion.
3. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the Company.
4. Wherever required, we have obtained the Management Representation about the Compliance of laws, rules and regulations and happening of events etc.
5. The Compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedure on test basis.
6. The Secretarial Audit report is neither an assurance as to the future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

**For Parikh & Associates
Company Secretaries**

**P. N. Parikh
Partner**

Mumbai, May 3, 2019

FCS No: 327 CP No: 1228

Annexure 8 to Board's Report

Form No. MGT-9

Extract of Annual Return as on the financial year ended on March 31, 2019

[Pursuant to Section 92(3) of the Companies Act, 2013 and Rule 12(1) of the Companies (Management and Administration) Rules, 2014]

I. Registration and Other Details	
i) CIN	L24239MH1939PLC002893
ii) Registration Date	January 23, 1939
iii) Name of the Company	TATA CHEMICALS LIMITED
iv) Category / Sub-Category of the Company	Public Company/ Limited by shares
v) Address of the Registered Office and contact details	Bombay House 24, Homi Mody Street, Fort, Mumbai – 400 001 Telephone: + 91 22 6665 8282 Fax: +91 22 6665 8144 email: investors@tatachemicals.com website: www.tatachemicals.com
vi) Whether listed company	Yes
vii) Name, Address and Contact details of Registrar & Share Transfer Agents (RTA)	M/s.TSR Darashaw Limited Unit: Tata Chemicals Limited 6 – 10 Haji Moosa Patrawala Industrial Estate 20 Dr. E Moses Road Near Famous Studio Mahalaxmi, Mumbai – 400 011 Telephone: +91 22 6656 8484 Fax: +91 22 6656 8494 email: csg-unit@tsrdarashaw.com website: www.tsrdarashaw.com
II. Principal Business Activities of the Company	
All the business activities contributing 10% or more of the total turnover of the company shall be stated	As per Annexure A
III. Particulars of Holding, Subsidiary and Associate Companies	
	As per Annexure B
IV. Shareholding Pattern (Equity Share Capital Breakup as Percentage of Total Equity)	
i) Category-wise Shareholding	
ii) Shareholding of Promoters	
iii) Change in Promoters' Shareholding (please specify, if there is no change)	As per Annexure C
iv) Shareholding Pattern of top ten Shareholders (other than Directors, Promoters and Holders of GDRs and ADRs)	
v) Shareholding of Directors and Key Managerial Personnel	
V. Indebtedness	
Indebtedness of the Company including interest outstanding/ accrued but not due for payment	As per Annexure D
VI. Remuneration of Directors and Key Managerial Personnel	
A. Remuneration to Managing Director, Whole-time Directors and/or Manager	
B. Remuneration to other Directors	As per Annexure E
C. Remuneration to Key Managerial Personnel other than Managing Director/ Manager/ Whole Time Director	
VII. Penalties / Punishment/ Compounding of Offences	
	As per Annexure F

II. Principal Business Activities of the Company

All the business activities contributing 10% or more of the total turnover of the Company shall be stated:-

Sr. No.	Name and Description of main products / services	NIC Code of the Product/Service	% to total turnover of the Company
1.	Soda Ash	20119	40%
2.	Salt	08932	39%

III. Particulars of Holding, Subsidiary and Associate Companies

Sr. No.	Name and Address of the Company	CIN/GLN	Holding/ Subsidiary/ Associate	% of Shares Held	Applicable Section
1.	Rallis India Limited 156/ 157, 15th Floor, Nariman Bhavan 227, Nariman Point, Mumbai - 400 021	L36992MH1948PLC014083	Subsidiary	50.06%	2(87)(ii)
2.	Ncourage Social Enterprise Foundation Ground Floor, East Wing Leela Business Park, Andheri Kurla Road Andheri East, Mumbai - 400 059	U74999MH2017NPL302618	Subsidiary	100%	2(87)(ii)
3.	Bio Energy Venture -1 (Mauritius) Pvt. Ltd., IFS Court, Bank Street, TwentyEight, Cybercity, Ebene 72201, Mauritius	Not applicable	Subsidiary	100%	2(87)(ii)
4.	Homefield Pvt. UK Limited Mond House, Winnington, Northwich, Cheshire CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
5.	Tata Chemicals Africa Holdings Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
6.	Tata Chemicals South Africa (Pty) Limited 140 Johnstone Road, Maydon Wharf Durban 4001, South Africa	Not applicable	Subsidiary	100%	2(87)(ii)
7.	Tata Chemicals Magadi Limited Mond House Winnington, Northwich, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
8.	Magadi Railway Company Limited PO Box 1, Magadi, Lake Magadi, Kenya	Not applicable	Subsidiary	100%	2(87)(ii)
9.	TCE Group Limited*** Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
10.	Natrium Holdings Limited**** Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
11.	Cheshire Salt Holdings Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
12.	Cheshire Salt Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
13.	British Salt Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
14.	Brinefield Storage Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)

Sr. No.	Name and Address of the Company	CIN/GLN	Holding/ Subsidiary/ Associate	% of Shares Held	Applicable Section
15.	Cheshire Cavity Storage 2 Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
16.	Cheshire Compressor Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
17.	Irish Feeds Limited Sinclair Wharf, Stormont Road, Belfast, BT3 9AA	Not applicable	Subsidiary	100%	2(87)(ii)
18.	New Cheshire Salt Works Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
19.	Brunner Mond Group Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
20.	Tata Chemicals Europe Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
21.	Winnington CHP Limited Mond House, Winnington, Northwich Cheshire, UK, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
22.	Northwich Resource Management Limited Mond House, Winnington, CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
23.	Gusiute Holdings (UK) Limited Mond House, Winnington, Northwich, Cheshire CW8 4DT	Not applicable	Subsidiary	100%	2(87)(ii)
24.	Valley Holdings Inc. 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	100%	2(87)(ii)
25.	Tata Chemicals North America Inc. 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	100%	2(87)(ii)
26.	TCNA (UK) Limited 21, Holborn, Viaduct London EC1A 2DY	Not applicable	Subsidiary	100%	2(87)(ii)
27.	General Chemical International Inc. 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	100%	2(87)(ii)
28.	NHO Canada Holdings Inc. 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	100%	2(87)(ii)
29.	TCSAP Holdings* 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	75%	2(87)(ii)
30.	TCSAP LLC 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	75%	2(87)(ii)
31.	Tata Chemicals (Soda Ash) partners (TCSAP)* 111 East Sego Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Subsidiary	75%	2(87)(ii)

Sr. No.	Name and Address of the Company	CIN/GLN	Holding/ Subsidiary/ Associate	% of Shares Held	Applicable Section
32.	Tata Chemicals International Pte. Ltd 78 Shenton Way # 17-01/02 Singapore 079 120	Not applicable	Subsidiary	100%	2(87)(ii)
33.	Rallis Chemistry Exports Ltd.® 156/ 157, 15th Floor, Nariman Bhavan 227, Nariman Point, Mumbai - 400 021	U74990MH2009PLC193869	Subsidiary	100%	2(87)(ii)
34.	Metahelix Life Sciences Ltd.® Plot No: 3, K.A.I.A.D, 4th Phase Bommasandra, Bangalore 560 099	U73100KA2000PLC028246	Subsidiary	100%	2(87)(ii)
35.	PT Metahelix Lifesciences Indonesia# Jl. Batu Tulis Raya, No 17 PAV Kel. Kebon Kelapa, Kec. Gambir Jakarta Pusat	Not applicable	Subsidiary	65.77%	2(87)(ii)
36.	Zero Waste Agro Organics Ltd® Kapil Towers, First Floor, S. No. 40-1/B Near Sagam Bridge, Dr. Ambedkar Road, Pune 411 001	U01400PN2011PLC141307	Subsidiary	100%	2(87)(ii)
37.	Alcad^ 111 East Seago Lily Drive, Suite 200 Sandy UT 84070 USA	Not applicable	Joint Venture	50%	2(6)
38.	Indo Maroc Phosphore S.A. Immeuble OCP -1, Rue Alabtal Erraha, Casablanca, Maroc	Not applicable	Joint Venture	33.33%	2(6)
39.	JOil (S) Pte. Ltd.® 1 Research Link, Singapore 117 604	Not applicable	Joint Venture	33.78%	2(6)
40.	The Block Salt Company Limited® Harvey Softeners Limited, Hipley Street, Old Woking, Surrey, GU22 9LQ	Not applicable	Joint Venture	50%	2(6)
41.	Tata Industries Limited** Bombay House 24, Homi Mody Street, Fort Mumbai 400 001	U44003MH1945PLC004403	Joint Venture	9.13%	2(6)

* a general partnership formed under the laws of the State of Delaware (USA)

** Consequent to Tata Industries Limited ('TIL') having obtained approval of its shareholders at a General Meeting held on March 27, 2019, the Company along with Tata Sons Private Limited will exercise joint control over the key activities of TIL. Accordingly, the investment in TIL has been reclassified as a joint venture

*** Name of Homefield 2 UK Limited changed to TCE Group Limited w.e.f. July 17, 2018

**** Name of Tata Chemicals Europe Holdings Limited changed to Natrium Holdings Limited w.e.f. July 17, 2018

@ Rallis India Limited is holding 100%. During the year, Rallis Chemistry Exports Ltd. has made an application to the Registrar of companies for removal of its name from the Register of companies for which the approval is awaited

Metahelix, Subsidiary of Rallis is holding 65.77%

^ a general partnership formed under the laws of the State of Delaware (USA) wherein TCSAP is holding 50%

& New Cheshire Salt Works Limited is holding 50%

% TC IPL is holding 33.78%

Note: Natronx Technologies LLC, a Joint Venture company, was dissolved w.e.f. December 5, 2018

IV. Shareholding Pattern (Equity Share Capital breakup as percentage of Total Equity)

i) Category-wise Shareholding

Category Code (I)	Category of Shareholders (II)	Number of shares held at the beginning of the year April 1, 2018				Number of shares held at the end of the year March 31, 2019				% change during the year
		Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
(A)	Promoters									
(1)	Indian									
(a)	Individuals / Hindu Undivided Family	0	0	0	0.00	0	0	0	0.00	0.00
(b)	Central Government	0	0	0	0.00	0	0	0	0.00	0.00
(c)	State Government(s)	0	0	0	0.00	0	0	0	0.00	0.00
(d)	Bodies Corporate	7,80,97,992	200	7,80,98,192	30.66	7,80,27,743	200	7,80,27,943	30.63	(0.03)
(e)	Banks / Financial Institutions	0	0	0	0.00	0	0	0	0.00	0.00
(f)	Any Other	0	0	0	0.00	0	0	0	0.00	0.00
	- Trust	3,74,165	0	3,74,165	0.15	0	0	0	0.00	(0.15)
	Sub-Total (A) (1)	7,84,72,157	200	7,84,72,357	30.80	7,80,27,743	200	7,80,27,943	30.63	(0.17)
(2)	Foreign									
(a)	NRIs - Individuals	0	0	0	0.00	0	0	0	0.00	0.00
(b)	Other Individuals	0	0	0	0.00	0	0	0	0.00	0.00
(c)	Bodies Corporate	0	0	0	0.00	0	0	0	0.00	0.00
(d)	Banks / Financial Institutions	0	0	0	0.00	0	0	0	0.00	0.00
(e)	Qualified Foreign Investor	0	0	0	0.00	0	0	0	0.00	0.00
(f)	Any Other (specify)	0	0	0	0.00	0	0	0	0.00	0.00
	Sub-Total (A) (2)	0	0	0	0.00	0	0	0	0.00	0.00
	Total Shareholding of Promoter (A) = (A)(1)+(A)(2)	7,84,72,157	200	7,84,72,357	30.80	7,80,27,743	200	7,80,27,943	30.63	(0.17)
(B)	Public Shareholding									
(1)	Institutions									
(a)	Mutual Funds/UTI	6,31,71,459	19,343	6,31,90,802	24.80	5,70,44,457	19,309	5,70,63,766	22.39	(2.41)
(b)	Banks / Financial Institutions	8,63,401	35,444	8,98,845	0.35	11,13,427	35,075	11,48,502	0.45	0.10
(c)	Central Government	0	0	0	0.00	0	0	0	0.00	0.00
(d)	State Government(s)	273	71,598	71,871	0.03	350	71,598	71,948	0.03	0.00
(e)	Venture Capital Funds	0	0	0	0.00	0	0	0	0.00	0.00
(f)	Insurance Companies	1,82,72,160	162	1,82,72,322	7.17	3,82,08,310	162	3,82,08,472	15.00	7.83
(g)	Foreign Portfolio Investors (Corporate)	2,82,18,093	1,840	2,82,19,933	11.08	2,57,08,772	1,840	2,57,10,612	10.09	(0.98)
(h)	Foreign Venture Capital Investors	0	0	0	0.00	0	0	0	0.00	0.00
(i)	Any Other	0	0	0	0.00	0	0	0	0.00	0.00
	- Alternative Investment Fund	0	0	0	0.00	11,000	0	11,000	0.00	0.00
	Sub-Total (B) (1)	11,05,25,386	1,28,387	11,06,53,773	43.44	12,20,86,316	1,27,984	12,22,14,300	47.97	4.54
(2)	Non-Institutions									
(a)	Bodies Corporate									
	i. Indian	1,30,99,247	66,030	1,31,65,277	5.17	28,97,884	61,446	29,59,330	1.16	(4.01)
	ii. Overseas	0	0	0	0.00	0	0	0	0.00	0.00
(b)	Individuals									
	i. Individual shareholders holding nominal share capital upto ₹1 lakh	3,46,64,567	56,56,553	4,03,21,120	15.83	3,48,51,308	47,40,523	3,95,91,831	15.54	(0.29)

Category Code (I)	Category of Shareholders (II)	Number of shares held at the beginning of the year April 1, 2018				Number of shares held at the end of the year March 31, 2019				% change during the year
		Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
	ii. Individual shareholders holding nominal share capital in excess of ₹1 lakh	54,37,763	2,22,937	56,60,700	2.22	49,39,756	1,82,177	51,21,933	2.01	(0.21)
(c)	Any Other									
	- Bodies Corporate NBFC	2,78,705	0	2,78,705	0.11	11,883	0	11,883	0.01	(0.10)
	- Clearing Members	4,85,742	0	4,85,742	0.19	9,81,125	0	9,81,125	0.38	0.19
	- Director or Director's Relatives	4,166	0	4,166	0.00	4,166	0	4,166	0.00	0.00
	- Foreign Nationals	350	0	350	0.00	906	0	906	0.00	0.00
	- Foreign Nationals - DR	30,402	0	30,402	0.01	0	0	0	0.00	(0.01)
	- Foreign Portfolio Investors	77	0	77	0.00	77	0	77	0.00	0.00
	- HUF	12,83,751	80	12,83,831	0.50	13,24,981	205	13,25,186	0.52	0.02
	- IEPF	10,01,576	0	10,01,576	0.39	10,99,221	0	10,99,221	0.43	0.04
	- LLP	1,82,862	0	1,82,862	0.07	1,71,877	0	1,71,877	0.07	0.00
	- Non-Resident Indian	17,49,235	1,10,941	18,60,176	0.73	17,80,906	1,07,532	18,88,438	0.74	0.01
	- Trusts	13,58,621	209	13,58,830	0.53	13,57,919	143	13,58,062	0.53	0.00
	Sub-total (B) (2)	5,95,73,398	60,56,750	6,56,30,148	25.76	4,94,22,009	50,92,026	5,45,14,035	21.40	(4.36)
	Total Public Shareholding (B) = (B)(1)+(B)(2)	17,00,98,784	61,85,137	17,62,83,921	69.20	17,15,08,325	52,20,010	17,67,28,335	69.37	0.17
	TOTAL (A)+(B)	24,85,70,941	61,85,337	25,47,56,278	100.00	24,95,36,068	52,20,210	25,47,56,278	100.00	0.00
(C)	Shares held by Custodians for GDRs & ADRs	0	0	0	0.00	0	0	0	0.00	0.00
1.	Promoter and Promoter Group	0	0	0	0.00	0	0	0	0.00	0.00
2.	Public	0	0	0	0.00	0	0	0	0.00	0.00
	GRAND TOTAL (A)+(B)+(C)	24,85,70,941	61,85,337	25,47,56,278	100.00	24,95,36,068	52,20,210	25,47,56,278	100.00	0.00

ii) Shareholding of Promoters (Including Promoter Group)

Sr. No.	Name of the Shareholder	Shareholding at the beginning of the year April 1, 2018			Shareholding at the end of the year March 31, 2019			% change during the year
		No. of Shares	% of total Shares of the Company	% of Shares pledged / encumbered to total shares	No. of Shares	% of total Shares of the Company	% of Shares pledged / encumbered to total shares	
Promoter:								
1.	Tata Sons Private Limited	5,97,86,423	23.47	0.00	5,97,86,423	23.47	0.00	0.00
Promoter Group:								
2.	Tata Investment Corporation Limited	1,52,00,001	5.97	0.00	1,52,00,001	5.97	0.00	0.00
3.	Tata Global Beverages Limited	7,05,522	0.28	0.00	7,05,522	0.28	0.00	0.00
4.	Ewart Investments Limited	13,69,290	0.54	0.00	13,69,290	0.54	0.00	0.00
5.	Simto Investment Company Limited	5,18,000	0.20	0.00	5,18,000	0.20	0.00	0.00
6.	Sir Dorabji Tata Trust	2,59,425	0.10	0.00	0	0.00	0.00	(0.10)
7.	Voltas Limited	2,00,440	0.08	0.00	2,00,440	0.08	0.00	0.00
8.	Tata Coffee Limited	1,60,000	0.06	0.00	1,60,000	0.06	0.00	0.00
9.	Tata Industries Limited	77,647	0.03	0.00	77,647	0.03	0.00	0.00
10.	Tata Motors Limited	70,249	0.03	0.00	0	0.00	0.00	(0.03)
11.	Sir Ratan Tata Trust	68,041	0.03	0.00	0	0.00	0.00	(0.03)
12.	J R D Tata Trust	46,699	0.02	0.00	0	0.00	0.00	(0.02)
13.	Tata Motors Finance Limited	10,060	0.00	0.00	10,060	0.00	0.00	0.00
14.	Titan Company Limited	560	0.00	0.00	560	0.00	0.00	0.00
	Total	7,84,72,357	30.80	0.00	7,80,27,943	30.63	0.00	(0.17)

iii) Change in Promoters (Including Promoter Group) Shareholding

Sr. No.	Name of the Shareholder	Shareholding at the beginning of the year (as on April 1, 2018)		Date	Reason	Increase/(decrease) in shareholding		Cumulative Shareholding during the year	
		No. of Shares	% of total Shares of the Company			No. of Shares	% of total Shares of the Company	No. of Shares	% of total Shares of the Company
Promoter:									
1.	Tata Sons Private Limited	5,97,86,423	23.47	-	-	-	-	5,97,86,423	23.47
Promoter Group:									
2.	Tata Investment Corporation Limited	1,52,00,001	5.97	-	-	-	-	1,52,00,001	5.97
3.	Tata Global Beverages Limited	7,05,522	0.28	-	-	-	-	7,05,522	0.28
4.	Ewart Investments Limited	13,69,290	0.54	-	-	-	-	13,69,290	0.54
5.	Simto Investment Company Limited	5,18,000	0.20	-	-	-	-	5,18,000	0.20
6.	Voltas Limited	2,00,440	0.08	-	-	-	-	2,00,440	0.08
7.	Tata Coffee Limited	1,60,000	0.06	-	-	-	-	1,60,000	0.06
8.	Tata Industries Limited	77,647	0.03	-	-	-	-	77,647	0.03
9.	Tata Motors Finance Limited	10,060	0.00	-	-	-	-	10,060	0.00
10.	Titan Company Limited	560	0.00	-	-	-	-	560	0.00
11.	Sir Dorabji Tata Trust	2,59,425	0.10	May 25, 2018	Sale of Shares	(2,59,425)	(0.10)	0	0.00
12.	Tata Motors Limited	70,249	0.03	June 15, 2018	Sale of Shares	(70,249)	(0.03)	0	0.00
13.	Sir Ratan Tata Trust	68,041	0.03	May 25, 2018	Sale of Shares	(68,041)	(0.03)	0	0.00
14.	J R D Tata Trust	46,699	0.02	May 25, 2018	Sale of Shares	(46,699)	(0.02)	0	0.00

iv) Shareholding Pattern of top 10 shareholders (other than Directors, Promoters and Holders of GDRs and ADRs)

Sr. No.	Name of the Shareholder	Shareholding		Cumulative Shareholding during the year	
		No. of Shares	% of total shares of the Company	No. of Shares	% of total shares of the Company
1.	HDFC Trustee Company Limited				
	At the beginning of the year	1,38,30,156	5.43	1,38,30,156	5.43
	Bought during the year	97,78,054	3.84	2,36,08,210	9.27
	Sold during the year	9,95,200	0.39	2,26,13,010	8.88
	At the end of the year	2,26,13,010	8.88	2,26,13,010	8.88
2.	Life Insurance Corporation of India				
	At the beginning of the year	27,92,305	1.10	27,92,305	1.10
	Bought during the year	1,27,92,391	5.02	1,55,84,696	6.12
	Sold during the year	13,200	0.01	1,55,71,496	6.11
	At the end of the year	1,55,71,496	6.11	1,55,71,496	6.11
3.	ICICI Prudential Mutual Fund				
	At the beginning of the year	1,54,19,534	6.05	1,54,19,534	6.05
	Bought during the year	40,17,892	1.58	1,94,37,426	7.63
	Sold during the year	1,10,07,131	4.32	84,30,295	3.31
	At the end of the year	84,30,295	3.31	84,30,295	3.31
4.	Aditya Birla Sun Life Trustee Private Limited				
	At the beginning of the year	99,39,090	3.90	99,39,090	3.90
	Bought during the year	38,21,670	1.50	1,37,60,760	5.40
	Sold during the year	62,22,741	2.44	75,38,019	2.96
	At the end of the year	75,38,019	2.96	75,38,019	2.96

Sr. No.	Name of the Shareholder	Shareholding		Cumulative Shareholding during the year	
		No. of Shares	% of total shares of the Company	No. of Shares	% of total shares of the Company
5.	ICICI Prudential Life Insurance Company Limited				
	At the beginning of the year	1,01,68,242	3.99	1,01,68,242	3.99
	Bought during the year	5,27,008	0.21	1,06,95,250	4.20
	Sold during the year	33,45,101	1.31	73,50,149	2.89
	At the end of the year	73,50,149	2.89	73,50,149	2.89
6.	Franklin Templeton Investment Funds				
	At the beginning of the year	49,14,676	1.93	49,14,676	1.93
	Bought during the year	5,17,963	0.20	54,32,639	2.13
	Sold during the year	13,65,000	0.54	40,67,639	1.60
	At the end of the year	40,67,639	1.60	40,67,639	1.60
7.	Baron Emerging Markets Fund				
	At the beginning of the year	20,50,469	0.80	20,50,469	0.80
	Bought during the year	28,51,813	1.12	49,02,282	1.92
	Sold during the year	11,05,942	0.43	37,96,340	1.49
	At the end of the year	37,96,340	1.49	37,96,340	1.49
8.	Templeton India Equity Income Fund				
	At the beginning of the year	28,18,239	1.11	28,18,239	1.11
	Bought during the year	8,50,000	0.33	36,68,239	1.44
	Sold during the year	4,52,141	0.18	32,16,098	1.26
	At the end of the year	32,16,098	1.26	32,16,098	1.26
9.	General Insurance Corporation of India				
	At the beginning of the year	34,10,005	1.34	34,10,005	1.34
	Bought during the year	0	0.00	34,10,005	1.34
	Sold during the year	2,10,000	0.08	32,00,005	1.26
	At the end of the year	32,00,005	1.26	32,00,005	1.26
10.	The New India Assurance Company Limited				
	At the beginning of the year	34,17,850	1.34	34,17,850	1.34
	Bought during the year	0	0.00	34,17,850	1.34
	Sold during the year	6,88,179	0.27	27,29,671	1.07
	At the end of the year	27,29,671	1.07	27,29,671	1.07
11.	UTI - Mutual Fund				
	At the beginning of the year	28,36,157	1.11	28,36,157	1.11
	Bought during the year	7,54,645	0.30	35,90,802	1.41
	Sold during the year	9,80,377	0.38	26,10,425	1.02
	At the end of the year	26,10,425	1.02	26,10,425	1.02
12.	L&T Mutual Fund Trustee Limited				
	At the beginning of the year	30,59,290	1.20	30,59,290	1.20
	Bought during the year	11,75,324	0.46	42,34,614	1.66
	Sold during the year	33,76,218	1.33	8,58,396	0.34
	At the end of the year	8,58,396	0.34	8,58,396	0.34

Note:

1. The above information is based on the weekly beneficiary position received from the depositories
2. The date wise increase /decrease in shareholding of the top 10 shareholders is available on the website of the Company <https://www.tatachemicals.com/Investors/AGM-documents>

v) Shareholding of Directors and Key Management Personnel (KMP)

Sr. No.	Name of Directors/ KMP	Shareholding		Cumulative shareholding during the year	
		No. of Shares	% of total shares of the Company	No. of Shares	% of total shares of the Company
1.	Mr. R. Mukundan (Managing Director & CEO)				
	At the beginning of the year	500	-	500	-
	At the end of the year	500	-	500	-
2.	Mr. Zarir Langrana (Executive Director)				
	At the beginning of the year	3,666	-	3,666	-
	At the end of the year	3,666	-	3,666	-

Note:

- Mr. Nasser Munjee, Dr. Y. S. P. Thorat, Ms. Vibha Paul Rishi, Ms. Padmini Khare Kaicker, Mr. Bhaskar Bhat and Mr. S Padmanabhan did not hold any shares of the Company during FY 2018-19.
- Mr. John Mulhall, Chief Financial Officer and Mr. Rajiv Chandan, General Counsel & Company Secretary, the Key Managerial Personnel, did not hold any shares during FY 2018-19.

Annexure D**V. Indebtedness**

Indebtedness of the Company including interest outstanding/accrued but not due for payment:

₹ in crore

Particulars	Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
Indebtedness at the beginning of the financial year				
i) Principal Amount	334.14	1,073.07	-	1,407.21
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	-	31.47	-	31.47
Total (i+ii+iii)	334.14	1,104.54	-	1,438.68
Change in Indebtedness during the financial year*				
• Addition	0.54	78.32**	-	78.86
• Reduction	314.85	467.03	-	781.88
Net Change	(314.31)	(388.71)	-	(703.02)
Indebtedness at the end of the financial year				
i) Principal Amount	19.83	688.09	-	707.92
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	-	27.74	-	27.74
Total (i+ii+iii)	19.83	715.83	-	735.66

* Includes interest accrued but not due

** Foreign Exchange Loss

VI. Remuneration of Directors and Key Managerial Personnel

A. Remuneration to Managing Director, Whole-time Directors and/or Manager:

(₹)

Sr. No.	Particulars of Remuneration	Mr. R. Mukundan	Mr. Zarir Langrana
		Managing Director & CEO	Executive Director
1.	Gross Salary		
	(a) Salary as per provisions contained in Section 17(1) of the Income Tax Act, 1961	2,70,25,068	1,40,63,158*
	(b) Value of perquisites under Section 17(2) of the Income Tax Act, 1961	77,675	24,290
	(c) Profits in lieu of salary under Section 17(3) of the Income Tax Act, 1961	-	-
2.	Stock Options	-	-
3.	Sweat Equity	-	-
4.	Commission	-	-
	- as % of profit		
	- others, specify...(Performance based)	3,75,00,000*	1,50,00,000*
5.	Others (Contribution to PF and SAF, as applicable)	12,96,000	16,20,000
	Total	6,58,98,743	3,07,07,448
	Ceiling as per the Act (@10% of the net profits of the Company calculated as per Section 198 of the Companies Act, 2013)		115.17 crore

* Mr. Zarir Langrana was also paid an amount of ₹84,92,493 towards variable pay for performance which pertains to FY 2017-18 i.e. prior to his appointment as the Executive Director

* Commission relates to FY 2018-19, which will be paid during FY 2019-20

B. Remuneration to other Directors:

(₹)

Sr. No.	Particulars	Fee for attending Board/ Committee Meetings	Commission	Others, please specify	Total Amount
I. Independent Directors					
1.	Mr. Nasser Munjee	5,90,000	1,10,00,000	-	1,15,90,000
2.	Dr. Y. S. P. Thorat	6,60,000	1,10,00,000	-	1,16,60,000
3.	Ms. Vibha Paul Rishi	4,30,000	45,00,000	-	49,30,000
4.	Ms. Padmini Khare Kaicker	5,60,000	45,00,000	-	50,60,000
	Total (1)	22,40,000	3,10,00,000	-	3,32,40,000
II. Other Non-Executive Directors					
5.	Mr. Bhaskar Bhat	3,60,000	*	-	3,60,000
6.	Mr. S. Padmanabhan	7,20,000	*	-	7,20,000
	Total (2)	10,80,000	-	-	10,80,000
	Total Managerial Remuneration (1+2)	33,20,000	3,10,00,000	-	3,43,20,000
	Ceiling as per the Act (@ 1% of the net profits of the Company calculated as per Section 198 of the Companies Act, 2013)				11.52 crore

* In line with the Internal guidelines, no payment is made towards commission to Mr. Bhaskar Bhat and Mr. S. Padmanabhan, Non-Executive Directors of the Company, who are in full-time employment with other Tata companies

Note: Ceiling limits are for FY 2018-19. Commission relates to FY 2018-19, which will be paid during FY 2019-20

C. Remuneration to Key Managerial Personnel other than Managing Director / Manager / Whole Time Director:

(₹)

Sr. No.	Particulars of Remuneration	Key Managerial Personnel	
		John Mulhall	Rajiv Chandan
		Chief Financial Officer	General Counsel & Company Secretary
1. Gross Salary			
(a)	Salary as per provisions contained in Section 17(1) of the Income Tax Act, 1961	3,15,44,196	1,49,19,497
(b)	Value of perquisites under Section 17(2) of the Income Tax Act, 1961	37,54,001	31,945
(c)	Profits in lieu of salary under Section 17(3) of the Income Tax Act, 1961	-	-
2.	Stock Options	-	-
3.	Sweat Equity	-	-
4.	Commission	NA	NA
5.	Others (Contribution to PF and Superannuation), as applicable	5,86,080	8,46,936
	Total	3,58,84,277	1,57,98,378

Annexure F

VII. Penalties / Punishment/ Compounding of Offences:

Type	Section of the Companies Act	Brief Description	Details of Penalty/ Punishment/ Compounding fees imposed	Authority [RD/ NCLT/ COURT]	Appeal made, if any (give Details)
A. COMPANY					
Penalty					
Punishment				None	
Compounding					
B. DIRECTORS					
Penalty					
Punishment				None	
Compounding					
C. OTHER OFFICERS IN DEFAULT					
Penalty					
Punishment				None	
Compounding					

On behalf of the Board of Directors

Bhaskar Bhat
Director

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

Management Discussion and Analysis

Business Environment

Global Economic Outlook

2019 will be a year of two halves: global growth is likely to remain softened in the near-term, followed by a pick-up in the second half of 2019 supported by significant policy accommodation by major central banks.

The global growth is expected to weaken according to World Economic Outlook ('WEO') October 2018 forecast as the recovery in trade and manufacturing activity loses steam and due to weaker performance in economies particularly in Europe and Asia. Despite ongoing negotiations, trade tensions among major economies remain elevated. These tensions, combined with concerns about softening global growth prospects, have weighed on investor sentiment and contributed to declines in global equity prices.

However, the global macro backdrop turned marginally positive in early 2019, with initial signs of stabilisation in global growth (albeit at a level lower than 2018). Easing financial conditions, more accommodative monetary policy by major central banks, relatively low oil prices, policy stimulus in China and incrementally positive developments in US-China trade negotiations are also positive signs.

The global economy is projected to grow at 3.5% in 2019 and 3.6% in 2020 considering a downward revision, partly because of the negative effects of tariff increases enacted in the United States ('US') and China earlier. This growth pattern reflects a persistent decline in the growth rate of advanced economies with projections estimated at 2.3% in 2018 to 2% in 2019 and 1.7% in 2020. A partial decline in growth rate is contributed by the Emerging Market and Developing Economies ('EMDEs') for 2019 due to increasing borrowing costs. The EMDEs have suffered from an intensified capital outflow and currency pressures due to strengthening of US dollar and heightened financial market volatility. This estimated growth rate for 2018 and the projection for 2019 are 0.1% lower than in the October 2018 WEO, mostly due to downward revisions for the Euro area. Energy prices have fluctuated markedly, mainly due to supply factors, with sharp falls towards the end of 2018. Other commodity prices particularly metals have also weakened, posing renewed headwinds for commodity exporters.

India's growth is expected to increase to 7.3% in 2018 and 7.5% in 2019 up from 6.7% in 2017. The acceleration reflects a rebound from transitory shocks (implementation of demonetisation and GST), with strengthening investment, ongoing structural

reform, favourable demographic dividend and robust private consumption. Indian economy is poised to pick up in 2019 benefiting from lower oil prices and a slower pace of monetary tightening than previously expected, as inflation pressures ease.

The growth forecast for the US is expected to decline to 2.5% in 2019 and soften further to 1.8% in 2020 with the unwinding of fiscal stimulus and as the federal funds rate temporarily overshoots the neutral rate of interest. Nevertheless, the projected pace of expansion is above the US economy's estimated potential growth rate in both years. Strong domestic demand growth will support rising imports and contribute to a widening of the US current account deficit.

Growth in the Euro area is set to moderate from 1.8% in 2018 to 1.6% in 2019 and 1.7% in 2020. Growth rates have been marked down for several economies, notably Germany (due to soft private consumption, weak industrial production following the introduction of revised auto emission standards and subdued foreign demand); Italy (due to weak domestic demand and higher borrowing costs as sovereign yields remain elevated); and France (due to the negative impact of street protests and industrial action).

For the United Kingdom ('UK'), there is substantial uncertainty around the baseline projection of about 1.5% growth in FY 2019-20. The unchanged projection relative to the October 2018 WEO reflects the offsetting negative effect of prolonged uncertainty over the Brexit outcome and the positive impact from fiscal stimulus announced in the 2019 budget. This baseline projection assumes that a Brexit deal is reached in 2019 and that the UK transitions gradually to the new regime. However, as of mid-January 2019, the shape that Brexit will ultimately take remains highly uncertain.

Kenya's GDP grew at an estimated rate of 5.9% in 2018, from 4.9% in 2017 and is projected to further grow to 6.2% in 2019. The growth is supported by good weather, eased political uncertainties, improved business confidence and strong private consumption. On the supply side, services accounted for 52.5% of the growth, agriculture for 23.7% and industry for 23.8%. On the demand side, private consumption was the key driver of growth. The public debt to GDP ratio increased considerably over the past five years to 57% at the end of June 2018. Half of public debt is external.

East Asia and Pacific regions are expected to grow moderately at 6%. China is expected to reduce to 6% growth. Growth in the Middle East,

North Africa, Afghanistan and Pakistan region is expected to remain subdued at 2.4% in 2019 before recovering to about 3% in 2020. Multiple factors weigh on the region's outlook, including weak oil output growth, which offsets an expected pickup in non-oil activity (Saudi Arabia); tightening financing conditions (Pakistan); US sanctions (Iran); and across several economies, geopolitical tensions. South Asia, as per Global Economic Prospects report, is expected to remain robust with Bangladesh growing at 7%. Pakistan's growth will decelerate to 3.7% due to worsening internal economic conditions. Indonesia's economy will remain steady at 5.2% while Thailand is expected to fall to 3.8%.

China's economy will slow down due to the combined influence of needed financial regulatory tightening and trade tensions with the US, despite fiscal stimulus offsetting some of the impact of higher US tariffs.

Japan's economy is set to grow by 1.1% in 2019 (0.2% higher than in October 2018 WEO). This revision mainly reflects additional fiscal support to the economy this year, including measures to mitigate the effects of the planned consumption tax rate increase in October 2019. Growth is projected to moderate to 0.5% in 2020 (0.2% higher than in October 2018 WEO) following the implementation of the mitigating measures.

Key risks to the Global Forecast are:

- I. The risks to the global growth forecast appear to be unbalanced and remains skewed to the downside. Key sources of risk to the global outlook are the un-resolved trade disagreements resulting in trade tensions amongst countries. The signing of the US-Mexico-Canada Free Trade Agreement ('USMCA') to replace The North American Free Trade Agreement ('NAFTA'), the US-China announcement of a 90-day 'truce' on tariff increases and the announced reduction in Chinese tariffs on US car imports are welcome steps toward de-escalating trade frictions. Final outcomes remain, however, subject to a possibly difficult negotiation process in the case of the US-China dispute and domestic ratification processes for the USMCA. Thus, global trade, investment and output remain under threat from policy uncertainty, as well as from other ongoing trade tensions. Failure to resolve differences and a resulting increase in tariff barriers would lead to higher import costs.
- II. Beyond the immediate term, higher trade policy uncertainty and concerns over escalation and retaliation would lower business investment, disrupt supply chains and slow productivity growth. The resulting depressed outlook for corporate profitability could dent financial market sentiment and further dampen growth.

- III. Past the possibility of escalating trade tensions and a broader turn in financial market sentiment, uncertainty about the policy agenda of new administrations, a protracted US federal government shutdown, geopolitical tensions in the Middle East and East Asia and the 'no-deal' withdrawal of the UK from the European Union add as downside risk to the global investment.

Domestic Economic Outlook

India is expected to be the 3rd largest consumer economy as its consumption may triple to US\$ 4 trillion by 2025, owing to shift in consumer behaviour and expenditure pattern, according to a Boston Consulting Group ('BCG') report. Important reforms have been implemented in recent years, including the Goods and Services Tax ('GST'), the inflation-targeting framework, the Insolvency and Bankruptcy Code and steps to liberalise foreign investment and make it easier to do business.

India's GDP is estimated to have increased to 6.6% in 2018 and is expected to grow to 7.3% in 2019. During the first half of 2019, GDP (at constant 2011-12 prices) grew by 7.6%. The economy is poised to pick up in 2019, benefiting from lower oil prices and a slower pace of monetary tightening than previously expected, as inflation pressures ease. The World Bank has stated that private investments in India is expected to grow by 8.8% in 2019 to overtake private consumption growth of 7.4% and thereby drive the growth in India's GDP in 2019.

India's foreign exchange reserves were US\$ 393.29 billion in the week up to December 21, 2018, according to data from the Reserve Bank of India ('RBI'). India is expected to retain its position as the world's leading recipient of remittances in 2018, with total remittances touching US\$ 80 billion, according to World Bank's Migration and Development Brief.

India's Foreign Direct Investment ('FDI') equity inflows reached US\$ 389.60 billion between April 2000 and June 2018, with maximum contribution from services, computer software and hardware, telecommunications, construction, trading and automobiles.

Exports from India increased 15.48% year-on-year to US\$ 351.99 billion in April - November 2018. Nikkei India Manufacturing Purchasing Managers' Index ('PMI') stood at 53.2 in December 2018, showing expansion in the sector. India's Index of Industrial Production ('IIP') rose 5.6% year-on-year in April - October 2018. Consumer Price Index ('CPI') inflation rise moderated to 2.33% in November 2018 from 3.38% in October 2018. The Government of India released the maiden Agriculture Export Policy, 2018 which seeks to double agricultural exports from the country to US\$ 60 billion by 2022.

India's revenue receipts are estimated to touch ₹ 28-30 trillion (US\$ 385-412 billion) by 2019, owing to Government of India's measures to strengthen infrastructure and reforms like demonetisation and GST. India is focusing on renewable sources to generate energy with a target to achieve 40% of its energy from non-fossil sources by 2030 which is currently 30% along with increase in capacity to 175 GW by 2022.

The Government of India has decided to invest ₹2.11 trillion (US\$ 32.9 billion) to recapitalise public sector banks over the next two years and ₹7 trillion (US\$ 109.31 billion) for construction of new roads and highways over the next five years. As of November 2018, ₹82,000 crore (US\$ 11.75 billion) has already been infused and the Government is planning to infuse ₹42,000 crore (US\$ 6.02 billion) more by March 2019.

Fast Moving Consumer Goods ('FMCG') sector is the 4th largest sector in the Indian economy with Household and Personal Care accounting for 50% of FMCG sales in India. It has grown from US\$ 31.6 billion in 2011 to US\$ 52.75 billion in 2018. The sector is further expected to grow at a CAGR of 27.86% to reach US\$ 103.7 billion by 2020. Growing awareness, easier access and changing lifestyles have been the key growth drivers for the sector. The urban segment (accounts for a revenue share of around 55%) is the largest contributor to the overall revenue generated by the FMCG sector in India. However, in the last few years, the FMCG market has grown at a faster pace in rural India. FMCG market in India is expected to grow to US\$ 220 billion by 2025 from US\$ 23.6 billion in 2018. Semi-urban and rural segments are growing at a rapid pace and FMCG products account for 50% of total rural spending.

Key trends in the consumer goods industry are as below:

- I. The contribution of rural segment to total income is increasing. In 2018, FMCG's rural segment contributed an estimated 10% of the total income and it is forecasted to contribute 15-16% in 2019.
- II. The Government of India has approved 100% FDI in the cash and carry segment and in single-brand retail along with 51% FDI in multi-brand retail.
- III. GST is beneficial for the FMCG industry as many of the FMCG products such as Soap, Toothpaste and Hair Oil now come under 18% tax bracket against the previous 23-24% rate.

Nevertheless, there are substantial downside risks to the outlook as well, such as political instability in the general elections due in May 2019, an escalation of the trade tensions between China and the US and a more rapid cooling down of the global economy than expected. The global growth slowdown is likely to weigh

adversely on India's exports and capital flows as overall risk sentiment gets dampened.

India could continue to guard against the risks of higher oil prices by increasing domestic oil production, providing a special window for oil marketing companies to procure oil and stepping up diplomacy with the US to continue to secure purchase from Iran.

Company Overview and Sustainable Profitable Growth Strategy

A part of the US\$ 100 billion Tata Group, Tata Chemicals Limited ('the Company' or 'TCL'), is a global company with interests in businesses that focus on Basic Chemistry Products, Consumer Products and Specialty Products. The story of the Company is about harnessing the fruits of science for goals that go beyond business. While the Company's businesses are diverse and varied, they are underpinned through science-led differentiation with digital and innovation at the centre of every aspect of business. This year marks the 80th year for Tata Chemicals Limited which is just after the completion of a key milestone celebration of 150 years of Tata group.

The Company's story began in Mithapur, Gujarat, in western India in 1939 with the creation of a small plant that would raise a wealth of marine chemicals from the ocean. Since inception, Tata Chemicals has now evolved into a market-leading international business, with manufacturing facilities across the four continents located in India, UK, Kenya and US, impacting millions of lives across the globe. The Company manufactures inorganic chemicals, consumer products, specialty products like crop protection and agriculture inputs, advanced materials and nutritional solutions. The Company is the world's 3rd largest producer of Soda Ash and the 6th largest producer of Sodium Bicarbonate. The Company's Basic Chemistry product range provides key ingredients to some of the world's largest manufacturers of glass, detergents, food, pharmaceuticals, air pollution control and other industrial products. The Company pioneered salts fortified with nutrients in India - the iconic Tata Salt brand is consumed by nearly 170 million households in India. TCL's engagements in agriculture sector through its subsidiaries namely Rallis India Limited ('Rallis') and Metahelix Life Sciences Limited ('Metahelix') offer a complete suite of solutions for the Indian farmers and touches over 85% of India's arable land. In order to maintain a sustained economic growth and build innovative product pipeline, the Company has established its Innovation Centre ('IC') in Pune which is home to world-class Research & Development capabilities in nanotechnology, biotechnology, food science and technology and nutrition science.

Sustainability as a practice is at the core of all of Tata Chemicals' activities, including the Corporate Social Responsibility initiatives. The Company integrates environmental, social and ethical principles in all of its business functions.

The Company's Basic Chemistry Products business has delivered a strong performance, despite a mixed business environment marked by good demand growth on one hand along with significant increase in input energy costs and competitive pressures on the other. The Company continued to focus on throughput optimisation of all its key products within the prevailing operational constraints and maintained its leadership position.

The Consumer Products Business witnessed an accelerated launch of new products platforms during the year under review. Extending its portfolio from salt to other food essentials, TCL launched India's first national brand of Pulses, followed by a range of Spices and Nutrimixes. The Company has been rated as one of the top 10 in Business and Consumer brands across all industry and consumer brand categories in India by Superbrands™. FY 2018-19 was an iconic year as Tata Salt brand reached a historic landmark of over 1 million tonnes of sales. Tata Sampann was recognised by Economic Times and felicitated as one among the Economic Times Best Brands 2019. The new products portfolio including Tata Sampann Khichdi Mix, the range of Tata Sampann 'Nutrimixes', Organic Pulses, Dal Snacks and range of Chutneys successfully completed the pilot stage and are beginning to scale up. All the launches were accompanied by consumer engagement programs in several partner stores in select cities aimed at creating awareness and generating trials. The Company's Nutritional Solutions Business provides innovative range of prebiotics and healthier alternatives to regular sugar. The business develops products to identify and meet the changing demands of customers while keeping in mind the importance of nutrition. Apart from food products, the Company also launched its first detergent powder, Tata Dx in the fabric care segment in the East India market.

Through the Specialty Products portfolio, the Company's Agro Sciences business serves over 25,000 villages in India and supports the prosperity of 13.50 million farmers by offering crop protection solutions, seeds, plant growth nutrients (PGNs) and other Agri-input solutions through the Company's subsidiaries, Rallis and Metahelix. The business is focusing on new growth areas and working to increase its reach with Indian farmers through its Agro Sciences approach comprising crop protection solutions, seeds, PGNs, organic manure (Geogreen) sprayers and advisory services. A digital strategic roadmap is being developed to provide essential information on crop, pest, weather, etc. to farmers who are looking for technological support to improve yields and income.

Under the Advanced Materials portfolio, the Company is focusing on manufacturing of Highly Dispersible Silica ('HDS'). The Company's Innovation Centre in Pune is supporting the development and commercialisation of tyre-grade Silica. The silica business was strengthened by the acquisition of the precipitated silica business. Apart from HDS, the Company also manufactures Nano Zinc Oxide ('nZnO'); available in microfine powder and in

solution form, which offers improved anti-fungal, anti-microbial and UV blocking properties and is an ingredient in various industrial and cosmetic applications. The Company's process patented nZnO ensures that its product is free of harmful heavy metal compounds and lives up to the Company's principles of sustainability in every aspect of business.

The IC continues its research work for growing new businesses and providing value addition by creating a different approach to its existing businesses backed by science-led differentiation. The IC works with business units in Food & Nutrition, Material Chemistry, Basic Chemistry Products, Specialty Products and Consumer Products and uses its technical expertise and skills to deliver differentiated products and service innovation.

Business Units

Basic Chemistry Products

(US\$ million)

FY 2018-19		1,189
FY 2017-18		1,190

Industry Structure and Developments

TCL is a global company that serves a diverse set of customers across five continents through its Basic Chemistry Products Business (Soda Ash, Sodium Bicarbonate, Cement and Marine Chemicals). The Company's global supply chain gives it a unique advantage to serve the customers with assured supply and efficient service at competitive prices.

With a capacity of around 4.3 million tonnes p.a., the Company is currently the world's 3rd largest Soda Ash manufacturer. More than two-third of this capacity is natural Soda Ash based and located at the Green River Basin, Wyoming in the US, where the world's largest deposits of trona occur and at Lake Magadi in Kenya. In addition to having lower manufacturing costs, natural Soda Ash has a lower energy and environmental footprint. Synthetic Soda Ash and Sodium Bicarbonate are manufactured at Mithapur, India and Northwich, UK to largely cater to their respective domestic markets. This process uses raw salt/brine (salt water) and limestone as key raw materials.

Soda Ash

The world's demand of Soda Ash maintained its firm trajectory in FY 2018-19 and grew at about 2% to reach 60 million tonnes. This was due to continued strong growth in emerging economies of South America, South East Asia and Indian Sub-Continent (ISC). Demand in China remained weak due to restriction on polluting industries and frequent government interventions to improve the environment. Global average annual demand is expected to grow at 1.9% per year between 2018 and 2028.

World Soda Ash Capacity in 2018 reached 70 million tonnes. Net capacity addition in 2018 was 2.9 million tonnes with major contribution coming from Turkey by adding 5 lines of the Kazan soda facility on line. China added 0.6 million tonnes in 2018. The ISC also witnessed capacity addition of around 0.2 million tonnes p.a. as leading domestic players expanded operations at their existing production sites. Overall operating rates at 85% in FY 2018-19 were 3% lower than previous year.

The Indian Soda Ash market grew by just under 4%, with slowdown in fourth quarter of FY 2018-19 against previous year's growth of 12%. During the year, anti-dumping duty on imports in India from China, the European Union, Kenya, Iran, Pakistan, Ukraine and US were removed with no significant impact on pricing.

Imports into India continued to be high, at 8.9 lakh tonnes, which is about 23% of the domestic demand. With new capacity addition in Turkey and their entry pricing strategies, imports into India from Turkey increased during the year.

In 2018, North America operating rates were at 90%, down slightly from 91% in 2017. Domestic demand growth was modest at 0.7%, due to lower demand from container glass and reduced Soda Ash consumption in detergents, due to increasing use of liquid detergents. Exports from the US at 6.99 million tonnes were flat against the previous year.

With Turkey's full plant capacity coming on stream in 2019, there was significant jump in its export volumes from 1.9 million tonnes in 2017 to 3.2 million tonnes in 2018. Export volumes from China declined and were 1.4 million tonnes in 2018. Lower Chinese volumes in Asia were adequately supplemented by exports from Turkey and the US. Turkey's maximum volume was directed to Europe, replacing US volumes. Domestic prices in China remained firm on lower availability of material and lower operating rates. Overall demand buoyancy in Europe, ISC, South America not only absorbed the increased supplies from Turkey but also kept the prices stable.

Sodium Bicarbonate

Sodium Bicarbonate ('Bicarb') is a versatile product with a wide array of applications including food additives, animal feed, pharmaceuticals, dyes and textiles and air pollution control. The Company believes that given its wide range of existing and new applications, Bicarb is expected to sustain volume growth rates at above the GDP levels along with offering significant value addition potential in the future. The Company is the 6th largest producer of Bicarb globally, with a total capacity of around 2 lakh tonnes p.a. spread across in India and the UK sites.

Indian Bicarb market grew by 6% in FY 2018-19. Demand of Bicarb was very strong in first half. However, the growth in the demand

tapered during the second half. With new capacities coming in the domestic market, imports in FY 2018-19 were lower than previous year at 35,000 tonnes.

Key drivers of Bicarb growth continue to be Food, Feed and Pharma segments. In addition, the Company expects use of Bicarb in flue gas treatment to add to the demand growth during the upcoming year with government's increased focus on pollution control by mid-size power plants. Focus on sales volumes of the Company's branded Bicarb portfolio of 'Sodakarb', 'Alkakarb' and 'Medikarb' continues with the Company's plans to supplement the same with new specialised brands during the upcoming year helping the Company to retain its volume and value leadership in the Bicarb market.

Cement

In addition to Soda Ash and Sodium Bicarbonate, the Company also manufactures Cement as part of its integrated operations at Mithapur site. The operation of the Cement plant demonstrates the Company's commitment to the environment by utilising fly ash and other solid waste generated at the site. With a special focus on quality and key customer requirements, the Company's Cement portfolio offers high quality Cement with a strong customer service infrastructure in the targeted markets.

The Cement business recorded a weak performance in the year primarily due to a major maintenance shut down and plant upgradation. The Cement market registered a growth of approximately 7% during the year.

Salt

The discussion and analysis on Salt and related products is covered under the Consumer Products Business segment of this Report.

Business Performance

The Indian Basic Chemistry Products business unit delivered another year of strong performance within a mixed business environment marked by good demand growth on one hand along with significant increase in input energy costs and competitive pressures on the other. During the year under review, the Company executed its operational excellence initiatives with rigour leading to significant cost optimisation across all functions.

The Company targets a 'Zero Harm' Policy related to safety of its people and plant assets. After demonstrating a good safety track record, the Mithapur site witnessed 2 unfortunate fatalities in the first half of FY 2018-19. This has led to even greater focus on behavioural safety and related training programs along with review of Process Safety Risk Management implementation to ensure targeted safety performance.

On the sustainability front, the Company aims to go beyond compliance requirements and to set the industry agenda with initiatives related to the environment and local community engagement. Zero ground water withdrawal for plant operations, 100% fly ash utilisation, filtration and usage of Soda Ash solids to minimise solid waste and focused biodiversity preservation programs indicate the Company's commitment to the environment. As part of the Company's local community engagement, it continues to offer multitude of skill development and self-employment generation programs.

During the year, the Company continued to focus on throughput optimisation of all key products within the prevailing operational constraints and achieved strict cost control across all functions. This, coupled with marginally better price realisation for most of the key products in the portfolio in line with market conditions, led to improved financial performance despite the significant rise in the energy costs. The Company delivered the highest production and sale of Bicarb. The Company's new offering in Specialty Pharma grade Bicarbonate, 'Medikarb' has received encouraging market response. Other performance highlights include highest ever sales of Bromine with around 99% volumes shipped in ISO tankers and around 100% increase in bulk movement of Soda Ash. 'Chem Connect', the Company's online customer portal and app, launched last year, recorded above 98% of customer engagement. The Company plans to continuously add additional functionalities to further enhance customer experience.

The production volumes at Tata Chemicals North America ('TCNA') were lower by 7.3% during the year, principally due to two potentially insurable break-downs in the power plant and other planned and unplanned maintenance. The expectation for the coming year is that production volumes are restored to levels seen in FY 2017-18 as reliability is improved, partially through capital spending. Sales volumes were 4.4% lower, reflecting the decreased production levels and yet sold out all production due to positive market conditions.

Tata Chemicals Europe ('TCE') catered to over 50% of the UK market demand of Soda Ash from its manufacturing operations at Lostock, supplemented via a reduced volume of imported material from a dedicated import facility in the UK. Soda Ash pricing increased in the year reflecting increasing raw material and energy inputs costs. Plant operation at Lostock was affected by an unplanned outage and prolonged downturn in summer 2018, but despite this, it operated efficiently throughout. The associated energy business had a robust year, generating good income and contributing strongly to the Soda Ash/Energy Business Unit performance. The UK Salt market volumes were flat in the year. Salt business delivered volumes in line with sales for the most

part, with the only significant impact related to local seismic activity which restricted production for around 2 months.

The Sodium Bicarbonate market continues to grow globally and while retaining core UK market share, the major success in this product has been continued strong export growth across the globe, helping the business to grow strongly during the year. During the year, the modified Sodium Bicarbonate at Winnington performed well, yielding record production levels.

For Tata Chemicals Magadi Limited ('TCML'), Soda Ash dominates the product portfolio with the main destination being in the container glass and silicate sectors. The remainder of the portfolio includes Salt, Crushed Refined Soda ('CRS') and other by-products. The Magadi operation has stabilised the Soda Ash Magadi ('SAM') plant performance, which continues to be the lifeline for TCML turnaround. Going forward, TCML will focus on ensuring consistent quality, efficient operations of the SAM facility to deliver higher volumes at a lower cost.

Outlook for Business

Despite short term challenges of high energy costs, concerns of trade wars impact, local political developments and larger concerns on slowing down of world trade, prospect for the business remains optimistic. The Company remains committed to execute its growth strategy to further strengthen and leverage its leadership position.

The global Soda Ash market is expected to remain balanced with a bias towards tightness, with no significant capacity additions coming up. Increased demand from Europe should be adequately supplied by Turkish volumes. At an expected 6% growth in Soda Ash demand for FY 2019-20 in India, most of the demand is expected to be serviced through announced capacity increase of 4 lakh tonnes. This is expected to marginally reduce the share of imports into the domestic Indian market, with Turkey and the US strengthening its position as the key exporter and China continuing to reduce its significance. In Bicarb, the Company expects new demand from the emerging flue gas treatment sector and new applications in personal care.

The outlook for TCNA remains positive with Soda Ash manufacturing continuing to remain sold out. However, strong growth in exports is expected to be a price-growth driver for US producers until 2022. TCNA will continue efforts to stabilise its cost base and improve upon Soda Ash production to meet the market demand. These efforts will not only focus on the immediate needs but also look at the future raw material (trona ore) requirements and at process improvements at the plant. The safety performance at TCNA continued to improve significantly in FY 2018-19 with only five reportable incidents in the year.

TCE plans to tackle the increasingly strong headwinds that built during FY 2018-19 in respect of increased commodity and energy pricing. The focus to drive sales from the Sodium Bicarbonate plants at Winnington and Lostock will continue with the backup of strong and stable Soda Ash performance. Salt is lined up for a good year after increasing levels of investment start to bear fruit. This includes a major boiler replacement in FY 2019-20, which complements significant investments in packing/logistics, energy plant efficiency, core Soda Ash assets and novel environmental improvements.

For TCML, Soda Ash demand is expected to remain favourable in FY 2019-20. Competitiveness will be defined by price and quality which means strategic market mixes will determine gains for TCML. TCML's focus will be on markets with best returns. CRS growth shall be driven by the animal feed, silicate and mining sector. Product development continues in this sector since CRS has demonstrated potential for growth in diverse areas which include lead processing, tobacco, silicate, disinfection, compost treatment, jigger treatment, flue gas treatment amongst many others.

Risks and Opportunities

The Company's growth strategy continues to guide its business for addressing the risks and exploit the opportunities. With increased capacity addition by domestic players, defending the Company's market leadership is a prime focus area. The Company is in advanced stage of receiving statutory permissions for pursuing its capacity addition plans at Mithapur in all product lines. The Company has created a separate 'Project Pragati' team for rolling out the expansion within a time bound period for increasing capacity for all the products at Mithapur. Additionally, the Company has planned to increase the volumes of its subsidiaries for maintaining the market share. The Company's value driven growth opportunity in Bicarb space with variants in food, feed and pharma segments will entail scale and consolidation. The Company's work in applications of Bicarb for flue gas treatment and specialised industrial applications is expected to fructify. With increasing awareness on air pollution, use of Bicarb in control of flue gas emissions in power plants will generate income. The Company has successfully achieved shifting majority of cement sales in core markets and has introduced PPC variant to service growing customer demand and increase its presence in cement market. The Company plans to come up with a new marketing plan for the high quality OPC that it has launched as per customer requirements.

The Indian Basic Chemistry Products business unit is taking requisite measures to address the key risks to the business. Capacity additions of domestic competitors in Soda Ash and Bicarb segments, uncertainty in Chinese production and availability will

affect the global demand supply balance and can cause price fluctuations. Apart from this, the higher energy costs and volatility in exchange rates are significant risks to the Company's business performance. The Company continues to remain focused towards keeping fixed costs low and controlling variable costs through securitisation of the key raw materials including fuel and limestone along with continuous improvement programs to help mitigate the adverse impact of these risks. Market mix change would be another lever to counter this risk. Adherence to more stringent environmental norms and improving the safety performance in a sustainable manner are other key challenges which the India Basic Chemistry Products business plans to continue to focus in FY 2019-20.

The Company also foresees stringent regulations for controlling environmental pollution and use of plastics in packaging as a challenge which will have to be proactively addressed for sustaining business.

At TCNA, the focus is on increasing reliability and stabilisation of production with potential increases in production through debottlenecking, while maintaining an excellent safety record. Continued improvements in planned and preventative maintenance programs as well as capital spending will be the key areas of focus. Favourable global market demand for Soda Ash bodes well for increased prices when contracts renew.

There are significant pressures on maintenance, material, labour and medical benefit costs offset in part by programs to eliminate fixed costs and reduced pension costs through previously announced changes. There is also an increased emphasis on environmental compliance dealing with regulations related to sulphur, carbon dioxide, dust and other emissions. Time, expense and capital spending will be required to address environmental compliance. TCNA continues to pursue alternative energy sources to significantly reduce these risks and its energy costs.

At TCE, there is a significant investment pipeline of projects across Salt, Sodium Bicarbonate, Soda Ash and energy units, leveraging the strong progress made in FY 2018-19 into FY 2019-20, to continue driving towards increasing cost competitiveness and customer service with implementation in FY 2019-20 and beyond. Developing sales opportunities in Asia of Sodium Bicarbonate and Salt will continue to be a focus. Key Projects for implementation in addition to the salt power station include a carbon capture and recovery plant at the CHP plant and bringing forward a major new warehousing proposal for increased customer satisfaction, demand satisfaction, cost and safety. Major threats are likely to be on the risk of margin squeeze with raw material and carbon costs significantly raised from FY 2018-19 levels.

A structured reimplementation of EU-ETS Phase IV type carbon emissions scheme continues to be an important risk area for the business in particular and UK manufacturing in general.

At TCML, the focus is largely centered on quality and capacity utilisation. In addition to SAM, opportunities exist in CRS which will be nurtured. Utilisation of Lean Six Sigma and Lean manufacturing tools and techniques, continuous process improvement and enhanced global sourcing will help reduce costs and improve efficiency. Attracting and retaining the right talent, developing alternative employee welfare mechanisms are some of the other opportunities identified by TCML for the coming year.

At TCML, the Company continues to increase engagement with local and national stakeholders and supports concerted efforts, including technical collaboration with third parties, to mitigate these risks to its raw material (Trona) quality, affected by increased siltation in the northern part of Lake Magadi.

Consumer Products

Industry Structure and Developments

Salt and Related Products

India continues to hold third position in the production of salt, next to China and USA. Total salt production in India was 289.49 lakh tonnes in FY 2017-18[^]. Besides meeting the domestic requirement of edible and industrial salt of 64.69 lakh tonnes and 118.11 lakh tonnes respectively, the industry exported 91.63 lakh tonnes, setting a new record for exports.

Production of Iodised Salt continued its progressive trend. Refined / Vacuum Iodised Salt is gradually replacing ordinary iodised salt due to its preference by consumers. The production of Refined / Vacuum Iodised Salt was 49.32 lakh tonnes in FY 2017-18 as compared to 49.37 lakh tonnes during FY 2016-17[^].

[^]Source: As per Salt Annual Report 2017-18 - Salt Department, Government of India.

The market continues to move towards a higher share of branded salt with the continuing awareness of better product quality, visible purity and iodine content. Specialty salts like rock salt and black salt have an increased presence in modern format stores.

The outlook continues to be positive with share gains from unbranded salt and regional branded producers. The Company is working towards new product introductions in value added salt variants.

Pulses and Related Products

The largely unbranded pulses industry presents a large opportunity to migrate consumers to better quality, branded

pulses. Tata Sampann taps into this opportunity as the first national brand of pulses. Tata Sampann continued to expand its protein delivery portfolio with the launch of Organic Pulses, Besan based 'Nutrimixes' and a pilot of Pulses based Snacks and Sattu in select markets. The Besan market is dominated by unbranded besan. The Company has continued to focus on protein delivery through pilot launches in various pulses based platforms like Multigrain Chilla Mix, Moong Dal Chilla Mix and Organic Pulses.

Spices

India is the world's largest producer, consumer and exporter of spices, producing about 75 of the 109 varieties listed by the International Organisation for Standardisation ('ISO') and accounts for half of the global trading in spices (as per India Brand Equity Foundation). The spices industry is still highly fragmented and regional in nature with consumer taste palate changing across regions. Tata Sampann range of spices aims to set benchmarks through its superior product quality and differentiation of not using 'Spent' ingredients. Additionally, the Company is creating and offering products catering to regional tastes. The Company's value proposition for spices includes unique packaging in multiple sachets for maintaining the freshness and guaranteeing a high percentage of active ingredients like Curcumin and Capsaicin.

Product-wise Business Performance

Salt sales volumes have grown by 4.9% since FY 2014-15, primarily driven by the flagship brand Tata Salt which has grown by 6.6%. In FY 2018-19, the sale of branded salt has grown by 9% and Tata Salt volumes have grown by 11%.

Branded Salt Volumes	('000 Tonnes)
FY 2018-19	1,154.6
FY 2017-18	1,058.8
FY 2016-17	1,066.8
FY 2015-16	1,043.7
FY 2014-15	955.2

Tata Salt Volumes	('000 Tonnes)
FY 2018-19	1,024.7
FY 2017-18	924.9
FY 2016-17	904.7
FY 2015-16	867.6
FY 2014-15	794.5

The Foods portfolio including pulses and spices also grew considerably, both in terms of volume and value during the year. The Company has also expanded its portfolio with pilots and launches of new products like Mixes, Organic Pulses, Chutneys, Basmati Rice, Red Rice Poha, Dal based Snacks, Jeera Sattu, Virgin Coconut Oil and Herbal Salt to address the emerging needs of the consumers. The consumer business has also ventured into the fabric care segment with the launch of Detergents, Tata Dx in the East India market.

Salt and Related Products

From the seeds of a small salt factory in the semi-arid deserts and salt pans of western Gujarat and expansion into a consumer brand in 1983, the iconic Tata Salt brand has reached a historic landmark of 1 million tonnes of sales in FY 2018-19. While the Company traversed this journey, it never lost sight of the greater socio-economic duty of addressing a basic nutritional need of the country. Also, the Company has continued to deliver an impeccable record of quality and consistency for the consumer in terms of brightness and colour, the correct saltiness, uniform crystals and absence of foreign matter.

Tata Salt continues to be the market leader and one of the most trusted food brands in India (ET Brand Equity). Tata Salt Lite, low sodium salt and Tata Salt Crystals are also leading salt brands in the market.

During the year, the Company upgraded its distributor management system and deployed it across stockists in major markets in the country. An efficient supply chain, along with a strong distribution network, helped the Company reach 19 lakh retail outlets across India. The Company continued to invest in brand building through both traditional and digital media. Tata Salt continued to build a strong narrative on health through campaigns like 'Sawaal kijiye apne namak se', establishing superior quality of Tata Salt and 'Missing I', raising awareness about the importance of Iodine in the daily diet. The Company also addressed the need for raising awareness about hypertension and its symptoms through the '#TakeltLite' campaign. Through such 360° campaigns, the Brand reinstated its commitment towards the core promise, 'Desh ki Sehat, Desh Ka Namak'.

The integrated media campaigns were complemented with activities at fairs and congregations thereby connecting with consumers in a meaningful way during the year. At the 'Tata Salt Pandharpur Yatra' activation, the brand took up the task of giving respite through salt water foot therapy to pilgrims. Through the 'Kumbh ke Shravan' activation the Company assisted the elderly with transportation at the Kumbh Mela. The Company participated in fairs across Surajkund, Faridabad, Bikaner, Jaipur and Udaipur reaching lakhs of customers during the year.

Tata Salt continued its run amongst the top food brands in the country as per the ET Brand Equity. The Company's campaigns were also recognised on a number of forums such as MAA Worldwide Globes Recognition programme, WOW Asia Awards, Outdoor Advertising Convention and Abby Awards. As the brand continues to grow, a number of products designed to cater to specific needs of the consumers have been added to the portfolio in recent years. The Company recently piloted a range of Herbal Salts which are natural taste enhancers available in 3 variants – Amla Coriander Chilli, Lemon Mint Ginger and Rosemary Thyme Basil Oregano.

In keeping with its sustainability priorities, the Company scaled up recyclable packaging for 32,000 tonnes of Tata Salt across 6 packaging locations and looks to continue the scale up in the coming year. Also, the Company has taken proactive steps to drive waste management by piloting initiatives in the collection, segregation and safe disposal of plastic waste. Against the Extended Producer responsibility norms (prescribed by CPCB) of 20% collection of plastic waste in the first year, the Company has achieved 78% collection of plastic waste generated.

Pulses and Related Products

The Tata Sampann brand took steps towards tying all its food businesses through a unified visual identity and a common approach towards the proposition offered to the consumers. The brand was recognised by Economic Times and felicitated as one among the Economic Times Best Brands 2019.

During the year, the pulses business further increased its presence in the top modern format stores with its range of products and strengthened the sourcing, packing and supply chain model for improved efficiencies. The sourcing base was expanded and regional packing centres were established leading to improved freshness in the market and better ability to respond to fluctuations in market prices. The Company also strengthened its capability to service institutional customers through customised offerings.

Share of Modern Trade in Pulses / Besan Volumes		%
FY 2018-19		25.0
FY 2017-18		9.0
FY 2016-17		2.6

After a successful pilot in select markets, Tata Sampann launched its range of Organic Pulses with certifications as per Indian as well as US organic standards. The range has received a very encouraging response from customers as well as retail partners. In the value added segment, the Company successfully completed the pilots and has started scaling up products like Tata Sampann Khichdi Mix, Moong Dal Chilla Mix, Multigrain Chilla Mix and Pakoda Mix. The Mixes were launched in the general trade market in Gurugram and

Faridabad during the year. In addition to the above, this year the Company has undertaken more pilots for innovative products in select cities - Dal based snacks in the Pune market and Jeera Sattu in the Patna market. Both pilot launches have received positive initial response from the market.

Spices

Tata Sampann Spices continued to create new points of evaluation in the spices category by providing products with assured international quality markers like Curcumin and Capsaicin and assuring natural taste and flavour by retaining naturally available volatile oils. The Spices are sourced from regions where climate and terrain benefit their natural flavour giving complete aroma and taste. The blended masalas are developed with pure, fresh and authentic ingredients and have recipes made by Chef Sanjeev Kapoor and come in a unique 5-in-1 pack.

During the year, large scale sampling and trial generation drives were conducted across various cities in addition to a continued presence on TV and digital media. The Company continued with the 'Aaj ka Masaledar Sach' campaign to create awareness and establish the superiority of the product. The Company also refined its go-to-market model for Spices to ensure better reach and availability of the product across key cities. The Company successfully piloted and launched a range of all natural, preservative free chutneys in 3 variants during the year – Spicy Tomato Chutney, Chinese Chutney and Tamarind Date Chutney. The range of products which revive the nostalgia of homemade chutneys is made from the finest ingredients and without any artificial colours or preservatives.

Other Products

The business accelerated the launch of its new products platforms during the year. Tata Sampann Khichdi Mix, the range of Tata Sampann 'Nutrimixes', Organic Pulses and range of Chutneys successfully completed the pilot stage and are beginning to scale up. Further, the Company is piloting Tata Sampann Bran Rich Basmati Rice and Bran Rich Poha to offer the goodness of the rice grain to the consumers and a range of Tata Sampann 'My Gudness Dalicious Snacks' are made with Moong Dal, Chana Dal and Urad Dal making it a truly healthy and honest snack. During the pilot stage, the snacks are being tested with three exciting flavours in the Pune market; Masala Dhamaka, Toofani Tamatar and Sassy Salsa. Recently, the Company also piloted Virgin Coconut Oil; Tata Sampann's first product in the personal care space. All the launches were accompanied by consumer engagement programs in several partner stores in select cities aimed at creating awareness and generating trials.

The Company also launched Tata Dx Detergent Powder in the Fabric Care segment in the East India market. The product offers a

strong value proposition of 'quick wash', needing only 15 minutes of soaking. The results from the pilot are very encouraging both from the market as well as the consumer perspective. The results of these multiple pilot launches will be evaluated and the scale up strategy is defined for each of the piloted products in FY 2019-20.

Business Outlook

The outlook for the business continues to be positive, as the Company continues to work on distribution expansion, brand building initiatives and strengthening of supply chain. The Company has identified opportunities around salt and related products, new to market offerings in foods, new packaging formats and tapping un-met consumer health needs. While the salt business continues to be the mainstay in terms of revenue generation, the growing foods portfolio is expected to contribute significantly to the overall business by the end of FY 2019-20. The Company is expanding its retail footprint and focusing on sales fundamentals as well as use of technology in driving productivity and customer service. The business is also focused on Modern Trade and non-traditional channels such as e-commerce, to ensure availability at a multitude of consumer touch points. Digital media continues to form an important medium of communication for the Company's brands. Going forward, the Tata Sampann brand is looking to scale up its portfolio of products and continue refining the business model to improve contribution.

Opportunities and Threats

The business has significant opportunities in the foods market and scope to scale up new variants of Salt. The Company is preparing to address opportunities offered by new consumer needs on the back of robust supply chain and distribution network. Premium product offerings and new go-to-market models are being developed to gain strengths in modern format stores and alternate distribution channels. The Tata Salt franchise is being leveraged in select international markets as well.

Differentiated product offerings and targeted communication is being used to address the threat from the unbranded segment and from regional and local brands.

Risks and Concerns

The business has put policies in place to mitigate risks from changes in the regulatory environment which might limit realisations. There are continuous efforts to improve efficiencies in the supply chain network, to mitigate rising costs of labour and fuel. Inventory and pricing controls are put in place to reduce the risk of fluctuations in raw material prices. The Company continues to digitally enable its processes across the value chain and bring in automation for greater transparency and better risk management.

Specialty Products

Agri Solutions

Rallis India Limited ('Rallis')

As per the India Meteorological Department (IMD), 2018 was the 6th warmest year on record in India with patchy monsoon and average temperature being significantly above normal. The rainfall during the annual monsoon season was less than the original forecast at 91% of the long-term average. Nearly 50% of India's cultivable farm area is dependent on the monsoon, making it lifeline of the country's rural economy and agriculture sector. However, most major crop producing states witnessed normal monsoon rainfall and hence the production of food grains for FY 2018-19 is higher.

The 2nd advance estimates released by the Department of Agriculture, Cooperation and Farmers Welfare, the total food grains production in India is estimated to be 281.37 million tonnes in FY 2018-19, despite deficit rains. This is higher than the 277.49 million tonnes harvested by India in FY 2017-18 crop year and the previous five years average (FY 2013-14 to FY 2017-18) production of food grains by 15.63 million tonnes.

Crop protection chemicals play a major role in increasing agriculture productivity. They help in minimising plant diseases, weeds and other pests that damage agriculture crops and thus increasing and maintaining year-on-year crop yield. Around 25% of the global crop output is lost due to attacks by pests, weeds and diseases. In FY 2018-19, the Indian crop protection chemical industry witnessed several challenges. Uneven distribution of rainfall and its skewness in certain regions led to a significant change in the pest load factor, impacting its consumption. In Rabi season, significant rainfall at the beginning of cropping period led to a decline in pest infestation. In India, regulatory issues like co-marketing and restriction on products in Maharashtra, Punjab and Haryana impacted demand. Despite these challenges, the opportunities for the Indian market are increasing. Educating farmers about the advantages of pesticides and its safe usage is projected to increase demand for pesticides in the country. Growth is expected to be largely driven by export demand. Tropical climatic conditions and high production of paddy, cotton, sugarcane and other cereals in India will drive consumption of insecticides.

The overall revenues for Rallis grew in FY 2018-19, despite challenges in the industry. However, the margins were under pressure in Rallis. The growth was largely driven by strong performance of the international business led by new registrations and retention of existing accounts due to strong customer relationship management which enhanced the overall sales. During the year, Rallis created a strong pipeline of products by leveraging its R&D and its technical alliances with partners. It

has also strengthened itself further to refresh its future product portfolio in cotton, paddy, fruits and vegetables.

FY 2018-19 has been a mixed year for the seeds sector. While the overall rainfall was near the long-term average, the issue was uneven distribution and timing. Poor rainfall during key cropping periods in both Kharif and Rabi seasons led to cropping pattern change and hence impacted demand. Another challenge for the industry players was the tightening regulation on co-marketing of branded cotton seeds in certain states.

Rallis is aligned with the Government's mission to provide food security and drive farm productivity, with the aim of empowering farmers and increasing their incomes. Its solution-led approach includes an end-to-end agro-solutions and value-added services across the crop cycle and includes agronomic advice and knowledge of best practices to enable the farmers to enhance the yield and their net incomes. It offers several solutions in its agri services portfolio which include successful initiatives of GeoGreen and MoPu ('More Pulses').

With learnings from multiple agri service initiatives, Rallis has decided to graduate to the next level with Rallis Samrudh Krishi® ('RSK') initiative. RSK is a solution-based endeavour that brings to the farmers the latest farm technology and practices, while focusing on nurturing safety and protecting the environment. It facilitates farmers to increase the yield through better quality and lower costs, optimise their resources and build a roadmap to increase farm productivity sustainably, thereby creating value for them. Through RSK and its digital interventions, Rallis supported farmers by helping them take informed decisions on various aspects of crop management. Through digitalisation, Rallis gets real-time data and predictive analysis which enables constant improvements in Good Agricultural Practices ('GAP').

Though Rallis' performance was constrained due to external and internal operating scenario, it forecasts demand to be significantly higher in the coming years. This is further estimated to be more in the case of international business where Rallis is gaining new registrations, strengthening geographic penetration and witnessing more contract manufacturing opportunities. Rallis' new products introduced in the previous years have witnessed good reception. The focus will be on strengthening its marketing and distribution to grow volumes.

Nutritional Solutions

Tata NQ

Nutritional Solutions business offers science-backed innovative ingredients and formulations. Leveraging knowledge in at scale biotechnology, food technology and biogenomics, the Company's offerings cater to multiple end segments around gut microbiota modulation and personalised health solutions.

Fructo-oligosaccharide ('FOS') has garnered wide acceptance as a prebiotic dietary fibre and a healthy sweetener for categories such as dairy, bakery and confectionery. The business performance was driven through a mix of FOS manufactured at Sriperumbudur and complementary products in the food ingredient space. Strong plant performance backed by encouraging customer response on new products helped to increase the business revenues. This has been achieved by collaborating and co-creating with customers in a project mode.

FY 2018-19 was a milestone year for the business with incremental investments in infrastructure and capabilities. Through a committed capital outlay of ₹270 crore, the construction of the world-class 5,000 tonnes per annum manufacturing plant at Nellore, Andhra Pradesh, is in the last stages of completion. The facility reflects the vision and aspirations to service global customers, demanding the highest levels of Safety, Quality and Transparency in operations. During the year, various clinical research studies were started to understand and demonstrate the mechanisms and pathways through which FOS and Galacto-oligosaccharide ('GOS') improves human health. This will allow the Company to convert key international customers and build a portfolio of formulations targeted at improving gut health and immune health through preventive measures such as a reduction in the onset of early-stage inflammation. During the year, the business established a global distribution network and initiated customer engagement in South East Asia, China and USA, to gain insights on the product qualification process and regulatory approvals needed to begin sales.

Tata Nx

The Nutraceutical and dietary supplements market in India is still at a nascent stage. The Nutraceutical market in India was valued at ₹260 billion in 2017 and is expected to reach a value of ₹808 billion by 2023, growing at a CAGR of around 17%.

Dietary supplements dominate the market with a 65% share and functional food and beverages account for 35% of the overall Nutraceutical market. India currently accounts for around 2% of the global Nutraceutical market.

In India, the urban penetration level of Nutraceutical is around 22.15% and rural penetration is around 6.32%. Urban penetration is more since demand for protein supplements is increasing due to a growing understanding among the youth about health and wellness and living their lives to fullest. Increasing purchasing power and rising disposable income has prompted Indians to be more conscious about their health and adopt diets that ensure adequate consumption of nutritional supplements.

The market for High Intensity Sweeteners ('HIS') is expected to reach nearly US\$ 2.3 billion in 2022, at a CAGR of 5.1%. A major driver is the growing population of overweight, obese and diabetic patients which is resulting in growth in this category. An average of 5% of the Indian population is obese but when seen in the urban setting, the numbers are very high. HIS is the fastest growing segment due to the rising health concerns among people. Aspartame and sucralose are the most famous sweeteners in the HIS segment. Stevia is also seeing a major demand in the natural sweeteners category.

Stevia, as a natural herbal extract, complements the cultural philosophy of India. Stevia is the only sweetener that does not attract the 'negative' labelling of 'artificial sweeteners' as it is a herbal extract and can be used to replace the large amount of sugar used in the food and beverages sector.

Food & Beverage companies are exploring new technologies to reduce sugar in their products in order to meet the growing consumer demands for healthier foods. Tata Nx has a competitive advantage through its IP protected ingredients and regulatory advocacy. The Company has also identified the growth opportunities in gummy vitamins (around 5.1% year-on-year growth rate) along with a strengthening of the product pipeline in functional foods, probiotics and gummy vitamins to reduce the significant protein deficiency in the country. The Company is also focusing on exploring new and unconventional channels through the engagement with end-users in new and personal ways such as digital media, engagement at schools, offices, etc.

With increasing disposable incomes and increased focus on diet and awareness, the Company sees more consumers moving towards Nutraceuticals. FMCG companies are investing significantly in this sector and both pharma and food industries see this segment as the next growth opportunity.

FSSAI has decreed that artificial sweeteners be labelled as not safe/ recommended for children and other immune compromised adults. This represents a unique positioning opportunity for Tata Nx Zero Sugar, as it is 100% natural.

The business is facing a very agile and incumbent competition from few players in the Indian market. Other competitors include local and international players using stevia drops format.

Advanced Materials

Highly Dispersible Silica

Over the last few years, TCL's Innovation Centre at Pune has focused its R&D efforts on chemistry based nano-material solutions to help seed new businesses. The Company's Advanced Materials - Silica business is the result of such efforts and is the youngest addition to its new Specialty Products business segment. In addition to

leveraging the Company's expertise in nano-chemistry, its entry into the Silica business allows it to participate in a large global and domestic market poised for significant growth through specialty, differentiated and customised products leveraging its unique proprietary know-how. The Company believes that trends in tightening automotive emission standards in the tyre application segment and increasing demand for high performance products across diverse application segments are among the key macro-drivers for this growth. Additionally, Silica allows the Company to leverage its Soda Ash value chain linkages while offering significant value addition.

The Company completed the acquisition of a Precipitated Silica plant at Cuddalore in Tamil Nadu in the first half of FY 2018-19. Subsequently, the Company focused on enhancing the site's operational readiness to maximise throughput of the existing product portfolio while meeting requisite safety and quality specifications. In parallel, the Company worked to accelerate the business development and production of the specialty grades of Highly Dispersible Silica ('HDS') developed by the Company's Innovation Centre in Pune. The Company is targeting commercial production with significant ramp-up of volumes in FY 2019-20.

This acquisition is part of a larger planned investment in the business including planned expansion of capacity and continued investment in R&D and Sales & Distribution capability.

Nano Zinc Oxide

Under the Specialty Products portfolio, the Company has also entered into the production of Nano Zinc Oxide, which was developed at the Innovation Centre in Pune and finds multiple applications for its anti-microbial, anti-fungus and UV blocking properties. The Company is presently working with Paints, Coatings & Adhesives, Plastics & Polymers and Personal Care & Cosmetics industries to build the portfolio.

Analysis of Financial Performance

Standalone performance for the year ended March 31, 2019

Statement of Profit and Loss – Continuing operations

1. Revenue from operations (net): ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Revenue from operations	4,081	3,524	557	16
Less: Excise duty on sale of goods	–	(58)	(58)	(100)
Revenue from operations (net)	4,081	3,466	615	18

Revenue from operations (net) increased due to higher volumes of salt, pulses and spices as well as higher realisation of soda ash and salt and regrouping of freight and forwarding charges (recovered from customer) from freight and forwarding expenses.

2. Other Income: ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Other Income	457	194	263	136

Other income has increased mainly due to gain on redemption of current investments, interest on fixed deposits, dividend income and foreign exchange gain.

3. Cost of materials consumed: ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Cost of materials consumed	597	531	66	12

Cost of materials is higher due to increase input costs of raw materials comprising coke, limestone and anthracite.

4. Purchases of stock-in-trade: ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Purchases of stock-in-trade	297	219	78	36

Purchases of stock-in-trade increased mainly due to pulse business towards increased supply towards demand.

5. Power and fuel: ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Power and fuel	574	474	100	21

The increase in power and fuel cost is mainly on account of increase in prices of coal and pet coke.

6. Freight and forwarding expenses: ₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Freight and forwarding expenses	610	397	213	54

Freight and forwarding charges have increased due to regrouping of freight and forwarding charges (recovered from customer) to revenue from operations as well as higher sales volumes of salt and pulses.

7. Finance costs:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Finance costs	96	87	9	10

Finance costs increased due to higher working capital borrowings.

Balance Sheet Analysis**Standalone Statement of Balance Sheet****1. Investments:**

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Investments in equity instruments in subsidiaries	2,881	2,878	3	-
Investment in joint venture	336	166	170	102
Investment in preference shares in subsidiaries	1,037	978	59	6
Investment in other companies	2,462	2,367	95	4
Investment in mutual funds	2,146	-	2,146	100
Total Investment	8,862	6,389	2,473	39

Increase in the value of investments in other companies is mainly due to investments in mutual funds and changes in fair value of investments.

2. Inventories:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Continuing operations	628	451	177	39
Discontinued operations	-	150	(150)	(100)
Total Inventories	628	601	27	4

Inventories increase mainly due to timing and receipt of raw materials.

3. Trade receivables:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Continuing operations	185	140	45	32
Discontinued operations	-	808	(808)	(100)
Total Trade receivables	185	948	(763)	(80)

Trade receivables decrease mainly due to the sale and transfer of its Urea and Customised Fertilisers Business to Yara India and increased volume of sales.

4. Loans, other financial assets, advance tax assets (net) and other assets:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Loans	2	2	-	-
Other financial assets	274	77	197	256
Advance tax assets (net)	397	298	99	33
Other assets	303	247	56	23
Discontinued operations	-	52	(52)	(100)
Total	976	676	300	44

Increase in other financial assets is due to subsidy receivable. Increase in Other assets is mainly due to capital advances.

5. Cash flow:

Net cash flow from operating activities: The net cash from operating activities is ₹ 814 crore during FY 2018-19 as compared to ₹ 836 crore during FY 2017-18. The cash operating profit before working capital changes and direct taxes during FY 2018-19 is ₹ 1,170 crore as compared to ₹ 1,510 crore during FY 2017-18. The change in working capital, during the financial year, is mainly due to change in trade receivables and inventories.

Net cash flow from investing activities: The net cash outflow from investing activities amounted to ₹ 1,506 crore in FY 2018-19 as against inflow of ₹ 2,866 crore in FY 2017-18. The outflow in FY 2018-19 is mainly on account of purchase of current investments.

Net cash flow from financing activities: The net cash outflow from financing activities is ₹ 1,568 crore during FY 2018-19 compared to outflow of ₹ 1,496 crore during FY 2017-18. The outflow in FY 2018-19 is mainly due to repayment of current borrowings and dividend paid.

6. Net borrowings:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Non-current borrowings	13	681	(668)	(98)
Current borrowings	1	1	-	-
Current maturities of non-current borrowings and finance lease obligations	693	415	278	67
Discontinued operations	-	310	(310)	(100)
Total borrowings	707	1,407	(700)	(50)
Less: Cash and cash equivalent (including Bank balances)	1,101	3,769	(2,668)	(71)
Discontinued operations	-	1	(1)	(100)
Net borrowings	(394)	(2,363)	(1,969)	(83)

The net borrowings decreased mainly due to repayment of short term borrowings and cash receipt on account of sale and transfer of its Phosphatic Fertilisers business and Trading business to IRC Agrochemicals Private Limited.

Details of significant changes in key financial ratios:

- Debt equity ratio of the Company has improved to 0.06 times (2018: 0.10 times) due to repayment of long term borrowings.
- The Company achieved higher operating profit margin of 24.55% (2018: 18.86%) on account of better realisation of existing business as well as divestment of business earning lower operating profit margin.

3. Return on Net Worth and on Capital Employed are 11.29% (2018: 20.83%) and 40.08% (2018: 86.20%) respectively. Lower returns are on account of exceptional gain recorded in the year ended March 31, 2018, which resulted in higher returns in previous year.

Consolidated performance for the year ended March 31, 2019

Consolidated Statement of Profit and Loss – Continuing operations

1. Revenue from operations (Net): ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
Tata Chemicals Limited - ('TCL')	4,081	3,524	557	16
Homefield UK Limited - Group ('HFUK')	2,110	2,124	(14)	(1)
Tata Chemicals North America Inc. ('TCNA')	3,382	3,257	125	4
Rallis India Limited ('Rallis')	1,984	1,809	175	10
Others and Eliminations	(261)	(369)	108	(29)
Total	11,296	10,345	951	9
Less: Excise duty	-	(76)	76	(100)
Revenue from operations (Net)	11,296	10,269	1,027	10

- a. **Basic Chemistry Products:** Higher volumes of Soda Ash from India, freight recovered regrouping to revenue and depreciating GBP and US\$ exchange rates against INR, offset by decrease in sales volume at HFUK and TCNA.
- b. **Consumer Products:** Higher volumes of Salt, Pulses and Spices
- c. **Specialty Products:** Higher volumes at Rallis

2. Cost of materials consumed: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	597	531	66	12
HFUK	147	112	35	31
Rallis	1,121	830	291	35
Others and Eliminations	(61)	(82)	21	(25)
Total	1,804	1,391	413	30

Cost of Materials consumed increased primarily at Rallis and TCL due to higher volumes and price mix.

3. Purchases of stock-in-trade: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	297	219	78	35
HFUK	221	332	(111)	(33)
TCNA	24	18	6	32
Rallis	116	202	(86)	(42)
Others and Eliminations	(219)	(302)	83	(27)
Total	439	469	(30)	(6)

Purchases of stock-in-trade decreased primarily in the UK due to lower PFR sales of Soda Ash, offset by increase in India on account of Pulses and Spices business.

4. Power and fuel: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	574	474	100	21
HFUK	531	455	76	17
TCNA	314	290	24	8
Rallis	61	54	7	13
Total	1,480	1,273	207	16

Power and Fuel increased primarily in India, HFUK and TCNA on account higher input fuel cost and depreciating GBP and US\$ exchange rates against INR.

5. Freight and forwarding charges: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	610	397	213	54
HFUK	244	236	8	3
TCNA	818	873	(55)	(6)
Rallis	72	73	(1)	(1)
Total	1,744	1,579	165	10

Freight and forwarding charges increased at TCL primarily due to freight recovered regrouping to revenue and higher volume and price mix.

6. Finance costs: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	96	87	9	10
HFUK	124	121	3	2
TCNA	110	100	10	10
Rallis	5	4	1	25
Others and Eliminations	28	14	14	100
Total	363	326	37	11

Marginally higher interest cost due to increase in LIBOR during the current year.

7. Other expenses: ₹ in crore

Entity	FY 2018-19	FY 2017-18	Change	% Change
TCL	742	665	77	12
HFUK	504	418	86	21
TCNA	931	796	135	17
Rallis	192	203	(11)	(6)
Others and Eliminations	15	16	(1)	(6)
Total	2,383	2,098	285	14

Other expenses represent the following:

₹ in crore

Particulars	FY 2018-19	FY 2017-18	Change	% Change
Changes in inventories of finished goods, Work-in-Progress and Stock-in-Trade	(105)	(104)	(1)	1
Stores and spares consumed	266	271	(5)	(2)
Packing materials consumed	380	334	46	14
Repairs	401	356	45	13
Rent	169	154	15	10
Royalty, rates and taxes	364	347	17	5
Sales promotion expenses	173	160	13	8
Others(*)	734	580	154	27
Total	2,383	2,098	285	14

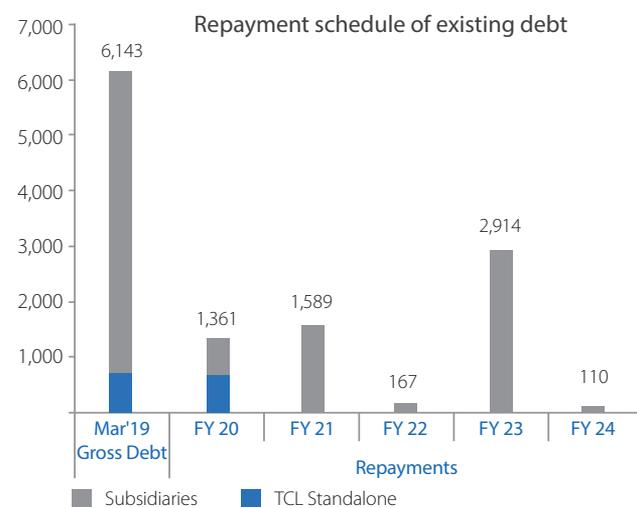
(*) – Others include insurance charges, Distributor's service charges, professional fees, foreign exchange loss, travelling expense, provision for doubtful debts and advances, director's fees / commission, subcontracting cost, outsourcing cost and other expenses.

The other expenses have increased primarily due to:

- Packing materials consumed higher at TCL.
- Repair expenses higher at HFUK and TCNA.
- Sales promotion expenses higher at TCL India.
- Others mainly due to higher professional fee, foreign exchange loss, subcontracting cost, outsourcing cost and depreciating US\$ and GBP exchange rates against INR.

Total Debt and Amortisation schedule

₹ in crore

**Note:**

- Gross debt of ₹ 6,143 crore includes ₹ 352 crore of working capital loans.
- The repayment schedule for term loans has been prepared considering the existing repayment terms. Some of these loans/facilities may be refinanced, in full or in part, from time to time in future depending on the requirement and the business plans.

Innovation and Technology**Innovation Centre**

The Innovation Centre ('IC') is the Company's technology and innovation hub for seeding new businesses and providing sustainable differentiation to its existing businesses by customer-centric and scientific problem-solving approach. The IC works with business units in Food and Nutrition, Material Chemistry, Basic Chemistry Products, Specialty Products and Consumer Products fields and uses a multi-disciplinary scientific approach for its product and service innovation.

Presently, the Company has a total of 90 active patents out of which 22 have been granted. In FY 2018-19, IC has filed 4 new patent applications and published 5 research papers in international peer reviewed journals.

During the year, IC has also developed significant competencies in Foods Science & Technology, Gut Microbiome and Advanced Materials. The Centre has also explored Solid State Chemistry to build capabilities in energy materials. The R&D efforts in these areas have led to the development of innovative products supporting the Company's brands like Tata Salt, Tata Sampann, Tata NQ, Tata Nx, Tata Dx and Medikarb. IC is also continuing its technology support for setting up the plant for Highly Dispersible Silica.

Digitalisation & Information Technology

The Company's IT systems are continuously realigned and renewed in line with evolving business requirements and technology improvements. The Company has common Enterprise Resource Planning ('ERP') system across all its wholly owned operating subsidiaries. During the year, the Company's systems were modified to seamlessly support portfolio changes, new businesses and improved functionality with better controls. In particular, the foundations of cybersecurity in the systems have been strengthened by state-of-the-art infrastructure and processes.

During the year, various digitisation initiatives were taken by the Company to focus on improving efficiency, enhancing stickiness with customers and having better analytics to make informed decisions. While the Company's Basic Chemistry Business already had a Customer Relationship Management ('CRM') system and Distributor Management System ('DMS'), in the last year, the Consumer Products Business also rolled out appropriate DMS to enhance customer experience. Further, a modern Sales Force Automation ('SFA') system is being rolled to improve sales force effectiveness. The Company had also implemented procurement and spend management systems for India and Kenya business, which is now also rolled out in the US operations. Enhancements and extensions to other geographies globally are underway.

Across businesses and operations, new age systems to enable the next level of digitalisation are being piloted and implemented. As a

part of this drive, the Company is building digital tools at Mithapur plant operations and leveraging analytics for optimisation. Remote sensing and Artificial Intelligence ('AI') applications are being explored across operations to improve predictability and efficiency. In new facilities being set up, state-of-the-art digital systems are being installed to meet global standards, which will also enable advanced analytics for predictability and optimisation. Revamping of several systems – including self-service workflows and business intelligence platform, to support contemporary visual analytics for decision support is underway.

Digitalisation will play an increasing role in the Company, leveraging its rich experiential data and modern analytics platforms, to deliver higher automation, distinctive experiences and better value to multiple stakeholders in the future.

Human Resources

As Tata Chemicals completes its 80th year, looking back on the journey, the Company has achieved many milestones reflecting its ability to harness opportunities inspite of the adverse and challenging business environments, align to changing customer aspirations and expanding its footprint both across geographies and industry sectors – spanning Basic Chemistry Products, Health and Nutrition offerings and Specialty Products. None of this would have been possible without one key ingredient – the people factor. The Company has witnessed many situations where leaders and teams have got together to tackle the issues and emerged successfully with sheer determination and passion, strongly influenced by the pioneering spirit of its founders and its credo 'Serve Society through Science'.

During the year, the Company reorganised itself into three segments – Basic Chemistry Products, Consumer Products and Specialty Products and ensured that structural transformations were carried out to support them. Accordingly, the Company focused on building the capabilities and scaling up in some of the new business segments it entered by setting up a world class greenfield nutraceutical plant and the acquisition of the assets of a silica plant in Cuddalore, Tamil Nadu. The Company also launched several new products under Tata Sampann brand while continuing to strengthen the product portfolio in the Specialty Business. Achieving these changes across a complex value-chain would not have been possible without the dedication and determination of the people, with teams collaborating together to accomplish these tasks.

Thus the multiple elements of people management, from structuring the organisation, design of work processes, sourcing, development and engagement of talent were synchronised in enabling these business plans. Overall, it has been another year of building on the momentum, exploring newer and

better alternatives to support and develop the Company's people and leadership.

The restructuring of roles in businesses and support services has made the Company more customer-focussed and cost-efficient. The Company could quickly acquire talent with niche skills in several areas - Food & Nutrition Sciences, Consumer Insights, IT & Digital, Brand and Media, Business Development and select domain-specialists to support the Company's strategy. A significant portion of the Company's talent requirements have been met by giving internal people opportunities to move into new roles through the Company's career mobility process, the external talent hunt was carried out only where such skills were not available internally. As in the past years, the Company continued to build on its new hire program through the induction of Graduate Engineer Trainees ('GET') and Diploma Engineer Trainees ('DET') to build a steady pipeline of technical talent required for the future. Similarly in the front line sales function, the creation of a new category of Territory Sales in-charge has helped in strengthening the Company's distribution width and depth across many towns in India.

In light of its transformation strategy, the Company is enabling its employees to prepare themselves for future challenges by providing ample avenues for their growth and development. Employees can now craft their learning journeys and career paths, be it through SHINE+, SpringBoard, enRich, MDP, interactions with academic and technical experts, etc. An online platform enRich has been launched which enables employees to choose specific courses from globally recognised institutes that supplement their career aspirations. Employees have welcomed the empowerment to learn anytime, anywhere and in any area of interest to them.

During the year, the Company's Campus to Corporate Programme - LEAPStart, for GET was redesigned to make it experiential, meaningful, enhance team building and groom good corporate citizens for the future. The programme received very good feedback as evidenced from the conversation in campus and social media platforms. Other initiatives like 'Good to Great' and 'Pathways to Success' for the field staff in the consumer products business also helped in building capability besides enhancing organisational connect and engagement levels. The common first phase of the structured induction programme at Head Office, has stabilised and is being received very well by the newly joined employees. They value the systematic induction and opportunity to meet various senior leaders of functions and businesses before they go to the subsequent phases of induction.

The Company continued to focus on key drivers of employee engagement like career growth, learning opportunities, fair performance and rewards and employee well-being by enhancing its HR processes for scale, agility and consistent

employee experience. This year the Company saw important positions being filled in through SHINE+. The FOS and Silica Projects gave opportunity for the Company's engineers to show case their project management / engineering skills. A large number of employees have settled down in new roles as part of their career progression. For instance, a team of scientists leading the innovation projects in Nutraceutical space are now co-located with the Nutraceutical team at Mambattu. The Company continued to invest in developing the leadership pipeline and this is reviewed at frequent intervals for various categories. These reviews have helped the Company to provide role changes and career transitions at leadership level in a fairly smooth manner.

Considering the changing profile of the Company's workforce and to address the aspirations of the newer generation, a process of involving them in amending and introducing new people related policies was set in motion through 'Refresh 2020' through which cross functional teams are involved in reviewing the policies and recommending changes for review and adoption. As part of this process, changes in the appraisal process were carried out. Similar activity would be done for the remaining areas in a phased manner. In order to equip managers to handle their teams well and also to move towards a culture of 'coaching/mentoring', the Company conducted a customised programme on "The Art of Feed Forward" covering all managers.

The Company has recently launched 'Kudos', an e-enabled Rewards and Recognition platform which enables employees to recognise and acknowledge noteworthy contributions by colleagues with appropriate awards. The Company expects this to reinforce its commitment towards living its Values and Cultural Pillars. With a view to enhance employee well-being, the Company continues to review its people-policies, provide ample opportunities for collaboration, inclusivity and bonding and provide support in times of personal emergencies. The Company's commitment to safety of employees is reflected in its safety initiatives not only at the workplace but also during employee travel with revised road safety guidelines being issued during the year.

Apart from enabling infrastructure and work practices like flexible working hours, infant care for working mothers, the Company continuously evaluates employee support requirements. Recently, the Company has launched an 'Emerald Club' with an idea to assist senior employees on matters pertaining to physical, financial and emotional wellness as they approach superannuation. The Company also launched a HR Helpdesk to enable the last-mile employee connect with the Company anytime anywhere. As the Company reflects on its journey so far, it now looks forward to the future with renewed optimism, vigour and excitement as it prepares its workforce to scale even greater heights. The break-up of the headcount as on March 31, 2019 is given below:

Locations	No. of Employees
Tata Chemicals Limited India	1,989
Tata Chemicals North America Inc	561
Tata Chemical Europe Limited	397
Tata Chemicals Magadi Limited	244
Ncourage Social Enterprise Foundation	17
Tata Chemicals South Africa (Pty) Limited	13
Tata Chemicals International Pte. Limited	3
Rallis India Limited	1,001
Metahelix Life Sciences Limited	473
Total	4,698

The overall voluntary attrition rate in Tata Chemicals Limited India for FY 2018-19 was 7%.

Safety and Health

Driven by 'Target Zero Harm' - Zero Harm to People, Zero Harm to Asset and Zero Harm to Environment, 'Safety' is one of the core values at Tata Chemicals. There is an unwavering commitment to the continuous improvement of the organisation's safety performance. The Company is committed to continuously employ world-class Safety, Health and Environment ('SHE') practices through benchmarking with the companies that are best in the business.

For an exclusive focus on safety and sustainability, the Company has a Board level CSR, Safety and Sustainability ('CSS') Committee. This Committee of the Board provides valuable direction and guidance to the Management to ensure that Safety and Sustainability implications are duly addressed in all new strategic initiatives, budgets, audit actions and improvement plans. The CSS Committee also monitors and reviews reports quarterly on SHE performance including policy and legal compliances. The Chief Safety & Engineering Officer has direct access to the Chairman of the CSS Committee. The Board-level Risk Management Committee also monitors the progress on mitigation plans associated with key safety risks.

The senior leadership at the Company also plays a definite and defining role in affirming positive attitudes towards safety and creating an enabling environment. The Company's Corporate SHE policy is the overarching policy, with the subsidiaries fine-tuning it to align with the local regulatory and safety directorates. The health and safety of people is of utmost importance to the Company and it is keen to address any risk that could pose a threat to a safe and healthy work environment. To ensure steady improvement in the SHE performance, the Company is adopting voluntary standards such as Tata Safety and Health Management System, OHSAS 18001, Responsible Care and the British Safety Council guidelines.

The Company's approach to safety is cohesive and integrates individual and group values, attitudes, competencies and patterns of behaviour. As an organisation, the Company's commitment

towards its safety management programs follows a top-down approach, with the Senior Management persistently working towards establishing, demonstrating, sustaining and improving the safety culture and incorporating the Company's core value of safety in their daily responsibilities. The Company places the collective ownership of safety and demands excellence and accountability from every individual. The workforce is actively involved in promoting safety and a conscious effort is made to keep them engaged. Cross-functional teams and joint management-workmen committees with active participation by Senior Management are formed at the site level that work with focused agenda across occupational health and safety areas, safety best practices, risk control, etc. A stronger individual commitment to safety is also built by linking variable pay/incentive to the safety record of the business for the year.

All locations of the Company assess high hazard areas and activities with the intent to minimise risk to the lowest extent possible. The employees are specially trained to tackle any potential hazards that may arise in the course of their work. Additionally, tailored periodic medical check-ups are administered to the Company's employees, based on the risk profile of their work area to identify risks to human health, if any, as early as possible. Adequate medical facilities are present at all manufacturing sites and specialised medical facilities are provided through tie-ups with other hospitals, nursing homes, etc.

Unfortunately, two fatal incidents occurred at Mithapur site in FY 2018-19. Detailed investigations were carried out and critical gaps were identified for both the incidents. Necessary actions were taken to prevent their recurrence. Additional compensation under the Company's Suraksha Scheme (a financial assistance scheme for contracted services workforce who may suffer disablement or death on account of any employment related accident) was provided. These incidents led the Company to introspect and now the Company is working on evaluating innovative solutions to monitor the health and safety of its employees and contract employees working at critical areas.

In order to ensure safety at sites, specific new programs were initiated and many other programs were continued like the implementation of Process Safety & Risk Management at Mithapur, Hazard Identification Tours and LEAKS program in North America, improvement in Safety review mechanism at Magadi, Dynamic risk assessment in UK, e-learning module related to defensive driving for the Company's Indian employees, improvements in the training program including training programs for the contract employees in India and introduction of certification program at various locations of the Company as well as global operations. In FY 2018-19, the Company has also initiated a cross-site safety audit program through the team comprising site safety heads and corporate safety representatives. This initiative, in addition

to helping the sites in identifying concern areas, also helped in showcasing best practices that can be emulated by other sites. From the past eight years, the Company has been achieving the best safety performance through 61% reduction in Recordable Injury Frequency rate. In supply chain safety, the Company's safety requirements are communicated to the third parties. Periodic audits are conducted and the Company is handholding the third parties to improve their safety practices and align their performance to the Company's Target Zero Harm.

Rallis, a subsidiary of the Company, is also a Responsible Care logo holder company. The leadership team at Rallis is fully committed towards building an organisation where it continuously works towards creating new benchmarks in the areas of health and safety. Rallis is increasingly putting the focus on the production of environment-friendly formulations through safer chemistry and processes which ensures safety for all the stakeholders who are handling these products on a regular basis.

At Rallis, a culture of safety is encouraged across hierarchies by promoting behavioural safety, process safety and road safety as key focus areas among its workforce. Rallis regularly organises awareness workshops and campaigns to sensitise the farmer community. During FY 2018-19, under 'You are Safe' campaign, Rallis conducted safety awareness contact programs in 535 villages across 2 districts, covering 23,234 farmers and 10,494 students.

Unfortunately, in FY 2018-19, there was an incident of flashfire at Rallis' Ankleshwar unit resulting in the fatality of one of its employees. Rallis has provided all support to the family of the deceased employee. Rallis is also taking various measures to further strengthen its process safety to ensure a safe and healthy environment at all its units.

Sustainability

Sustainability at Tata Chemicals Limited means "inclusive growth" where human being and nature co-exist to not only achieve the social, environmental and economic growth of present but also for the future generations.

The Company's Corporate Sustainability Policy is aligned to the Tata Group's Sustainability Policy which guides its actions and relationships with all stakeholders for inclusive growth. In the current scenario of rapid growth across the globe, the Company remains in focus and committed towards the sustainable growth by adopting an innovative business approach to balance among social, environmental and economic gain. It is embedded in the respective businesses' strategy to monitor the identified sustainability key indicators on regular basis through internally developed tool which is Responsible Manufacturing Index ('RMI'). Emphasis is not only on reducing the amount of waste or using less

energy, but also on developing processes across the value chain that will lead to businesses becoming completely sustainable in the long run.

An efficient energy, waste management, emphasis on recycle of water, recyclable packaging, commitment towards EPR, reuse / recycle of solid waste, watershed, natural capital, waste composting, drinking water for community, self-help groups, etc. are some of the continuous efforts which the Company undertakes for inclusive growth of all its stakeholders.

The Company uses frameworks such as ISO 14001, OHSAS 18001, Global Reporting Initiative ('GRI'), Carbon Disclosure, International Integrated Reporting Council ('IIRC'), United Nations Global Compact ('UNGC'), etc. to share the performance with the stakeholders. It provides the Company an opportunity to get feedback from the stakeholders as well as get to engage with the key customers under supply chain programs.

Integrated Report

In accordance with the IIRC Framework, the Company has included an Integrated Report <IR> as part of this Annual Report. The <IR> seeks to provide a concise and integrated account of how the Company's Strategy, Governance, Performance and Prospects are delivering on its core purpose – being a global company. The <IR> encompasses all key non-financial performance indicators which are material to the Company as per GRI, UNGC and Carbon Disclosure Project ('CDP').

The Company has adopted IIRC framework to establish integrated reporting within the mainstream business. It plays a crucial role in establishing the linkages between the sustainable as well as the financial growth of the organisation. It leads to better alignment in reporting landscape as it includes not only the financial but also the non-financial key indicators performance as per GRI, UNGC and CDP guidelines.

Business Responsibility Report

The Company continues to report on its Business Responsibility in line with the Regulation 34(2)(f) of the SEBI Listing Regulations. The Business Responsibility Report detailing the initiatives taken from an environmental, social and governance perspective, in the prescribed format is available as a separate section of the Annual Report and also hosted on the Company's website at www.tatachemicals.com.

Sustainability Reporting

The Company strives to be a leader in corporate sustainability and continues to focus on the triple bottom-line. One of the key elements of sustainability is ensuring transparency and disclosures. The Company has used the GRI-G4 guidelines as a basis for informing all stakeholders about its sustainability

performance. Sustainability Report FY 2016-17 covered all major manufacturing plants of the Company across the Globe. FY 2017-18 saw the first assured Sustainability Report. This year's IR in the Annual Report contains assured sustainability data for FY 2018-19. All additional information from all geographies, not covered under the IR, will also be available in the public domain shortly and can be viewed in the Sustainability section of the Company's website at www.tatachemicals.com.

United Nations Global Compact

The United Nations Global Compact ('UNGC') is a non-binding United Nations pact to encourage businesses worldwide to adopt sustainable and socially responsible policies and to report on their implementation. The Company is a signatory to UNGC that promotes ten principles in the areas of human rights, labour standards, environment and anti-bribery. The Company has been preparing and uploading the Communication on Progress ('COP') since 2005. For FY 2018-19, the Company prepared and uploaded a comprehensive communication on progress and will continue to do so going forward. The Company continues its commitment to UNGC and will submit its COP on the ten UNGC principles for FY 2018-19. The details of UNGC can be viewed on www.unglobalcompact.org and on the Company's website www.tatachemicals.com.

Carbon Disclosure Project

Carbon Disclosure Project ('CDP') is a not-for-profit charity that facilitates the global disclosure system for investors, companies, cities, states and regions on taking urgent action to build a truly sustainable economy by measuring and understanding their environmental impact. It has developed a system that leads an engagement on environmental issues across the world. The Company has been reporting on CDP climate change, CDP water and CDP supply chain since 2007. Currently, CDP not only helps the Company in disclosure, but also helps to evaluate the performance based on predefined performance categories. This helps the Company to perform better on year-on-year basis to achieve the desired goal.

Green House Gas Emission Intensity (tonnes CO₂/tonnes produced)

FY 2018-19		0.79
FY 2017-18		0.71
FY 2016-17		0.69

Business Excellence

The Company remains committed to continually raise the bar on performance in all aspects of the business. The Tata Business Excellence Model ('TBEM') serves as a pivotal framework that allows the Company to gain insights into its performance and establish continuous improvement initiatives for attaining superior business results and maximising satisfaction and value

to the customers. The TBEM framework comprises six core areas of business excellence: Leadership, Strategic Planning, Customer Focus, Analysis & Knowledge Management, Workforce Focus and Process Management. For the Company, a global organisation which has its manufacturing operations spread across four continents, with diverse business segments and employees from different cultures, TBEM serves as a platform to establish a common standard of excellence. The Company participates in the Tata Group level TBEM assessments, which provide valuable inputs into the strengths and areas of focus for the Company. This helps the Company to strengthen the culture of excellence and progress towards becoming a world class organisation.

Internal Controls

The Company has an independent Internal Audit department with well-established risk management processes both at the business and corporate levels. Internal Auditor & Controller - Risk reports directly to the Chairman of the Audit Committee of the Board of Directors, which ensures process independence. The scope and authority of the Internal Audit department is derived from the Audit Charter approved by the Audit Committee.

The Company continues to co-partner and engage with reputed external firms for carrying out Internal Audits. Reviews are conducted on an on-going basis, based on a comprehensive risk based audit plan, which is approved by the Audit Committee at the beginning of each year.

The Audit Committee meets on a quarterly basis to review and discuss the various Internal Audit reports and also review closure of all agreed actions and compliance to the audit plan. The Chairman of the Audit Committee has periodic one-on-one meetings with the Internal Auditor & Controller - Risk to discuss any key concerns.

The Company believes that every employee has a role to play in fostering an environment in which controls, assurance, accountability and ethical behaviour are accorded high importance. To supplement the reviews carried out by the Internal Audit teams, the Company follows an elaborate system of Control Self Assurance ('CSA') (self-audit) which was carried out during the year. The CSA coverage includes all critical departments in the organisation. The IT enabled CSA process provides a good bottom-up approach and build up for the CEO/CFO certification as required under Regulation 17(8) of the SEBI Listing Regulations, besides helping in awareness creation of controls across a wide segment of the Company employees. This complements the Internal Audits conducted to ensure total coverage during the year.

Additionally, a quality review of the Internal Audit function was carried out during the year by a reputed 3rd party agency to ensure conformance of Internal Audit practices with IIA Global Guidelines.

Risk Management Framework

The following section discusses various dimensions of the Company's Enterprise Risk Management ('ERM'). The risk-related information outlined in this section is not exhaustive and is for information purposes only. The discussion may contain statements which may be forward looking in nature.

The Company's business model is subject to uncertainties that could cause actual results to differ materially from those reflected in the forward looking statements.

Overview

Risk Management and Internal Audit functions complement each other. ERM in the Company seeks to minimise adverse impact on the business objectives and enhance stakeholder value. Over the years, the ERM process has evolved into a robust exercise entailing a balanced bottom-up and top-down approach covering all units, functions and departments of the Company and its subsidiaries.

As a process, the Company follows a well-defined 4 step ERM process to address the risks associated with its business. The ERM process framework has evolved and matured over the years and is based on international standards such as ISO 31000 and Committee of Sponsoring Organisations of the Treadway Commission with inputs drawn from the best practices of leading companies across industries.

Risk Management: Governance Structure

The Company has constituted a robust governance structure consisting of 5 levels thereby ensuring both bottoms-up and top-down approach.

The risk management framework which works at various levels across the enterprise is as under:



The key roles and responsibilities regarding risk management in the Company are summarised as follows:

1. Board of Directors ('Board')

- Reviewing and guiding risk policy of the Company
- Ensuring the integrity of the systems for risk management

2. Risk Management Committee ('RMC') of Board

- Overseeing the Company's risk management process and controls
- Setting strategic plans and objectives for risk management, risk philosophy and risk minimisation
- Reviewing compliance with policies implemented by the Company
- Reviewing risk assessment of the Company annually and exercising oversight of various risks including Strategic Risk, Operational Risks, Market Risk, Cyber Security, etc.
- Oversight of the Company's risk tolerance and risk appetite
- Report and update to the Board periodically on various matters it has considered

3. Risk Management Group ('RMG') at Senior Leadership Level

- Identification and review of enterprise risks from time to time, initiating mitigation actions, identifying owners and reviewing progress
- Identification and review of risk appetite and risk trigger (at Enterprise Level)
- Implementation of Risk reduction strategies
- Formulating and deploying Risk Management Policy
- Deploying practices for identification, assessment, monitoring, mitigation and reporting of risks
- Providing updates to RMC from time to time on the enterprise risks and actions taken

4. RMG at Business Unit ('BU') Level/Subsidiary Level

- Reviewing respective BU/Subsidiary risks from time to time, initiating mitigation actions, identifying owners and reviewing progress
- Identification and review of risk appetite and risk trigger (at BU/Subsidiary Level)
- Implementation of risk reduction strategies
- Deploying Risk Management Policy
- Deploying practices for identification, assessment, monitoring, mitigation and reporting of risks
- Providing updates to RMG and RMC level from time to time on the respective SBU risks and actions taken

Cautionary Statement

Statements in the Management Discussion and Analysis describing the objectives, projections, estimates and expectations of the Company, its direct and indirect subsidiaries and its associates, may be 'forward looking statements' within the meaning of applicable laws and regulations. Actual results might differ substantially or materially from those expressed or implied. Important factors that could make a difference to the Company's operations include, among others, economic conditions affecting demand/supply, price conditions in the domestic and overseas markets in which the Company operates, changes in the Government regulations, tax laws and other statutes and incidental factors.

5. Risk Owners

- Responsible for developing and acting on risk mitigation plan
- Providing periodic updates to RMC on risks with mitigation plan

Risk Categories

The following broad categories of risks have been considered in the Risk Management Framework:



- **Strategic Risk** includes the range of external events and trends (like Government policy) that can adversely impact the Company's strategic growth trajectory and destroy stakeholder value. It also includes the risks arising out of the choices the Company has made in defining its strategy.
- **Reputational Risk** includes range of events that creates a mismatch between stakeholders expectations and their perceptions about the Company's performance around those expectations.
- **Operational Risk** are those risks which are associated with operational uncertainties like failure in critical equipment, attrition, etc.
- **Regulatory and Compliance Risk** are risks on account of inadequate compliance of regulations, contractual obligations and intellectual property violations leading to litigation and loss of reputation.
- **Financial Risk** are risks faced by the organisation in terms of internal systems, planning, funding, etc.

Corporate Governance Report

No success or achievement in material terms is worthwhile unless it serves the needs or interests of the country and its people, and is achieved by fair and honest means.

- JRD Tata

1. Company's Philosophy on the Code of Governance

The Company has over the years followed best practices of Corporate Governance. The Company is committed to the Tata Code of Conduct ('TCoC') which articulates values and ideals that guide and govern the conduct of the Tata companies as well as its employees in all matters relating to business. The Company's overall governance framework, systems and processes reflect and support our Mission, Vision and Values.

The Company has a strong legacy of fair, transparent and ethical governance practices and it believes that good Corporate Governance is essential for achieving long-term corporate goals and enhancing stakeholders' value. In this pursuit, the Company's Corporate Governance philosophy is to ensure fairness, transparency and integrity of the management, in order to protect the interests of all its stakeholders and the Company's Code of Conduct for Prevention of Insider Trading and Code of Corporate Disclosure Practices. The Company ensures that it evolves and follows not just the stated Corporate Governance guidelines, but also global best practices.

The Company has adopted a Code of Conduct for its employees including the Managing Director & CEO and the Executive Director as well as for its Non-Executive Directors including Independent Directors. The Company has also adopted the Guidelines on Board Effectiveness to fulfill its responsibilities towards its stakeholders.

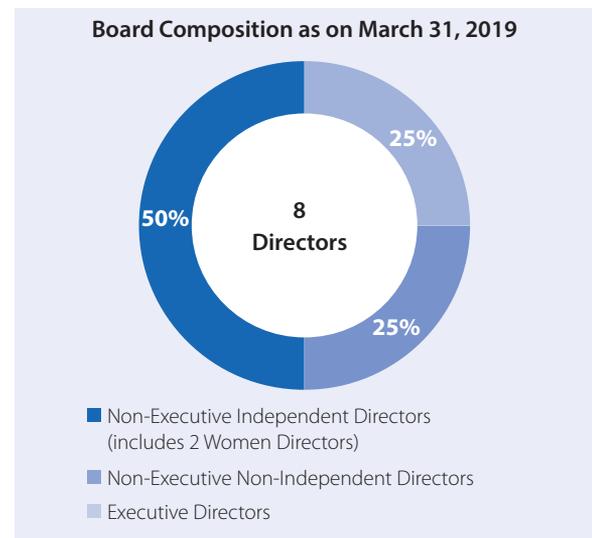
The Company has adhered to the requirements stipulated under Regulations 17 to 27 read with para C and D of Schedule V and clauses (b) to (i) of sub-regulation (2) of Regulation 46 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('Listing Regulations') as applicable, with regard to Corporate Governance and the same has been disclosed in this Report. The Company endeavours to ensure that highest standards of ethical and responsible conduct are met throughout the organisation.

2. Board of Directors

Composition of the Board

The Board of Directors of the Company is the highest governance authority within the management structure of the Company. Further, the Board is totally committed to the best practices for effective Corporate Governance. The Board regularly reviews and updates Corporate Governance practices to accommodate developments within the market place in general and the business in particular.

The Company has an active, experienced and a well-informed Board. The Board along with its Committees undertakes its fiduciary duties keeping in mind the interests of all its stakeholders and the Company's Corporate Governance philosophy. The Nomination and Remuneration Committee of the Board ensures the right composition of the Board.



The composition of the Board of Directors of the Company is in conformity with Regulation 17 of the Listing Regulations and Section 149 of the Companies Act, 2013 ('the Act').

The Company currently has right mix of Directors on the Board who possess the requisite qualifications, experience

and expertise in General Corporate Management, Finance, Banking, Marketing, Information Technology, Taxation, Safety & Corporate Social Responsibility and other allied fields which enable them to contribute effectively to the Company in their capacity as Directors of the Company.

Detailed profile of the Directors is available on the Company's website at <http://www.tatachemicals.com/about-us/Leadership-team/Board-of-directors>



Board of Directors

The composition and category of Directors, the number of Directorships and Committee Chairpersonships/Memberships held by them and Directorships held by them in other listed entities as on March 31, 2019 are as follows:

Sr. No.	Name of the Director	Number of directorships in other public limited companies*		Number of committee positions held in other public limited companies**		Other listed entities (including debt listed) where Directors of the Company held directorships	
		Chairperson	Member	Chairperson	Member	Name of the Listed Entity	Category of Directorship
Non-Executive Non-Independent Directors							
1.	Mr. Bhaskar Bhat (DIN: 00148778)	4	3	-	4	Titan Company Limited Rallis India Limited Trent Limited Bosch Limited	MD NE-NID NE-NID ID
2.	Mr. S. Padmanabhan (DIN: 00306299)	1	4	-	1	-	-
Non-Executive Independent Directors							
3.	Mr. Nasser Munjee (DIN: 00010180)	2	5	3	2	ABB India Limited Ambuja Cements Limited Cummins India Limited Housing Development Finance Corporation Limited Tata Motors Limited DCB Bank Limited Tata Motors Finance Limited	ID ID ID ID ID NE-NIC NE-NIC
4.	Dr. Y. S. P. Thorat (DIN: 00135258)	-	3	-	1	Rallis India Limited Britannia Industries Limited The Bombay Burmah Trading Corporation Limited	ID ID ID
5.	Ms. Vibha Paul Rishi (DIN: 05180796)	-	9	-	4	Asian Paints Limited The Indian Hotels Company Limited Escorts Limited ICICI Prudential Life Insurance Company Limited	ID ID ID ID
6.	Ms. Padmini Khare Kaicker (DIN: 00296388) (Appointed w.e.f. April 1, 2018)	-	4	4	-	Tata Cleantech Capital Limited Rallis India Limited Kotak Mahindra Investments Limited	ID ID ID
Executive Directors							
7.	Mr. R. Mukundan – MD & CEO (DIN: 00778253)	-	3	-	1	Rallis India Limited [#]	MD & CEO
8.	Mr. Zarir Langrana – ED (DIN: 06362438) (Appointed w.e.f. April 1, 2018)	-	-	-	-	-	-

MD & CEO – Managing Director & Chief Executive Officer; ED – Executive Director; NE-NID – Non-Executive Non-Independent Director; ID – Independent Director; NE-NIC – Non-Executive Non-Independent Chairman

* Excludes directorships in associations, private limited companies, foreign companies, companies registered under Section 8 of the Act, Government Bodies and Alternate Directorships

** Represents Chairpersonships/Memberships of Audit and Stakeholders Relationship Committees in listed/debt-listed/unlisted public limited companies

Appointed as Managing Director & CEO of Rallis India Limited on December 3, 2018 and ceased effective March 31, 2019. However, continues to be a Director on its Board

The Seventy-Ninth (79th) Annual General Meeting ('AGM') of the Company for FY 2017-18 was held on July 25, 2018. All the Directors of the Company were present at the 79th AGM.

None of the Directors on the Board is a Director in more than 8 listed entities. None of the Directors held directorship in more than 20 Indian companies, with not more than 10 public limited companies. None of the Directors on the Board is a Member of more than 10 Committees and Chairperson of more than 5 Committees across all the public companies in which he/she is a Director. All the Directors have made the requisite disclosures regarding committee positions held by them in other companies.

None of the Directors of the Company is related to each other and there are no inter-se relationships between the Directors.

As on March 31, 2019, except Mr. R. Mukundan, who is holding 500 ordinary shares of the Company and Mr. Zarir Langrana who is holding 3,666 ordinary shares of the Company, no other Director is holding any shares in the Company. The Company has not issued any convertible instruments.

Skills/expertise/competencies of the Board of Directors

The Board of the Company is highly structured to ensure a high degree of diversity by age, education/qualifications, professional background, sector expertise, special skills, nationality and geography.

The Board of Directors have, based on the recommendations of the Nomination & Remuneration Committee, identified the following core skills / expertise / competencies of Directors as required in the context of the businesses and sectors of the Company for its effective functioning:



In order to support the Board in the field of research and innovation, the Company has also constituted a Scientific Advisory Board with the objective of synergising the Research & Development initiatives at the Company's Innovation Centre, Research & Development Centres of Rallis India Limited and Metahelix Life Sciences Limited, subsidiaries of the Company. The Scientific Advisory Board

will be instrumental in providing guidance and direction to R&D Centres and report progress to the Board. Further details in respect of the Scientific Advisory Board are provided separately in this Report on Corporate Governance.

The current composition of the Board meets the requirements of skills, expertise and competencies as identified above.

Board Procedure

For seamless scheduling of meetings, the calendar of meetings of the Board and Committees is circulated and agreed upon at the beginning of the year.

The Company Secretary tracks and monitors Board and Committee proceedings to ensure that the Terms of Reference/Charters are adhered to, decisions are properly recorded in the minutes and actions on the decisions are tracked. The Terms of Reference/Charters are amended and updated from time to time in order to keep the functions and role of the Board and Committees at par with the changing statutes. Meeting effectiveness is ensured through clear agenda, circulation of material in advance, detailed presentations at the meetings and tracking of action taken reports at every meeting. Additionally, based on the agenda, meetings are attended by members of the senior leadership as invitees, which brings in the requisite accountability and also provides developmental inputs.

The Board plays a critical role in the strategy development of the Company. The Managing Director & CEO apprises the Board on the overall performance of the Company every quarter including the performance of the overseas operating subsidiaries.

The Board periodically reviews the strategy, annual business plan, business performance of the Company and its key subsidiaries, technology and innovation, quality, customer centricity, capital expenditure budgets and risk management, safety and environment matters. Amongst other things, the Board also reviews the compliance reports

of the laws applicable to the Company, internal financial controls and financial reporting systems, minutes of the Board Meetings of the Company's subsidiary companies, adoption of quarterly/half-yearly/annual results, corporate restructuring, transactions pertaining to purchase/disposal of property, major accounting provisions and write-offs/write-backs, minutes of the meetings of the Audit and other Committees of the Board.

In addition to the information required under Regulation 17(7) read with Part A of Schedule II of the Listing Regulations, which is required to be placed before the Board, the Directors are also kept informed of major events and approvals obtained, if necessary.

All the Board and Committee meetings conducted are paperless meetings with documents securely uploaded on the Board Application and accessed through an iPad. This has resulted in saving paper, reducing the cycle time to make documents available to the Board/Committee Members and increasing confidentiality.

Video conferencing facility is also used to facilitate Directors travelling/residing abroad or at other locations to participate in the meetings.

Board Meetings Held

The Board met nine (9) times during FY 2018-19.

The gap between two meetings did not exceed one hundred and twenty days.

Attendance

Name of the Member	Category	Attendance at the Meeting held on									No. of meetings attended
		May 7, 2018	May 18, 2018	July 25, 2018	August 13, 2018	November 2, 2018	December 17, 2018	February 5, 2019	March 5, 2019	March 22, 2019	
Mr. Bhaskar Bhat	NED	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Mr. Nasser Munjee	ID	✓	✓	✓	✓	✓	✓	✓	LOA	✓	8
Dr. Y. S. P. Thorat	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Ms. Vibha Paul Rishi	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Mr. S. Padmanabhan	NED	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Ms. Padmini Khare Kaicker	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Mr. R. Mukundan	MD & CEO	✓	✓	✓	✓	✓	✓	✓	✓	✓	9
Mr. Zarir Langrana	ED	✓	✓	✓	✓	✓	✓	✓	LOA	✓	8

ID - Independent Director; NED - Non-Executive Director; MD & CEO - Managing Director & Chief Executive Officer; ED - Executive Director; LOA - Leave of Absence

During the year under review, the Board elected Mr. Bhaskar Bhat as Chairman for each of the above meetings of the Board.

Independent Directors

Independence of Directors

The Company has received a declaration from the Independent Directors confirming that they meet the criteria of independence as prescribed under Section 149(6) of the Act read with Regulation 16(1)(b) of the Listing Regulations. In terms of Regulation 25(8) of the Listing Regulations, the Independent Directors have confirmed that they are not aware of any circumstances or situations which exist or may be reasonably anticipated that could impair or impact their ability to discharge their duties.

In the opinion of the Board, the Independent Directors fulfill the conditions of independence specified in the Act and the Listing Regulations and are independent of the management.

Meeting of Independent Directors

During the year under review, one meeting of Independent Directors of the Company was held on March 22, 2019 as required under Schedule IV of the Act (Code of Independent Directors) and Regulation 25(3) of the Listing Regulations. At their meeting, the Independent Directors reviewed the performance of Non-Independent Directors and the Board as a whole, Chairman (as elected by the Board for each meeting of the Board of Directors) after taking the views of Executive Director and Non-Executive Directors and also assessed the quality, quantity and timeliness of flow of information between the Company management and the Board that is necessary for the Board to effectively and reasonably perform their duties. The meeting was attended by all the Independent Directors and Mr. Nasser Munjee chaired the said meeting.

Terms and Conditions of appointment of Independent Directors

All the Independent Directors of the Company have been appointed as per the provisions of the Act and the Listing Regulations. Formal letters of appointment were issued to the above Independent Directors. As required by Regulation 46 of the Listing Regulations, the terms and conditions of their appointment have been disclosed on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/tatachem-terms-conditions-appointment-2018.pdf



None of the Directors on the Board serve as an Independent Director in more than seven listed companies. The Managing Director of the Company does not serve as an Independent Director in any listed company.

Induction and Familiarisation Programme for Directors

The Company has a familiarisation programme for its Independent Directors. The objective of the programme is to familiarise the Independent Directors to enable them to understand the Company, its operations, business, industry and environment in which it functions and the regulatory environment applicable to it. These include orientation programme upon induction of new Directors as well as other initiatives to update the Directors on a continuing basis. An induction kit is provided to new Directors which includes the annual report, overview of the Company and its operating subsidiaries, charters of the Company, annual Board/Committee Meeting calendar, Code of Conduct for Non-Executive Directors including Independent Directors, Company's Code of Conduct for Prevention of Insider Trading and Code of Corporate Disclosure Practices, etc. Meeting with Business/Functional Heads are organised to provide brief on the business/function.

Pursuant to Regulation 25(7) of the Listing Regulations, the Company imparted various familiarisation programmes to its Directors including review of long-term strategy, industry outlook, regulatory updates at the Board and Audit Committee Meetings, Corporate Social Responsibility, Data Analytics, Cyber Security, Tax and Litigation updates. Besides the above, presentation on Risk Management, HR processes, Safety and Sustainability initiatives of the Company are made at their respective Committees where some of the Independent Directors are also members.

The Board of Directors and Senior Management jointly participated in a strategy workshop held on December 17, 2018 anchored by a senior faculty member from the Harvard Business School to review the Company's strategy across its businesses, future growth, etc.

During the year, certain Directors including Independent Directors visited overseas subsidiaries' plants in the USA and Kenya and met the leadership teams there. The Directors spent entire day at the respective plants to get a deeper insight in the operations of the overseas subsidiaries.

Pursuant to Regulation 46 of the Listing Regulations, the details of familiarisation programme are available on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/familiarisation-programme-hours-fy-2018-19.pdf



Code of Conduct

The Company has adopted the TCoC for its Whole-time Directors, Senior Management Personnel and other Executives which is available on the Company's website at http://www.tatachemicals.com/upload/content_pdf/TCOC_2015_Booklet.pdf



The Board has also adopted a Code of Conduct for Non-Executive Directors, which incorporates the duties of Independent Directors as laid down in Schedule IV of the Act ('Code for Independent Directors') and Regulation 17(5) of the Listing Regulations and the same is available on the Company's website at http://www.tatachemicals.com/upload/content_pdf/TCOC-non-executive-directors.pdf



As on March 31, 2019, all the Board Members and Senior Management of the Company have affirmed compliance with their respective Codes of Conduct. A declaration to this effect duly signed by the Managing Director & CEO forms part of this Report.

Apart from reimbursement of expenses incurred in discharging their duties and the remuneration that the Directors would be entitled under the Act as Non-Executive Directors, none of the Directors has any other material pecuniary relationships or transactions with the Company, its Promoters, its Directors, its Senior Management or its Subsidiaries and Associates.

Senior Management of the Company have made disclosures to the Board confirming that there are no material, financial and/or commercial transactions between them and the Company which could have potential conflict of interest with the Company at large.

3. Audit Committee

The Audit Committee's role is to assist the Board fulfill its corporate governance and overseeing responsibilities in relation to the Company's financial reporting process carried out by the Management, internal control system, risk management system and internal and external audit functions.

The Audit Committee functions according to its Charter/Terms of Reference that defines its composition, authority, responsibilities and reporting functions. The Board has adopted a Charter of the Audit Committee for its functioning. All the items listed in Section 177 of the Act and Regulation 18(3) read with Part C of Schedule II of the Listing Regulations are covered in its terms of reference. During the year under review, the terms of reference of the Audit Committee

were amended to align the role of the Committee with amendments to the Listing Regulations and SEBI (Prohibition of Insider Trading) Regulations, 2015.

Terms of Reference

The Audit Committee of the Company is responsible for supervising the Company's internal controls and financial reporting process and *inter alia*, performs the following functions:

- Oversight of the Company's financial reporting process and disclosure of its financial information;
- Review of the Company's accounting policies, internal accounting controls, financial and such other matters;
- Review the functioning of Whistleblower Mechanism of the Company which shall include the Vigil Mechanism for Directors and employees to report genuine concerns in the prescribed manner;
- Discuss and review, with the management and auditors, the annual/quarterly financial statements before submission to the Board;
- Hold timely discussions with external auditors regarding critical accounting policies and practices, significant reporting issues and judgements made, nature and scope of audit;
- Evaluate auditors' performance, qualification, independence and effectiveness of audit process;
- Recommend to the Board, the appointment, re-appointment, removal of the external auditors, fixation of audit fees and also approval for payment of audit and non-audit services;
- Review the adequacy of internal audit and risk management function;
- Review the adequacy of internal control systems and ensure adherence thereto;
- Scrutinise inter-corporate loans and investments;
- Reviewing the utilisation of loans and / or advances from / investment by the holding company in the subsidiary exceeding ₹ 100 crore or 10% of the asset size of the subsidiary, whichever is lower;
- Review the Company's compliance with the legal and regulatory requirements and the Tata Code of Conduct and effectiveness of the system for monitoring the same;
- Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, approval of the audit plan and its execution, staffing and seniority of the official heading the department, reporting structure and frequency of internal audit;

- Discussion with internal auditors of any significant findings and follow up there on;
- Provide guidance to the Compliance Officer for setting forth policies and implementation of the Tata Code of Conduct for Prevention of Insider Trading;
- Reviewing compliance with the provisions of SEBI (Prohibition of Insider Trading) Regulations, 2015, atleast once in a financial year and verifying that the systems for Internal Controls are adequate and are operating effectively;
- Review the significant related party transactions;
- Valuation of undertakings or assets of the listed entity, wherever it is necessary;
- Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board;
- Approve the appointment of the Chief Financial Officer after assessing the qualifications, experience and background of the candidate;
- Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.

The Audit Committee has been granted powers as prescribed under Regulation 18(2)(c) of the Listing Regulations.

Meetings Held

During FY 2018-19, nine (9) meetings of the Audit Committee were held on May 18, 2018, July 16, 2018, August 13, 2018, October 9, 2018, November 2, 2018, December 17, 2018, January 23, 2019, February 5, 2019 and March 22, 2019.

The gap between two meetings did not exceed one hundred and twenty days.

Composition and Attendance

Name of the Member	Category	No. of meetings attended
Mr. Nasser Munjee (Chairman)	ID	9
Dr. Y. S. P. Thorat	ID	8
Mr. S. Padmanabhan	NED	9
Ms. Padmini Khare Kaicker (w.e.f. April 1, 2018)	ID	9

ID - Independent Director; NED - Non-Executive Director

Mr. Nasser Munjee, Chairman of the Audit Committee, is an eminent economist and leading banker. All members of the

Audit Committee are financially literate and have accounting and related financial management expertise.

The Company Secretary acts as the Secretary to the Audit Committee. The composition of the Committee is in conformity with Section 177 of the Act and Regulation 18(1) of the Listing Regulations.

The Chairman of the Audit Committee has one on one meetings both with the internal auditor and the statutory auditors to discuss key concerns on periodic basis.

The Managing Director & CEO, Executive Director, Chief Financial Officer, Statutory Auditor, Controller - Risk & Internal Auditor and Vice President & Group Corporate Controller attend and participate in all the meetings of the Committee. The Chief Operating Officers and Chief Human Resources Officer attend the meetings where Internal Audit Reports are discussed. The Committee, from time to time, also invites such of the executives, as it considers appropriate, to be present at the meetings.

During the year under review, the Committee reviewed the key audit findings covering operational, financial and compliance areas, internal financial controls and financial reporting systems to the Committee. The Audit Committee also reviewed the reports on leadership of business ethics, reports on dealings under Prohibition of Insider Trading Regulations and Related Party Transactions. The Chairman of the Audit Committee briefs the Board about the significant discussions at the Audit Committee meetings. The minutes of each of the Audit Committee Meeting are placed in the next meeting of the Board.

Mr. Nasser Munjee, Chairman of the Audit Committee, was present at the last AGM held on July 25, 2018.

4. Nomination and Remuneration Committee

The role of the Nomination and Remuneration Committee ('NRC') is to oversee the selection of Directors and Senior Management Personnel based on criteria related to the specific requirement of expertise and independence. The NRC evaluates the performance of Directors and Senior Management Personnel based on the expected performance criteria. NRC also recommends to the Board the remuneration payable to Directors and Senior Management Personnel of the Company.

Terms of Reference

The Board has adopted a charter of the NRC for its smooth functioning covering aspects relating to composition,

responsibilities, evaluation process, remuneration, Board development and reviewing HR strategy. During the year under review, the terms of reference of the NRC were amended to align the role of the Committee with amendments to the Listing Regulations.

The key terms of reference of the NRC, *inter alia*, are:

- Make recommendations to the Board regarding the setup and composition of the Board;
- Identify persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down and recommend to the Board of Directors their appointment and removal;
- Formulate the criteria for determining qualifications, positive attributes and independence of a Director and recommend to the Board a policy, relating to the remuneration of the Directors, Key Managerial Personnel ('KMP') and other employees;
- Support the Board and Independent Directors, as may be required, in evaluation of the performance of the Board, its Committees and Individual Directors;
- Formulate criteria for evaluation of Directors and the Board;
- Recommend to the Board, the appointment or removal of KMP and executive team members;
- Whether to extend or continue the term of appointment of the Independent Director, on the basis of the report of performance evaluation of Independent Directors;
- On an annual basis, recommend to the Board the remuneration payable to Directors, KMP and executive team members of the Company;
- Devise a policy on Board diversity;
- Recommend to the Board the appointment or re-appointment of Directors;
- Review matters related to remuneration and benefits payable upon retirement and severance to the Managing Director/Executive Director(s), KMP and executive team members;
- Assist the Board in fulfilling its corporate governance responsibilities relating to remuneration of Board, KMP and executive team members;
- Oversee familiarisation programmes for Directors;

- Review HR and people strategy and its alignment with the business strategy periodically or when a change is made to either;
- Provide guidelines for remuneration of Directors on material subsidiaries;
- Perform other activities related to the charter as requested by the Board from time to time.

Meetings Held

During FY 2018-19, three (3) meetings of NRC were held on May 18, 2018, December 10, 2018 and March 22, 2019.

Composition and Attendance

The composition and terms of reference of the NRC are in compliance with the provisions of Section 178(1) of the Act and Regulation 19 of the Listing Regulations.

Name of the Member	Category	No. of meetings attended
Dr. Y. S. P. Thorat (Chairman)	ID	3
Mr. Nasser Munjee	ID	2
Mr. Bhaskar Bhat	NED	3

ID - Independent Director; NED - Non-Executive Director

Dr. Y. S. P. Thorat, Chairman of the NRC, was present at the last AGM held on July 25, 2018.

Board and Director Evaluation

During the year under review, the Board has carried out an annual performance evaluation of its own performance, performance of the Directors as well as the evaluation of the working of its Committees.

The NRC has defined the evaluation criteria, procedure and time schedule for the performance evaluation process of the Board, its Committees and Directors. The criteria for Board Evaluation was based on the Guidance Note issued by SEBI which, *inter alia*, included questionnaire on structure of the Board, meetings of the Board, functions of the Board and Management.

Criteria for Evaluation

The Board of Directors has carried out an annual evaluation of its own performance, its committees and individual Directors pursuant to the provisions of the Act and the corporate governance requirements as prescribed by Listing Regulations. The performance of the Board was evaluated after seeking inputs from all the Directors on the basis of criteria such as the board composition and structure, effectiveness of board processes, information and

functioning, etc. as provided by the Guidance Note on Board Evaluation issued by the Securities and Exchange Board of India on January 5, 2017 and pursuant to amendments to the Listing Regulations.

The procedure followed for the performance evaluation of the Board, Committees and Individual Directors is detailed in the Board's Report.

Remuneration of Directors

The Company's philosophy for remuneration of Directors, KMP and all other employees is based on the commitment of fostering a culture of leadership with trust. The Company has adopted a Policy for remuneration of Directors, KMP and other employees, which is aligned to this philosophy. The principles governing the Company's Remuneration Policy is provided in the Board's Report.

The Policy is uploaded on the website of the Company at http://tatachemicals.com/upload/content_pdf/tatachemicals-remu-managerial-policy.pdf



Executive Directors

The Company pays remuneration by way of salary, benefits, perquisites and allowances (fixed component) and commission (variable component) to its Executive Directors. Annual increments are recommended by the NRC within the salary scale approved by the Members of the Company and are effective April 1 each year. NRC recommends on the commission payable to the Executive Directors out of the profits for the financial year and within the ceilings prescribed under the Act based on the performance of the Company as well as that of the Executive Directors.

Details of Remuneration of Executive Directors

Name of the Director	Salary (₹)	Perquisites and Allowance (₹)	Commission* (₹)	Total Remuneration (₹)
Mr. R. Mukundan – Managing Director & CEO	1,08,00,000	1,75,98,743	3,75,00,000	6,58,98,743
Mr. Zarir Langrana – Executive Director	60,00,000	97,07,448	1,50,00,000	3,07,07,448 [#]

[#]Mr. Zarir Langrana was also paid an amount of ₹84,92,493 towards variable pay for performance which pertains to FY 2017-18 i.e. prior to his appointment as the Executive Director

*Commission relates to FY 2018-19, which will be paid during FY 2019-20

Non-Executive Directors

During FY 2018-19, the Company paid sitting fees of ₹ 30,000 per meeting to the Non-Executive Directors for attending each meeting of the Board, Audit Committee and Nomination and Remuneration Committee; and ₹ 20,000 per meeting for attending each meeting of Stakeholders Relationship Committee, Independent Directors Meetings, CSR, Safety and Sustainability Committee and Risk Management Committee.

The Members had, at the AGM of the Company held on July 25, 2018, approved the payment of commission to the Non-Executive Directors within the ceiling of 1% of the net profits of the Company as computed under the applicable provisions of the Act. The said commission is decided each year by the Board of Directors and distributed amongst the Non-Executive Directors based on their attendance and contribution at the Board and certain Committee meetings. The Company also reimburses the out-of-pocket expenses incurred by the Directors for attending the meetings.

Details of commission and sitting fees paid to the Non Whole-time Directors for the Financial Year ended March 31, 2019 is given below:

Name of the Director	Sitting Fees (₹)	Commission (for FY 2018-19 payable in FY 2019-20) (₹)	Commission (for FY 2017-18 paid in FY 2018-19) (₹)
Mr. Bhaskar Bhat	3,60,000	*	*
Mr. Nasser Munjee	5,90,000	1,10,00,000	75,00,000
Dr. Y. S. P. Thorat	6,60,000	1,10,00,000	75,00,000
Ms. Vibha Paul Rishi	4,30,000	45,00,000	40,00,000
Mr. S. Padmanabhan	7,20,000	*	*
Ms. Padmini Khare Kaicker	5,60,000	45,00,000	#
Total	33,20,000	3,10,00,000	1,90,00,000

* In line with the internal guidelines, no payment is made towards commission to Mr. Bhaskar Bhat and Mr. S. Padmanabhan, Non-Executive Directors of the Company, who are in full-time employment with other Tata companies

Ms. Padmini Khare Kaicker was appointed w.e.f. April 1, 2018 and hence not applicable

As per the practice, commission to the Directors is paid after the annual accounts are adopted by the Members at the AGM. The Company has not granted any stock options to its Directors.

Service Contract, Severance Fees and Notice Period

Terms of Agreement	Mr. R. Mukundan, Managing Director & CEO	Mr. Zarir Langrana, Executive Director
Period of Contract	5 years upto November 25, 2023	5 years upto March 31, 2023
Severance fees/notice period	The Agreement may be terminated earlier, without any cause, by either Party by giving to the other Party six months' notice of such termination or the Company paying six months' remuneration which shall be limited to provision of Salary, Benefits, Perquisites, Allowances and any pro-rated Incentive Remuneration (paid at the discretion of the Board, in lieu of such notice). There is no separate provision for payment of severance fees.	

Retirement Policy for Directors

As per the Company's policy, the Managing and Executive Directors retire at the age of 65 years, Non-Independent Non-Executive Directors retire at the age of 70 years and the retirement age for Independent Directors is 75 years.

5. Stakeholders Relationship Committee

The Stakeholders Relationship Committee ('SRC') looks into various aspects of interest of shareholders and debenture holders. During the year under review, the terms of reference of the SRC were amended to align the role of the Committee with amendments to the Listing Regulations.

Terms of Reference

The terms of reference of the SRC are as under:

- Resolving the grievances of the security holders including complaints related to transfer/transmission of shares / debentures, non-receipt of annual report, non-receipt of declared dividends, issue of new/duplicate certificates, general meetings etc;
- Reviewing details of transfer of unclaimed dividend / securities to the Investor Education and Protection Fund;
- Reviewing the transfer, transmission, dematerialisation of securities;
- Reviewing measures taken for effective exercise of voting rights by shareholders;
- Reviewing adherence to the service standards in respect of various services being rendered by the Registrar & Share Transfer Agent;
- Reviewing various measures and initiatives taken for reducing the quantum of unclaimed dividends

and ensuring timely receipt of dividend warrants / annual reports / statutory notices by the shareholders of the Company.

- To approve issue of duplicate certificates.

Meetings Held

During FY 2018-19, three (3) meetings of Stakeholders Relationship Committee were held on June 14, 2018, October 9, 2018 and February 19, 2019.

Composition and Attendance

Name of the Member	Category	No. of meetings attended
Ms. Vibha Paul Rishi (Chairperson)	ID	3
Mr. S. Padmanabhan	NED	3
Mr. R. Mukundan	MD & CEO	3

ID - Independent Director; NED - Non-Executive Director; MD & CEO - Managing Director & Chief Executive Officer

Status of Investor Complaints

The status of Investor Complaints as on March 31, 2019 as reported under Regulation 13(3) of the Listing Regulations is as under:

Complaints as on April 1, 2018	0
Received during the year	51
Resolved during the year	50
Pending as on March 31, 2019	1*

*1 complaint received through SEBI pertaining to transmission of shares which was unresolved as on March 31, 2019 was subsequently resolved on April 2, 2019

The complaints have been resolved to the satisfaction of the shareholders. The correspondence identified as investor complaints are letters received through statutory/regulatory bodies and letters pertaining to fraudulent encashment.

Name, designation and address of the Compliance Officer

Mr. Rajiv Chandan

General Counsel & Company Secretary
 Tata Chemicals Limited
 Bombay House, 24 Homi Mody Street,
 Fort, Mumbai - 400 001
 Tel. No.: +91 22 66658282
 Fax No.: +91 22 66658144
 Email: investors@tatachemicals.com

On the recommendations of the SRC, the Company has taken various investor friendly initiatives like sending reminders to the investors who have not claimed their dividends, assisting and encouraging dematerialisation of shares, etc.

Ms. Vibha Paul Rishi, Chairperson of the SRC, was present at the last AGM held on July 25, 2018.

6. CSR, Safety and Sustainability Committee

The CSR, Safety and Sustainability ('CSS') Committee has been entrusted with the specific responsibility of reviewing corporate social responsibility programmes, health and safety framework and sustainable development. The overall roadmap, as well as specific issues of concern including those related to safety and climate change is reviewed in detail. The scope of the CSS Committee also includes approving the budget of CSR, reviewing the CSR programmes and monitoring the CSR spends.

Terms of Reference

The terms of reference of the CSR, Safety and Sustainability Committee, *inter alia*, are as under:

- Provide guidance to the management to ensure that all long-term strategic proposals made to the Board include safety, health, environment and sustainability implications;
- Review and monitor the sustainability, environmental, safety and health policies and activities across the Tata Chemicals Group;
- Investigate or cause to be investigated, any extraordinary negative sustainability, environment, health and safety performance or issues of asset integrity which can impact safety, health, environment and sustainability where appropriate;
- Formulate and recommend to the Board, a CSR policy indicating the activity or activities to be undertaken by the Company as specified in Schedule VII to the Act and have oversight over its implementation;

- Recommend the amount to be spent on CSR activities;
- Monitor the Company's CSR Policy periodically.

The Board has adopted a charter for the CSS Committee for its smooth functioning. The Board has also adopted the CSR Policy as formulated and recommended by the CSS Committee.

The same is displayed on the website of the Company at http://www.tatachemicals.com/upload/content_pdf/csr-policy_20161012071424.pdf



A CSR Report giving details of the CSR activities undertaken by the Company during the year along with the amount spent on CSR activities forms part of the Board's Report.

Meetings Held

During FY 2018-19, four (4) meetings were held on June 14, 2018, August 10, 2018, October 9, 2018 and February 19, 2019.

Composition and Attendance

Name of the Member	Category	No. of meetings attended
Mr. S. Padmanabhan (Chairman)	NED	3
Ms. Vibha Paul Rishi	ID	4
Mr. R. Mukundan	MD & CEO	4
Mr. Zarir Langrana (w.e.f. August 13, 2018)	ED	2

ID - Independent Director; NED - Non-Executive Director; MD & CEO - Managing Director & Chief Executive Officer; ED - Executive Director

Chief - Safety and Chief - CSR & Sustainability are the permanent invitees to the meetings of the Committee. The General Counsel & Company Secretary attends the meetings.

Mr. S. Padmanabhan, Chairman of the CSS, was present at the last AGM held on July 25, 2018.

7. Risk Management Committee

Regulation 21 of the Listing Regulations mandates top 100 listed entities based on market capitalisation as at the end of the immediate previous financial year to constitute the Risk Management Committee ('RMC'). Although non-mandatory during the year, the Company had constituted a RMC of the Board in February 2015.

The primary role of the RMC is that of assisting the Board of Directors in overseeing the Company's risk management processes and controls. RMC, through the Enterprise Risk Management in the Company, seeks to minimise adverse impact on the business objectives and enhance stakeholder value. The Board has adopted a charter for the functioning of the RMC covering the composition, meetings, quorum, responsibilities, etc.

Terms of Reference

During the year under review, the terms of reference of the RMC were amended to align the role of the Committee with amendments to the Listing Regulations. The terms of reference of the RMC, *inter alia*, are as under:

- Review the Company's risk governance structure, risk assessment and risk management practices and guidelines, policies and procedures for risk assessment and risk management;
- Review and approve the Enterprise Risk Management (ERM) framework;
- Review the Company's risk appetite and strategy relating to key risks, including market risk, cyber security risk, product risk and reputational risk, as well as the guidelines, policies and processes for monitoring and mitigating such risks;
- Oversee Company's process and policies for determining risk tolerance and review management's measurement and comparison of overall risk tolerance to established levels;
- Review and analyse risk exposure related to specific issues and provide oversight of risk across organisation;
- Review compliance with risk policies, monitor breach/trigger trips of risk tolerance limits and direct action;
- Nurture a healthy and independent risk management function in the Company.

Meetings Held

During FY 2018-19, three (3) meetings were held on July 16, 2018, October 9, 2018 and January 23, 2019.

Composition and Attendance

Name of the Member	Category	No. of meetings attended
Dr. Y. S. P. Thorat (Chairman)	ID	2
Mr. S. Padmanabhan	NED	3
Mr. R. Mukundan	MD & CEO	3
Mr. Zarir Langrana*	ED	3
Mr. John Mulhall	CFO	3

ID - Independent Director; NED - Non-Executive Director; MD & CEO - Managing Director & Chief Executive Officer; ED - Executive Director; CFO - Chief Financial Officer

* Mr. Nasser Munjee ceased to be a member of RMC w.e.f. April 1, 2018 and Mr. Zarir Langrana was inducted as a member of RMC w.e.f. April 1, 2018.

Dr. Y. S. P. Thorat, Chairman of the RMC, was present at the last AGM held on July 25, 2018.

The Company has a well-defined risk management framework in place. The risk management framework adopted by the Company is discussed in detail in the Management Discussion and Analysis which forms part of this Annual Report.

8. Scientific Advisory Board

During the year, the Board of Directors have constituted a Scientific Advisory Board with the objective of synergising the Research & Development initiatives at the Company's Innovation Centre, Research Development Centres of Rallis India Limited and Metahelix Life Sciences Limited, subsidiaries of the Company.

The Scientific Advisory Board will be instrumental in providing guidance and direction to R&D Centres and report progress to the Board.

The Scientific Advisory Board consists of senior employees from Tata Chemicals Limited, Rallis India Limited and Metahelix Life Sciences Limited with Research & Development, Science and Technology background and is chaired by Dr. C. V. Natraj, Independent Director of Rallis. Dr. Natraj has more than 30 years of experience in research. He has headed the Research function as Director on the Board of Hindustan Lever Limited and later went on to lead the Corporate Research function for Unilever as Senior Vice President, responsible for global exploratory research. He is currently serving on the Science and Engineering Research Board of the Department of Science and Technology. He is also the Technical Advisor to the Indian Institute of Science.

The terms of reference of the Scientific Advisory Board are as under:

- Alignment of the R&D Centres' priorities to the Business priorities
- Recommending the right skills and competencies necessary for the teams
- Ensuring Succession Planning
- Ensuring that the right R&D metrics are derived from business targets
- Maintaining a balance between short term and long term projects
- Ensuring open innovation to support internal R&D activities
- Support in creating the right infrastructure availability
- Creating the platform for exchange and harmonisation of R&D activities across the 3 centres
- Give directions for ensuring the right balance between inputs and outputs for the centres

9. Subsidiary Companies

Regulation 16 of the Listing Regulations defines a 'material subsidiary' as subsidiary, whose income or net worth exceeds 20% of the consolidated income or net worth respectively, of the listed entity and its subsidiaries in the immediately preceding accounting year. Under this definition, the Company does not have any unlisted material subsidiary incorporated in India.

The subsidiaries of the Company function independently with an adequately empowered Board of Directors and sufficient resources. For more effective governance, Independent Directors have been appointed on the Board of unlisted material operating subsidiaries. The minutes of Board Meetings of subsidiaries are placed before the Board

of the Company for its review on a quarterly basis and a statement of all significant transactions and arrangements entered into by the unlisted subsidiary companies are also placed before the Board.

Pursuant to the explanation under Regulation 16(1)(c) of the Listing Regulations, the Company has formulated a policy for determining material subsidiaries which is disclosed on the Company's website at https://www.tatachemicals.com/upload/content_pdf/policy-on-determining-material-subsidiaries-february-5-2019.pdf



The Company has complied with other requirements under Regulation 24 of the Listing Regulations with regard to the subsidiary companies.

10. General Body Meetings

Day, date and time of AGMs held during the last 3 years and Special Resolutions passed are given as below:

Year	Day and Date	Time	Special Resolutions
2017-18	Wednesday, July 25, 2018	3.00 p.m.	
2016-17	Wednesday, August 9, 2017	3.00 p.m.	There was no matter that required passing of Special Resolution
2015-16	Thursday, August 11, 2016	3.00 p.m.	

The above meetings were held at Birla Matushri Sabhagar, 19, Vithaldas Thackersey Marg, Mumbai 400 020.

None of the businesses proposed to be transacted requires the passing of a Special Resolution by way of Postal Ballot. During FY 2018-19, the Company did not pass any Special Resolution through Postal Ballot.

11. Means of Communication

Stock Exchange Intimations

All price-sensitive information and matters that are material to shareholders are disclosed to the respective Stock Exchanges where the securities of the Company are listed. All submissions to the Exchanges are made through the respective electronic filing systems.

Material events or information as detailed in Regulation 30 of the Listing Regulations are disseminated to the Stock Exchanges by filing them with NSE through NEAPS and with BSE through BSE Online Portal. They are also displayed on the Company's website at <https://www.tatachemicals.com/Investors/Investor-resources/Stock-exchange-communication>



Financial Results

The quarterly/half-yearly/annual financial results are published in the Indian Express (English), Business Standard (English), Business Line (English), Loksatta (Marathi), Free Press Journal (English) and Navshakti (Marathi).

The quarterly/half-yearly/annual financial results are displayed under 'Investors' section of the Company's website viz., www.tatachemicals.com. They are also filed with the NSE through NEAPS and with BSE through BSE Online Portal.

To benefit the shareholders, from the quarter ending September 30, 2018, the Company voluntarily sent quarterly financial results through email to those shareholders whose email-ids are registered with the Company on the day the Results were approved by the Board of Directors.

Analyst/Investor Meets

The Managing Director & CEO and Chief Financial Officer hold quarterly briefs with analysts, shareholders and major stakeholders where Company's performance is discussed. The official press releases, presentation made to the Members at the AGM, the presentation made to the institutional investors and analysts and the transcripts of the call with analysts for quarterly/annual results are available on the Company's website at <https://www.tatachemicals.com/Investors/Investorresources/Stock-exchange-communication>



Letters and Reminders to Shareholders

– Update of PAN and Bank details:

Pursuant to circular issued by SEBI on April 20, 2018, the Company sent letters and reminders to shareholders holding shares in physical form for updation of PAN and Bank account details with the Company/its RTA.

– Dematerialisation of shares:

The SEBI also issued Circulars during the year thereby mandating transfer of securities only in electronic form effective April 1, 2019.

Pursuant thereto, the Company sent letters and reminders to those shareholders holding shares in physical form advising them to dematerialise their holding. To encourage dematerialisation of shares among the shareholders, the Company also entered into an arrangement with Stock Holding Corporation of India Limited, a prominent Depository Participant, to specially assist and facilitate the Company's shareholders in getting their shares dematerialised.

% of physical shareholding in the last 3 years

FY 2018-19		2.05
FY 2017-18		2.43
FY 2016-17		2.94

– Unclaimed shares/dividends:

Reminders for unclaimed shares and unpaid dividend are sent to the shareholders as per records every year.

Live Webcast of AGM

For the ease of those shareholders who were unable to attend the AGM held on July 25, 2018, the Company voluntarily provided live Webcast facility of the proceedings of the AGM which was extensively viewed by the shareholders.

Company's Website

The Company's website is a comprehensive reference on Tata Chemicals' management, vision, mission, policies, corporate governance, corporate sustainability, disclosures to investors, updates and news. The section on 'Investors' serves to inform the members by giving complete financial details, annual reports, shareholding patterns, presentation made to institutional investors and analysts, corporate benefits, information relating to stock exchanges, Registrar and Share Transfer Agent, etc. The section on 'Media' includes all major press releases, awards and campaigns.

The Company has also uploaded the names of the Members and the details of the unclaimed dividend by the Members on its website at <http://tatachemicals.com/html/Investors/unclaimed-dividends.html>. The Members can log in and find out whether their dividend for any of the years is outstanding.



Transfer of unclaimed / unpaid dividend and shares to Investor Education and Protection Fund ('IEPF')

Members are requested to note the following due date(s) for claiming the unpaid or unclaimed dividend declared by the Company for FY 2011-12 and thereafter –

Financial Year	Date of Declaration	Dividend per share (₹)	Last date for claiming unpaid dividend
2011-12	August 22, 2012	10	September 21, 2019
2012-13	August 26, 2013	10	September 25, 2020
2013-14	August 21, 2014	10	September 20, 2021
2014-15	August 11, 2015	12.50	September 10, 2022
2015-16	August 11, 2016	10	September 10, 2023
2016-17	August 9, 2017	11	September 8, 2024
2017-18	July 25, 2018	22	August 24, 2025

Members who have not encashed the dividend warrants so far in respect of the aforesaid period(s) are requested to make their claim to TSR Darashaw Limited, Registrar and Share Transfer Agent, well in advance of the above due dates.

Further details of transfer of unclaimed / unpaid dividend and shares to the IEPF are provided in the notes forming part of the Notice.

12. General Shareholder Information

The Company is registered with the Registrar of Companies, Maharashtra, Mumbai. The Corporate Identity Number (CIN) allotted to the Company by the Ministry of Corporate Affairs (MCA) is L24239MH1939PLC002893.

Date, time and venue of the AGM

Date and Time	: Monday, July 8, 2019 at 3:00 p.m.
Venue	: Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine Lines, Mumbai – 400 020
Financial Year	: April 1 to March 31
Book Closure Date	: Tuesday, July 2, 2019 to Monday, July 8, 2019 (both days inclusive for the purpose of AGM and Dividend)
Dividend payment date	: On and from Wednesday, July 10, 2019
Last date for receipt of Proxy Forms	: Saturday, July 6, 2019 before 3.00 p.m. at the Registered Office of the Company
Listing on Stock Exchanges	: (a) The Company's Ordinary Shares are listed on the following Stock Exchanges: (1) BSE Limited Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400 001 (2) The National Stock Exchange of India Limited Exchange Plaza, Bandra-Kurla Complex, Bandra (E), Mumbai - 400 051 (b) Unsecured Non-Convertible Debentures (NCDs) of ₹ 250 crore (Face Value ₹ 10 lakhs per Debenture) with coupon rate of 10.00% p.a. and having maturity date as July 2, 2019 The Company's NCDs are listed on Debt segment of the National Stock Exchange of India Limited The Company has paid the requisite Annual Listing fees to these Stock Exchanges in full
Debenture Trustee	: IDBI Trusteeship Services Limited Asian Building, Ground Floor, 17, R. Kamani Marg, Ballard Estate, Mumbai - 400 001 Tel: +91 22 4080 7000, Fax: +91 22 6631 1776
Stock Code:	
BSE Limited (Demat Segment)	: 500770
The National Stock Exchange of India Limited (EQ)	: TATACHEM
International Securities Identification Number (ISIN) in NSDL and CDSL	: INE092A01019 (Ordinary Shares) INE092A08055 (NCDs)

Market Price Data:

Market price data - monthly high/low, no. of shares traded, value of shares traded and no. of trades of BSE/NSE depicting liquidity of the Company's Ordinary Shares on the said exchanges is given hereunder:

Month	BSE					NSE				
	High (₹)	Low (₹)	No. of Shares traded	Value of shares traded (₹ in lakhs)	No. of trades	High (₹)	Low (₹)	No. of Shares traded	Value of shares traded (₹ in lakhs)	No. of trades
April 2018	773.80	679.65	20,28,394	14,851.90	23,204	775.85	679.25	1,75,49,141	1,28,091.27	3,49,990
May 2018	786.95	707.90	17,45,325	13,126.21	26,330	787.50	707.00	2,25,29,218	1,69,714.25	5,18,689
June 2018	749.00	684.35	9,86,213	7,222.71	14,856	749.05	682.50	1,17,52,041	85,416.31	2,57,173
July 2018	726.70	655.10	17,22,451	11,739.29	22,039	726.80	656.00	1,03,19,684	71,153.03	2,48,229
August 2018	769.60	648.30	10,30,003	7,294.20	30,918	769.80	648.25	1,88,73,410	1,33,543.44	4,22,387
September 2018	781.55	675.55	8,86,095	6,539.41	21,571	782.00	675.10	1,06,38,498	78,274.26	2,87,946
October 2018	700.05	623.50	7,36,616	4,901.17	23,139	696.55	622.00	1,00,45,569	66,607.83	3,06,586
November 2018	722.00	668.10	14,44,294	10,173.93	21,188	722.80	668.00	1,22,95,302	85,917.66	4,11,896
December 2018	725.90	653.80	8,82,715	6,144.91	18,692	727.40	652.00	1,06,53,739	74,375.84	2,50,480
January 2019	711.60	658.00	17,07,053	11,787.08	15,296	712.65	656.30	79,23,833	54,750.57	2,29,342
February 2019	683.50	550.00	13,28,524	7,865.69	26,344	679.00	550.10	1,84,28,577	1,08,494.76	4,69,585
March 2019	599.00	557.55	13,83,935	8,067.44	24,699	597.95	559.00	2,07,67,162	1,20,571.94	3,98,273

[Source: This information is compiled from the data available on the websites of BSE and NSE]

Comparison of Tata Chemicals Limited's share price (average of closing price of BSE and NSE) with BSE Sensex

Month	S&P BSE Sensex (₹)	Share Price (₹)
April 2018	34,145.68	763.4
May 2018	35,079.56	740.6
June 2018	35,405.14	698.1
July 2018	36,406.38	688.8
August 2018	38,061.53	759.8
September 2018	37,397.50	691.1
October 2018	34,518.84	685.6
November 2018	35,298.95	697.4
December 2018	35,868.71	707.6
January 2019	36,053.00	674.6
February 2019	36,138.34	556.5
March 2019	37,634.96	588.2

Registrar and Share Transfer Agent

Members are requested to correspond with the Company's Registrar and Share Transfer Agent - TSR Darashaw Limited, quoting their folio no./DP ID and Client ID at the following addresses:-

- (i) For transmission, transposition and other correspondence:

TSR DARASHAW LIMITED

Unit: **Tata Chemicals Limited**

6-10 Haji Moosa Patrawala Industrial Estate,
20 Dr. E. Moses Road, Mahalaxmi,
Mumbai - 400 011

Tel.: + 91 22 6656 8484 /66178411/12/13/14

Fax: + 91 22 6656 8494

Email: csg-unit@tsrdarashaw.com

Website: www.tsrdarashaw.com

Business Hours: 10.00 a.m. to 3.30 p.m. (Monday to Friday)

- (ii) For the convenience of members based in the following cities, documents and letters will also be accepted at the following Branch Offices/agencies of TSR Darashaw Limited:

1. **Bangalore**

TSR Darashaw Limited

503, Barton Centre, (5th Floor),
84, Mahatma Gandhi Road,
Bangalore - 560 001.

Tel.: + 91 80 2532 0321

Fax: + 91 80 2558 0019

Email: tsrdbang@tsrdarashaw.com

2. **Kolkata**

TSR Darashaw Limited

Tata Centre, 1st Floor,
43, J. L. Nehru Road,
Kolkata - 700 071.

Tel.: + 91 33 2288 3087

Fax: + 91 33 2288 3062

Email: tsrdlcal@tsrdarashaw.com

3. **Ahmedabad**

Agent of TSR Darashaw Limited

Shah Consultancy Services Limited
3, Sumatinath Complex, 2nd Dhal,
Pritam Nagar, Ellisbridge,
Ahmedabad - 380 006.

Fax: + 91 79 2657 6038

Email: shahconsultancy8154@gmail.com

4. **New Delhi**

TSR Darashaw Limited

2/42, Ansari Road,
1st Floor, Daryaganj, Sant Vihar,
New Delhi - 110 002.

Tel.: + 91 11 2327 1805

Fax: + 91 11 2327 1802

Email: tsrdldel@tsrdarashaw.com

5. **Jamshedpur**

TSR Darashaw Limited

"E" Road,
Northern Town, Bistupur,
Jamshedpur - 831 001.

Tel.: + 91 657 242 6616

Fax: + 91 657 242 6937

Email: tsrdljsr@tsrdarashaw.com

Share Transfer Process

During the year, shares in physical forms were processed by the Registrar and Share Transfer Agent within 15 days from the date of receipt, if the documents are complete in all respects. The Managing Director & CEO, General Counsel & Company Secretary and Manager - Secretarial have been severally empowered to approve transfers.

Pursuant to circulars issued by SEBI, transfer of share in physical form after April 1, 2019 is not allowed. Members holding shares in physical form are requested to dematerialise their holdings at the earliest.

Secretarial Audit

- Pursuant to Regulation 40(9) of the Listing Regulations, certificates have been issued, on a half-yearly basis, by a Company Secretary in practice, certifying due compliance of share transfer formalities by the Company.
- A Company Secretary in practice carries out a quarterly Reconciliation of Share Capital Audit, to reconcile the total admitted capital with National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL) and the total issued and listed capital. The audit confirms that the total issued/paid-up capital is in agreement with the aggregate of the total number of shares in physical form and the total number of shares in dematerialised form (held with NSDL and CDSL).
- Mr. P. N. Parikh of M/s. Parikh & Associates, Practising Company Secretaries, has conducted a Secretarial Audit of the Company for FY 2018-19. Their Audit Report confirms that the Company has complied with the applicable provisions of the Act and the Rules made there under, its Memorandum and Articles of Association, Listing Regulations and the applicable SEBI Regulations. The Secretarial Audit Report forms part of the Board's Report.

Certificate from Practising Company Secretary

- Mr. P. N. Parikh of M/s. Parikh & Associates, Practising Company Secretaries, has issued a certificate confirming that none of the Directors on the Board of the Company has been debarred or disqualified from being appointed or continuing as directors of companies by SEBI/Ministry of Corporate Affairs or any such statutory authority.
- In accordance with the SEBI Circular dated February 8, 2019, the Company has obtained an Annual Secretarial Compliance Report from Mr. P. N. Parikh of M/s. Parikh & Associates, Practising Company Secretaries confirming compliances with all applicable SEBI Regulations, Circulars and Guidelines for the year ended March 31, 2019.

Distribution of Shareholdings as on March 31, 2019

Range of Holdings	Number of Shares	Amount (₹)	% to capital	Number of Shareholders	% of Shareholders
1 to 500	1,69,58,119	16,95,81,190	6.66	1,68,421	90.23
501 to 1,000	72,07,193	7,20,71,930	2.83	9,589	5.14
1,001 to 2,000	69,15,841	6,91,58,410	2.71	4,807	2.58
2,001 to 3,000	36,69,051	3,66,90,510	1.44	1,467	0.79
3,001 to 4,000	23,94,163	2,39,41,630	0.94	678	0.36
4,001 to 5,000	19,74,741	1,97,47,410	0.78	429	0.23
5,001 to 10,000	51,61,339	5,16,13,390	2.03	726	0.39
Above 10,000	21,04,75,831	2,10,47,58,310	82.62	548	0.29
Total	25,47,56,278	2,54,75,62,780	100.00	1,86,665	100.00

Category of Shareholding as on March 31, 2019

Category	Number of Shares	Percentage (%)
Promoter and Promoter Group	7,80,27,943	30.63
Resident Individuals	4,60,43,116	18.07
Foreign Holdings	2,76,00,033	10.83
Public Financial Institutions	3,82,95,387	15.03
Government/Government Companies	71,948	0.03
Other Companies, Mutual Funds	6,29,88,071	24.72
Nationalised Banks	6,07,676	0.24
Alternative Investment Fund	11,000	0.00
Bodies Corporate - Non Banking Financial Company	11,883	0.00
IEPF	10,99,221	0.43
Total	25,47,56,278	100.00

Dematerialisation of shares and liquidity

The Company's shares are compulsorily traded in dematerialised form and are available for trading on both the depositories, viz. NSDL and CDSL.

Shares held in	(%)		
	2018-19	2017-18	2016-17
Physical form	2.05	2.43	2.94
Electronic form with NSDL	93.61	93.34	93.67
Electronic form with CDSL	4.34	4.23	3.39

The Company's Ordinary Shares are regularly traded on the BSE and NSE.

Outstanding Global Depository Receipts (GDRs) or American Depository Receipts (ADRs) or warrants or any convertible instruments, conversion date and likely impact on equity

Not Applicable

Commodity price risk/foreign exchange risk and hedging activities

Commodity price risk and hedging activities - Tata Chemicals Limited, India procures a variety of commodities related to raw materials and finished products for trading. The Company manages the associated commodity price risks through commercial negotiation with customers and suppliers.

Foreign Exchange risk and hedging activities - Tata Chemicals Limited, India is exposed to foreign exchange risks on its imports of raw materials/trading goods/capital item purchases and borrowings denominated in foreign exchange. The Company has a robust internal policy, approved by its Audit Committee, to manage foreign exchange risks.

Hedging is regularly carried out to mitigate the risks in line with the approved policy.

Plant Locations

- Indian Locations:**
 - Chemicals Division Mithapur 361 345, Okhamandal, Gujarat
 - Chennai Plant 317/2B, 317/2 C1, 317/2 C2, Vayalur Road, Kiloy Village, Sriperumbudur Taluk, Kancheepuram Dist. - 602 105
 - Nellore Plant Tata Chemicals Limited, Block 3 & 3A, APIIC Industrial Park, Phase II, Tada Mandal, Mambattu Nellore Dist - 524 401, Andhra Pradesh
 - Cuddalore Plant Plot No. 10, 13 and 14, SIPCOT Industrial Complex, Phase II, Semmankuppam Village, Cuddalore 607005, Tamil Nadu
- Overseas Locations:**
 - USA - Soda Ash Tata Chemicals North America Inc., Green River Basin, Wyoming
 - UK - Soda Ash, Sodium Bicarbonate and Salt Tata Chemicals Europe Limited:
 - Lostock
 - Winnington
 - Middlewich
 - Kenya - Soda Ash Tata Chemicals Magadi Limited, Lake Magadi, Kenya

Address for Correspondence

Tata Chemicals Limited
 Bombay House,
 24, Homi Mody Street,
 Fort, Mumbai - 400 001
 Tel. No.: +91 22 6665 8282
 Fax No.: +91 22 6665 8144
 Email: investors@tatachemicals.com
 Website: www.tatachemicals.com

Credit Ratings obtained by the Company

The details of Credit Ratings obtained by the Company have been disclosed in the Board's Report which forms a part of this Annual Report. During the year, there was no revision in the Credit Ratings obtained by the Company.

13. Other Disclosures**Related Party Transactions**

All related party transactions that were entered into during FY 2018-19 were on arm's length basis, in the ordinary course of business and were in compliance with the applicable provisions of the Act and the Listing Regulations. There were no materially significant related party transactions made by the Company with Promoters, Directors, KMPs or other designated persons which may have a potential conflict with the interest of the Company at large.

The policy on related party transactions as approved by the Board is uploaded on the Company's website at https://www.tatachemicals.com/upload/content_pdf/tcl-related-party-transactions-policy-February-5-2019.pdf



During the year under review, the Company amended the Policy on Related Party Transactions in view of amendments to the Act and Listing Regulations.

Statutory Compliance, Penalties and Strictures

The Company has complied with the requirements of the Stock Exchanges, SEBI and Statutory Authority on all matters related to capital markets. During the last three years, no penalties or strictures have been imposed on the Company by these authorities. None of the Company's listed securities are suspended from trading.

Whistleblower Policy and Vigil Mechanism

The Company has adopted a Whistleblower Policy and Vigil Mechanism to provide a formal mechanism to the Directors, employees and other external stakeholders to report their concerns about unethical behaviour, actual or suspected fraud or violation of the Company's Code of Conduct. The Policy provides for adequate safeguards against victimisation of employees who avail of the mechanism and also provides for direct access to the Chairman of the Audit Committee. No personnel of the Company has been denied access to the Audit Committee.

The Whistleblower Policy and Vigil Mechanism ensures that strict confidentiality is maintained in such cases and no unfair treatment is meted out to a Whistleblower. The Company, as a Policy, condemns any kind of discrimination, harassment, victimisation or any other unfair employment practice being adopted against Whistleblowers.

A dedicated Ethics Helpline has been set-up which is managed by an independent professional organization for confidentially raising any ethical concerns or practices that violate the Tata Code of Conduct. The Ethics Helpline can be contacted to report on any suspected or confirmed incident of fraud/misconduct on:

- E-Mail: coc@ethicshelpline.in
- Address: Principal Ethics Counsellor, Tata Chemicals Limited, Bombay House, 24, Homi Mody Street, Mumbai 400 001

The Whistleblower Policy has been uploaded on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/whistle-blower-policy-5-feb-2019.pdf

**Tata Code of Conduct for Prevention of Insider Trading**

The Company has adopted the Tata Code of Conduct for Prevention of Insider Trading and Code of Corporate Disclosure Practices under the SEBI (Prohibition of Insider Trading) Regulations, 2015. The Code lays down guidelines for procedures to be followed and disclosures to be made while trading in securities of the Company.

During the year, the Codes were amended to align them with the amendments to SEBI (Prohibition of Insider Trading) Regulations, 2015. As per the revised Code, the Company also adopted Policy on Enquiry in case of leak or suspected leak of UPSI and Policy for Determination of Legitimate Purposes. The Code of Corporate Disclosure Practices along with the Policy for

Determination of Legitimate Purposes is also available on the on website of the Company at https://www.tatachemicals.com/upload/content_pdf/tcl-code-of-coporate-discl-and-legitimate-purpose-clean.pdf



Mr. Rajiv Chandan, General Counsel & Company Secretary, has been appointed as the 'Compliance Officer' for ensuring the compliance with and for the effective implementation of the Regulations and the Code across the Company. Mr. John Mulhall, Chief Financial Officer, has been designated as the 'Chief Investor Relations Officer' to ensure timely, adequate, uniform and universal dissemination of information and disclosure of Unpublished Price Sensitive Information.

The Company has in place an online tool for ensuring compliance with the provisions of the SEBI (Prohibition of Insider Trading) Regulations, 2015 and the Tata Code of Conduct for Prevention of Insider Trading.

Anti-Bribery and Anti-Money Laundering Policy

The Company has, from time to time, taken important steps for establishing and reinforcing a culture of business ethics. In view of our increasing global footprint and to align our work practices with regulations mandated for such multi-geography operations, the Board has adopted the Anti-Bribery and Anti-Corruption Policy along with the Anti-Money Laundering Policy.

The above Policies require the Company to appoint a senior official as the Compliance Officer who shall be responsible for implementation of the Policies. Under the above Policies, Compliance Officers have a functional reporting about any violation of the Policies to the Chairman of the Audit Committee. Aggravated cases of breach of the said Policies shall be escalated to the Board of Directors of the Company.

Other Policies under the Listing Regulations

Policy on Archival and Preservation of Documents as required under Regulation 9 of the Listing Regulations is available on the website at http://www.tatachemicals.com/upload/content_pdf/Archival_Policy_1.pdf



Policy on Determination of Materiality for disclosures of Events or information as per Regulation 30 of the Listing Regulations is available on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/Policy_on_Materiality_for_Disclosures1.pdf



The Dividend Distribution Policy as per Regulation 43A of the Listing Regulations is available on the website of the Company at https://www.tatachemicals.com/upload/content_pdf/dividend-distribution-policy-clean-mode-amended-on_july-25-2018.pdf



Accounting Treatment in preparation of Financial Statements

The Company has prepared the Financial Statements in accordance with the Indian Accounting Standards (IND AS) to comply with the Accounting Standards specified under Section 133 of the Act, read with Rule 3 of the Companies (Indian Accounting Standards) Rules, 2015 and the relevant provisions of the Act, as applicable.

CEO/CFO Certification

The Managing Director & CEO and the Chief Financial Officer have certified to the Board in accordance with Regulation 17(8) read with Part B of Schedule II to the Listing Regulations pertaining to CEO/CFO certification for the year ended March 31, 2019.

Details of utilisation of funds raised through preferential allotment or qualified institutions placement

During FY 2010-11 the Company issued Equity shares to Tata Sons Private Limited (formerly Tata Sons Limited) amounting to ₹ 363.40 crore to fund various growth plans and projects. During FY 2018-19, the Company utilised funds in the following manner:

- ₹ 118.32 crore towards acquisition of the business of precipitated silica for production of Highly Dispersible Silica at Cuddalore, Tamil Nadu
- ₹ 188.29 crore towards construction of a 5,000 metric tonnes manufacturing plant of fructooligosaccharides at Nellore, Andhra Pradesh

The balance has been kept invested in bank fixed deposits / money market mutual funds.

Confirmation by the Board of Directors' acceptance of recommendations of Committees

In terms of the amendments made to the Listing Regulations, the Board of Directors confirm that during the year, it has accepted all recommendations received from all its Committees.

Fees paid to B S R & Co. LLP, Statutory Auditors and all entities in the network firm of the Statutory Auditors

A total fee of ₹ 12.05 crore was paid by the Company and its subsidiaries, on a consolidated basis, for all services to B S R & Co. LLP, statutory auditors and all entities in the network firm/network entity of which they are part.

Disclosures in relation to the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

The Company has in place a Policy on Prevention of Sexual Harassment at Workplace ('POSH') which is uploaded on the website of the Company at http://www.tatachemicals.com/upload/content_pdf/posh-policy.pdf



For FY 2018 – 19:

- a. Number of complaints filed during the FY : 3
- b. Number of complaints disposed of during the FY : 3
- c. Number of complaints pending as on end of the FY : 0

Legal Compliance Management Tool

At Tata Chemicals Limited, compliance has always been an integral part of our functioning and continues to remain one of the top priorities. The Company's actions are reflected by its ideologies and doing business legally and ethically is a part of the Company's day to day working.

The Company has in place an online legal compliance management tool which monitors compliance with all laws which are applicable to the Company.

Green Initiative

As a responsible corporate citizen, the Company welcomes and supports the 'Green Initiative' undertaken by the Ministry of Corporate Affairs, Government of India, enabling electronic delivery of documents including the Annual Report, quarterly and half-yearly results, amongst others, to Shareholders at their e-mail address previously registered with the DPs and RTAs. Shareholders who have not registered their e-mail addresses so far are requested to do the same. Those holding shares in demat form can register their e-mail address with their concerned Depository Participants. Shareholders who hold shares in physical form are requested to register their e-mail addresses with the RTA, by sending a letter, duly signed by the first/sole holder quoting details of Folio Number.

Mandatory Requirements

The Company has complied with all the mandatory requirements of the Listing Regulations relating to Corporate Governance.

Non-Mandatory Requirements

The Company has complied with the following non-mandatory requirements of the Listing Regulations relating to Corporate Governance. The status of compliance with the non-mandatory requirements listed in Regulation 27(1) read with Part E of Schedule II of the Listing Regulations is as under:

- During the year under review, there was no audit qualification in the Company's financial statements. The Company continues to adopt best practices to ensure regime of unmodified audit opinion.
- The Company follows a robust process of communicating with the shareholders which has been elaborated in the Report under the Heading "Means of Communication"
- The position of the Chairman of meetings of the Board (elected by the Board from time to time) and the Managing Director & CEO remained separate.
- The Internal Auditor reports to the Audit Committee.

DECLARATION BY THE MANAGING DIRECTOR & CEO

I, R. Mukundan, Managing Director & CEO of Tata Chemicals Limited, hereby declare that all the members of the Board of Directors and the Senior Management personnel have affirmed compliance with the Code of Conduct, applicable to them as laid down by the Board of Directors in terms of Regulation 26(3) of the Listing Regulations for the year ended March 31, 2019.

For Tata Chemicals Limited

R. Mukundan
Managing Director & CEO

Mumbai, May 3, 2019

PRACTISING COMPANY SECRETARIES' CERTIFICATE ON CORPORATE GOVERNANCE

TO THE MEMBERS OF TATA CHEMICALS LIMITED

We have examined the compliance of the conditions of Corporate Governance by Tata Chemicals Limited ('the Company') for the year ended on March 31, 2019, as stipulated under Regulations 17 to 27, clauses (b) to (i) of sub-regulation (2) of Regulation 46 and para C, D and E of Schedule V of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("SEBI Listing Regulations").

The compliance of the conditions of Corporate Governance is the responsibility of the management. Our examination was limited to the review of procedures and implementation thereof, as adopted by the Company for ensuring compliance with conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, and the representations made by the Directors and the management, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the SEBI Listing Regulations for the year ended on March 31, 2019.

We further state that such compliance is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For Parikh & Associates
Practising Company Secretaries

P. N. Parikh
FCS: 327 CP: 1228

Mumbai, May 3, 2019

Business Responsibility Report

Section A: General Information about the Company

1. **Corporate Identity Number (CIN) of the Company :**
L24239MH1939PLC002893
2. **Name of the Company :** Tata Chemicals Limited
3. **Registered address:** Bombay House, 24 Homi Mody Street, Fort, Mumbai - 400 001
4. **Website:** www.tatachemicals.com
5. **E-mail id:** corporate_communications@tatachemicals.com; sustainability@tatachemicals.com
6. **Financial Year reported:** April 1, 2018 – March 31, 2019
7. **Sector(s) that the Company is engaged in (industrial activity code-wise):**

Group	Description
107	Processing of salt into food-grade salt, Manufacture of food ingredients and Sweeteners
201	Manufacture of Chemicals and Silica
239	Manufacture of clinkers and cement
089	Salt production by evaporation of sea water
081	Quarrying / mining of Limestone
462	Wholesale of Pulses
202	Manufacture of Detergents

As per National Industrial Classification – Ministry of Statistics and Program Implementation

8. **List three key products / services that the Company manufactures / provides (as in balance sheet):**
 - Chemical Products: Soda Ash, Sodium Bicarbonate, Cement
 - Consumer Products: Edible Salt, Pulses, Spices and Besan
 - Nutritional Solutions: Prebiotic and complementary food ingredients
9. **Total number of locations where business activity is undertaken by the Company:**
 - Number of International Locations: United States of America, United Kingdom, Kenya and Singapore
 - Number of Key National Locations: Mithapur, Sriperumbudur, Mumbai, Ahmedabad, Pune, Cuddalore and Mambattu
10. **Markets served by the Company - Local / State / National / International:** All

Section B: Financial Details of the Company as on March 31, 2019

₹ in crores

Sr. No.	Particulars	Standalone	Consolidated
1.	Paid up capital	254.82	254.82
2.	Total turnover (net of excise)	4,080.86	11,296.33
3.	Total profit after taxes, share of loss of associate and minority interest	909.74	1,155.91
4.	Total spending on Corporate Social Responsibility (CSR) as percentage of profit after tax (%)	The Company's total spending on CSR is ₹ 25.68 crore which is 2.59% of the average profit after taxes in the previous three financial years.	

5. **List of activities in which expenditure in 4 above has been incurred: As per Schedule VII of the Companies Act, 2013.**

(I) Total Social & Community Development

- Eradicating hunger, poverty and malnutrition
- Promoting health care including preventive healthcare
- Sanitation and making available clean drinking water
- Promoting education including special education especially amongst children, women, elderly and the differently abled
- Employment enhancing vocational skills
- Livelihood enhancement projects
- Promoting gender equality, empowering women, setting up homes and hostels for women and orphans
- Measures for reducing inequalities faced by socially and economically backward groups
- Protection of natural heritage, art and culture
- Promotion and development of traditional arts and handicrafts
- Contribution to the Prime Minister's Relief Fund and any other fund set up by the Central Government for socio-economic development and relief and welfare of the Scheduled Castes, Scheduled Tribes, other backward castes, minorities and women
- Contributions of funds provided to technology incubators located within academic institutions which are approved by the Central Government
- Rural development projects

(II) Environmental & Conservation of Natural Resource projects

Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water

(III) Donations exempt under Section 80G, 35AC of the Income Tax Act, 1961 in areas other than the above

Donation to other institutions including for disaster relief work and other activities

Section C: Other Details

1. Does the Company have any Subsidiary company / companies?

Yes. The number of subsidiary companies of Tata Chemicals Limited as on March 31, 2019 is 36.

2. Do the Subsidiary company / companies participate in the BR Initiatives of the parent company? If yes, then indicate the number of such subsidiary company(s)

Yes. Tata Chemicals Limited encourages its subsidiary companies to participate in its group wide Business Responsibility ('BR') initiatives on a wide range of topics. All subsidiaries are aligned to the activities under the aegis of Tata Group.

3. Do any other entity / entities (e.g. suppliers, distributors etc.) that the Company does business with, participate in the BR initiatives of the Company? If yes, then indicate the percentage of such entity / entities? [Less than 30%, 30-60%, More than 60%]

The Company does not mandate its suppliers and partners to participate in the Company's BR initiatives. However, they are encouraged to do so.

Less than 30%.

Section D: BR Information

1. Details of Director / Directors responsible for BR:

a) Details of the Director / Directors responsible for implementation of the BR policy / policies:

- DIN: 00778253
- Name: Mr. R. Mukundan
- Designation: Managing Director & CEO

b) Details of the BR head:

Sr. No.	Particulars	Details
1	DIN (if applicable)	07478885
2	Name	Ms. Alka Talwar
3	Designation	Chief CSR and Sustainability Officer
4	Telephone Number	022-66437530
5	E-mail id	sustainability@tatachemicals.com; atalwar@tatachemicals.com

2. Principle-wise (as per NVGs) BR policy / policies:

The National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business ('NVGs') released by the Ministry of Corporate Affairs has adopted nine areas of Business Responsibility. These are briefly as under:

P1	Businesses should conduct and govern themselves with Ethics, Transparency and Accountability
P2	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle
P3	Businesses should promote the well-being of all employees
P4	Businesses should respect the interests of and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalised
P5	Businesses should respect and promote human rights
P6	Businesses should respect, protect and make efforts to restore the environment
P7	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner
P8	Businesses should support inclusive growth and equitable development
P9	Businesses should engage with and provide value to their customers and consumers in a responsible manner

a) Details of Compliance:

Sr. No.	Question	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	Do you have a policy / policies for	Y	Y	Y	Y	Y	Y	Y	Y	Y
2.	Has the policy been formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.	Does the policy conform to any national / international standards? If Yes, Specify (50 words)*	Y (UN Global Compact, GRI)	Y (RC/ ISO14001)	Y (OHSAS – 18001)	Y (UN Global Compact, GRI)	Y (SA-8000)	Y (ISO-14001)	Y (Tata Code of Conduct conforms to NVG)	Y (UN Global Compact, GRI)	Y (Responsible Care)
4.	Has the policy been approved by the Board?	Y	Y	-	-	Y	-	Y	-	Y
	If yes, has it been signed by MD / Owner / CEO / appropriate Board Director?	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.	Does the Company have a specified committee of the Board / Director / Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	Y	Y	Y
6.	Indicate the link for the policy to be viewed online?	http://www.tatachemicals.com/Sustainability/sustainability_report.htm								
7.	Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
8.	Does the Company have in-house structure to implement the policy/policies?	Y	Y	Y	Y	Y	Y	Y	Y	Y
9.	Does the Company have a grievance redressal mechanism related to the policy/policies to address stakeholders' grievances related to the policy/policies?	Y	Y	Y	Y	Y	Y	Y	Y	Y
10.	Has the Company carried out independent audit /evaluation of the working of this policy by an internal or external agency?	Y	Y	Y	Y	Y	Y	Y	Y	Y

* Note – The Company's Policies are linked to the following National / International Standards:-

International Organisation for Standardisation (ISO-9001, ISO-14001), Occupation Health and Safety Assessment Series (OHSAS – 18001), Responsible Care (RC-14001), Social Accountability (SA-8000), Global Reporting Initiative (GRI-G4) and United Nations Global Compact (UNGC).

b) If answer to Sr. No. 1 against any principle, is 'No', please explain why: (Tick up to 2 options)

Sr. No.	Question	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	The Company has not understood the Principles									
2.	The Company is not at a stage where it finds itself in a position to formulate and implement the policies on specified Principles									
3.	The Company does not have financial or manpower resources available for the task						NA			
4.	It is planned to be done within next six months									
5.	It is planned to be done within next one year									
6.	Any other reason (please specify)									

3. Governance related to BR:

- Indicate the frequency with which the Board of Directors, Committee of the Board or CEO assesses the BR performance of the Company. Within 3 months, 3-6 months, annually, more than 1 year:
Within 3 months

- Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?
Yes, the Company publishes BR and Sustainability performance, both, as a part of its Annual Report on annual basis. The Organisation has adopted IIRC framework and published first such annual report for FY 2015-16.

This year, the Company produced Comprehensive Advanced level United Nations Global Compact Communication on Progress (UNGC – CoP) and Investor Carbon Disclosure Project (CDP) reports.

The link to view this report is: <http://sustainability.tatachemicals.com/>

Section E: Principle-wise Performance

Principle 1: Businesses should conduct and govern themselves with Ethics, Transparency and Accountability

- Does the policy relating to ethics, bribery and corruption cover only the Company?
No

2. Does it extend to the Group / Joint Ventures / Suppliers / Contractors / NGOs / Others?

- Yes, Tata Code of Conduct defines the commitment on ethical behaviour by the Company. Tata Chemicals has structured systems and processes for management of business ethics. All employees and suppliers sign to abide the Tata Code of Conduct. The Company has a Principal Ethics Counsellor at the corporate office with Location Ethics Counsellor at each major site. Various mechanisms including third party helpline are made available to internal and external stakeholders to raise actual / potential concerns.

- The Tata Code of Conduct is sent to all suppliers with the contract, for their perusal in respect of relevant clauses. Awareness programmes are conducted on Tata Code of Conduct for all employees across the locations and corporate and marketing offices. It is reinforced during annual national sales conferences, distributor meets, ethics month celebrations, etc.

3. How many stakeholder complaints have been received in the past financial year and what percentage was satisfactorily resolved by the management? If so, provide details thereof, in about 50 words or so.

A total of 18 ethics-related concerns were received from stakeholders. Of these, 15 were satisfactorily resolved by March 31, 2019. Balance concerns are under investigation and will be closed shortly.

Principle 2: Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle

1. List up to 3 of your products or services whose design has incorporated social or environmental concerns, risks and / or opportunities.

(i) **Tata Salt Plus:** India has a high incidence of Iron Deficiency Anaemia ('IDA'). To address the same, the Company launched Tata Salt Plus, a double fortified salt which contains iron and iodine. It provides up to 50% of the body's daily requirement of iron. Since salt is used across all sections of the society throughout the year, this is an effective way to deliver iron to the populace and thus tackle the problem of IDA.

(ii) **Organic Range of Pulses:** The Company has launched Tata Sampann Organic range, starting with pulses range, to provide pesticides and chemical free products to the consumers. With latest movement of consumers towards more healthy and safe products and Tata Sampann's equity in pulses, organic pulses was a logical extension. Tata Sampann Organic pulses are sourced and packed as per APEDA & FSSAI guidelines and are National Programme for Organic Production ('NPOP') i.e. 'India Organic' and 'USDA' certified. These products are available on e-commerce and modern trade format stores where these are in high demand.

(iii) **Tata Nx Zero Sugar:** It is the 1st product offering from the brand Tata Nx. Tata Nx Zero sugar* is 100% made from natural ingredients**. It is made from lactose, steviol glycosides (naturally occurring extracts from stevia leaves) and a fruit extract. A one of a kind, non-artificial sugar substitute, TATA Nx Zero Sugar* has a low glycaemic index (GI) as compared to regular sugar, which makes it an ideal sweetener for people who have been advised to reduce their sugar intake or avoid sugar. People suffering from obesity, diabetes and juvenile diabetes in India can consider this sweetener as a sugar replacement. Unlike other sweeteners available in the market, Tata Nx Zero Sugar* can be consumed by all age groups. Tata Nx Zero Sugar was awarded the Ayush Kamal Ratna for India's Best Natural Sweetener.

*Note: *Tata Nx Zero Sugar does not contain sucrose / **Based on the ingredients used.*

(iv) **Medikarb IP:** Medikarb is Sodium Bicarbonate developed for pharmaceutical applications, this product is manufactured by further processing of Sodium Bicarbonate to reduce Sulphate, Chloride and other heavy metals. This product complies to

specifications as prescribed by Indian and British pharmacopeial requirements.

(v) **Water Purifier - Tata Swach:** Safe drinking water is a basic human need and its limited availability has been a major concern worldwide. The Company through its wholly owned subsidiary, Ncourage Social Enterprise Foundation incorporated under Section 8 of the Companies Act, 2013 has been working towards providing greater access to clean drinking water through Tata Swach range of products. The vision for Tata Swach is to reduce incidence of waterborne diseases by making safe drinking water accessible to all. Tata Swach offline household and Tata Swach Tech Jal (community water purification system) provide purified water without use of electricity. This year, Tata Swach launched a Stainless Steel purifier with UHF cartridge that can provide upto 6,000 litres of clean drinking water.

(vi) **Tata Dx:** Tata Chemicals, being the largest manufacturer of Soda Ash, recently forayed into the homecare segment with the pilot launch of Tata Dx, a detergent brand which was tested in the West Bengal market that received a positive consumer response. While detergents contain toxic materials like phosphate which cause algal blooms and are harmful to living organisms in the water bodies, Tata Dx is a Phosphate free detergent.

2. For each such product, provide the following details in respect of resource use (energy, water, raw material etc.) per unit of product (optional):

(i) **Reduction during sourcing / production / distribution achieved since the previous year throughout the value chain**

Specific Energy consumption per tonne of Product			
Product	2018-19	2017-18	% Change
Soda Ash	3.34	3.40	(1.59)
Salt	1.27	1.37	(7.52)
Cement	1.22	1.16	5.35

Recycled material used was 89.74% which is actually saving of fresh Limestone in turn saving the natural capital.

(ii) **Reduction during usage by consumers (energy, water) has been achieved since the previous year?**

Tata Swach helps the consumer in saving the electrical energy at their end as it does not use electrical energy in purifying the water though it has UV features as well.

Tata Sampann Unpolished Pulses: Since Tata Sampann Unpolished Pulses cook faster, they lead to saving energy and water.

Cement: The Company has multiple products in Cement grade for different application which consumes less water at the customer end while using during the construction.

Tata Dx: A combination of silicate and sodium CMC in the formulation ensures that the product does not cause excess foaming (while maintaining high detergency levels). This in turn results in less water requirement to wash off the soap from garments. Hence, Tata Dx ensures a reduced water consumption while washing clothes.

3. Does the Company have procedures in place for sustainable sourcing (including transportation)? If yes, what percentage of your inputs was sourced sustainably? Also, provide details thereof, in about 50 words or so.

Yes, the Company has developed supplier sustainability code and has established process for vendor selection. This includes various principles & guidelines like Tata Code of Conduct, Global Reporting Initiative, United Nations Global Compact, Social Accountability-8000, ISO certification, etc.

For sustainable transportation, the following initiatives have been taken up: efficient fleet access, full load based transportation, reuse of packaging material, bulker movements – deployment of German designed patented Lupa Bulklers to help reduce carbon footprint.

Bulker helps in continuing journey towards pollution prevention, minimisation of waste, eliminating the efforts of packaging, loading and unloading. It has an approximate capacity of 25 tonnes and can replace 3 million plastic bags each year.

4. Has the Company taken any steps to procure goods and services from local and small producers, including communities surrounding their place of work? If yes, what steps have been taken to improve the capacity and capability of local and small vendors?

Yes. The Company has a vendor development program. Over the years, the Company has promoted local contractors and service providers and provides them opportunities. Additionally, the Company has also promoted skills and livelihood development in the neighbouring community through various training and community development programs. The Company has also established an apprentice

training center to improve capacity and skills of more than 100 apprentices every year. The Company provides support to people from socially backward community.

The Company is procuring organic pulses from the local farmers group and traders who make use of organic fertilisers. The Company has in place best practices for procurement and packaging operations to maintain quality of the product.

The Company also keeps exploring development of suppliers from socially and economically backward communities. The Company's Consumer Products Business has a mission to increase the Schedule Caste/Schedule Tribes (SC/ST) community participation in its third party workforce over a period of 3-5 years. The Company initiated a sponsored Professional Training program for developing Functional skills and competencies of SC/ST and other socially and economically backward candidates to make them capable of being employed in sales and marketing field.

5. Does the Company have a mechanism to recycle products and waste? If yes, what is the percentage of recycling of products and waste? (Separately as <5%, 5-10%, >10%). Also, provide details thereof, in about 50 words or so.

The Company focuses on effective integration with the basic philosophy of resource optimisation, use of alternative sources and maximisation of 'recycle and reuse' by innovation.

The Company's Cement Plant at Mithapur is a unique 'waste to wealth' initiative. In FY 2018-19, the Company has replaced 89.74% of virgin limestone with recycled material like limestone fines, fly ash, effluent solids, etc. The Soda Ash filtration system is the first of its kind in the world and solids are filtered out of the wastewater using Larox filters. Filtered solids i.e., Effluent Solids Filter ('ESF') cake is utilised to make cement.

Most of our hazardous waste (spent catalysts & used/waste oil) is recyclable and is being sent to Ministry of Environment and Forests ('MoEF') approved recyclers. In collaboration with the Company's chemical suppliers (Urefix-Urea toughening agent, cooling tower chemicals), an initiative to reuse empty plastic drums has been taken.

At Consumer Products Business, the Company has been reusing 80% of its packaging bags used to transport Tata Salt from Mithapur Plant to different packaging centers as secondary packaging. As a responsible organisation, the Company is addressing post-consumer plastic waste management through extended producer's responsibility

('EPR') framework. In FY 2018-19, the Company successfully collected post-consumer laminate waste and diverted from landfilling. 65% to 78% of the packaging material was collected from across 12 states and was sent for the recycling and co-processing as fuel in the cement industries. The Company has launched single layer recyclable packaging material for Tata Salt. In FY 2018-19, the Company successfully sold more than 32,000 tonnes of Tata Salt in recyclable packs.

Percentage of materials used that are recycled input materials:

Parameter	FY 2018-19
Limestone replaced (Mithapur)	89.74%

Principle 3: Businesses should promote the well-being of all employees

- Please indicate the Total number of employees:**
1,989 employees in Tata Chemicals India operations as on March 31, 2019.
- Please indicate the Total number of employees hired on temporary / contractual / casual basis:**
3,454 in Tata Chemicals India operations as on March 31, 2019.
- Please indicate the number of permanent women employees:**
148 in Tata Chemicals India operations as on March 31, 2019.
- Please indicate the number of permanent employees with disabilities:**
8 (6 Mithapur + 1 Mumbai + 1 Sriperumbudur)
- Do you have an employee association that is recognised by management?:**
Yes
- What percentage of your permanent employees are members of this recognised employee association?:**
Approximately 30%
- Please indicate the number of complaints relating to child labour, forced labour, involuntary labour, sexual harassment in the last financial year and pending, as on the end of the financial year.**

Sr. No.	Category	No. of complaints filed during the financial year	No. of complaints pending as on end of the financial year
1.	Child labour / forced labour / involuntary labour	NIL	NIL
2.	Sexual harassment	3	NIL
3.	Discriminatory employment	NIL	NIL

8. What percentage of your under mentioned employees were given safety and skill up-gradation training in the last year?

- 94% of Company and Contract employees have undergone training for safety, compliances and skill upgradation.
- It is mandatory for all employees to go through the safety training at sites. Refresher on safety is also conducted on regular basis. Last year, the Company launched defensive driving training e-modules for both, 2 and 4 wheelers, for all employees across India.

Principle 4: Businesses should respect the interests of and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalised

1. Has the Company mapped its internal and external stakeholders?

Yes. The Company has mapped its stakeholders as a part of its stakeholder engagement strategy development process.

2. Out of the above, has the Company identified the disadvantaged, vulnerable and marginalised stakeholders?

Yes. The Company has identified the communities which are vulnerable and need focused intervention.

The Company has a defined process for identifying key communities, their needs and prioritising interventions. The key communities consist of areas in and around the Company's manufacturing sites. Criteria for selection of key communities are based on the Mission, Vision and Values ('MVV'), neighbourhood of the area where the Company operates, impact on society and benefits to underprivileged people. The needs are identified through various listening and learning methods, participatory rural appraisal, need assessment, etc. The needs are prioritised based on parameters that help balance both the needs of the community and the Company's long term strategic growth.

3. Are there any special initiatives taken by the Company to engage with the disadvantaged, vulnerable and marginalised stakeholders? If so, provide details thereof, in about 50 words or so.

- Yes. The Company follows an integrated development approach, which specifically targets the disadvantaged, vulnerable and marginalised stakeholders.
- It has been the Company's constant endeavour to focus on inclusive and collaborative growth. The Company began its journey a few years ago by focusing on

Affirmative Action i.e. disadvantaged communities and while the Company continues to progress on this roadmap, it has expanded its focus on diversity to additionally cover gender diversity, disadvantaged regions and the differently abled, all of which are important segments that can help create a more sustainable organisation for the future. Towards this objective, the Company has reconstituted its current Affirmative Action Council into a Diversity Council. The organisation has instituted Diversity Council ('DC') led by Managing Director & Senior Leaders to focus on these four areas. The Company's leadership drives the Affirmative Action agenda across the organisation with passion and commitment.

- The Company's inter-related development interventions are named as BEACoN (Blossom – Enhance – Aspire – Conserve – Nurture).
- All social initiatives conducted under these five verticals are around Company's three areas of operations. It follows an integrated development approach to improve the quality of life, especially in their neighbourhoods and for the farmers. As per the need assessment, the SC/ST community across the three regions aspires for better education, health care, agriculture/animal husbandry extension, better livelihood skills and employment.
- The Company's entry level recruitments like Diploma Engineer Trainees, Graduate Engineer Trainees and Management Trainees focus on colleges with areas dominant by SC/ST like the North East. The internal job posting initiative 'SHINE' is further enhanced to include referrals for candidates from the economically and socially backward communities. In the last year Seamlessly Harnessing Internal Expertise+ (SHINE+) was launched as a corporate initiative, which has more reward for recruitment consultants for shortlisting of candidates that helps improve the Company's employee diversity especially for gender diversity, social and economically backward regions and communities and for differently abled candidates.

Principle 5: Businesses should respect and promote human rights

1. **Does the policy of the Company on human rights cover only the Company or extend to the Group / Joint Ventures / Suppliers / Contractors / NGOs / others?**

The Company follows Principles of the International Declaration of Human Rights. Its policies support, respect

and protect the human rights of its direct as well as indirect employees. The Sustainability Policy addresses these aspects.

2. **How many stakeholder complaints have been received in the past financial year and what percent was satisfactorily resolved by the Management?**

The Company did not receive any complaint with respect to human rights violation.

Principle 6: Businesses should respect, protect and make efforts to restore the environment

1. **Does the policy related to Principle 6 cover only the Company or extends to the Group / Joint Ventures / Suppliers / Contractors / NGOs / Others?**

- The Company has made Supplier Sustainability Guidelines to extend the reach for capturing the sustainability aspect data from its suppliers. The Company also works with Government, Non-Governmental Organisations on different projects for environmental protection.

- The Company's Policies - Safety, Health & Environment (SHE), Corporate Sustainability, Community Development; extend support to all stakeholders influencing the entire value chain. This also helps in sustaining environmental impacts beyond the prescribed limits and address social responsibility.

2. **Does the Company have strategies / initiatives to address global environmental issues such as climate change, global warming, etc.? If yes, please give hyperlink for webpage etc.**

- Yes. Tata Chemicals has adopted Tata Group's Climate Change Policy which is an integral part of the Company's strategy to help the organisation's growth in a carbon conscious manner.

- The Company has strategy, which includes identifying opportunities for carbon abatement, investing in low carbon growth and tapping into opportunities presented by the emerging low carbon technologies. It has identified abatement levers, low carbon growth opportunities and carbon offset opportunities towards that end. The carbon abatement measures are chosen on the basis of the techno-commercial feasibility of implementation, maturity and availability of technologies and the magnitude of emissions reduction. Moreover, the Company is in the process to adopt carbon pricing as an additional indicator to address environmental issues.

Biodiversity

- The Company conducted Environmental Impact Assessment studies to assess the impacts of its operations on nearby biodiversity and surrounding environment periodically.
- While operating in harsh ecological conditions/semi-arid conditions at Mithapur site, highly alkaline soil conditions at Babrala site, the Company has restored the ecological balance in the surrounding habitats by converting waste lands into greenbelt.
- The Company's commitment towards continual improvement has triggered programs such as mangrove conservation and regeneration at West Coast near Mithapur and at East Coast for Aila affected region of Sundarban near Haldia.
- For preserving biodiversity of Okhamandal, the Company conducted biodiversity reserve plantation project, implemented with the support of employee volunteers, seeks to preserve indigenous vegetation. Under the project, a total of 150 acres have been afforested with 133 native species of vegetation.
- The Company's salt works provide a safe habitat for a number of migratory aquatic birds, who use this space to roost and breed. The Company continues to be good hosts to them.
- The Company has also adopted Tata Group initiative on valuation of natural capital program for Chemicals business to pilot the protocol developed by Natural Capital Coalition.

Water Management, Water Footprinting, Carbon Footprinting

- Life Cycle Assessment ('LCA') Study for key products, Carbon Footprint ('CFP') and Water Footprint ('WFP') assessment for all sites were taken up. Based on these assessments, the Company derived targets and strategy for climate change and water management. The Company's Mission Jal program is the strategy for addressing water footprint outcomes through the value chain.
- CDP's carbon action initiative facilitates in the implementation of cost-effective greenhouse gas emission reduction initiatives in line with emerging best practices. It is becoming increasingly important that they are able to evaluate exposure of a specific company to the material risks and opportunities presented by climate change, both in its direct operations and in its value chain. The Company uses the power of measurement and information disclosure to improve the management of environmental risk. The Company is responding to CDP since FY 2008-09 and is consistently maintaining its position. The Company has also

started CDP water reporting in FY 2012-13. CDP's supply chain program enables the Company to implement successful supplier engagement strategies, reduce upstream emissions, control water impact and manage risk in a changing climate. The Company has also taken a call to use Carbon price as another tool to assess projects before implementing them.

- For more info visit - http://www.tatachemicals.com/Sustainability/sustainability_report.html

3. Does the Company identify and assess potential environmental risks?

Yes. The Company has a formal process for Enterprise Risk Management ('ERM'). Through ERM process and SWOT (Strength Weakness Opportunity Threat) analysis potential environmental risks are identified at business level. The identified risks are assessed. Relevant action plans are prepared for the mitigation of risks and it is periodically reviewed. The Company has also adopted ISO 140001 and is a signatory to Responsible Care which guides the Company as and when required. Aspect-Impact analysis with rating system is in place for assessing operational environmental impacts at site. Impact register is periodically reviewed for keeping it updated and for improving environmental performance. Environmental Management Plan ('EMP') is in place for mitigating the environmental impacts thus reducing operational environmental risks. The Company has also initiated Life Cycle Assessment for its major products to estimate environmental impact over its life cycle. The Company has conducted environment impact assessment by third party for Mithapur plant in FY 2018-19.

4. Does the Company have any project related to Clean Development Mechanism? If so, provide details thereof in about 50 words or so. Also, if Yes, whether any environmental compliance report is filed?

Yes. Clean Development Mechanism ('CDM') is an integral part of the Company's strategy for carbon conscious growth of the organisation. The Company got 2 CDM projects registered in 2004 and 1 CDM project in 2005. As on date, the Company does not have any CDM projects but has become an unsaid practice to assess CDM potential in each and every project and to address the same in the feasibility report of the project. In the new facilities, the Company is actively promoting solar power systems.

5. Has the Company undertaken any other initiatives on - clean technology, energy efficiency, renewable energy etc? Y / N. If yes, please give hyperlink to web page etc.

Yes. As per Tata Chemicals' strategy of Carbon conscious growth, the Company has taken various initiatives to address

clean technology, renewable energy and energy efficiency etc. Abatement levers have been identified during carbon footprint base line study which is an integral part of the Long Term Sustainability Planning ('LTSP') to identify key projects in the journey of responsible operations. Some of the initiatives taken by the Company are as follows:

- Renewable Source of Energy
 - Solar energy to produce solar salt and in turn Soda Ash at Mithapur
 - Solar energy in the new plant at Mambattu
- Natural Capital Accounting & Biodiversity Ecosystem
 - The Company has also adopted Tata Group initiative on valuation of natural capital program for Chemicals business to pilot the protocol developed by Natural Capital Coalition
 - Mangrove plantation and bio-diversity plantation
- Waste Management
 - Well integrated mechanism to maximise the waste utilisation within the operations
 - Emphasising to develop value added product out of waste such as developed Green Bricks out of Sulphur Rich Fly Ash
 - Unique set-up of Cement plant to absorb waste generated out of other plants within the Mithapur operations
 - Collecting back and disposing post-consumer plastic waste under extended producer responsibility framework of Plastic Waste Management Rule 2016
- Green Packaging application
 - Reusing secondary packaging in most products to reduce Carbon Footprint
 - Scaling up single layer recyclable packaging in Tata Salt
- Organic Produce
 - Introduced organic pulses
- Green Supply Chain
 - Maximising Rail transportation
 - Full load basis transportation and preference to bulker movements

Besides this, the Company also endeavours to reduce indirect energy consumptions. Some of the initiatives are as follows:

- Preventive and reliability centered maintenance etc. to reduce downtime and ensure smooth operations
- On-off timer system has been implanted in all street lights. Changed florescent bulb instead of mercury light
- Low voltage variable frequency drives for throttled and recirculation applications
- Premium efficiency motors to replace rewound motors
- Thermograph audits and actions for steam distribution network

For more information, visit - http://www.tatachemicals.com/Sustainability/sustainability_report.html

6. Are the Emissions / Waste generated by the Company within the permissible limits given by CPCB / SPCB for the financial year being reported?

The Company emissions/waste generated reports are regularly submitted to CPCB/SPCB and no major non-conformances have been observed for FY 2018-19.

7. Number of show cause / legal notices received from CPCB / SPCB which are pending (i.e. not resolved to satisfaction) as on end of Financial Year.

50 observations were received through Show Cause Notices/ Site Visits / Directions by the regulatory during FY 2018-19 out of which 29 observations have been closed. The remaining 21 observations would be closed shortly.

The organisation has upgraded the air pollution control devices (ESPs and Bag filters in Captive Power Plant and Cement Plant) as per the revised norms notified by the Ministry of Environment, Forest and Climate Change. The Company has action plan in place for observations made by the regulatory agencies through notices and site visit instructions and have submitted time bound action plans to the regulatory agencies.

Principle 7: Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner

1. Is your Company a member of any trade and chambers or association? If Yes, name only those major ones that your business deals with.

Yes. The Company has a stewardship role in the chemical industries. It is represented in Confederation of Indian Industry ('CII'), National Committee on Environment, Institute of Quality Advisory Council, Indian Chemical Council ('ICC'), Council of European Union Chambers of Commerce, in India ('EUCCI') Employers' Federation of India, Director's Guild, Bombay Chamber of Commerce and Industry ('BCCI'), All India Management Association ('AIMA'), etc. and also CII WR and CII National Council, CII National Committee on FMCG, CII National committee on Nutrition, CII Maharashtra Forum on Agriculture & Food Processing and Bombay Chamber of Commerce - "Shadow the Leader", All India Manufacturer's Organisation ('AIMO'), The Advertising Standards Council of India ('ASCI'), Maharashtra Economic Department Council.

2. Have you advocated / lobbied through above associations for the advancement or improvement of public good? If yes, specify the broad areas (drop box: Governance and Administration, Economic Reforms, Inclusive Development Polices, Energy Security, Water, Food Security, Sustainable Business Principles, Others)

Yes

The Company has participated in industry body consultations in the following areas:

- Governance and administration
- Inclusive development and affirmative action
- Principles for sustainable business
- Economic / sector reform
- Skill development and skill building

Tata Code of Conduct is the guide that the Company uses for advocacy.

Principle 8: Businesses should support inclusive growth and equitable development

1. Does the Company have specified programmes / initiatives / projects in pursuit of the policy related to Principle 8? If yes, details thereof.

Yes, the organisation follows an integrated approach towards development programs and follows the policy of Sustainable Development, participatory approach and transparency.

The Company's overall community development interventions have been named as BEACoN (Blossom – Enhance – Aspire – Conserve – Nurture):

Blossom - Capacity building and empowerment of local communities through sustainable and replicable handicraft development model

- a. Promotion and development of traditional handicrafts – Okhai
- b. Clusters Development

Enhance - Enhance income of the Community

- a. Agriculture Development Program
- b. Animal Husbandry
- c. Uday Foundation – Rural BPO
- d. Infrastructure Development Support
- e. Centre of Excellence for Sustainable Agriculture & Farm Excellence established under TCSR

Aspire - Facilitate and empower local communities to seek functional education and skills to enable sustainable socio-economic development

- a. Education (Entry level, Primary, Secondary and Higher Secondary) – for children, adults, migrating communities
- b. Vocational Skill Development

Conserve - Maintain ecological balance and conserve natural resources through participatory approach for environmental sustainability

- a. Nature Conservation - Whale Shark Conservation, Coral Reef Restoration, Mangrove Plantation, Biodiversity Reserve Plantation, Marine Turtle Monitoring, Community Conserved Wetland, monitoring of Birdlife, Eco Clubs
- b. Climate Change Mitigation - Climate Neutral Village, Solar powered electric fencing, Energy efficient cooking stoves, Biogas plants, Solar Street Lights
- c. Land Development, Water Management and Conservation
- d. Centre of Excellence for Coastal and Marine Biodiversity Conservation

Nurture - Improve the health status of community through preventive and curative measures

- a. Health Care - Health Care camps, Eye camps, Awareness & Training Programs
- b. Nutrition - Immunisation and Counselling drives, Malnourishment, Homestead Herbal and Kitchen Garden
- c. Sanitation - Swachh Bharat Mission Cleanliness Drives, Construction of toilets and sanitation units

- d. Safe Drinking Water - Roof Rainwater Harvesting Structures, Repair of hand pumps, supporting households with water purifier systems

Empowerment – Empowerment is the underlying theme in all the programs. Inclusion of the socially backward population especially the women and scheduled caste & scheduled tribe population is done in all programs.

Relief Programs

Tata Chemicals continues its support to any disaster, which hits our country.

For further information on projects and achievement, please visit www.tcsrd.org; www.okhai.org

2. Are the programmes / projects undertaken through in-house team / own foundation / external NGO / government structures / any other organisation?

The Company's Corporate Social Responsibility ("CSR") projects are implemented through the Tata Chemicals Society for Rural Development ("TCSRD") which was set up in 1980 to protect and nurture rural populations. Since then the Company has set up other focused organisations such as the Golden Jubilee Foundation, Uday Foundation and Okhai - Centre for empowerment. In 2018, Tata Chemicals started a new organisation – "Ncourage Social Enterprise Foundation" to promote enterprise development in the rural areas of India. We work with partners who respect and agree to our organisations' core CSR values. TCSRD has always worked in partnership with government agencies, voluntary bodies and local authorities in implementing CSR initiatives. The Company has partnered with various government and non-government organisation such as, Sir Ratan Tata Trust, WASMO (Water and Sanitation Management Organisation), NABARD (National Bank for Agriculture and Rural Development), American India Foundation, Wildlife Trust of India and GRIMCO (Gujarat Rural Industries Marketing Corporation Ltd.).

3. Have you done any impact assessment of your initiative?

Yes. Impact of activities is measured on a regular basis by doing impact assessment, social audit by third party and by assessment as per Tata Sustainability Framework Analysis. A community satisfaction survey is carried out yearly to understand the perception of the community, reach of programs and the satisfaction level of the community.

There are various types of annual social assessment that are being conducted for the impact of the program, community satisfaction, need identification and future planning.

Details of assessments are mentioned below:

Sr. No.	Name of the Assessment	Beneficiaries	Remark
1.	Community Satisfaction Index	a) Community members b) Beneficiaries of project c) Panchayat Leaders d) Vendors	Internal annual & external every 3 rd year
2.	Tata Affirmative Action Program Assessment	People from Backward classes on Education, Employment, Entrepreneurship and Employability	External
3.	External Assessment	Beneficiaries of the program	External assessors
4.	Social Return on Investments (SROI)	Beneficiaries of the program	External assessors

4. What is the Company's direct contribution to community development projects - Amount in INR and the details of the projects undertaken?

For FY 2018-19, the amount spent for community development projects: ₹ 36.54 crore.

The Company's inter-related development interventions are named as BEACoN (Blossom – Enhance – Aspire – Conserve – Nurture):

Blossom - Capacity building and empowerment of local communities through sustainable and replicable handicraft development model

Promotion and development of traditional handicrafts – Okhai

Okhai, with the objective to create livelihood opportunities for rural women artisans impacted 1,400 artisans across India. Okhai provided support to the artisans through training, design development and online retail of the crafts. Okhai worked as a bridge between the artisans and the customers for scaling up the sale of their handicraft products by understanding customer needs, manufacturing the products with the help of the artisans and facilitating in sale through the Okhai website and its sales outlets. During the year, 400 products were launched online as compared to about 200 per year in previous years. Okhai's sales doubled this year resulting in Okhai impacting many more artisan groups and increase in their income. Okhai is now being recognised as a Sustainable & online Fashion Brand with over 1,50,000 online followers and 18,000 online customers. The past year at Okhai also saw a huge improvement in internal processes, which resulted in on time product launches.

Cluster Development

Cluster Development program strives to develop entrepreneurship qualities in rural women and guide them adeptly engage in productive enterprises. TCSRDR organised training on entrepreneurship development for all the women members of Self Help Groups cluster, so that they are equipped with entrepreneur skills and can establish their respective production unit.

At Mithapur, six clusters / group enterprises have been formed. They are Bandhani, Rexene & Leather, Bead work, Jute, Block print and Coconut Fibre products, which are also linked to Okhai for providing a marketing platform for the same.

Enhance - Enhance income of community

Agriculture Development Program

The Company is promoting livelihood of farmers through its agriculture and livestock development programs. Under the agriculture development program, the Company organised training of farmers, exposure visits, field demonstration and supported with seeds and agri-equipment for enhancing the productivity. During the year, more than 4,000 farmers were directly benefited from various interventions.

In Mithapur, TCSRDR in partnership with CSPC (Coastal Salinity Prevention Cell) is implementing the OSGP (Okhamandal Samridh Gram Pariyojna) project with the objective to double the income of farmers in 4 years. TCSRDR has facilitated registration of a Farmers Producer Company which would benefit approximately 1,200 farmers.

In Uttar Pradesh, the Company promoted cultivation of pulses, oil seeds and vegetables which has helped in enhancing income of the farmers. In West Bengal, SRI (Systematic Rice Intensification) method of paddy cultivation was promoted as second crop and in Sriperumbudur, Tamil Nadu vegetable cultivation was promoted to be grown in the kitchen garden.

Animal Husbandry

Promotion of dairy farming: Activities in this project include FMD Vaccination, HS Vaccination, Deworming Camps and Animal Health Camps at different locations. In FY 2018-19, approximately 1.30 lakh cattle were covered under the cattle health and breed improvement initiatives.

Agri Allied Activities: In West Bengal, the Company supported more than 200 families for poultry farming which helped them enhance their family income.

Uday Foundation

Under Uday Foundation, the Company focused on ensuring safe drinking water for the rural households in different parts of India through generating awareness and supporting them with water purifiers. Approximately, 2 lakh people were made aware and sensitised for using clean and safe drinking water.

Infrastructure Development Support

Infrastructure Development Program is the key to rural development as it helps improve rural economy and quality of life. TCSRDR since its inception has given importance to this Program as it is essential for the overall development of the community. Projects like infrastructure support to schools and construction of individual toilets were taken up.

Aspire - Facilitate and empower local communities to seek functional education and skills to enable sustainable socio-economic development

Education

Education programs at all locations have been taken up based on the need of the area with a target of zero drop-out of students at all levels of education starting from pre-primary education. The focus has been on improvement in quality of education in schools, providing scholarship support to meritorious students, providing basic infrastructure support to schools, imparting bridge courses and provide required coaching support to youth for their academic and professional growth.

During the year, Education programs like E- Library, Learning Enhancement Program, Teacher training, Scholarships, Child Learning and Improvement Program, SNDR (Shreemati Nathibai Damodar Thackersey Women's University) Center, Career Resource Center, Shala Pravesh Utsav, Adult Literacy classes, Residential Summer Camp on Spoken English and Personality Development, project for primary school children with Sir Ratan Tata Trust were implemented, benefiting approximately 13,500 children.

A separate initiative 'Learning And Migration Program' ('LAMP') is being carried out in seven districts of Gujarat for the migratory population. The program is run in partnership with American India Foundation which with the help of implementing NGOs is working closely with community and government schools to strengthen school governance system and quality of education. Learning Enrichment Program (LEP) and Learning Resource Centre (LRC) are two important components of the LAMP program in which innovative models of teachings have been adopted. More than 6,000 children were benefited by the program.

Vocational Skills

TCSR is running the skill development program in different locations to train unemployed youth and facilitate in their employment or entrepreneurship development.

The vocational skill training includes mobile repairing, computer repairing, electrical fittings, AC/Refrigerator repairing, etc.

There are specially designed training for women like tailoring, beautician course and nursing. TCSR has tied up with Construction Skill Training Institute ('CSTI') (L&T) for providing industrial trainings like bar bending, masonry, electrical fittings & carpentry and with CIPET for training on machine operation in plastic processing. The Company is also supporting Tata Strive Centre for running skill development centre at Aligarh.

During the year, more than 2,110 youth were trained on different vocational skills which would help them get employment or start their own enterprises.

Conserve - Maintain ecological balance and conserve natural resources through participatory approach for environmental sustainability

Biodiversity conservation program continued at Mithapur with projects like recovery of coral reef, conservation of whale shark, mangrove plantation, rejuvenating indigenous flora and Fauna and environmental education initiatives.

The Whale Shark project at Mithapur focuses on habitat study and research on migratory pattern and breeding biology of this fish.

During the year, 19 whale sharks caught accidentally in the fishing nets along the Saurashtra coast were rescued and released taking the total rescue figure since the inception of the campaign to more than 700. The Company is also working with the Eco Clubs in schools at Mithapur to raise awareness on environment conservation.

Under the Greening Program, the Company planted 2.25 lakhs mangroves in Dwarka, Gujarat and Sundarbans, West Bengal.

Land development program, Water management and conservation like Mission Jal and drip irrigation were also carried out at Uttar Pradesh and Gujarat. In Uttar Pradesh, more than 2,500 acres of land was reclaimed with the help of laser levelling and deep ploughing.

On the occasion of 150th Anniversary of the Tata Group, the Tata Centre of Excellence for Coastal and Marine Biodiversity Conservation was inaugurated at Mithapur.

Nurture - Improve the health status of community through preventive and curative measures

Health Care

Improving the health of the rural community is an important part of the Company's overall strategy. This year, 38,426 people were benefited through health awareness camps, counselling and treatment in Mithapur and Babrala. Eye camps were organised at Mithapur and Babrala to address the issue of vision problems. In the camps organised by the Company, 1,941 people underwent eye check-up and were supported with spectacles while 252 patients were supported for cataract operation.

Nutrition – Women & Child Health

In Uttar Pradesh, more than 30,000 people were benefited from the health care initiatives which included treatment for general health issues and vaccination. In Mithapur, Gujarat, approximately 4,000 people were supported with general health treatment services.

Tata Chemicals also implemented 'Holistic Nutrition' project in Amrawati, Maharashtra and Barwani, Madhya Pradesh which aims at holistic improvement of community health by improving the nutritional intake of women and children (0 to 2 years). Under the project, activities like screening of women for anaemia, identification of Severely Acute Malnourished (SAM) & Moderately Acute Malnourished (MAM) children and facilitating in treatment of anemic women and malnourished children were taken up. During the year, more than 9,000 women and 6,000 children were benefited. The Company also supported approximately 300 households with vegetable seeds to grow in their kitchen garden.

Sanitation

The Company has partnered with WASMO for undertaking drinking water and sanitation activities under CADP project. The project aims to provide drinking water facilities to the rural households of Okhamandal with the help of village institutions. During the year, 1,254 households were provided tap connection for supply of water and 350 households were supported with construction of toilets.

Empowerment

The Company is reaching out to the socially backward population of the community, specially the women, scheduled caste and the scheduled tribe through its empowerment program. The objective of the empowerment program is to mainstream them by inclusion in all the developmental programs. In 2018, the Company initiated a new program 'Kasturi' to enhance the entrepreneurship skills

of women that would help in enhancing the sale of farm products.

Relief Programs

Tata Chemicals continues its support to any disaster, which hits our country. During the year, relief support was provided in flood affected areas of Gujarat, Tamil Nadu and Kerala.

For further information on projects and achievement, please visit www.tcsrd.org; www.okhai.org.

5. Have you taken steps to ensure that this community development initiative is successfully adopted by the community? Please explain in 50 words, or so.

Yes. Community is our key stakeholder and the Company believes that development of the community is only possible through engagement and partnership from all the stakeholders. The guiding principles for the engagement with the community are enshrined in the 'Community Development Policy'. These principles are sustainability, participatory approach, transparency, networking & partnership, creating a resource centre and volunteering.

The process of engagement with the community starts with identification of the key community, their needs and prioritisation. The needs are identified through various listening and learning methods, participatory rural appraisals, household survey and focused group discussion.

The participation of the stakeholders is vital to the success of all programs and forms the basis of all program designs. The projects are continuously monitored and evaluated to measure impact. Stakeholder Engagement Surveys and Social Impact Audits are conducted to assess project outcomes. The Company develops exit strategy for projects which have matured and withdraws after handing over the project to the community.

Principle 9: Businesses should engage with and provide value to their customers and consumers in a responsible manner

1. What percentages of customer complaints / consumer cases are pending as on the end of financial year?

Products	Cases pending as on March 31, 2019 (%)
Chemicals	0.16
WAPU (Water Purifier)	< 1.5
Consumer Products – Salt	0.28
Nutraceuticals (Nx & NQ)	Nil

2. Does the Company display product information on the product label, over and above what is mandated as per local laws? Yes / No / N.A. / Remarks (additional information)

Yes. Product information about the physical dimensions and/or chemical compositions / nutritional information / nutrient content is provided through the product labels/pack declaration and/or catalogues. Round the clock information of the products is available on the Company's website and at the call centre, during specific hours of the working day. All packages retail / bulk contain product information including, Product Manager's address / Customer Relationship Manager's contact number to enable consumers to correspond. All the Company's information is voluntary with various branding elements, with no comment on competitors or regional bias statements. Wherever applicable, specific certification requirements of regulatory authorities and some marks like ISI (Indian Standards Institute), FSSAI (Food Safety and Standards Authority of India), Halal, etc. are provided on the product labels and / or catalogues.

3. Is there any case filed by any stakeholder against the Company regarding unfair trade practices, irresponsible advertising and / or anti-competitive behaviour during the last five years and pending as on end of financial year? If so, provide details thereof, in about 50 words or so.

There is no anti-competitive, abuse of dominant position or unfair trade practices case pending against the Company.

4. Did your Company carry out any consumer survey / consumer satisfaction trends?

Yes. Customer satisfaction survey is carried out by the Company every year.

Overall customer satisfaction for FY 2018-19 is given below:

SBU	Consumer Satisfaction (%)
Chemicals	82
Consumer Products (salt, pulses, spice etc.)	Retailer: 76 and Stockist: 74
Nutraceuticals	80

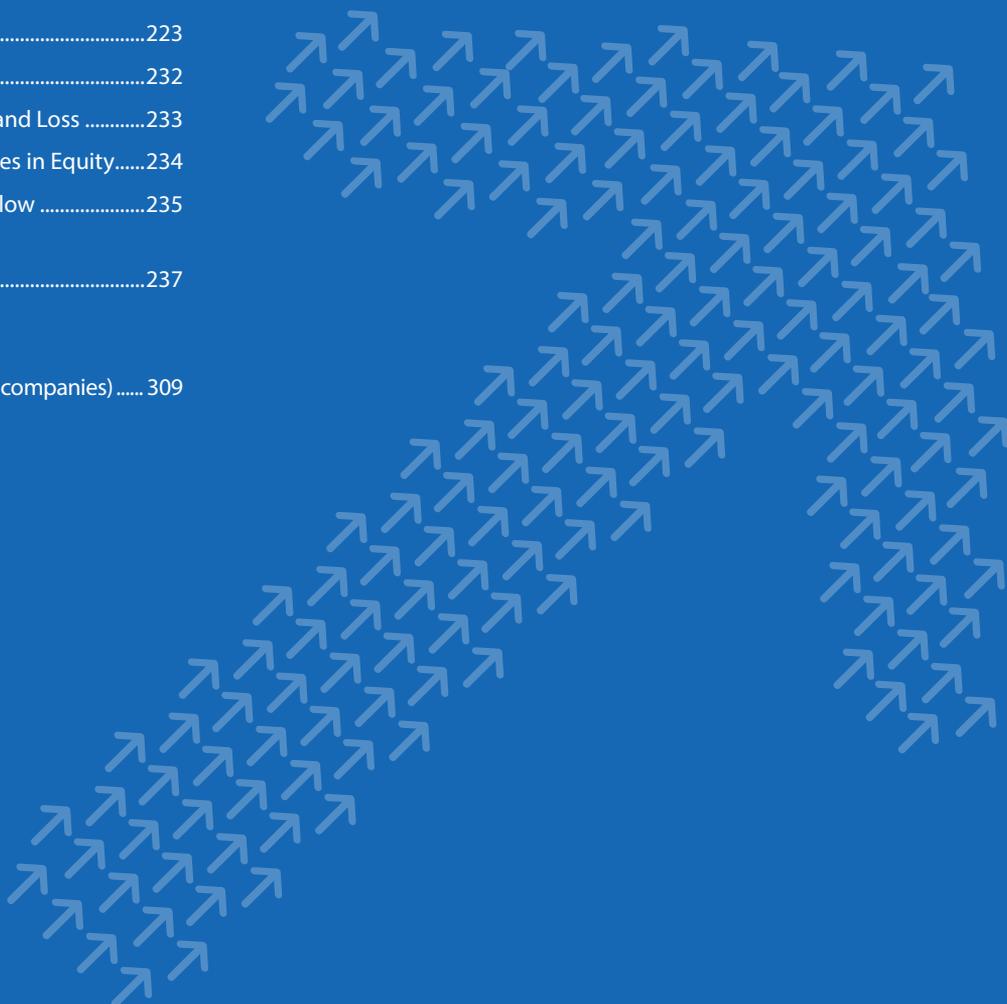
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Independent Auditors' Report

To the Members of Tata Chemicals Limited

Report on the Audit of the Standalone Financial Statements

Opinion

We have audited the standalone financial statements of Tata Chemicals Limited ("the Company"), which comprise the standalone balance sheet as at March 31, 2019, and the standalone statement of profit and loss (including other comprehensive income), standalone statement of changes in equity and standalone statement of cash flows for the year then ended, and notes to the standalone financial statements, including a summary of the significant accounting policies and other explanatory information (herein referred to as "standalone financial statements").

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid standalone financial statements give the information required by the Companies Act, 2013 ("Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2019, and profit and other comprehensive income, changes in equity and its cash flows for the year ended on that date.

Description of Key Audit Matter

Revenue recognition (refer notes 2.14 and 24 to the Standalone Financial Statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>Revenue is measured net of discounts, rebates and incentives earned by customers on the Company's sales.</p> <p>Due to the Company's presence across different marketing regions within the country and the competitive business environment, the estimation of the various types of discounts, rebates and incentives to be recognized based on sales made during the year is material and considered to be judgmental.</p> <p>Therefore, there is a risk of revenue being misstated as a result of faulty estimations over discounts, incentives and rebates.</p> <p>Revenue is recognized when the control of the underlying products has been transferred to the customer. There is a risk of revenue being overstated due to fraud resulting from the pressure on management to achieve performance targets at the reporting period end.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> Assessing the appropriateness of the revenue recognition accounting policies, including those relating to discounts, rebates and incentives by comparing with applicable accounting standards. Testing the design, implementation and operating effectiveness of the Company's general IT controls over the Company's systems and manual controls which govern recording of revenue and discounts, rebates and incentives in the general ledger accounting system. Performing substantive testing (including year- end cut-off testing) by selecting samples of revenue transactions recorded during the year (and before and after the financial year end) by verifying the underlying documents, which included sales invoices/contracts and shipping documents.

Basis for Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those SAs are further described in the *Auditor's Responsibilities for the Audit of the Standalone Financial Statements* section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the standalone financial statements under the provisions of the Act and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the standalone financial statements of the current period. These matters were addressed in the context of our audit of the standalone financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The Key Audit Matter	How the matter was addressed in our audit
	<ul style="list-style-type: none"> • Comparing the historical discounts, rebates and incentives to current payment trends. We also considered the historical accuracy of the Company's estimates in previous years. • Assessing manual journals posted to revenue to identify unusual items. • Considered the adequacy of the Company's disclosures in respect of revenue.

Impairment evaluation of Investments in subsidiaries and joint ventures (refer notes 2.12 and 7 to the Standalone Financial Statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>The carrying amount of the investments in subsidiaries and joint ventures (held at cost less impairment) represents 30% of the Company's total assets.</p> <p>We do not consider the valuation of these investments to be at a high risk of significant misstatement, or to be subject to a significant level of judgment, except for the investment valuations based on discounted cash flows which involve significant estimates and judgment, due to the inherent uncertainty involved in forecasting and discounting future cash flows. Further due to their materiality in the context of total assets of the Company, this is considered to be significant to our overall audit strategy and planning.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> • Comparing the carrying amount of investments with the relevant subsidiaries' and joint ventures' (draft) balance sheets to identify whether their net assets, being an approximation of their minimum recoverable amount, were in excess of their carrying amount and assessing whether those subsidiaries/joint ventures have historically been profit-making. • For the investments where the carrying amount exceeded the net assets value, comparing the carrying amount of the investment with the expected value of the business based on a suitable multiple of the subsidiaries' and joint ventures' earnings or discounted cash flow analysis. • Testing and challenging the assumptions used in the discounted cash flow analysis based on our knowledge of the Company and the markets in which the subsidiaries and joint ventures operate with the assistance of our valuations team. • Considering the adequacy of disclosures in respect of the investments in subsidiaries and joint ventures.

Litigations and claims (refer notes 2.3.4, 18 and 41 to the Standalone Financial Statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>The Company operates in various States within India, exposing it to a variety of different Central and State laws, regulations and interpretations thereof. In this regulatory environment, there is an inherent risk of litigations and claims.</p> <p>Consequently, provisions and contingent liability disclosures may arise from direct and indirect tax proceedings, legal proceedings, including regulatory and other government/department proceedings, as well as investigations by authorities and commercial claims.</p> <p>At March 31, 2019, the Company's contingent liabilities for legal matters were ₹ 570.40 crores (refer note 41.1 to the standalone financial statements) and provisions for legal matters aggregated ₹ 139.55 crores (refer note 18 to the standalone financial statements).</p> <p>Management applies significant judgment in estimating the likelihood of the future outcome in each case when considering whether, and how much, to provide or in determining the required disclosure for the potential exposure of each matter. This is due to the highly complex nature and magnitude of the legal matters involved along with the fact that resolution of tax and legal proceedings may span over multiple years, and may involve protracted negotiation or litigation.</p> <p>These estimates could change substantially over time as new facts emerge as each legal case progresses.</p> <p>Given the inherent complexity and magnitude of potential exposures across the Company and the judgment necessary to estimate the amount of provisions required or to determine required disclosures, this is a key audit matter.</p>	<p>Our procedures included:</p> <ul style="list-style-type: none"> • Reviewing the outstanding litigations against the Company for consistency with the previous years. Enquire and obtain explanations for movement during the year. • Discussing the status of significant known actual and potential litigations with the Company's in-house Legal Counsel and other senior management personnel who have knowledge of these matters and assessing their responses. • Reading the latest correspondence between the Company and the various tax/legal authorities and review of correspondence with / legal opinions obtained by the management, from external legal advisors, where applicable, for significant matters and considering the same in evaluating the appropriateness of the Company's provisions or disclosures on such matters. • Examining the Company's legal expenses and reading the minutes of the board meetings, in order to ensure that all cases have been identified. • With respect to tax matters, involving our tax specialists, and discussing with the Company's tax officers, their views and strategies on significant cases, as well as the related technical grounds relating to their conclusions based on applicable tax laws. • Assessing the decisions and rationale for provisions held or for decisions not to record provisions or make disclosures. • For those matters where management concluded that no provisions should be recorded, considered the adequacy and completeness of the Company's disclosures.

Information Other than the Standalone Financial Statements and Auditors' Report Thereon

The Company's management and Board of Directors are responsible for the other information. The other information comprises the information included in the Company's annual report, but does not include the financial statements and our auditors' report thereon. Our opinion on the standalone financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the standalone financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the standalone financial statements or our knowledge obtained in the audit or otherwise appears to be

materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Management's Responsibility for the Standalone Financial Statements

The Company's management and Board of Directors are responsible for the matters stated in Section 134(5) of the Act with respect to the preparation of these standalone financial statements that give a true and fair view of the state of affairs, profit and other comprehensive income, changes in equity and cash flows of the Company in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) specified under Section 133 of the Act. This responsibility

also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding of the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the standalone financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the standalone financial statements, management and Board of Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Board of Directors is also responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Standalone Financial Statements

Our objectives are to obtain reasonable assurance about whether the standalone financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these standalone financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the standalone financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under Section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the Company has adequate internal financial controls with reference to financial statements in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the standalone financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the standalone financial statements, including the disclosures, and whether the standalone financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the standalone financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditors' Report) Order, 2016 ("the Order") issued by the Central Government in terms of Section 143 (11) of the Act, we give in the "Annexure A" a statement on the matters specified in paragraphs 3 and 4 of the Order, to the extent applicable.

(A) As required by Section 143(3) of the Act, we report that:

- a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
- b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.
- c) The standalone balance sheet, the standalone statement of profit and loss (including other comprehensive income), the standalone statement of changes in equity and the standalone statement of cash flows dealt with by this Report are in agreement with the books of account.
- d) In our opinion, the aforesaid standalone financial statements comply with the Ind AS specified under Section 133 of the Act.
- e) On the basis of the written representations received from the directors as on April 1, 2019 taken on record by the Board of Directors, none of the directors is disqualified as on March 31, 2019 from being appointed as a director in terms of Section 164(2) of the Act.
- f) With respect to the adequacy of the internal financial controls with reference to financial statements of the Company and the operating effectiveness of such controls, refer to our separate Report in "Annexure B".

(B) With respect to the other matters to be included in the Auditors' Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in

our opinion and to the best of our information and according to the explanations given to us:

- i. The Company has disclosed the impact of pending litigations as at March 31, 2019 on its financial position in its standalone financial statements - Refer Note 41 to the standalone financial statements;
- ii. The Company has made provision, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts- Refer Note 17 to the standalone financial statements;
- iii. There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company.
- iv. The disclosures in the standalone financial statements regarding holdings as well as dealings in specified bank notes during the period from 8 November 2016 to 30 December 2016 have not been made in these financial statements since they do not pertain to the financial year ended 31 March 2019.

(C) With respect to the matter to be included in the Auditors' Report under Section 197(16) of the Act:

In our opinion and according to the information and explanations given to us, the remuneration paid by the Company to its directors during the current year is in accordance with the provisions of Section 197 of the Act. The remuneration paid to any director is not in excess of the limit laid down under Section 197 of the Act. The Ministry of Corporate Affairs has not prescribed other details under Section 197(16) of the Act which are required to be commented upon by us.

For **BSR & Co. LLP**
Chartered Accountants
(Firm's Registration No. 101248W/W-100022)

Vijay Mathur
Partner
(Membership No. 046476)

Place: Mumbai
Date: May 3, 2019

Annexure A to the Independent Auditors' Report – March 31, 2019

With reference to the Annexure A referred to in the Independent Auditors' Report to the members of the Company on the standalone financial statements for the year ended March 31, 2019, we report the following:

- (i) (a) The Company has maintained proper records showing full particulars, including quantitative details and situation of property, plant and equipment and investment properties.
- (b) The Company has a programme of physical verification of its property, plant and equipment and investment properties by which the property, plant and equipment and investment properties are verified by the management according to a phased programme designed to cover all the items over a period of three years. In our opinion, this periodicity of physical verification is reasonable having regard to the size of the Company and the nature of its assets. In accordance with the policy, the Company has physically verified certain property, plant and equipment and investment properties during the year and we are informed that the discrepancies were not material and have been properly dealt with in the books of account.
- (c) According to the information and explanations given to us and on the basis of our examination of the records of the Company, the title deeds of immovable properties of land and buildings as disclosed in Note 4 and Note 5 to the standalone financial statements, are held in the name of the Company.
- (ii) The inventory, except for goods-in-transit and stocks lying with third parties, has been physically verified by the management during the year. In our opinion, the frequency of such verification is reasonable. In respect of stocks lying with third parties at the year-end, written confirmations have been obtained. The discrepancies noticed on verification between the physical stocks and the book records were not material and have been properly dealt with in the books of account.
- (iii) According to the information and explanations given to us, the Company has not granted any loans, secured or unsecured, to companies, firms, limited liability partnerships or other parties covered in the register maintained under Section 189 of the Companies Act, 2013 ('the Act').

Accordingly, paragraphs 3 (iii) (a), (b) and (c) of the Order are not applicable to the Company.

- (iv) In our opinion and according to the information and explanations given to us, the Company has complied with the provisions of Sections 185 and 186 of the Companies Act, 2013 in respect of grant of loans, making investments and providing guarantees and securities, as applicable.
- (v) In our opinion, and according to the information and explanations given to us, the Company has not accepted deposits as per the directives issued by the Reserve Bank of India and the provisions of Sections 73 to 76 or any other relevant provisions of the Act and the rules framed thereunder. Accordingly, paragraph 3 (v) of the Order is not applicable to the Company.
- (vi) We have broadly reviewed the books of account maintained by the Company pursuant to the rules prescribed by the Central Government for the maintenance of cost records under Section 148(1) of the Act for cement, organic and inorganic chemicals, and are of the opinion that prima facie, the prescribed accounts and records have been made and maintained. However, we have not made a detailed examination of the cost records with a view to determine whether they are accurate or complete.
- (vii) (a) According to the information and explanations given to us and on the basis of our examination of the records of the Company, amounts deducted/acrued in the books of account in respect of undisputed statutory dues including Provident fund, Profession tax, Income-tax, Duty of customs, Employees' State Insurance, Goods and Service tax, Cess and other material statutory dues have been regularly deposited during the year with the appropriate authorities.

According to the information and explanations given to us, no undisputed amounts payable in respect of Provident fund, Profession tax, Employees' State Insurance, Income-tax, Sales-tax, Service tax, Duty of customs, Duty of excise, Goods and Service tax, Value added tax, Cess and other material statutory dues were in arrears as at March 31, 2019 for a period of more than six months from the date they became payable. Also, refer note 41.1(c) to the standalone financial statements.

- (b) According to the information and explanations given to us, there are no dues of Income-tax, Sales tax, Service tax, Duty of customs, Duty of excise, Goods and Service tax and Value added tax as at March 31, 2019, which have not been deposited with the appropriate authorities on account of any dispute, except as stated below:

Sr. No.	Name of Act	Nature of Dues	Amount * (₹ In crores)	Period to which the amount relates	Forum where Dispute is pending
1	Customs Act, 1962	Custom Duty	23.53	2012-13, 2013-14	Tribunal
			0.35	1987-88, 1992-93, 2001-02, 2011-12, 2012-13	Appellate Authority upto Commissioner's level
2	Central Excise Act, 1944	Excise Duty	0.28	1974-1980, 1978-79, 1982-83, 1981-85	Supreme Court
			50.31	2005-06	High Court
			28.65	1985-1986, 1986-1987, 1987-88, 2006-07 to 2010-11	Tribunal
			0.71	2004-05	Appellate Authority upto Commissioner's level
3	Central Sales Tax, 1956 and Sales Tax Act of Various states	Sales Tax (Central and State) and Value Added Tax	32.61	2006-07, 2007-08, 2008-09, 2015-16	High Court
			0.95	1999-00, 2004-05, 2005-06, 2006-07, 2007-08	Tribunal
			12.82	1991-92 to 1994-95, 1997-98, 1998-99, 1999-00, 2002-06, 2008-16	Appellate Authority upto Commissioner's level
4	The West Bengal tax on entry of Goods into Local Areas Act, 2012	Entry Tax	103.94	2012-13 to 2015-16	High Court
5	The Finance Act 1994 (Service Tax)	Service Tax	11.67	2010-11, 2011-12	Tribunal
6	Income Tax Act, 1961	Income tax	8.22	AY 2014-15	Tribunal (ITAT)

* net of amounts paid under protest.

- (viii) In our opinion and according to the information and explanations given to us, the Company has not defaulted in repayment of loans or borrowings to banks and dues to debenture holders. The Company does not have any outstanding dues to financial institutions and Government.
- (ix) According to the information and explanations given to us and based on our examination of the records of the Company, the Company has not raised any moneys by way of initial public offer or further public offer (including debt instruments) and has not obtained any term loans during the year. Accordingly, paragraph 3 (ix) of the Order is not applicable to the Company.
- (x) According to the information and explanations given to us by the management, we report that no fraud by the Company or on the Company by its officers and employees has been noticed or reported during the year.
- (xi) According to the information and explanations given to us and based on our examination of the records of the Company, the Company has paid/provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act.
- (xii) In our opinion and according to the information and explanations given to us, the Company is not a Nidhi company. Accordingly, paragraph 3 (xii) of the Order is not applicable to the Company.
- (xiii) According to the information and explanations given to us and based on our examination of the records of the Company, transactions with the related parties are in compliance with Sections 177 and 188 of the Act where applicable and details of such transactions have been disclosed in the standalone financial statements as required by applicable Ind AS.

- (xiv) According to the information and explanations given to us and based on our examination of the records of the Company, the Company has not made any preferential allotment or private placement of shares or fully or partly convertible debentures during the year. Accordingly, paragraph 3 (xiv) of the Order is not applicable to the Company.
- (xv) According to the information and explanations given to us and based on our examination of the records of the Company, the Company has not entered into any non-cash transactions with directors or persons connected with them. Accordingly, paragraph 3 (xv) of the Order is not applicable to the Company.
- (xvi) In our opinion and according to the information and explanations given to us, the Company is not required to be registered under Section 45-IA of the Reserve Bank of India Act, 1934. Accordingly, paragraph 3 (xvi) of the Order is not applicable to the Company.

For **B S R & Co. LLP**
Chartered Accountants
(Firm's Registration No. 101248W/W-100022)

Vijay Mathur
Partner
(Membership No. 046476)

Place: Mumbai
Date: May 3, 2019

Annexure B to the Independent Auditors' report on the standalone financial statements of Tata Chemicals Limited for the year ended March 31, 2019

Report on the internal financial controls with reference to the aforesaid standalone financial statements under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013

(Referred to in paragraph 1A (f) under 'Report on Other Legal and Regulatory Requirements' section of our report of even date)

Opinion

We have audited the internal financial controls with reference to standalone financial statements of Tata Chemicals Limited ("the Company") as of March 31, 2019 in conjunction with our audit of the standalone financial statements of the Company for the year ended on that date.

In our opinion, the Company has, in all material respects, adequate internal financial controls with reference to standalone financial statements and such internal financial controls were operating effectively as at March 31, 2019, based on the internal financial controls with reference to financial statements criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (the "Guidance Note").

Management's Responsibility for Internal Financial Controls

The Company's management and the Board of Directors are responsible for establishing and maintaining internal financial controls based on the internal financial controls with reference to financial statements criteria established by the Company considering the essential components of internal control stated in the Guidance Note. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to Company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013 (hereinafter referred to as "the Act").

Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls with reference to standalone financial statements based on our audit. We conducted our audit in accordance with the Guidance Note and the Standards on Auditing, prescribed under Section 143(10) of the Act, to the extent applicable to an audit of internal financial controls with reference to financial statements. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to standalone financial statements were established and maintained and whether such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls with reference to financial statements and their operating effectiveness. Our audit of internal financial controls with reference to standalone financial statements included obtaining an understanding of such internal financial controls, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the standalone financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls with reference to standalone financial statements

Meaning of Internal Financial controls with Reference to Financial Statements

A company's internal financial controls with reference to financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial controls with reference to financial statements include those policies and procedures that (1) pertain to the maintenance

of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial controls with Reference to Financial Statements

Because of the inherent limitations of internal financial controls with reference to financial statements, including the possibility of

collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to financial statements to future periods are subject to the risk that the internal financial controls with reference to financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

For **B S R & Co. LLP**
Chartered Accountants
(Firm's Registration No. 101248W/W-100022)

Place: Mumbai
Date: May 3, 2019

Vijay Mathur
Partner
(Membership No. 046476)

Balance Sheet as at March 31, 2019

	Note	As at March 31, 2019	As at March 31, 2018
₹ in crore			
I. Assets			
(1) Non-current assets			
(a) Property, plant and equipment	4	1,518.14	1,386.75
(b) Capital work-in-progress		527.16	175.87
(c) Investment property	5	21.72	22.36
(d) Goodwill	3(b)	48.00	-
(e) Other intangible assets	6	6.77	8.03
(f) Intangible assets under development		0.16	0.05
(g) Financial assets			
(i) Investments in subsidiaries and joint ventures	7(a)	4,254.69	4,022.30
(ii) Other investments	7(b)	2,461.55	2,366.61
(iii) Loans	8	1.13	1.38
(iv) Other financial assets	9	0.26	5.13
(h) Advance tax assets (net)	22(a)	521.44	420.63
(i) Other non-current assets	10	167.21	75.38
Total non-current assets		9,528.23	8,484.49
(2) Current assets			
(a) Inventories	11	627.68	450.66
(b) Financial assets			
(i) Investments	7(c)	2,146.26	-
(ii) Trade receivables	12	184.84	140.36
(iii) Cash and cash equivalents	13	1,044.75	3,303.29
(iv) Bank balances other than (iii) above	13	56.46	465.63
(v) Loans	8	0.40	0.51
(vi) Other financial assets	9	273.80	71.65
(c) Other current assets	10	135.37	172.08
		4,469.56	4,604.18
Assets classified as held for sale and discontinued operations	23(a)	-	1,085.69
Total current assets		4,469.56	5,689.87
Total assets		13,997.79	14,174.36
II. Equity and Liabilities			
Equity			
(a) Equity share capital	14	254.82	254.82
(b) Other equity	15	11,541.39	11,069.32
Total equity		11,796.21	11,324.14
Liabilities			
(1) Non-current liabilities			
(a) Financial liabilities			
(i) Borrowings	16	13.46	681.07
(ii) Other financial liabilities	17	0.24	0.29
(b) Provisions	18	103.11	117.51
(c) Deferred tax liabilities (net)	19	189.79	172.08
(d) Other non-current liabilities	20	10.50	10.50
Total non-current liabilities		317.10	981.45
(2) Current liabilities			
(a) Financial liabilities			
(i) Borrowings	16	0.99	0.61
(ii) Trade payables	21		
- Outstanding dues of micro enterprises and small enterprises		18.04	2.33
- Outstanding dues of creditors other than above		550.57	423.10
(iii) Other financial liabilities	17	933.84	640.66
(b) Other current liabilities	20	53.84	32.78
(c) Provisions	18	203.08	97.19
(d) Current tax liabilities (net)	22(b)	124.12	122.15
		1,884.48	1,318.82
Liabilities directly associated with discontinued operations	23(b)	-	549.95
Total current liabilities		1,884.48	1,868.77
Total liabilities		2,201.58	2,850.22
Total equity and liabilities		13,997.79	14,174.36
Notes forming part of the financial statements	1-42		

As per our report of even date attached
For B S R & Co. LLP
Chartered Accountants
Firm's Registration No: 101248W/W - 100022

Vijay Mathur
Partner
Membership No. 046476
Mumbai, May 3, 2019

John Mulhall
Rajiv Chandan
Chief Financial Officer
General Counsel &
Company Secretary

For and on behalf of the Board
Bhaskar Bhat Director
Nasser Munjee Director
Dr. Y. S. P. Thorat Director
Vibha Paul Rishi Director
S. Padmanabhan Director
Padmini Khare Kaicker Director
R. Mukundan Managing Director and CEO
Zarir Langrana Executive Director

Statement of Profit and Loss for the year ended March 31, 2019

₹ in crore

	Note	Year ended March 31, 2019	Year ended March 31, 2018
I. Revenue from operations	24	4,080.86	3,524.17
II. Other income	25	456.94	194.49
III. Total income (I+II)		4,537.80	3,718.66
IV. Expenses			
(a) Cost of materials consumed		596.60	531.39
(b) Purchases of stock-in-trade		296.52	218.58
(c) Changes in inventories of finished goods, work-in-progress and stock-in-trade	11	(13.19)	(1.97)
(d) Excise duty on sale of goods	24	-	58.16
(e) Employee benefits expense	26	260.16	258.03
(f) Finance costs	27	95.54	86.51
(g) Depreciation and amortisation expense	28	143.23	126.55
(h) Other expenses	29	1,939.11	1,537.82
Total expenses (a to h)		3,317.97	2,815.07
V. Profit before tax (III - IV)		1,219.83	903.59
VI. Tax expense			
(a) Current tax	30	317.10	245.60
(b) Deferred tax	30	(14.99)	33.52
Total tax expense (VI (a) + VI (b))		302.11	279.12
VII. Profit for the year from continuing operations (V-VI)		917.72	624.47
VIII. (Loss)/profit before tax from discontinued operations	31	(11.31)	437.72
IX. Exceptional gain (net)	31	-	1,213.99
X. Tax expense of discontinued operations	31	(3.33)	509.22
XI. (Loss)/profit for the year from discontinued operations (VIII+IX-X)		(7.98)	1,142.49
XII. Profit for the year (VII+XI)		909.74	1,766.96
XIII. Other comprehensive income (net of tax) ("OCI")			
(A) Items that will not be reclassified to the Statement of Profit and Loss			
- Changes in fair value of investments in equities carried at fair value through OCI		268.59	1,019.25
- Remeasurement of defined employee benefit plans (note 34)		(2.97)	32.92
(B) Income tax relating to items that will not be reclassified to the Statement of Profit and Loss		(32.63)	(20.59)
Total other comprehensive income (net of tax) (A-B)		232.99	1,031.58
XIV. Total comprehensive income for the year (XII + XIII)		1,142.73	2,798.54
XV. Earnings per share for continuing operations (in ₹)			
- Basic and Diluted	32	36.02	24.51
XVI. Earnings per share for discontinued operations (in ₹)			
- Basic and Diluted	32	(0.31)	44.85
XVII. Earnings per share (for continuing and discontinued operations) (in ₹)			
- Basic and Diluted	32	35.71	69.36
Notes forming part of the financial statements	1-42		

As per our report of even date attached
For B S R & Co. LLP
 Chartered Accountants
 Firm's Registration No: 101248W/W - 100022

Vijay Mathur
 Partner
 Membership No. 046476
 Mumbai, May 3, 2019

John Mulhall
Rajiv Chandan

Chief Financial Officer
 General Counsel &
 Company Secretary

For and on behalf of the Board

Bhaskar Bhat
Nasser Munjee
Dr. Y. S. P. Thorat
Vibha Paul Rishi
S. Padmanabhan
Padmini Khare Kaicker
R. Mukundan
Zarir Langrana

Director
 Director
 Director
 Director
 Director
 Director
 Managing Director and CEO
 Executive Director

Statement of Changes in Equity for the year ended March 31, 2019

a. Equity share capital (note 14)

Particulars	₹ in crore	
Balance as at March 31, 2019		254.82
Balance as at March 31, 2018		254.82

b. Other equity (note 15)

Particulars	Reserves and surplus					Items of other comprehensive income	Total	
	Capital reserve and other reserves from amalgamation	Securities premium	Capital redemption reserve	Debt redemption reserve	General reserve			Retained earnings *
Balance as at April 1, 2017	21.11	1,258.21	0.10	240.00	1,171.94	4,072.61	1,836.66	8,600.63
Profit for the year	-	-	-	-	-	1,766.96	-	1,766.96
Other comprehensive income (net of tax)	-	-	-	-	-	21.42	1,010.16	1,031.58
Total comprehensive income for the year	-	-	-	-	-	1,788.38	1,010.16	2,798.54
Transfer to retained earnings - sale of non-current investment	-	-	-	-	-	903.98	(903.98)	-
Dividends including tax on dividend	-	-	-	-	-	(329.85)	-	(329.85)
Balance as at March 31, 2018	21.11	1,258.21	0.10	240.00	1,171.94	6,435.12	1,942.84	11,069.32
Profit for the year	-	-	-	-	-	909.74	-	909.74
Other comprehensive income (net of tax)	-	-	-	-	-	(1.93)	234.92	232.99
Total comprehensive income for the year	21.11	1,258.21	0.10	240.00	1,171.94	7,342.93	2,177.76	12,212.05
Transfer to retained earnings - sale of non-current investment	-	-	-	-	-	2.98	(2.98)	-
Dividends including tax on dividend	-	-	-	-	-	(670.66)	-	(670.66)
Balance as at March 31, 2019	21.11	1,258.21	0.10	240.00	1,171.94	6,675.25	2,174.78	11,541.39

* including remeasurement of defined employee benefit plans

Notes forming part of the financial statements - (note 1-42)

As per our report of even date attached

For BSR & Co. LLP

Chartered Accountants

Firm's Registration No: 101248W/W - 100022

Vijay Mathur

Partner

Membership No. 046476

Mumbai, May 3, 2019

John Mulhall

Rajiv Chandan

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Director

Padmini Khare Kaitcker

Director

R. Mukundan

Managing Director and CEO

Zarir Langrana

Executive Director

Statement of Cash Flows for the year ended March 31, 2019

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
A. Cash flows from operating activities		
Profit before tax from continuing operations	1,219.83	903.59
Profit before tax from discontinued operations	(11.31)	1,651.71
	1,208.52	2,555.30
Adjustments for :		
Depreciation and amortisation expense	143.23	139.13
Impairment of assets (note 31)	-	65.40
Finance costs	97.72	149.92
Interest income	(67.45)	(14.11)
Dividend income	(103.18)	(101.98)
Profit on sale of discontinued operation (note 31)	-	(1,279.39)
Net gain on sale of current investments	(187.15)	(49.54)
Provision for employee benefits expense	(10.48)	(2.74)
Provision for doubtful debts and advances/bad debts written off/(back)	7.65	46.15
Provision for contingencies (net)	9.40	10.23
Liabilities no longer required written back	-	(19.17)
Realised foreign exchange loss due to financing activities	-	3.87
Unrealised foreign exchange (gain)/loss (net)	69.14	(0.31)
Loss on assets sold or discarded (net)	2.68	7.38
	1,170.08	1,510.14
Operating profit before working capital changes		
Adjustments for :		
Trade receivables, other financial assets and other assets	406.60	(74.28)
Inventories	(325.31)	110.24
Trade payables, other financial liabilities and other liabilities	(24.62)	37.79
	1,226.75	1,583.89
Cash generated from operations		
Taxes paid (net of refund)	(412.54)	(747.51)
	814.21	836.38
B. Cash flows from investing activities		
Acquisition of property, plant and equipment (including capital work-in-progress)	(588.35)	(328.74)
Acquisition of intangible assets (including intangible asset under development)	(0.82)	(1.16)
Proceeds from sale of property, plant and equipment	4.40	12.56
Proceeds from sale of other non-current investments	3.48	920.07
Proceeds from sale of current investments	15,094.45	14,708.51
Purchase of non-current investments	-	(36.77)
Purchase of current investments	(17,053.56)	(14,658.98)
Investment in subsidiary	(2.50)	(0.05)
Payment on acquisition of business (note 3(B))	(116.82)	-
Bank balances not considered as cash and cash equivalent	412.25	(450.00)
Proceeds from sale of discontinued operations (net) (note 31)	565.08	2,593.98
Interest received	73.45	4.62
Dividend received		
- From subsidiaries	24.34	36.50
- From joint venture	58.43	9.82
- From others	20.41	55.66
	(1,505.76)	2,866.02
Net cash (used in)/from in investing activities		

Statement of Cash Flows for the year ended March 31, 2019 (contd.)

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
C. Cash flows from financing activities		
Proceeds from borrowings	0.54	878.24
Repayment of borrowings	(773.38)	(1,872.96)
Repayment towards finance lease (net)	(4.77)	(17.40)
Finance costs paid	(119.76)	(153.54)
Bank balances in dividend and restricted account	(3.08)	(0.93)
Dividends paid including distribution tax	(667.58)	(328.94)
Net cash used in financing activities	(1,568.03)	(1,495.53)
Net (decrease)/increase in cash and cash equivalents	(2,259.58)	2,206.87
Cash and cash equivalents as at April 1	3,303.29	1,097.38
Movement in cash and cash equivalents pertaining to discontinued operations	1.04	(0.96)
Cash and cash equivalents as at March 31 (note 13)	1,044.75	3,303.29

Footnote:

Reconciliation of borrowings

₹ in crore

	Year ended March 31, 2019	Year ended March 31, 2018
Non-current borrowings (note 16)	13.46	681.07
Current borrowings (note 16)	0.99	0.61
Current maturities of non-current borrowings (note 17)	688.09	410.23
Current maturities of finance lease obligations (note 17)	5.38	5.22
Borrowings relating to discontinued operations (note 31)	-	310.08
Assets/(liabilities) held to hedge non-current borrowings (net) (note 36(a))	(39.56)	(12.88)
	668.36	1,394.33
Proceeds from borrowings	0.54	878.24
Repayment of borrowings of continuing operations	(463.30)	(1,706.79)
Repayment of borrowings of discontinued operations	(310.08)	(166.17)
Repayment towards finance lease (net)	(4.77)	(17.40)
Realised foreign exchange loss due to financing activities (net)	-	3.87
Fair value changes (net)	(26.68)	(7.53)
Unrealised foreign exchange gain/(loss) (net)	78.32	4.14
Movement of borrowings (net)	(725.97)	(1,011.64)
Notes forming part of the financial statements (note 1-42)		

As per our report of even date attached

For B S R & Co. LLP

Chartered Accountants

Firm's Registration No: 101248W/W - 100022

Vijay Mathur

Partner

Membership No. 046476

Mumbai, May 3, 2019

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Zarir Langrana

Director

Director

Director

Director

Director

Director

Managing Director and CEO

Executive Director

Notes forming part of the financial statements

1. Corporate information

Tata Chemicals Limited (the 'Company') is a public limited company domiciled in India. Its shares are listed on two stock exchanges in India; the Bombay Stock Exchange ('BSE') and the National Stock Exchange ('NSE'). The Company is a diversified business dealing basic chemistry products, consumer products and specialty products. The Company has a global presence with key subsidiaries in United States of America ('USA'), United Kingdom ('UK') and Kenya that are engaged in the manufacture and sale of soda ash, industrial salt and related products.

2. Summary of basis of compliance, basis of preparation and presentation, critical accounting estimates, assumptions and judgements and significant accounting policies

2.1 Basis of compliance

The financial statements comply, in all material aspects, with Indian Accounting Standards ('Ind AS') notified under Section 133 of the Companies Act, 2013 ('the 2013 Act') read with Rule 3 of the Companies (Indian Accounting Standards) Rules, 2015 and other relevant provisions of the Act.

2.2 Basis of preparation and presentation

The financial statements have been prepared on the historical cost basis, except for certain financial instruments and defined benefit plans which are measured at fair value at the end of each reporting period. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

All assets and liabilities have been classified as current or non-current as per the Company's normal operating cycle and other criteria set out in the Schedule III to the 2013 Act.

2.3 Critical accounting estimates, assumptions and judgements

The preparation of the financial statements requires management to make estimates, assumptions and

judgments that affect the reported balances of assets and liabilities and disclosures as at the date of the financial statements and the reported amounts of income and expense for the periods presented.

The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates considering different assumptions and conditions.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and future periods are affected.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying values of assets and liabilities within the next financial year are discussed below.

2.3.1 Deferred income tax assets and liabilities

Significant management judgment is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and the level of future taxable profits.

The amount of total deferred tax assets could change if management estimates of projected future taxable income or if tax regulations undergo a change.

2.3.2 Useful lives of property, plant and equipment ('PPE') and intangible assets

Management reviews the estimated useful lives and residual value of PPE and Intangibles at the end of each reporting period. Factors such as changes in the expected level of usage, technological developments and product life-cycle, could significantly impact the economic useful lives and the residual values of these assets. Consequently, the future depreciation charge could be revised and may have an impact on the profit of the future years.

2.3.3 Employee benefit obligations

Employee benefit obligations are determined using actuarial valuations. An actuarial valuation

involves making various assumptions that may differ from actual developments. These include the estimation of the appropriate discount rate, future salary increases and mortality rates. Due to the complexities involved in the valuation and its long-term nature, the employee benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

2.3.4 Provisions and contingencies

From time to time, the Company is subject to legal proceedings, the ultimate outcome of each being subject to uncertainties inherent in litigation. A provision for litigation is made when it is considered probable that a payment will be made and the amount can be reasonably estimated. Significant judgement is required when evaluating the provision including, the probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of potential loss. Litigation provisions are reviewed at each accounting period and revisions made for the changes in facts and circumstances. Contingent liabilities are disclosed in the notes forming part of the financial statements. Contingent assets are not disclosed in the financial statements unless an inflow of economic benefits is probable.

2.4 Foreign currency translation

The functional currency of Tata Chemicals Limited (i.e. the currency of the primary economic environment in which the Company operates) is the Indian Rupee (₹).

On initial recognition, all foreign currency transactions are recorded at exchange rates prevailing on the date of the transaction. Monetary assets and liabilities, denominated in a foreign currency, are translated at the exchange rate prevailing on the Balance Sheet date and the resultant exchange gains or losses are recognised in the Statement of Profit and Loss.

2.5 Property, plant and equipment

An item of property, plant and equipment is recognised as an asset if it is probable that the future economic benefits associated with the item will flow to the Company and its cost can be measured reliably. This recognition principle is applied to the costs incurred initially to acquire an item of property, plant and equipment and also to costs incurred subsequently to add to, replace part

of, or service it and subsequently carried at cost less accumulated depreciation and accumulated impairment losses, if any.

The cost of PPE includes interest on borrowings directly attributable to the acquisition, construction or production of a qualifying asset. A qualifying asset is an asset that necessarily takes a substantial period of time to be made ready for its intended use or sale. Borrowing costs and other directly attributable cost are added to the cost of those assets until such time as the assets are substantially ready for their intended use, which generally coincides with the commissioning date of those assets.

The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset if the recognition criteria for a provision is met.

Machinery spares that meet the definition of PPE are capitalised and depreciated over the useful life of the principal item of an asset.

All other repair and maintenance costs, including regular servicing, are recognised in the Statement of Profit and Loss as incurred. When a replacement occurs, the carrying value of the replaced part is de-recognised. Where an item of property, plant and equipment comprises major components having different useful lives, these components are accounted for as separate items.

PPE acquired and put to use for projects are capitalised and depreciation thereon is included in the project cost till the project is ready for commissioning.

Depreciation methods, estimated useful lives and residual value

Depreciation on PPE (except leasehold improvements and PPE acquired under finance lease) is calculated using the straight-line method to allocate their cost, net of their residual values, over their estimated useful lives. However, leasehold improvements and PPE acquired under finance lease are depreciated on a straight-line method over the shorter of their respective useful lives or the tenure of the lease arrangement. Freehold land is not depreciated.

Schedule II to the Companies Act 2013 prescribes the useful lives for various class of assets. For certain class of assets, based on technical evaluation and assessment, Management believes that the useful lives adopted by it reflects the periods over which these assets are expected to be used. Accordingly for those assets, the useful lives estimated by the management are different from those prescribed in the Schedule. Management's estimates of the useful lives for various class of fixed assets are as given below:

Asset	Useful life
Salt Works, Water works, Reservoirs and Pans	1-30 years
Plant and Machinery	1-60 years
Traction Lines and Railway Sidings	15 years
Factory Buildings	5-60 years
Other Buildings	5-60 years
Furniture and Fittings and Office Equipment (including Computers and Data Processing Equipment)	1-10 years
Vehicles	4-10 years

Useful lives and residual values of assets are reviewed at the end of each reporting period.

Losses arising from the retirement of, and gains or losses arising from disposal/adjustments of PPE are recognised in the Statement of Profit and Loss.

2.6 Intangible assets

Goodwill

Goodwill represents the cost of the acquired businesses in excess of the fair value of identifiable tangible and intangible net assets purchased. Goodwill is not amortised; however it is tested annually for impairment and carried at cost less accumulated impairment losses, if any.

Other Intangible assets

Intangible assets comprise software licenses and rights to use railway wagon.

Intangible assets are measured on initial recognition at cost and subsequently are carried at cost less accumulated amortisation and accumulated impairment losses, if any.

The intangible assets with a finite useful life are amortised using straight line method over their estimated useful lives. The management's estimates

of the useful lives for various class of Intangibles are as given below:

Asset	Useful life
Computer software	5 years
Rights to use railway wagon	20 years

The estimated useful life is reviewed annually by the management.

Gains or losses arising from the retirement or disposal of an intangible asset are determined as the difference between the net disposal proceeds and the carrying amount of the asset and recognised as income or expense in the Statement of Profit and Loss.

2.7 Capital work-in-progress ('CWIP') and intangible assets under development

Projects under commissioning and other CWIP/ intangible assets under development are carried at cost, comprising direct cost, related incidental expenses and attributable borrowing cost.

Subsequent expenditures relating to property, plant and equipment are capitalised only when it is probable that future economic benefit associated with these will flow to the Company and the cost of the item can be measured reliably.

Advances given to acquire property, plant and equipment are recorded as non-current assets and subsequently transferred to CWIP on acquisition of related assets.

2.8 Investment property

Investment properties are land and buildings that are held for long term lease rental yields and/ or for capital appreciation. Investment properties are initially recognised at cost including transaction costs. Subsequently investment properties comprising buildings are carried at cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation on buildings is provided over the estimated useful lives as specified in note 2.5 above. The residual values, estimated useful lives and depreciation method of investment properties are reviewed, and adjusted on prospective basis as appropriate, at each reporting date. The effects of any revision are included in the Statement of Profit and Loss when the changes arise.

An investment property is de-recognised when either the investment property has been disposed of or do not meet the criteria of investment property i.e. when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognised in the Statement of Profit and Loss in the period of de-recognition.

2.9 Research and development expenses

Research expenses are charged to the Statement of Profit and Loss as expenses in the year in which they are incurred. Development costs are capitalised as an intangible asset under development when the following criteria are met:

- the project is clearly defined, and the costs are separately identified and reliably measured;
- the technical feasibility of the project is demonstrated;
- the ability to use or sell the products created during the project is demonstrated;
- the intention to complete the project exists and use or sale of output manufactured during the project;
- a potential market for the products created during the project exists or their usefulness, in case of internal use, is demonstrated, such that the project will generate probable future economic benefits; and
- adequate resources are available to complete the project.

These development costs are amortised over the estimated useful life of the projects or the products they are incorporated within. The amortisation of capitalised development costs begins as soon as the related product is released to production.

2.10 Non-current assets held for sale and discontinued operations

Non-current assets (including disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable.

Non-current assets classified as held for sale are measured at lower of their carrying amount and fair value less cost to sell.

Non-current assets classified as held for sale are not depreciated or amortised from the date when they are classified as held for sale.

Non-current assets classified as held for sale and the assets and liabilities of a disposal group classified as held for sale are presented separately from the other assets and liabilities in the Balance Sheet.

A discontinued operation is a component of the entity that has been disposed off or is classified as held for sale and:

- represents a separate major line of business or geographical area of operations and;
- is part of a single co-ordinated plan to dispose of such a line of business or area of operations.

The results of discontinued operations are presented separately in the Statement of Profit and Loss.

2.11 Financial instruments

2.11.1 Investments and other financial assets:

Classification

The Company classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI, or through profit or loss), and
- those measured at amortised cost.

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in the Statement of Profit and Loss or through OCI. For investments in debt instruments, this will depend on the business model in which the investment is held. For investments in equity instruments, this will depend on whether the Company has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through OCI. The Company has elected to consider the carrying cost of equity investments in subsidiaries and joint venture at cost.

The Company reclassifies debt investments when and only when its business model for managing those assets changes.

Debt instruments

Measurement

A financial asset or financial liability is initially measured at fair value plus, for an item not at fair value through profit and loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue. Transaction costs of financial assets carried at fair value through profit or loss are expensed in the Statement of Profit and Loss.

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Company classifies its debt instruments:

- Amortised cost**
 Assets that are held for collection of contractual cash flows, where those cash flows represent solely payments of principal and interest, are measured at amortised cost. A gain or loss on a debt investment (unhedged) that is subsequently measured at amortised cost is recognised in the Statement of Profit and Loss when the asset is derecognised or impaired. Interest income from these financial assets is included in other income using the effective interest rate ('EIR') method.
- Fair value through other comprehensive income ('FVTOCI')**
 Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVTOCI. Movements in the carrying amount are recorded through OCI, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains or losses which are recognised in the Statement of Profit and Loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to the Statement of Profit and Loss. Interest income from these financial assets is included in other income using the EIR method.

- Fair value through profit or loss ('FVTPL')**

Assets that do not meet the criteria for amortised cost or FVTOCI are measured at FVTPL. A gain or loss on a debt investment that is subsequently measured at FVTPL (unhedged) is recognised net in the Statement of Profit and Loss in the period in which it arises. Interest income from these financial assets is included in other income.

Equity instruments

The Company subsequently measures all equity investments at fair value. Where the Company's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to the Statement of Profit and Loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified to equity. Dividends from such investments are recognised in the Statement of Profit and Loss within other income when the Company's right to receive payments is established. Impairment losses (and reversal of impairment losses) on equity investments measured at FVTOCI are not reported separately from other changes in fair value.

Cash and cash equivalents

The Company considers all highly liquid financial instruments, which are readily convertible into known amounts of cash, that are subject to an insignificant risk of change in value with a maturity within three months or less from the date of purchase, to be cash equivalents. Cash and cash equivalents consist of balances with banks which are unrestricted for withdrawal and usage.

Derecognition of financial assets

A financial asset is derecognised only when the Company

- has transferred the rights to receive cash flows from the financial asset; or
- retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients.

Where the Company transfers an asset, it evaluates whether it has transferred substantially all risks and rewards of ownership of the financial asset. Where the Company has transferred substantially all risks and rewards of ownership, the financial asset is derecognised. Where the Company has not transferred substantially all risks and rewards of ownership of the financial asset, the financial asset is not derecognised. Where the Company has neither transferred a financial asset nor retained substantially all risks and rewards of ownership of the financial asset, the financial asset is derecognised if the Company has not retained control of the financial asset. Where the Company retains control of the financial asset, the asset is continued to be recognised to the extent of continuing involvement in the financial asset.

2.11.2 Debt and equity instruments

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement.

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

2.11.3 Financial liabilities

The Company's financial liabilities comprise borrowings, trade payables and other liabilities. These are initially measured at fair value, net of transaction costs, and are subsequently measured at amortised cost using the EIR method. The EIR is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period at effective interest rate. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Changes to the carrying amount of a financial liability as a result of renegotiation or modification of terms that do not result in derecognition of the financial liability, is recognised in the Statement of Profit and Loss.

Derecognition of financial liabilities

The Company derecognises financial liabilities when, and only when, its obligations are discharged, cancelled or they expire.

Presentation

Borrowings are classified as current liabilities unless the Company has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period.

2.11.4 Derivatives and hedging activities

In the ordinary course of business, the Company uses certain derivative financial instruments to reduce business risks which arise from its exposure to foreign exchange and interest rate fluctuations associated with borrowings (cash flow hedges). When the Company opts to undertake hedge accounting, the Company documents, at the inception of the hedging transaction, the economic relationship between hedging instruments and hedged items including whether the hedging instrument is expected to offset changes in cash flows or fair values of hedged items. The Company documents its risk management objective and strategy for undertaking various hedge transactions at the inception of each hedge relationship.

Derivatives are initially recognised at fair value on the date the derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged and the type of hedge relationship designated.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges, is recognised through OCI and as cash flow hedging reserve within equity, limited to the cumulative change in fair value of the hedged item on a present value basis from the inception of the hedge. The gain or loss relating to the ineffective portion is recognised immediately in the Statement of Profit and Loss.

Amounts accumulated in equity are reclassified to the Statement of Profit and Loss on settlement.

When the hedged forecast transaction results in the recognition of a non-financial asset, the amounts accumulated in equity with respect to gain or loss relating to the effective portion of the spot component of forward contracts, both the deferred hedging gains and losses and the deferred aligned forward points are included within the initial cost of the asset. The deferred amounts are ultimately recognised in the Statement of Profit and Loss as the hedged item affects profit or loss.

When a hedging instrument expires, is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, then hedge accounting is discontinued prospectively and any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately transferred to the Statement of Profit and Loss.

Derivatives that are not designated as hedges

When derivative contracts to hedge risks are not designated as hedges, such contracts are accounted through FVTPL.

As at the year end, there were no designated accounting hedges.

The entire fair value of a hedging derivative is classified as a noncurrent asset or liability when the remaining maturity of the hedged item exceeds 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item does not exceed 12 months.

2.11.5 Financial guarantee contracts

Financial guarantee contracts are recognised as a financial liability at the time of issuance of guarantee. The liability is initially measured at fair value and are subsequently measured at the higher of the amount of loss allowance determined, or the amount initially recognised less, the cumulative amount of income recognised.

2.11.6 Offsetting of financial instruments

Financial assets and financial liabilities are offset when the Company has a legally enforceable right (not contingent on future events) to off-set

the recognised amounts either to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

2.11.7 Fair value of financial instruments

In determining the fair value of its financial instruments, the Company uses a variety of methods and assumptions that are based on market conditions and risks existing at each reporting date. The methods used to determine fair value include discounted cash flow analysis, available quoted market prices and dealer quotes. All methods of assessing fair value result in general approximation of value.

2.12 Impairment

Financial assets (other than at fair value)

The Company assesses on a forward looking basis the expected credit losses associated with its assets carried at amortised cost and debt instruments carried at FVTOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk. In respect of trade receivables the Company applies the simplified approach permitted by Ind AS 109 - Financial Instruments, which requires expected lifetime losses to be recognised upon initial recognition of the receivables.

PPE, CWIP and intangible assets

The carrying values of assets / cash generating units ("CGU") at each Balance Sheet date are reviewed to determine whether there is any indication that an asset may be impaired. If any indication of such impairment exists, the recoverable amount of such assets / CGU is estimated and in case the carrying amount of these assets exceeds their recoverable amount, an impairment loss is recognised in the Statement of Profit and Loss. The recoverable amount is the higher of the net selling price and their value in use. Value in use is arrived at by discounting the future cash flows to their present value based on an appropriate discount factor. Assessment is also done at each Balance Sheet date as to whether there is indication that an impairment loss recognised for an asset in prior accounting periods no longer exists or may have decreased, consequent to which such reversal of impairment loss is recognised in the Statement of Profit and Loss.

Goodwill

Goodwill is tested for impairment, at least annually and whenever circumstances indicate that it may be impaired. For the purpose of impairment testing, the Goodwill is allocated to a CGU or group of CGUs, which are expected to benefit from the synergies arising from the business combination in which the said Goodwill arose.

If the estimated recoverable amount of the CGU including the Goodwill is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU on a pro-rata basis of the carrying amount of each asset in the unit.

2.13 Inventories

Inventories are valued at lower of cost (on weighted average basis) and net realisable value after providing for obsolescence and other losses, where considered necessary. Cost includes all charges in bringing the goods to their present location and condition, including other levies, transit insurance and receiving charges. Work-in-progress and finished goods include appropriate proportion of overheads and, where applicable, taxes and duties. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

2.14 Revenue recognition

2.14.1 Sale of goods

Revenue is recognised upon transfer of control of promised goods to customers in an amount that reflects the consideration which the Company expects to receive in exchange for those goods.

Revenue from the sale of goods is recognised at the point in time when control is transferred to the customer which is usually on dispatch / delivery of goods, based on contracts with the customers.

Revenue is measured based on the transaction price, which is the consideration, adjusted for volume discounts, price concessions, incentives, and returns, if any, as specified in the contracts with the customers. Revenue excludes taxes collected from customers on behalf of the government. Accruals for discounts/incentives and returns are estimated (using the most likely method) based on

accumulated experience and underlying schemes and agreements with customers. Due to the short nature of credit period given to customers, there is no financing component in the contract.

The Company has adopted Ind AS 115 Revenue from contracts with customers, with effect from April 1, 2018. Ind AS 115 establishes principles for reporting information about the nature, amount, timing and uncertainty of revenues and cash flows arising from the contracts with its customers and replaces Ind AS 18 Revenue and Ind AS 11 Construction Contracts.

The Company has adopted Ind AS 115 using the cumulative effect method whereby the effect of applying this standard is recognised at the date of initial application (i.e. April 1, 2018). Accordingly, the comparative information in the statement of profit and loss is not restated. The impact of the adoption of the standard on the financial statements of the Company is given in note 24.

2.14.2 Interest income

For all debt instruments measured either at amortised cost or at FVTOCI, interest income is recorded using the EIR method.

2.14.3 Dividend income

Dividend income is accounted for when Company's right to receive the income is established.

2.14.4 Insurance claims

Insurance claims are accounted for on the basis of claims admitted / expected to be admitted and to the extent that there is no uncertainty in receiving the claims.

2.15 Leases

The determination of whether an agreement is, or contains, a lease is based on the substance of the agreement at the date of inception.

Finance Leases:

Lease arrangements in which substantially all risks and rewards of ownership of the under-lying assets are transferred to the Company, are classified as finance lease.

Assets held under finance leases are initially recognised at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the Balance Sheet as a finance

lease obligation. Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability.

Operating leases:

The leases which are not classified as finance lease are operating leases.

Lease arrangements where the risks and rewards of ownership of an asset substantially vest with the lessor are recognised as operating leases. Lease rentals under operating leases are recognised in the Statement of Profit and Loss on a straight-line basis over the lease term unless the payments are structured to increase in line with expected general inflation to compensate for the lessor's expected inflationary cost increases.

2.16 Employee benefits plans

Employee benefits consist of provident fund, superannuation fund, gratuity fund, compensated absences, long service awards, post-retirement medical benefits, directors' retirement obligations and family benefit scheme.

2.16.1 Post-employment benefit plans

Defined contribution plans

Payments to a defined contribution retirement benefit scheme for eligible employees in the form of superannuation fund are charged as an expense as they fall due. Such benefits are classified as Defined Contribution Schemes as the Company does not carry any further obligations, apart from the contributions made.

Defined benefit plans

Contributions to a Provident Fund are made to Tata Chemicals Limited Employees' Provident Fund Trust, administered by the Company, and are charged to the Statement of Profit and Loss as incurred. The Trust invests in specific designated instruments as permitted by Indian law. The remaining portion is contributed to the government administered pension fund. The Company is liable for the contribution and any shortfall in interest between the amount of interest realised by the investments and the interest payable to members at the rate declared by the Government of India in respect of the Trust administered by the Company.

For defined benefit schemes in the form of gratuity fund, provident fund, post-retirement medical benefits, pension liabilities (including directors') and family benefit scheme, the cost of providing benefits is actuarially determined using the projected unit credit method, with actuarial valuations being carried out at each Balance Sheet date.

The retirement benefit obligation recognised in the Balance Sheet represents the present value of the defined benefit obligation as reduced by the fair value of scheme assets.

The present value of the said obligation is determined by discounting the estimated future cash outflows, using market yields of government bonds of equivalent term and currency to the liability.

The interest income / (expense) are calculated by applying the discount rate to the net defined benefit liability or asset. The net interest income / (expense) on the net defined benefit liability is recognised in the Statement of Profit and loss.

Remeasurements, comprising of actuarial gains and losses, the effect of the asset ceiling (if any), are recognised immediately in the Balance Sheet with a corresponding charge or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to the Statement of Profit and Loss in subsequent periods.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognised immediately in the Statement of Profit and Loss as past service cost.

2.16.2 Short-term employee benefits

The short-term employee benefits expected to be paid in exchange for the services rendered by employees is recognised during the period when the employee renders the service. These benefits include compensated absences such as paid annual leave and performance incentives which are expected to occur within twelve months after the end of the period in which the employee renders the related services.

The cost of compensated absences is accounted as under:

- (a) In case of accumulating compensated absences, when employees render service that increase their entitlement of future compensated absences; and

- (b) In case of non - accumulating compensated absence, when the absences occur.

2.16.3 Other long-term employee benefits

Compensated absences which are not expected to occur within twelve months after the end of the period in which the employee renders the related services are recognised as a liability. The cost of providing benefits is actuarially determined using the projected unit credit method, with actuarial valuations being carried out at each Balance Sheet date. Long Service Awards are recognised as a liability at the present value of the obligation at the Balance Sheet date. All gains/losses due to actuarial valuations are immediately recognised in the Statement of Profit and Loss.

2.17 Employee separation compensation

Compensation paid / payable to employees who have opted for retirement under a Voluntary Retirement Scheme including ex-gratia is charged to the Statement of Profit and Loss in the year of separation.

2.18 Borrowing costs

Borrowing costs are interest and ancillary costs incurred in connection with the arrangement of borrowings. General and specific borrowing costs attributable to acquisition and construction of qualifying assets is added to the cost of the assets upto the date the asset is ready for its intended use. Capitalisation of borrowing costs is suspended and charged to the Statement of Profit and Loss during extended periods when active development activity on the qualifying assets is interrupted. All other borrowing costs are recognised in the Statement of Profit and Loss in the period in which they are incurred.

2.19 Government grants

Government grants and subsidies are recognised when there is reasonable assurance that the Company will comply with the conditions attached to them and the grants and subsidies will be received. Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognised as deferred revenue in the Balance sheet and transferred to the Statement of Profit and Loss on systematic and rational basis over the useful lives of the related asset.

2.20 Segment reporting

The operating segments are the segments for which separate financial information is available and for which operating profit/loss amounts are evaluated regularly by the Managing Director and Chief Executive Officer (who is the Company's chief operating decision maker) in deciding how to allocate resources and in assessing performance.

The accounting policies adopted for segment reporting are in conformity with the accounting policies of the Company. Segment revenue, segment expenses, segment assets and segment liabilities have been identified to segments on the basis of their relationship to the operating activities of the segment. Inter segment revenue is accounted on the basis of transactions which are primarily determined based on market / fair value factors. Revenue, expenses, assets and liabilities which relate to the Company as a whole and are not allocable to segments on a reasonable basis have been included under 'unallocated revenue / expenses / assets / liabilities'.

2.21 Income tax

Tax expense for the year comprises current and deferred tax. The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the Statement of Profit or Loss because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Company's liability for current tax is calculated using tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

Current tax assets and current tax liabilities are offset when there is a legally enforceable right to set off the recognised amounts and there is an intention to realise the asset or to settle the liability on a net basis.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying values of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences arising between the tax base of assets and

liabilities and their carrying amount, except when the deferred income tax arises from the initial recognition of an asset or liability in a transaction that is not a business combination and affects neither accounting nor taxable profit or loss at the time of the transaction. In contrast, deferred tax assets are only recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised.

The carrying value of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised based on the tax rates and tax laws that have been enacted or substantially enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to cover or settle the carrying value of its assets and liabilities.

Deferred tax assets and liabilities are offset to the extent that they relate to taxes levied by the same tax authority and there are legally enforceable rights to set off current tax assets and current tax liabilities within that jurisdiction.

Current and deferred tax are recognised as an expense or income in the statement of profit and loss, except when they relate to items credited or debited either in other comprehensive income or directly in equity, in which case the tax is also recognised in OCI or directly in equity.

Deferred tax assets include a credit for the Minimum Alternate Tax ('MAT') paid in accordance with the tax laws, which is likely to give future economic benefits in the form of availability of set off against future income tax liability. MAT asset is recognised as deferred tax assets in the Balance Sheet when the asset can be measured reliably, and it is probable that the future economic benefit associated with the asset will be realised.

2.22 Provisions and contingencies

A provision is recognised when the Company has a present obligation as a result of past events and it is probable that an outflow of resources will be required to settle the obligation, in respect of which a reliable estimate of the amount can be made. Provisions are determined based on best estimate required to settle the obligation at the Balance Sheet date. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of the money is material). The increase in the provisions due to passage of time is recognised as interest expense. Provisions are reviewed as at each reporting date and adjusted to reflect the current estimate.

Contingent liabilities are disclosed when there is a possible obligation arising from past events, the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company or a present obligation that arises from past events where it is either not probable that an outflow of resources will be required to settle or a reliable estimate of the amount cannot be made.

Contingent assets are not disclosed in the financial statements unless an inflow of economic benefits is probable.

2.23 Dividend

Final dividend on shares is recorded as a liability on the date of approval by the shareholders and interim dividends are recorded as a liability on the date of declaration by the Company's Board of Directors.

3. A) Recent accounting pronouncements which are not yet effective

Ind AS 116 – Leases:

The Company is required to adopt Ind AS 116, Leases from April 1, 2019. Ind AS 116 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases

as finance or operating leases. It replaces existing leases guidance, Ind AS 17, Leases.

The Company is in the process of completing its detailed assessment and the quantitative impact of adoption of Ind AS 116 on the Financial Statements in the period of initial application is not reasonably estimable as at present.

i. Leases in which the Company is a lessee

The Company will recognise new assets and liabilities for its operating leases of offices, warehouse and factory facilities. The nature of expenses related to those leases will now change because the Company will recognise a depreciation charge for right-of-use assets and interest expense on lease liabilities.

Previously, the Company recognised operating lease expense on a straight-line basis over the term of the lease, and recognised assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognised.

In addition, the Company will include the payments due under the lease in its lease liability and apply Ind AS 36, Impairment of Assets to determine whether the right-of-use asset is impaired and to account for any impairment.

ii. Transition

The Company plans to apply Ind AS 116 initially on April 1, 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting Ind AS 116 will be recognised as an adjustment to the opening balance of retained earnings at April 1, 2019, with no restatement of comparative information.

The Company plans to apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply Ind AS 116 to all contracts entered into before April 1, 2019 and identified as leases in accordance with Ind AS 17.

Amendments to Ind AS 12 – Income Taxes (Appendix C – Uncertainty over Income Tax Treatments):

This interpretation, which will be effective from April 1, 2019, clarifies how entities should evaluate and reflect uncertainties over income tax treatments, in particular when assessing the

outcome a tax authority might reach with full knowledge and information if it were to make an examination. The Company is in the process of evaluating the impact of this amendment on its standalone financial statements.

B) Business combination

The transaction to acquire the precipitated silica business of M/s Allied Silica Limited, situated in Cuddalore, Tamil Nadu on a slump sale and going concern basis was consummated through a Business Transfer Agreement ('BTA') on June 18, 2018.

The consideration of ₹ 123.19 crore is towards property, plant and equipment and the normalised net working capital of which ₹ 6.37 crore is outstanding as payable as at March 31, 2019 on account of contingent consideration (Subject to compliance with conditions mentioned in the BTA by June-19).

Identifiable assets acquired and liabilities recognised on the date of acquisition are based on their fair values as presented below.

Particulars	₹ in Crore
Property, plant and Equipment *	75.00
Inventories (based on replacement cost)	0.03
Trade receivables (gross contractual amounts)	0.37
Trade payables (gross contractual amounts)	(0.21)
Total identifiable net assets at fair value	75.19

* determined on a provisional basis considering depreciated replacement cost and will be revised in FY 20, based on external valuers report and settlement of contingent consideration.

The resultant provisional goodwill amounts to ₹ 48.00 crore. Goodwill paid reflects the premium for gaining immediate entry to markets and access to a start-up facility, with all the regulatory permits and clearances which will enable the Company to participate in the silica market. The goodwill recognised is expected to be deductible for income tax purposes.

The Company incurred acquisition related costs of ₹ 1.51 crore on transfer fees, legal fees, valuation costs, etc which are included in other expenses.

4. Property, plant and equipment

₹ in crore

Particulars	Freehold Land	Factory Buildings	Other Buildings*	Plant and Machinery	Furniture and Fittings	Vehicles	Office Equipment	Salt works, Water works, Reservoirs and Pans	Traction Lines and Railway Sidings	Total
Gross Block										
Balance as at April 1, 2017	41.41	164.08	148.32	1,270.72	14.76	5.64	46.45	30.96	13.41	1,735.75
Additions/adjustments	-	20.48	16.42	191.87	3.45	2.82	2.36	5.52	-	242.92
Disposals	-	(2.15)	(0.85)	(3.98)	(0.64)	(0.49)	(1.65)	-	-	(9.76)
Transferred to Investment property	(1.13)	-	(23.15)	-	-	-	-	-	-	(24.28)
Transferred to discontinued operations (note 23 and 31)	-	(38.27)	(1.03)	(149.48)	(0.80)	(0.15)	(4.32)	-	(4.73)	(198.78)
Balance as at March 31, 2018	40.28	144.14	139.71	1,309.13	16.77	7.82	42.84	36.48	8.68	1,745.85
Additions/adjustments	2.85	32.16	5.23	216.95	5.88	0.07	1.79	13.70	0.44	279.07
Disposals	(0.46)	(0.15)	(0.61)	(7.30)	(0.41)	(0.85)	(0.81)	(0.01)	-	(10.60)
Balance as at March 31, 2019	42.67	176.15	144.33	1,518.78	22.24	7.04	43.82	50.17	9.12	2,014.32
Accumulated Depreciation										
Balance as at April 1, 2017	-	16.45	13.93	214.60	3.86	2.37	22.67	10.01	2.17	286.06
Depreciation for the year	-	7.95	5.97	106.48	1.98	1.37	9.68	2.67	0.95	137.05
Impairment	-	15.10	0.44	47.06	0.18	0.06	0.83	-	1.72	65.39
Disposals	-	(0.31)	(0.09)	(1.02)	(0.47)	(0.27)	(0.94)	-	-	(3.10)
Transferred to Investment property	-	-	(1.92)	-	-	-	-	-	-	(1.92)
Transferred to discontinued operations (note 23 and 31)	-	(21.11)	(0.52)	(96.65)	(0.55)	(0.08)	(2.69)	-	(2.78)	(124.38)
Balance as at March 31, 2018	-	18.08	17.81	270.47	5.00	3.45	29.55	12.68	2.06	359.10
Depreciation for the year	-	7.82	5.75	112.33	2.57	0.91	6.45	4.08	0.71	140.62
Disposals	-	(0.05)	(0.01)	(2.36)	(0.21)	(0.70)	(0.21)	-	-	(3.54)
Balance as at March 31, 2019	-	25.85	23.55	380.44	7.36	3.66	35.79	16.76	2.77	496.18
Net Block as at March 31, 2018	40.28	126.06	121.90	1,038.66	11.77	4.37	13.29	23.80	6.62	1,386.75
Net Block as at March 31, 2019	42.67	150.30	120.78	1,138.34	14.88	3.38	8.03	33.41	6.35	1,518.14

* Other Buildings includes cost of residential flats aggregating ₹ Nil (2018 : ₹ 3.17 crore) for which legal formalities relating to transfer of title are pending.

5. Investment property

Particulars	₹ in crore		
	Land	Building	Total
Gross Block			
Balance as at April 1, 2017	-	-	-
Transferred from Property, plant and equipment	1.13	23.15	24.28
Balance as at March 31, 2018	1.13	23.15	24.28
Additions/adjustments	-	-	-
Balance as at March 31, 2019	1.13	23.15	24.28
Accumulated Depreciation			
Balance as at April 1, 2017	-	-	-
Transferred from Property, plant and equipment	-	1.92	1.92
Balance as at March 31, 2018	-	1.92	1.92
Depreciation for the year	-	0.64	0.64
Balance as at March 31, 2019	-	2.56	2.56
Net Block as at March 31, 2018	1.13	21.23	22.36
Net Block as at March 31, 2019	1.13	20.59	21.72

Footnotes:

a) Disclosures relating to fair valuation of investment property

Fair value of the above investment property as at March 31, 2019 is ₹ 49.45 crore based on external valuation.

Fair Value Hierarchy

The fair value of investment property has been determined by external independent property valuers, having appropriate recognised professional qualification and recent experience in the location and category of the property being valued.

The fair value measurement for all of the investment property has been categorised as a level 3 fair value based on the inputs to the valuation techniques used.

Description of valuation technique used

The Company obtains independent valuations of its investment property after every three years as per requirement of Ind AS 40. The fair value of the investment property have been derived using the Direct Comparison Method. The direct comparison approach involves a comparison of the investment property to similar properties that have actually been sold in arms-length distance from investment property or are offered for sale in the same region. This approach demonstrates what buyers have historically been willing to pay (and sellers willing to accept) for similar properties in an open and competitive market, and is particularly useful in estimating the value of the land and properties that are typically traded on a unit basis. This approach leads to a reasonable estimation of the prevailing price. Given that the comparable instances are located in close proximity to the investment property; these instances have been assessed for their locational comparative advantages and disadvantages while arriving at the indicative price assessment for investment property.

b) The Company has not earned any material rental income on the above properties.

6. Other intangible assets

₹ in crore

Particulars	Computer software	Others*	Total
Gross Block			
Balance as at April 1, 2017	5.81	6.78	12.59
Additions	1.17	-	1.17
Disposals/Adjustments	(1.61)	-	(1.61)
Transferred to discontinued operations (note 23 and 31)	(0.04)	-	(0.04)
Balance as at March 31, 2018	5.33	6.78	12.11
Additions	0.73	-	0.73
Disposals/Adjustments	(0.02)	-	(0.02)
Balance as at March 31, 2019	6.04	6.78	12.82
Accumulated amortisation			
Balance as at April 1, 2017	0.53	1.52	2.05
Amortisation for the year	1.32	0.76	2.08
Impairment	0.01	-	0.01
Disposals	(0.04)	-	(0.04)
Transferred to discontinued operations (note 23 and 31)	(0.02)	-	(0.02)
Balance as at March 31, 2018	1.80	2.28	4.08
Amortisation for the year	1.19	0.78	1.97
Balance as at March 31, 2019	2.99	3.06	6.05
Net Block as at March 31, 2018	3.53	4.50	8.03
Net Block as at March 31, 2019	3.05	3.72	6.77

* Others include rights to use the wagon provided by the Ministry of Railways to carry goods at concessional freight.

7. Investments

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Holdings	Amount	Holdings	Amount
	No of shares	₹ in crore	No of shares	₹ in crore
(a) Investments in equity instruments in subsidiaries and joint ventures (fully paid up)				
(i) Subsidiaries (at cost)				
Quoted				
Rallis India Ltd.	9,73,41,610	479.97	9,73,41,610	479.97
Unquoted				
Bio Energy Venture -1 (Mauritius) Pvt Ltd. (footnote 'i')	57,53,81,426	2,398.39	57,53,81,426	2,398.39
Ncourage Social Enterprise Foundation	25,50,000	2.55	50,000	0.05
(ii) Investments in preference shares (fully paid up)				
Subsidiaries (Fair value through profit and loss)				
Unquoted				
5% Non Cumulative Redeemable Preference Shares of Bio Energy Venture -1(Mauritius) Pvt.Ltd (footnote 'i')	15,00,014	1,037.33	15,00,014	977.63
(iii) Joint ventures (at cost)				
Unquoted				
Indo Maroc Phosphore, S.A. , Morocco	2,06,666	166.26	2,06,666	166.26
Tata Industries Ltd. (footnote 'ii')	98,61,303	170.19	-	-
Total investments (i+ii+iii)		4,254.69		4,022.30

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Holdings	Amount	Holdings	Amount
	No of shares	₹ in crore	No of shares	₹ in crore
(b) Other investments				
(i) Investments in equity instruments (Fair value through other comprehensive income)				
Quoted				
The Indian Hotels Co. Ltd.	1,06,89,348	165.58	1,06,89,348	138.32
Oriental Hotels Ltd.	25,23,000	11.62	25,23,000	10.53
Tata Investment Corporation Ltd.	4,41,015	36.75	4,75,840	35.01
Tata Steel Ltd.	28,90,693	150.61	28,90,693	165.07
Tata Steel Ltd. (Partly Paid)	1,99,358	1.28	1,99,358	2.80
Tata Motors Ltd.	19,66,294	34.26	19,66,294	64.27
Titan Company Ltd.	1,38,26,180	1,578.74	1,38,26,180	1,302.84
Unquoted				
The Associated Building Co. Ltd.	550.00	0.02	550.00	0.02
Taj Air Ltd.	40,00,000	-	40,00,000	-
Tata Industries Ltd. (footnote 'ii')	-	-	98,61,303	170.19
Tata Capital Ltd.	32,30,859	16.35	32,30,859	16.15
Tata International Ltd.	48,000	140.64	48,000	137.76
Tata Projects Ltd.	1,93,500	266.53	1,93,500	264.48
Tata Services Ltd.	1,260	0.13	1,260	0.13
Tata Sons Ltd.	10,237	56.86	10,237	56.86
Tata Teleservices Ltd. (footnote 'iii')#	12,85,110	-	12,85,110	-
IFCI Venture Capital Funds Ltd.	2,50,000	0.67	2,50,000	0.67
Kowa Spinning Ltd.	60,000	*	60,000	*
Global Innovation And Technology Alliance (GITA)	15,000	1.50	15,000	1.50
Water Quality India Association	7,100	0.01	7,100	0.01
Total investments (b(i))		2,461.55		2,366.61
Aggregate amount of quoted investments		2,458.81		2,198.81
Aggregate market value of quoted investments		3,574.27		4,021.46
Aggregate carrying value of unquoted investments		4,257.43		4,190.10
#Aggregate amount of impairment in value of Investments		1.51		1.51

Footnotes:

- (i) The Board of Directors of the Company has approved the Scheme of Amalgamation ('Scheme') under the provisions of Section 234 read with Sections 230 to 232 of the Companies Act, 2013 for the merger of Bio Energy Venture - 1 (Mauritius) Pvt. Ltd., a wholly owned subsidiary of the Company, with the Company, subject to necessary statutory and regulatory approvals, including the National Company Law Tribunal. The Scheme is in the process of being filed.
- (ii) Consequent to Tata Industries Limited ('TIL') obtaining approval of its shareholders at the General Meeting held on 27 March, 2019, the Company along with Tata Sons Private Limited will exercise joint control over the key activities of TIL. Accordingly, the investment in TIL has been reclassified as a Joint Venture.
- (iii) Shares can be transferred only with the prior approval of the Board of Directors of Tata Teleservices Ltd.

* value below ₹ 50,000/-

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(c) Current investments (FVTPL)		
Investment in mutual funds - Unquoted	2,146.26	-
Total current investments	2,146.26	-

8. Loans

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Other loans (Unsecured, considered good)		
Loans to employees (footnote 'i')	1.13	1.38
	1.13	1.38
Current		
(a) Other loans (Unsecured, considered good)		
Loans to employees (footnote 'i')	0.40	0.51
	0.40	0.51

Footnote:

- (i) Loans to employees includes ₹ * (2018: ₹ Nil) due from officer of the Company. Maximum balance outstanding during the year is ₹ * (2018: ₹ *).

* value below ₹ 50,000

9. Other financial assets

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Fixed deposits with banks	0.26	0.26
(b) Derivatives (note 36)	-	4.87
	0.26	5.13
Current		
(a) Claim receivable - Related party (note 39)	1.77	34.97
(b) Derivatives (note 36)	39.79	8.85
(c) Accrued interest income	4.02	10.02
(d) Advance recoverable - Related party	1.03	16.24
(e) Subsidy receivable (footnote 'i')	224.75	-
(f) Others	2.44	1.57
	273.80	71.65

Footnote:

- (i) Subsidy receivable from the Government relates to Phosphatic Fertiliser business and Trading business. Subsidy receivable as at March 31, 2018 is reflected in note 31.

10. Other assets

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Capital advances	105.23	30.13
(b) Deposit with public bodies and others	54.97	36.57
(c) Prepaid expenses	1.22	1.61
(d) Gratuity fund (note 34 (2))	5.79	7.07
	167.21	75.38
Current		
(a) Prepaid expenses	15.30	9.33
(b) Advance to suppliers	26.02	30.12
Less: Allowances for bad and doubtful advances	(0.09)	(0.01)
	25.93	30.11
(c) Statutory receivables	92.11	130.84
(d) Others	2.03	1.80
	135.37	172.08

11. Inventories

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
(a) Raw materials	390.82	239.27
(b) Work-in-progress	14.64	28.94
(c) Finished goods	89.84	77.10
(d) Stock in trade	51.85	40.66
(e) Stores, spare parts and packing materials (net)	80.53	64.69
	627.68	450.66

Footnotes:

(i) Inventories includes goods in transit:		
- Raw materials	22.83	55.82
- Stock in trade	2.89	7.09
- Stores and spare parts and packing materials	-	1.75
(ii) Changes in inventories of finished goods, work-in-progress and stock-in-trade		
Closing stock		
Work-in-progress	14.64	28.94
Finished goods	89.84	77.10
Stock in trade	51.85	40.66
	156.33	146.70
Opening stock		
Work-in-progress	28.94	23.78
Finished goods	77.10	72.28
Stock in trade	40.66	107.25
	146.70	203.31
Less : Inventory on account of Discontinued operations	(3.56)	(58.58)
	13.19	1.97

- (iii) The cost of inventories recognised as an expense includes ₹ 2.96 crore (2018: ₹ 7.67 crore) in respect of write-down of inventories to net realisable value, and has been reduced by ₹ 0.10 crore (2018: ₹ 4.17 crore) in respect of reversal of such write-down. Reversal of previous write-downs have been largely as a result of increased selling prices of certain products.
- (iv) Inventories have been offered as security against the working capital facilities provided by the bank.

12. Trade receivables

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Current		
(a) Secured, considered good	40.79	37.75
(b) Unsecured, considered good	144.05	102.61
(c) Unsecured, which have significant increase in Credit Risk	3.24	-
(d) Unsecured, credit impaired	65.12	14.87
Less: Impairment loss allowance	(68.36)	(14.87)
	184.84	140.36

Footnotes:

- (i) The Company has appropriate levels of control procedures for new customers which ensures the potential customer's credit quality. Credit limits attributed to customers are reviewed periodically by the Management.
- (ii) Movement in Credit impaired

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Balance at the beginning of the year	14.87	42.60
Credit impaired pertaining to discontinued operations (reclassification)	48.28	(31.33)
Provision during the year	11.50	6.55
Reversal during the year	(6.29)	(2.95)
Balance at the end of the year	68.36	14.87

- (iii) Trade receivables have been offered as security against the working capital facilities provided by the bank.

13. Cash and cash equivalents and other bank balances

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Cash and cash equivalents:		
(a) Balance with banks	44.75	78.27
(b) Cash on hand	-	0.02
(c) Deposits accounts (with original maturity less than 3 months)	1,000.00	3,225.00
Cash and cash equivalents as per Statement of Cash Flow	1,044.75	3,303.29
Other bank balances:		
(a) Earmarked balances with banks	18.71	15.63
(b) Deposit accounts (other than (c) above, with original maturity less than 12 months from the balance sheet date)	37.75	450.00
	56.46	465.63

Footnote:

- (i) **Non cash transactions**

The Company has not entered into any non cash investing and financing activities.

14. Equity share capital

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	No of shares	₹ in crore	No of shares	₹ in crore
(a) Authorised:				
Ordinary shares of ₹ 10 each	27,00,00,000	270.00	27,00,00,000	270.00
(b) Issued :				
Ordinary shares of ₹ 10 each	25,48,42,598	254.84	25,48,42,598	254.84
(c) Subscribed and fully paid up:				
Ordinary shares of ₹ 10 each	25,47,56,278	254.76	25,47,56,278	254.76
(d) Forfeited shares:				
Amount originally paid-up on forfeited shares	86,320	0.06	86,320	0.06
		254.82		254.82

Footnotes:
(i) The movement in number of shares and amount outstanding at the beginning and at the year end

₹ in crore

Particulars	Year ended March 31, 2019		Year ended March 31, 2018	
	No of shares	₹ in crore	No of shares	₹ in crore
Issued share capital:				
Ordinary shares :				
Balance as at April 1,	25,48,42,598	254.84	25,48,42,598	254.84
Balance as at March 31	25,48,42,598	254.84	25,48,42,598	254.84
Subscribed and paid up:				
Ordinary shares :				
Balance as at April 1,	25,47,56,278	254.76	25,47,56,278	254.76
Balance as at March 31	25,47,56,278	254.76	25,47,56,278	254.76

(ii) Terms/ rights attached to equity shares

The Company has issued one class of ordinary shares at par value of ₹ 10 per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting except in the case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company, after distribution of all preferential accounts, in proportion to their shareholding.

(iii) Details of shares held by each shareholder holding more than 5% shares

Particulars	As at March 31, 2019		As at March 31, 2018	
	No of shares	%	No of shares	%
Ordinary shares with voting rights				
(i) Tata Sons Private Ltd.	5,97,86,423	23.47	5,97,86,423	23.47
(ii) HDFC Trustee Company Limited	2,26,13,010	8.88	1,38,30,156	5.43
(iii) Life Insurance Corporation Of India	1,55,71,496	6.11	*	*
(iv) ICICI Prudential Mutual fund	*	*	1,54,19,534	6.05
(v) Tata Investment Corporation Ltd.	1,52,00,001	5.97	1,52,00,001	5.97

* Not holding more than 5% shares

15. Other equity

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
1 Capital reserve and other reserves from amalgamation	21.11	21.11
2 Securities premium	1,258.21	1,258.21
3 Capital redemption reserve	0.10	0.10
4 Debenture redemption reserve	240.00	240.00
5 General reserve	1,171.94	1,171.94
6 Retained earnings	6,675.25	6,435.12
7 Equity instruments through other comprehensive income	2,174.78	1,942.84
Total other equity	11,541.39	11,069.32

The movement in other equity

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
15.1 Capital reserve and other reserves from amalgamation		
Balance at the beginning of the year	21.11	21.11
Balance at the end of the year	21.11	21.11
15.2 Securities premium		
Balance at the beginning of the year	1,258.21	1,258.21
Balance at the end of the year	1,258.21	1,258.21
Footnote:		
Securities premium is used to record the premium on issue of shares. The reserve is eligible for utilisation in accordance with the provisions of the 2013 Act.		
15.3 Capital redemption reserve		
Balance at the beginning of the year	0.10	0.10
Balance at the end of the year	0.10	0.10
15.4 Debenture redemption reserve		
Balance at the beginning of the year	240.00	240.00
Balance at the end of the year	240.00	240.00
Footnote:		
The Company is required to create a debenture redemption reserve out of the profits which is available for the purpose of redemption of debentures.		
15.5 General reserve		
Balance at the beginning of the year	1,171.94	1,171.94
Balance at the end of the year	1,171.94	1,171.94
Footnote:		
The general reserve represents amounts appropriated out of retained earnings based on the provisions of the Act prior to its amendment.		
15.6 Retained earnings		
Balance at the beginning of the year	6,435.12	4,072.61
Profit for the year	909.74	1,766.96
Remeasurement of defined employee benefit plans (net of tax)	(1.93)	21.42
Transfer from Equity instruments through other comprehensive income	2.98	903.98
Dividend including tax on dividend	(670.66)	(329.85)
Balance at the end of the year (footnote 'ii')	6,675.25	6,435.12

Footnotes:

- (i) The Board of Directors has recommended a final dividend of 125% (2018: 110 % and a special dividend of 110% to reflect disposal of the Fertiliser Business aggregating to 220%) for the financial year 2018-19 ₹ 12.50 per share (2018: ₹ 22 per share) which is subject to approval of shareholders.
- (ii) Includes balance of remeasurement of net defined benefit plans loss of ₹ 29.61 crore (2018: ₹ 23.60 crore).

15.7 Equity instruments through other comprehensive income		
Balance at the beginning of the year	1,942.84	1,836.66
Changes in fair value of equity instruments at FVTOCI (net of tax)	234.92	1,010.16
Transfer to retained earnings	(2.98)	(903.98)
Balance at the end of the year	2,174.78	1,942.84

Footnote:

This reserve represents the cumulative gains and losses arising on the revaluation of equity instruments measured at fair value through other comprehensive income, net of amounts reclassified to retained earnings when those assets have been disposed off.

16. Borrowings

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Non-Current		
Secured - at amortised cost		
(a) Obligations under finance leases (note 33)	13.46	18.23
Unsecured - at amortised cost		
(a) Non-convertible debentures (footnote 'i')	-	250.00
(b) Term loans - bank (footnote 'ii')	-	413.60
Less: Unamortised finance cost	-	0.76
	-	412.84
	13.46	681.07

Footnotes:

- (i) Unsecured redeemable Non-convertible debentures having face value of ₹ 10 lakhs each are redeemable at par on July 2, 2019 and bear interest rate of 10% per annum. This has been disclosed in note 17 within the heading current maturity of non-current borrowings under other financial liabilities (current).
- (ii) The External Commercial Borrowings ("ECB") are due for repayments during October 2019 ₹ 438.85 crore (2018: ₹ 413.60 crore) (USD 63.46 million) and bear interest of LIBOR plus spread of 1.95% semiannually. Current portion due for repayment within one year ₹ 438.85 crore (2018: ₹ 412.36 crore). This amount has been disclosed in note 17 within the heading current maturities of non current borrowings under other financial liabilities (current).

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Current		
Loans repayable on demand		
Secured - from banks		
(a) Cash/packing credit (footnote 'i')	0.99	0.61
	0.99	0.61

Footnote:

- (i) Loans from banks on Cash Credit carry an interest ranging from 8.70% p.a. to 9.10% p.a. and are secured by way of hypothecation of stocks of raw materials, finished products, stores and work-in-process as well as book debts.

17. Other financial liabilities

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Derivatives (note 36)	-	-
(b) Pension payable on employee separation scheme	0.24	0.29
	0.24	0.29
Current		
(a) Current maturities of non-current borrowings (note 16 (footnote 'i' and 'ii'))		
(i) Non-convertible debentures - Unsecured	250.00	-
(ii) From Banks - Unsecured	438.85	412.36
Less: Unamortised cost of borrowings	0.76	2.13
	688.09	410.23
(b) Current maturities of finance lease obligations (note 33)	5.38	5.22
(c) Interest accrued	27.74	31.47
(d) Creditors for capital goods	80.20	36.77
(e) Unclaimed dividend (footnote 'i')	18.74	15.66
(f) Unclaimed debenture interest	0.01	0.01
(g) Derivatives (note 36)	1.67	0.13
(h) Security deposit from customers	27.71	28.49
(i) Contingent consideration	6.37	-
(j) Accrued expenses	72.61	69.83
(k) Others	5.32	42.85
	933.84	640.66

Footnote:

- (i) There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company except for ₹ 0.54 crore (2018: ₹ 0.51 crore), wherein legal disputes with regards to ownership have remained unresolved.

18. Provisions

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Provision for employee benefits		
(i) Pension and other post retirement benefits (note 34)	98.47	111.76
(ii) Long service awards	2.59	2.85
	101.06	114.61
(b) Other provisions (footnote 'i')	2.05	2.90
	103.11	117.51
Current		
(a) Provision for employee benefits		
(i) Pension and other post retirement benefits (note 34)	5.09	5.16
(ii) Compensated absences and long service awards	45.19	41.77
	50.28	46.93
(b) Other provisions (footnote 'i')	152.80	50.26
	203.08	97.19

Footnotes:
i) Other provisions include:

₹ in crore

Particulars	Asset retirement obligation (1)	Provision for warranty (2)	Others (3)	Total
Balance as at April 1, 2017	14.99	0.39	116.75	132.13
Provisions pertaining to discontinued operations (refer note 31)	-	-	(92.29)	(92.29)
Provisions recognised during the year	0.48	0.32	12.71	13.51
Payments / utilisation during the year	-	-	(0.04)	(0.04)
Unused amount reversed during the year	-	(0.15)	-	(0.15)
Balance as at March 31, 2018	15.47	0.56	37.13	53.16
Provisions pertaining to discontinued operations (refer note 31)	-	-	100.16	100.16
Provisions recognised during the year	0.96	-	6.99	7.95
Payments / utilisation during the year	(1.13)	-	(4.32)	(5.45)
Unused amount reversed during the year	-	(0.56)	(0.41)	(0.97)
Balance as at March 31, 2019	15.30	-	139.55	154.85
Balance as at March 31, 2018				
Non-Current	2.90	-	-	2.90
Current	12.57	0.56	37.13	50.26
Total	15.47	0.56	37.13	53.16
Balance as at March 31, 2019				
Non-Current	2.05	-	-	2.05
Current	13.25	-	139.55	152.80
Total	15.30	-	139.55	154.85

Nature of provisions :

- 1) Provision for asset retirement obligation includes provision towards site restoration expense and decommissioning charges. The timing of the outflows is expected to be within a period of one to thirty years from the date of balance sheet.
- 2) Provision for warranty relates to certain products that fail to perform satisfactorily during the warranty period. Provision made as at respective year ends represents the amount of the expected cost of meeting such obligations of rectification/replacement. The timing of the outflows is expected to be within a period of one year from the date of balance sheet.
- 3) Provision for others represents management's best estimate of outflow of economic resources in respect of water charges, entry tax, land revenue and other disputed items including direct taxes, indirect taxes and other claims. The timing of outflows is uncertain and will depend on the cessation of the respective cases.

19. Deferred tax assets and liabilities

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(a) Deferred tax assets	(72.89)	(108.23)
(b) Deferred tax liabilities	262.68	280.31
Deferred tax liabilities (net)	189.79	172.08

2018-19

₹ in crore

Particulars	As at April 1, 2018	Recognised in profit and loss (continuing operations)	Recognised in profit and loss (discontinued operations)	Recognised in other comprehensive income	As at March 31, 2019
Deferred tax assets/(liabilities) in relation to:					
Allowance for doubtful debts and advances	(33.66)	(10.41)	-	-	(44.07)
Accrued expenses allowed in the year of payment and on fair value of investments	(74.01)	12.98	-	32.63	(28.40)
Mark to market gains on mutual funds and derivatives	-	19.94	-	-	19.94
Depreciation and amortisation	279.90	(37.16)	-	-	242.74
Property, plant and equipment	0.41	(0.41)	-	-	-
Expenses allowed	(0.56)	0.07	0.07	-	(0.42)
	172.08	(14.99)	0.07	32.63	189.79
Deferred tax assets/(liabilities) in relation to:			Assets	Liabilities	Net
Allowance for doubtful debts and advances			(44.07)	-	(44.07)
Accrued expenses allowed in the year of payment and on fair value of investments			(28.40)	-	(28.40)
Mark to market gains on mutual funds and derivatives			-	19.94	19.94
Depreciation and amortisation			-	242.74	242.74
Expenses allowed			(0.42)	-	(0.42)
			(72.89)	262.68	189.79

2017-18

₹ in crore

Particulars	As at April 1, 2017	Recognised in profit and loss (continuing operations)	Recognised in profit and loss (discontinued operations)	Recognised in other comprehensive income	As at March 31, 2018
Deferred tax assets/(liabilities) in relation to:					
Allowance for doubtful debts and advances	(15.50)	(1.07)	(17.09)	-	(33.66)
Accrued expenses allowed in the year of payment and on fair value of investments	(116.04)	26.08	(4.64)	20.59	(74.01)
Depreciation and amortisation	273.41	6.60	(0.11)	-	279.90
Property, plant and equipment	(2.52)	1.67	1.26	-	0.41
Expenses allowed	(0.80)	0.24	-	-	(0.56)
	138.55	33.52	(20.58)	20.59	172.08
Deferred tax assets/(liabilities) in relation to:			Assets	Liabilities	Net
Allowance for doubtful debts and advances			(33.66)	-	(33.66)
Accrued expenses allowed in the year of payment and on fair value of investments			(74.01)	-	(74.01)
Depreciation and amortisation			-	279.90	279.90
Property, plant and equipment			-	0.41	0.41
Expenses allowed			(0.56)	-	(0.56)
			(108.23)	280.31	172.08

20. Other liabilities

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Non-current		
(a) Deferred income	10.50	10.50
	10.50	10.50
Current		
(a) Statutory dues	48.78	29.58
(b) Advance received from customers	4.73	3.09
(c) Others	0.33	0.11
	53.84	32.78

21. Trade payables

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
(a) Trade payables (footnote 'i') (note 39)	550.57	423.10
(b) Amount due to Micro Small and Medium Enterprises (footnote 'ii')	18.04	2.33
	568.61	425.43

Footnotes:

- (i) Trade payables are non-interest bearing and are normally settled within 60 days.
- (ii) According to information available with the Management, on the basis of intimation received from suppliers regarding their status under the Micro, Small and Medium Enterprises Development Act, 2006 ('MSMED Act'), the Company has amounts due to Micro, Small and Medium Enterprises under the said Act as follows :

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
1 (a) Principal amount remaining unpaid to any supplier	0.02	2.33
(b) Interest on 1(a) above	*	0.01
2 (a) The amount of principal paid beyond the appointed date	8.81	0.17
(b) The amount of interest paid beyond the appointed date	-	*
3 Amount of interest due and payable on delayed payments	0.09	*
4 Amount of interest accrued and remaining unpaid as at year end	0.09	*
5 The amount of further interest due and payable even in the succeeding year	-	0.01

* value below ₹ 50,000

22. Tax assets and liabilities

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
(a) Tax assets		
Non-current - Advance tax assets (net)	521.44	420.63
(b) Current tax liabilities (net)	124.12	122.15

23. Held for sale and discontinued operations

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(a) Assets classified as held for sale and discontinued operations		
(i) Discontinued operations (footnote 'i')	-	1,085.69
	-	1,085.69
(b) Liabilities directly associated with discontinued operations		
(i) Discontinued operations (footnote 'i')	-	549.95
	-	549.95

Footnote:

- (i) Discontinued operations comprise of assets and liabilities of Phosphatic Fertilisers business and Trading business as at March 31, 2018 (note 31).

24. Revenue from operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Sales of products (footnote 'i' to 'iv')	4,066.85	3,506.15
(b) Other operating revenues		
(i) Sale of scrap	13.97	13.32
(ii) Others	0.04	4.70
	14.01	18.02
	4,080.86	3,524.17

Footnotes:

(i) Reconciliation of sales of products		
Revenue from contract with customer	4,135.16	3,518.56
Adjustments made to contract price on account of		
(a) Discounts / Rebates / Incentives	(68.31)	(70.57)
(b) Excise duty invoiced	-	58.16
	4,066.85	3,506.15

- (ii) On adoption of Ind AS 115 - Revenue from Contracts with Customers with effect from April 1, 2018, the Company has evaluated its performance obligations relating to freight arrangements on sales to customers. Consequently following the cumulative effect method, freight and forwarding charges and revenue from operations are higher by ₹ 172.54 crore for the year ended March 31, 2019 (comparatives have not been restated); however, these do not have any impact on the profit.
- (iii) For operating segments revenue, geographical segments revenue, revenue from major products and revenue from major customers refer note 35.1.
- (iv) Sales includes excise duty upto June 30, 2017 and hence figures are not comparable.

25. Other income

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Dividend income from		
(i) Current investments measured at FVTPL	0.17	28.62
(ii) Non-current investments in		
- Subsidiaries	24.34	36.50
- Joint venture	58.43	9.82
- Other non-current investments	20.24	27.04
	103.18	101.98
(b) Interest income from financial assets at amortised cost		
(i) On bank deposits	67.27	13.55
(ii) On loans and advances	0.06	0.08
(iii) Other interest	0.12	0.14
	67.45	13.77
(c) Interest on refund of taxes	16.23	16.01
(d) Others		
(i) Corporate guarantee commission	3.11	11.13
(ii) Gain on sale/redemption of investments (net)	187.15	49.54
(iii) Foreign exchange gain (net)	63.99	1.95
(iv) Miscellaneous income (footnote 'i')	15.83	0.11
	270.08	62.73
	456.94	194.49

Footnote:

(i) Miscellaneous income primarily includes town income, rent income and liabilities written back.

26. Employee benefits expense

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Salaries, wages and bonus	218.67	205.33
(b) Contribution to provident and other funds	15.13	14.52
(c) Staff welfare expense (note 34 (3))	26.36	38.18
	260.16	258.03

27. Finance costs

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Interest costs		
(i) Interest on loans at amortised cost	95.10	127.41
(ii) Interest on obligations under finance leases	2.11	2.42
(b) Translation differences (footnote 'i')	(12.15)	(63.11)
(c) Discount and other charges	10.48	19.79
	95.54	86.51

Footnote:

(i) Translation differences on foreign currency loans regarded as borrowing cost net of changes in fair value of derivative contracts.

28. Depreciation and amortisation expense

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Depreciation of property, plant and equipment	140.62	124.48
(b) Depreciation of investment property	0.64	-
(c) Amortisation of other intangible assets	1.97	2.07
	143.23	126.55

29. Other Expenses

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Stores and spare parts consumed	58.36	60.43
(b) Packing materials consumed	244.22	208.49
(c) Power and fuel	573.83	473.93
(d) Repairs - Buildings	7.67	9.58
- Machinery	58.83	57.28
- Others	1.02	0.38
(e) Rent	25.38	23.37
(f) Royalty, rates and taxes	30.83	29.57
(g) Excise duty adjustment for stocks	-	(3.66)
(h) Distributors' service charges	16.66	16.18
(i) Sales promotion expenses	93.87	80.91
(j) Insurance charges	4.39	4.51
(k) Freight and forwarding charges (note 24, footnote 'ii')	610.08	396.68
(l) Loss on assets sold, discarded or written off	1.63	7.19
(m) Bad debts written off	0.93	0.03
(n) Provision for doubtful debts and advances (net)	6.35	3.06
(o) Directors' fees and commission	8.77	5.57
(p) Auditors' remuneration (footnote 'i')	2.86	4.38
(q) Expenditure towards Corporate Social Responsibility (CSR) (footnote 'ii')	25.68	14.28
(r) Donations and contributions (footnote 'iii')	21.70	3.19
(s) Others	146.05	142.47
	1,939.11	1,537.82

Footnote:

(i) Auditors' remuneration *

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Statutory Auditors		
a) For services as auditor	2.42	2.26
b) For other services (Including certification)	0.38	2.33
c) for reimbursement of expenses	0.09	0.21
Cost Auditors		
a) For services as auditor	0.08	-
	2.97	4.80
Less: Pertaining to discontinued operation	0.11	0.42
	2.86	4.38

* Including taxes

- (ii) Amount required to be spent by the Company during the year on CSR is ₹ 19.86 crore (2018: ₹ 16.80 crore) whereas the Company has spent ₹ 25.68 crore (2018: ₹ 14.28 crore). The Company has spent the following amounts during the year on the activities other than construction/acquisition of any asset.

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
1) Health care, nutrition, sanitation and safe drinking water	6.01	1.87
2) Environmental sustainability	5.87	4.63
3) Poverty alleviation, livelihood enhancement and infrastructure support	0.79	1.06
4) Education and vocational skill development	5.07	3.66
5) Inclusive growth and empowerment	0.92	1.15
6) Promotion and development of traditional arts and handicrafts	1.23	0.81
7) Contribution to Prime Minister's National Relief fund/other relief funds	1.66	0.75
8) Other approved activities	4.13	0.35
	25.68	14.28

- (iii) Amount includes Contribution of ₹ 10 crore (2018: ₹ Nil) to Progressive Electoral Trust (The Objects of the Trust inter alia, include holding by the Trustees of "Distribution Funds" for distribution to political parties).

- (iv) Expenditure incurred on Scientific Research and Development activities @

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(i) Revenue Expenditure (note 26 and 29 of Statement of Profit and Loss includes) :		
(a) Innovation Centre, Pune	31.85	31.45
(b) Centre for agri-solutions and technology, Aligarh (upto 12 January, 2018)	-	1.97
(c) Mithapur, Okhalamandal	0.11	0.33
(ii) Capital expenditure		
(a) Innovation Centre, Pune	5.69	8.45

@ The above figures are based on the separate accounts for the research and development ('R&D') centres recognised by the Department of Scientific and Industrial Research, Ministry of Science and Technology ('DSIR') for in-house research.

30. Income tax expense relating to continuing operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Tax expense		
Current tax		
In respect of the current year	350.22	245.60
Reversal pertaining to prior years	(33.12)	-
	317.10	245.60
Deferred tax		
In respect of the current year (note 19)	(14.99)	33.52
	(14.99)	33.52
Total tax expense	302.11	279.12

(b) The income tax expenses for the year can be reconciled to the accounting profit as follows:

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Profit before tax from continuing operations	1,219.83	903.59
Income tax expenses calculated at 34.944 % (2018 : 34.608%)	426.26	312.71
Effect of income that is exempt from taxation	(15.58)	(31.89)
Effect of expenses not deductible for tax computation	13.22	15.02
Effect of other permanent differences (goodwill)	(4.19)	-
Effect of income/expenses of capital nature	-	(1.69)
Effect of concessions (research and development and other allowances like 80IA and 32AC of Income Tax Act, 1961)	(10.58)	(13.66)
Effect of different tax rates on distribution by joint venture operating in other jurisdictions.	(10.21)	(1.70)
Effect of prior period adjustments in deferred tax	(42.16)	-
Effect of Mark to market gains on investments not chargeable to tax	(20.86)	-
Others	(0.67)	0.33
	335.23	279.12
Adjustments recognised in the current year in relation to the current tax of prior years	(33.12)	-
Income tax recognised in the Statement of Profit and Loss (relating to continuing operations)	302.11	279.12

31. Discontinued operations**(I) Disposal of Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers**

On June 1, 2018, the Company consummated the sale and transfer of its Phosphatic Fertiliser Business located at Haldia and the Trading Business comprising bulk and non-bulk fertilisers to IRC Agrochemicals Private Limited ("IRC") as per Business Transfer Agreement dated November 6, 2017.

Exceptional gain includes pre-tax loss of ₹ 65.40 crore towards the shortfall between the carrying value of net Property, plant and equipment ('PPE') and the recoverable value for the year ended March 31, 2018.

(II) Disposal of urea and customised fertilisers business

During the previous year, the Company entered into an agreement with Yara Fertilisers India Private limited ('Yara India') to transfer its Urea Business (which comprises of manufacturing facilities for urea and customised fertilisers at Babrala, Uttar Pradesh), by way of a slump sale.

On January 12, 2018, the Company consummated the sale and transfer of its Urea and Customised Fertilisers Business to Yara India as contemplated in the Scheme of Arrangement dated August 10, 2016. The pre-tax gain of ₹ 1,279.39 crore for the year ended March 31, 2018 is included under exceptional gain for discontinued operations.

The financial performance and cash flows for Urea Business (till the date of sale) and Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers (till the date of sale):
(a) Analysis of profit from discontinued operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Profit for the year from discontinued operations		
Revenue from operations (footnote 'i')	624.55	4,087.25
Expenses		
Depreciation and amortisation	-	12.58
Other expenses	635.86	3,636.95
(Loss)/profit before exceptional item and tax	(11.31)	437.72
Exceptional gain (net)		
Profit on sale of discontinued operation	-	1,279.39
Impairment of assets (footnote 'ii')	-	(65.40)
(Loss)/profit before tax	(11.31)	1,651.71
Tax expense	(3.33)	167.60
Tax on sale of discontinued operations	-	341.62
(Loss)/profit after tax	(7.98)	1,142.49

Footnotes:

- (i) Revenue from operations includes subsidy income of ₹ 24.40 crore (2018: ₹ 1,979.51 crore)
- (ii) The shortfall between the carrying value of net PPE and the recoverable value.

(b) Net cash flows attributable to the discontinued operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Net cash (outflows)/inflows from operating activities	309.04	240.47
Net cash used in investing activities	-	(29.58)
Net cash (outflows)/inflows from financing activities	(310.08)	(209.99)
Net cash (outflows)/inflows	(1.04)	0.90

(c) Book value of assets and liabilities of discontinued operations:

₹ in crore

Particulars	Phosphatic Fertilisers business and Trading business	
	As at March 31, 2019	As at March 31, 2018
Property, plant and equipment and intangible assets (including CWIP)	-	75.05
Other non-current assets	-	29.27
Inventories	-	149.80
Trade receivables (including subsidy of ₹ Nil (2018: ₹ 802.10 crore)) (footnote 'ii')	-	808.23
Cash and cash equivalents	-	1.04
Current financial assets	-	0.04
Other current assets	-	22.26
Total Assets (A)	-	1,085.69
Non-current financial liabilities - provisions	-	1.54
Borrowings (footnote 'i' and 'ii')	-	310.08
Trade payables	-	112.26
Other financial liabilities	-	18.57
Other current liabilities	-	8.32

(c) Book value of assets and liabilities of discontinued operations:

₹ in crore

Particulars	Phosphatic Fertilisers business and Trading business	
	As at March 31, 2019	As at March 31, 2018
Current liabilities - provisions	-	99.18
Total Liabilities (B)	-	549.95
Net assets (A - B)	-	535.74

Footnotes:

- (i) (a) The Department of Fertilizers, Government of India, has notified 'Special Banking Arrangement' scheme to address the concern of delay in subsidy disbursement. This arrangement has been made by the Government with the State Bank of India Consortium (SBI Consortium). Loans under this scheme are secured by hypothecation of subsidy receivables.

Fixed interest rate of 7.80% per annum out of which 6.84% per annum shall be borne by the Government and repaid in April 2018. The remaining 0.96% per annum shall be borne by the Company and will be recovered upfront for 60 days from the Company at the time of disbursement of the facility. Balance as at March 31, 2019 : ₹ Nil [2018 : ₹ 307.95 crore].

- (b) Cash credit (Secured) of ₹ Nil (2018: ₹ 2.13 crore)
- (ii) Subsidy receivables and borrowings related to Phosphatic fertilisers and Trading business along with the related revenue and expenses are disclosed as discontinued operations. These receivables and borrowings are not transferred on disposal of business. (note 9)

(d) Gain on disposal of discontinued operations:

₹ in crore

Particulars	Phosphatic Fertilisers business and Trading business	Urea and customised fertilisers business
	Year ended March 31, 2019	Year ended March 31, 2018
Cash consideration received (net of cost to sell)	565.08	2,593.98
Net assets transferred (footnote 'i')	565.08	1,314.59
Gain on disposal	-	1,279.39

Footnote:**(i) Information of assets and liabilities transferred**

₹ in crore

	Year ended March 31, 2019	Year ended March 31, 2018
Property, plant and equipment and intangible assets (including CWIP)	75.00	545.09
Other non-current assets	0.01	2.45
Inventories	298.13	27.50
Trade receivables	233.31	786.64
Other current assets	21.96	99.85
Total Assets (A)	628.41	1,461.53
Other non-current liabilities	10.37	129.73
Other current liabilities	52.96	17.21
Total Liabilities (B)	63.33	146.94
Net assets (A - B)	565.08	1,314.59

32. Earnings per share

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Basic and Diluted earnings per share (₹)		
From continuing operations (₹)	36.02	24.51
From discontinued operations (₹)	(0.31)	44.85
Total Basic and Diluted earnings per share (₹)	35.71	69.36

Footnotes:

The earnings and weighted average numbers of equity shares used in the calculation of basic and diluted earnings per share are as follows.

(a) Earnings used in the calculation of basic and diluted earnings per share:	₹ in crore	₹ in crore
Profit for the year from continuing operations	917.72	624.47
Profit for the year from discontinued operations	(7.98)	1,142.49
	909.74	1,766.96

(b) Weighted average number of equity shares used in the calculation of basic and diluted earnings per share:	No. of shares	No. of shares
Weighted average number of equity shares used in the calculation of basic and diluted earnings per share from continuing operations and from discontinued operations	25,47,56,278	25,47,56,278

33. Finance leases

Finance lease commitments

The Company has finance lease contracts for certain items of plant and machinery and vehicles. The Company's obligations under finance leases are secured by the lessor's title to the leased assets.

Future minimum lease payments ('MLP') under finance lease contracts together with the present value of the net MLP are, as follows:

Particulars	March 31, 2019		March 31, 2018	
	MLP	Present value of MLP	MLP	Present value of MLP
Within one year	6.86	5.38	7.05	5.22
After one year but not more than five years	14.82	13.46	21.12	18.23
More than five years	-	-	-	-
Total MLP	21.68	18.84	28.17	23.45
Less : amounts representing finance charges	2.84		4.72	
Present value of MLP	18.84		23.45	
Included in the financial statements as:				
- Non-current borrowings (note 16)		13.46		18.23
- Current maturity of finance lease obligations (note 17)		5.38		5.22
		18.84		23.45

Interest rates ranging from 8% to 12% per annum, underlying all obligations under finance leases, are fixed at respective contract dates.

34. Employee benefits obligations

- (a) The Company makes contributions towards provident fund, in substance a defined benefit retirement plan and towards pension fund and superannuation fund which are defined contribution retirement plans for qualifying employees. The provident fund is administered by the Trustees of the Tata Chemicals Limited Provident Fund and the superannuation fund is administered by the Trustees of the Tata Chemicals Limited Superannuation Fund. The Company is liable to pay to the provident fund to the extent of the amount contributed and any shortfall in the fund assets based on Government specified minimum rates of return relating to current services. The Company recognises such contribution and shortfall if any as an expense in the year incurred.

On account of the above contribution plans, a sum of ₹ 11.78 crore (2018: ₹ 14.62 crore) has been charged to the Statement of Profit and Loss.

- (b) The Company makes annual contributions to the Tata Chemicals Employees' Gratuity Trust and to the Employees' Group Gratuity-Life Assurance Scheme of the Life Insurance Corporation of India, for funding the defined benefit plans for qualifying employees. The scheme provides for lump sum payment to vested employees at retirement or death while in employment or on termination of employment. Employees, upon completion of the vesting period, are entitled to a benefit equivalent to either half month, three fourth month and full month salary last drawn for each completed year of service depending upon the completed years of continuous service in case of retirement or death while in employment. In case of termination, the benefit is equivalent to fifteen days salary last drawn for each completed year of service in line with the Payment of Gratuity Act, 1972. Vesting occurs upon completion of five years of continuous service.

The Company also provides post retirement medical benefits to eligible employees under which employees at Mithapur who have retired from service of the Company are entitled for free medical facility at the Company hospital during their lifetime. Other employees are entitled to domiciliary treatment exceeding the entitled limits for the treatments covered under the Health Insurance Scheme upto slabs defined in the scheme. The floater mediclaim policy also covers retired employees based on eligibility, for such benefit.

The Company provides pension, housing / house rent allowance and medical benefits to retired Managing and Executive Directors who have completed ten years of continuous service in Tata Group and three years of continuous service as Managing Director/Executive Director or five years of continuous service as Managing Director/Executive Director. The directors are entitled upto seventy five percent of last drawn salary for life and on death 50% of the pension is payable to the spouse for the rest of his/her life.

Family benefit scheme is applicable to all permanent employees in management, officers and workmen who have completed one year of continuous service. In case of untimely death of the employee, nominated beneficiary is entitled to an amount equal to the last drawn salary (Basic Salary, DA and FDA) till the normal retirement date of the deceased employee.

The most recent actuarial valuations of plan assets and the present values of the defined benefit obligations were carried out at March 31, 2019. The present value of the defined benefit obligations and the related current service cost and past service cost, were measured using the Projected Unit Credit Method.

The following tables set out the funded status and amounts recognised in the Company's financial statements as at March 31, 2019 for the Defined Benefit Plans.

1. Changes in the defined benefit obligation:

₹ in crore

Particulars	Year ended March 31, 2019				Year ended March 31, 2018			
	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme
At the beginning of the year	82.04	65.20	39.40	13.58	95.20	84.14	42.63	17.48
Current service cost	3.81	2.71	0.39	1.43	5.65	4.20	0.44	1.81
Past service cost	-	-	1.40	-	1.19	-	-	-
Interest cost	5.17	5.00	2.94	1.00	6.16	5.71	2.83	1.15
Remeasurement (gain)/loss								
Actuarial (gain) / loss arising from:								
- Change in financial assumptions	0.26	0.38	0.25	0.04	(5.30)	(11.51)	(4.78)	(0.82)
- Change in demographic assumptions	-	1.70	(0.71)	(0.62)	-	-	-	-
- Experience adjustments	2.28	(9.99)	3.00	(1.70)	6.46	(9.80)	(0.54)	(4.32)
Benefits paid	(9.40)	(1.33)	(3.55)	(0.93)	(10.10)	(1.27)	(1.18)	(1.10)
Transfer out *	(8.75)	(14.74)	-	(1.29)	(17.22)	(6.27)	-	(0.62)
	75.41	48.93	43.12	11.51	82.04	65.20	39.40	13.58
Extinguishment due to discontinued operations	-	-	-	-	(8.75)	-	-	(1.26)
At the end of the year	75.41	48.93	43.12	11.51	73.29	65.20	39.40	12.32

* Pertaining to Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers and urea and customised fertilisers business

2. Changes in the fair value of plan assets:

₹ in crore

Particulars	Year ended March 31, 2019				Year ended March 31, 2018			
	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme
At the beginning of the year	87.83	-	-	-	94.07	-	-	-
Interest on plan assets	5.75	-	-	-	6.14	-	-	-
Employer's contributions	5.29	-	-	-	11.19	-	-	-
Remeasurement gain/(loss)								
Annual return on plan assets less interest on plan assets	(1.00)	-	-	-	2.68	-	-	-
Benefits paid	(9.40)	-	-	-	(10.10)	-	-	-
Transfer out *	(7.10)	-	-	-	(16.15)	-	-	-
	81.37	-	-	-	87.83	-	-	-
Extinguishment due to discontinued operations (note 31)	-	-	-	-	(7.10)	-	-	-
Value of plan assets at the end of the year	81.37	-	-	-	80.73	-	-	-
Impact of asset ceiling	(0.17)	-	-	-	(0.37)	-	-	-
(Asset)/liability (net)	(5.79)	48.93	43.12	11.51	(7.07)	65.20	39.40	12.32

*Pertaining to Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers and urea and customised fertilisers business

3. Net employee benefit expense for the year:

₹ in crore

Particulars	Year ended March 31, 2019				Year ended March 31, 2018			
	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme
Current service cost	3.81	2.71	0.39	1.43	5.65	4.20	0.44	1.81
Past service cost	-	-	1.40	-	1.19	-	-	-
Interest on defined benefit obligation (net)	(0.58)	5.00	2.94	1.00	0.02	5.71	2.83	1.15
Extinguishment due to discontinued operations	-	(14.74)	-	(1.29)	(1.03)	-	-	-
Components of defined benefits costs recognised in the Statement of Profit and Loss	3.23	(7.03)	4.73	1.14	5.83	9.91	3.27	2.96
Remeasurement								
Actuarial (gain) / loss arising from:								
- Change in financial assumptions	0.26	0.38	0.25	0.04	(5.30)	(11.51)	(4.78)	(0.82)
- Change in demographic assumptions	-	1.70	(0.71)	(0.62)	-	-	-	-
- Experience changes	2.28	(9.99)	3.00	(1.70)	6.46	(9.80)	(0.54)	(4.32)
Impact of asset ceiling	(0.23)	-	-	-	0.37	-	-	-
Return on plan assets less interest on plan assets	1.00	-	-	-	(2.68)	-	-	-
Components of defined benefits costs recognised in other comprehensive income	3.31	(7.91)	2.54	(2.28)	(1.15)	(21.31)	(5.32)	(5.14)
Net benefit expense	6.54	(14.94)	7.27	(1.14)	4.68	(11.40)	(2.05)	(2.18)

4. Categories of the fair value of total plan assets :

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
	Gratuity	Gratuity
Government of India Securities (Quoted)	7.55	8.27
Corporate Bonds (Quoted)	3.24	5.30
Fund Managed by Life Insurance Corporation of India (Unquoted)	68.21	73.94
Others	2.37	0.32
Total	81.37	87.83

Each year an Asset-Liability-Matching study is performed in which the consequences of the strategic investment policies are analysed in terms of risk-and-return profiles. Investment and contribution policies are integrated within this study.

5. Risk Exposure :

Through its defined benefit plans, the Company is exposed to a number of risks, the most significant of which are detailed below :

Investment risk :	If future investment returns on assets are lower than assumed in valuation, the scheme's assets will be lower, and the funding level higher than expected.
Changes in bond yields :	A decrease in yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.
Longevity risk :	If improvements in life expectancy are greater than assumed, the cost of benefits will increase because pensions are paid for longer than expected. This will mean the funding level will be higher than expected.
Inflation risk :	If inflation is greater than assumed, the cost of benefits will increase as pension increases and deferred revaluations are linked to inflation.

6. Assumptions used in accounting for gratuity, post retirement medical benefits, directors' retirement obligations and family benefit scheme:

Particulars		Gratuity and Compensated absences	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme
Discount rate	As at March 31, 2019	7.70%	7.70%	7.70%	7.70%
	As at March 31, 2018	7.75%	7.75%	7.75%	7.75%
Increase in Compensation cost	As at March 31, 2019	7.50%	NA	7.50%	7.50%
	As at March 31, 2018	7.50%	NA	7.50%	7.50%
Healthcare cost increase rate	As at March 31, 2019	NA	10.00%	8.00%	NA
	As at March 31, 2018	NA	10.00%	8.00%	NA
Pension increase rate	As at March 31, 2019	NA	NA	6.00%	NA
	As at March 31, 2018	NA	NA	6.00%	NA

- (a) Discount rate is based on the prevailing market yields of Indian Government securities as at the Balance Sheet date for the estimated term of the obligations.
- (b) The estimates of future salary increases considered in actuarial valuation take into account the inflation, seniority, promotion and other relevant factors.

8. Maturity profile of defined benefit obligation is as follows;

₹ in crore

Particulars (expected payments)	As at March 31, 2019				As at March 31, 2018			
	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme	Gratuity	Post retirement medical benefits	Directors' retirement obligations	Family benefit scheme
Within the next 12 months (next annual reporting period)	11.72	1.39	2.56	1.13	14.27	1.42	2.63	1.25
Later than 1 year and not later than 5 years	34.62	7.13	10.39	4.81	34.93	7.78	9.03	5.72
Later than 5 year and not later than 9 years	24.36	10.24	11.03	4.21	30.07	11.95	9.75	5.23
10 years and above	79.94	248.72	127.29	11.37	82.71	400.15	128.44	13.12
Total expected payments	150.64	267.48	151.27	21.52	161.98	421.30	149.85	25.32
Weighted average duration to the payment (in Year)	6.94	15.76	13.27	6.35	6.83	17.39	12.96	6.31

9. The details of the Company's post-retirement and other benefit plans for its employees given above are certified by the actuary and relied upon by the Auditors.

10. Average longevity at retirement age for current beneficiaries of the plan (years)*

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Males	21.73	17.51
Females	24.38	22.02

* Based on India's standard mortality table with modification to reflect expected changes in mortality.

(c) The Company operates Provident Fund Schemes and the contributions are made to the recognised funds maintained by the Company. The Company is required to offer a defined benefit interest rate guarantee on provident fund balances of employees. The interest rate guarantee is payable to the employees for the year when the exempt fund declares a return on provident fund investments which is less than the rate declared by the Regional Provident Fund Commissioner (RPFC) on the provident fund corpus for their own subscribers. The Actuary has provided a valuation for provident fund liabilities on the basis of guidance issued by Actuarial Society of India and based on the below provided assumptions, shortfall between plan assets as the end of the year and the present value of funded obligation has been recognised in the Balance Sheet and Other Comprehensive Income.

The details of fund and plan assets position are given below:

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Plan assets at the end of the year	329.40	365.31
Present value of funded obligation	336.71	365.31
Amount recognised in the Balance Sheet	(7.31)	-

Assumptions used in determining present value of obligation of interest rate guarantee under a deterministic approach:

Guaranteed rate of return	8.65%	8.55%
Discount rate for remaining term to maturity of investments	7.75%	7.65%
Discount rate	7.70%	7.75%
Expected rate of return on investments	8.13%	8.38%

35. Segment information

35.1 Continuing operations

(a) Information about operating segments

Based on the recommendations of the Audit Committee, post divestment of the Fertiliser business, the Board of Directors has approved the revised segment reporting, from April 1, 2018, as under:

- Basic chemistry products : Soda Ash and other bulk chemicals
- Consumer products : Branded consumer products such as salt, pulses, spices, etc.
- Specialty products : Nutrition solutions, agri Solutions and advanced materials

Inter segment pricing is determined on an arm's length basis using transfer pricing principles. The corresponding information for the previous periods presented in these financial statements have been restated.

₹ in crore

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
1. Segment revenue (Revenue from operations)		
(i) Basic chemistry products	3,071.92	2,653.74
(ii) Consumer products	1,847.28	1,512.24
(iii) Specialty products	42.32	34.72
	4,961.52	4,200.70
Less: Inter segment revenue	887.67	695.52
	4,073.85	3,505.18
Unallocated	7.01	18.99
	4,080.86	3,524.17

₹ in crore

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
2. Segment result (Reconciliation with profit from continuing operations)		
(i) Basic chemistry products	762.48	736.59
(ii) Consumer products	313.89	234.67
(iii) Specialty products	(22.71)	(15.11)
Total Segment results	1,053.66	956.15
Net unallocated income	261.71	33.95
Finance costs	(95.54)	(86.51)
Profit before tax	1,219.83	903.59
Tax expense	(302.11)	(279.12)
Profit for the year from continuing operations	917.72	624.47

₹ in crore

Particulars	Segment assets		Segment liabilities	
	As at	As at	As at	As at
	March 31, 2019	March 31, 2018	March 31, 2019	March 31, 2018
(i) Basic chemistry products	2,211.52	1,860.03	607.97	487.46
(ii) Consumer products	220.44	140.54	181.69	137.27
(iii) Specialty products	468.68	120.64	72.98	19.33
	2,900.64	2,121.21	862.64	644.06
Unallocated	11,097.15	10,967.46	1,338.94	1,656.21
	13,997.79	13,088.67	2,201.58	2,300.27

4. Other information

₹ in crore

Particulars	Addition to non-current assets *		Depreciation and amortisation		Other non-cash expenses	
	Year ended March 31, 2019	Year ended March 31, 2018	Year ended March 31, 2019	Year ended March 31, 2018	Year ended March 31, 2019	Year ended March 31, 2018
(i) Basic chemistry products	305.22	233.11	123.85	107.27	17.89	6.91
(ii) Consumer products	1.17	4.87	1.37	0.87	6.12	3.64
(iii) Specialty products	364.02	22.52	3.12	2.68	1.55	0.96
	670.41	260.50	128.34	110.82	25.56	11.51
Unallocated	8.79	27.10	14.89	15.73	61.37	11.40
	679.20	287.60	143.23	126.55	86.93	22.91

*Comprises additions to Property, plant and equipment, Capital work-in-progress, Goodwill, Other intangible assets and Intangible assets under development.

(b) Information about geographical areas

The Company sells its products mainly within India where the conditions prevailing are uniform. Since the sales outside India are below threshold limit, no separate geographical segment disclosure is considered necessary.

All non-current assets in the nature of property, plant and equipment (including capital work in progress) and intangible assets (including those under development) are domiciled in india.

(c) Revenue from major products

The following is an analysis of the Company's segment revenue from continuing operations from its major products

₹ in crore

Particulars	Year ended March 31, 2019*	Year ended March 31, 2018*
(i) Basic chemistry products		
- Soda Ash	1,645.31	1,415.48
- Bicarb	244.15	206.11
- Others	294.79	336.63
(ii) Consumer products		
- Salt	1,608.43	1,400.34
- Others	238.85	111.90
(iii) Specialty products	42.32	34.72
(iv) Unallocated	7.01	18.99
	4,080.86	3,524.17

* including operating revenues and net of inter segment revenues.

(d) Revenue from major customers

No single customers contributed 10% or more to the Company's revenue for the year ended March 31, 2019 and March 31, 2018.

(e) Other note

Segment revenue, results, assets and liabilities include the respective amounts identifiable to each of the segments and amounts allocated on a reasonable basis.

35.2 Discontinued operations (note 31)

(a) Information about operating segment

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Revenue from operations (external)	624.55	4,086.91
Result :		
Segment result	(9.13)	1,715.12
Finance costs	(2.18)	(63.41)
Profit before tax	(11.31)	1,651.71
Tax expenses	3.33	(509.22)
Profit from discontinued operations after tax	(7.98)	1,142.49

Other information:

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Segment assets	-	1,085.69
Segment liabilities	-	549.95

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Addition to non-current assets *	-	10.58
Depreciation and amortisation	-	12.58
Other non-cash (income)/expenses	(8.54)	103.20

*Comprises additions to Property, plant and equipment, Capital work-in-progress and Intangible assets.

(b) Information about geographical area

Discontinued operations sells its products within India where the conditions prevailing are uniform.

(c) Revenue from major products

Discontinued operations segment deals in one product group i.e fertilisers and other agri inputs.

(d) Revenue from major customers

No single customers contributed 10% or more to the Company's revenue for the year ended March 31, 2019 and March 31, 2018.

35.3 Reconciliation of information on reportable segment to Balance sheet and Statement of Profit and Loss

(a) Reconciliation of profit for the year as per Statement of Profit and Loss

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Profit for the year from continuing operations (note 35.1 (a) (2))	917.72	624.47
Profit for the year from discontinued operations (note 35.2 (a))	(7.98)	1,142.49
Profit for the year as per Statement of Profit and Loss	909.74	1,766.96

(b) Reconciliation of total assets as per Balance sheet

₹ in crore

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Total assets as per continuing operations (note 35.1 (a) (3))	13,997.79	13,088.67
Total assets as per discontinued operations (note 35.2 (a))	-	1,085.69
Total assets as per Balance sheet	13,997.79	14,174.36

(c) Reconciliation of total liabilities as per Balance sheet

₹ in crore

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Total liabilities as per continuing operations (note 35.1 (a) (3))	2,201.58	2,300.27
Total liabilities as per discontinued operations (note 35.2 (a))	-	549.95
Total liabilities as per Balance sheet	2,201.58	2,850.22

36. Derivative financial instruments
(a) The details of the various outstanding derivative financial instruments are given below:

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Assets	Liabilities	Assets	Liabilities
Current portion				
Derivatives not designated in a hedge relationship				
- Forward contracts	0.03	1.67	0.76	0.13
- Cross-currency interest rate swaps	39.56	-	8.01	-
- Option contracts	0.20	-	0.08	-
Total current portion	39.79	1.67	8.85	0.13
Non-current portion				
Derivatives not designated in a hedge relationship				
- Cross-currency interest rate swaps	-	-	4.87	-
Total non-current portion	-	-	4.87	-
Total	39.79	1.67	13.72	0.13

Although these contracts are effective as hedges from an economic perspective, these are not designated for hedge accounting.

(b) The details of the gross notional amounts of derivative financial instruments outstanding are given in the table below:

Particulars	Underlying	₹ in crore	
		As at March 31, 2019	As at March 31, 2018
Forward contracts	USD/INR	\$ 4.6 million	\$ 17.6 million
Forward contracts	EUR/INR	€ 1.4 million	€ 1.8 million
Forward contracts	CHF/INR	CHF 0.8 million	-
Option contracts	USD/INR	\$ 1.5 million	\$ 0.9 million
Cross-currency interest rate swaps	USD/INR and floating to fixed	\$ 63.5 million	\$ 126.7 million

37. Disclosures on financial instruments

(a) Financial instruments by category

The following table presents the carrying amounts of each category of financial assets and liabilities as at March 31, 2019.

₹ in crore

Particulars	Investments - FVTOCI	Investments - FVTPL	Derivatives - FVTPL	Amortised cost	Total carrying value
Financial assets					
(a) Investments - non-current					
Equity instrument at fair value	2,461.55	-	-	-	2,461.55
Debt instrument at fair value	-	1,037.33	-	-	1,037.33
(b) Investments - current					
Investment in mutual funds	-	2,146.26	-	-	2,146.26
(c) Trade receivables	-	-	-	184.84	184.84
(d) Cash and cash equivalents	-	-	-	1,044.75	1,044.75
(e) Other bank balances	-	-	-	56.46	56.46
(f) Loans - non-current	-	-	-	1.13	1.13
(g) Loans - current	-	-	-	0.40	0.40
(h) Other financial assets - non-current	-	-	-	0.26	0.26
(i) Other financial assets - current	-	-	39.79	234.01	273.80
Total	2,461.55	3,183.59	39.79	1,521.85	7,206.78
Financial liabilities					
(a) Borrowings - non-current				13.46	13.46
(b) Borrowings - current				0.99	0.99
(c) Trade payables				568.61	568.61
(d) Other financial liabilities - non-current				0.24	0.24
(e) Other financial liabilities - current			1.67	932.17	933.84
Total			1.67	1,515.47	1,517.14

The following table presents the carrying amounts of each category of financial assets and liabilities as at March 31, 2018.

₹ in crore

Particulars	Investments - FVTOCI	Investments - FVTPL	Derivatives - FVTPL	Amortised cost	Total carrying value
Financial assets					
(a) Investments - non-current					
Equity instrument at fair value	2,366.61	-	-	-	2,366.61
Debt instrument at fair value	-	977.63	-	-	977.63
(b) Trade receivables	-	-	-	140.36	140.36
(c) Cash and cash equivalents	-	-	-	3,303.29	3,303.29
(d) Other bank balances	-	-	-	465.63	465.63
(e) Loans - non-current	-	-	-	1.38	1.38
(f) Loans - current	-	-	-	0.51	0.51
(g) Other financial assets - non-current	-	-	4.87	0.26	5.13
(h) Other financial assets - current	-	-	8.85	62.80	71.65
Total	2,366.61	977.63	13.72	3,974.23	7,332.19
Financial liabilities					
(a) Borrowings - non-current				681.07	681.07
(b) Borrowings - current				0.61	0.61
(c) Trade payables				425.43	425.43
(d) Other financial liabilities - non-current				0.29	0.29
(e) Other financial liabilities - current			0.13	640.53	640.66
Total			0.13	1,747.93	1,748.06

(b) Fair value hierarchy

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows:

Level 1 - Quoted (unadjusted) market prices in active markets for identical assets or liabilities

Level 2 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable

Level 3 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

The following tables provides the fair value measurement hierarchy of the Company's financial assets and liabilities that are measured at fair value or where fair value disclosure is required.

₹ in crore

Particulars	As at March 31, 2019			
	Fair value measurement using			
	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets measured at fair value:				
Derivative financial assets				
Cross currency interest rate swaps	39.56	-	39.56	-
Options	0.20	-	0.20	-
Foreign exchange forward contracts	0.03	-	0.03	-
FVTOCI financial investments				
Quoted equity instruments	1,978.84	1,978.84	-	-
Unquoted equity instruments	482.71	-	-	482.71
FVTPL financial investments				
Investment in mutual funds	2,146.26	-	2,146.26	-
FVTPL financial investments				
Unquoted debt instruments	1,037.33	-	-	1,037.33
Liabilities measured at fair value:				
Derivative financial liabilities				
Foreign exchange forward contracts	1.67	-	1.67	-
Liabilities for which fair values are disclosed:				
Borrowings				
Unsecured non-convertible debentures	250.67	250.67	-	-

There have been no transfers between levels during the period.

₹ in crore

Particulars	As at March 31, 2018			
	Fair value measurement using			
	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets measured at fair value:				
Derivative financial assets				
Cross currency interest rate swaps	12.88	-	12.88	-
Options	0.08	-	0.08	-
Foreign exchange forward contracts	0.76	-	0.76	-
FVTOCI financial investments				
Quoted equity instruments	1,718.84	1,718.84	-	-
Unquoted equity instruments	647.77	-	-	647.77
FVTPL financial investments				
Unquoted debt instruments	977.63	-	-	977.63
Liabilities measured at fair value:				
Derivative financial liabilities				
Foreign exchange forward contracts	0.13	-	0.13	-
Liabilities for which fair values are disclosed:				
Borrowings				
Unsecured non-convertible debentures	256.32	256.32	-	-

There have been no transfers between levels during the period.

(c) The following tables shows a reconciliation from the opening balance to the closing balance for level 3 fair values.

₹ in crore

	Total	FVTOCI financial investments	FVTPL financial investments-Equity	FVTPL financial investments- Debt
Balance as at April 1, 2017	1,549.47	576.72	-	972.75
Add / (less): fair value through Other comprehensive income	71.05	71.05	-	-
Add / (less): Foreign currency translation adjustment	4.88	-	-	4.88
Balance as at March 31, 2018	1,625.40	647.77	-	977.63
Add / (less): fair value through Other comprehensive income	5.13	5.13	-	-
Investment transferred to Joint venture	(170.19)	(170.19)	-	-
Add / (less): Foreign currency translation adjustment	59.70	-	-	59.70
Balance as at March 31, 2019	1,520.04	482.71	-	1,037.33

(d) Valuation technique to determine fair value

The following methods and assumptions were used to estimate the fair values of financial instruments:

- (i) The management assessed that fair value of cash and cash equivalents, trade receivables, trade payables, bank overdrafts and other current financial assets and liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments.
- (ii) The fair values of the equity investment which are quoted, are derived from quoted market prices in active markets. The Investments measured at fair value and falling under fair value hierarchy Level 3 are valued on the basis of valuation reports provided by external valuers with the exception of certain investments, where cost has been considered as an appropriate estimate of fair value because of a wide range of possible fair value measurements and cost represents the best estimate of fair values within that range.
- (iii) The fair values of investments in mutual fund units is based on the net asset value ('NAV') as stated by the issuers of these mutual fund units in the published statements as at Balance Sheet date. NAV represents the price at which the issuer will issue further units of mutual fund and the price at which issuers will redeem such units from the investors.
- (iv) The Company enters into derivative financial instruments with various counterparties, principally banks. The fair value of derivative financial instruments is based on observable market inputs including currency spot and forward rate, yield curves, currency volatility, credit quality of counterparties, interest rate and forward rate curves of the underlying instruments etc. and use of appropriate valuation models.
- (v) The fair value of non-current borrowings carrying floating-rate of interest is not impacted due to interest rate changes, and will not be significantly different from their carrying amounts as there is no significant change in the underlying credit risk of the Company (since the date of inception of the loans).
- (vi) The fair values of the 10% unsecured redeemable non-convertible debenture (included in current maturities of non-current borrowings) are derived from quoted market prices. The Company has no other non-current borrowings with fixed-rate of interest.

(e) Financial risk management objectives

The Company is exposed to market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Company's risk management strategies focus on the un-predictability of these elements and seek to minimise the potential adverse effects on its financial performance. The Company's senior management which is supported by a Treasury Risk Management Group ('TRMG') manages these risks. TRMG advises on financial risks and the appropriate financial risk governance framework for the Company and provides assurance to the Company's senior management that the Company's financial risk activities are governed by appropriate policies and procedures and that financial risks are identified, measured and managed in accordance with the Company's policies and risk objectives.

All hedging activities for risk management purposes are carried out by specialist teams that have the appropriate skills, experience and supervision. The Company's policy is not to trade in derivatives for speculative purposes.

Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk, such as equity price risk and commodity risk. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates, equity price fluctuations, liquidity and other market changes. Financial instruments affected by market risk include loans and borrowings, deposits, investments and derivative financial instruments.

Foreign currency risk management

Foreign exchange risk arises on future commercial transactions and on all recognised monetary assets and liabilities, which are denominated in a currency other than the functional currency of the Company. The Company's management has set a policy wherein exposure is identified, a benchmark is set and monitored closely, and accordingly suitable hedges are undertaken. The policy also includes mandatory initial hedging requirements for exposure above a threshold.

The Company's foreign currency exposure arises mainly from foreign exchange imports, exports and foreign currency borrowings, primarily with respect to USD.

As at the end of the reporting period, the carrying amounts of the Company's foreign currency denominated monetary assets and liabilities in respect of the primary foreign currency i.e. USD and derivative to hedge the exposure, are as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
USD exposure		
Assets	1,040.19	1,010.83
Liabilities	(482.56)	(863.83)
Net	557.63	147.00
Derivatives to hedge USD exposure		
Forward contracts - (USD/ INR)	31.54	115.03
Option contracts- (USD/ INR)	10.37	6.04
Cross currency interest rate swaps - (USD/ INR)	438.85	825.96
	480.76	947.03
Net exposure	1,038.39	1,094.03

The Company's exposure to foreign currency changes for all other currencies is not material.

Foreign currency sensitivity analysis

The following table demonstrate the sensitivity to a reasonable possible change in USD exchange rate, with all other variables held constant. The impact on the Company's profit before tax due to changes in the fair value of monetary assets and liabilities and derivatives is as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
If INR had (strengthened) / weakened against USD by 5% (Decrease) / increase in profit for the year	51.92	54.70

Based on the movements in the foreign exchange rates historically and the prevailing market conditions as at the reporting date, the Company's Management has concluded that the above mentioned rates used for sensitivity are reasonable benchmarks.

Interest rate risk management

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market rates. The Company's exposure to the risk of changes in market rates relates primarily to the Company's non-current debt obligations with floating interest rates.

The Company's policy is generally to undertake non-current borrowings using facilities that carry floating-interest rate. The Company manages its interest rate risk by entering into interest rate swaps, in which it agrees to exchange, at specified intervals, the difference between fixed and variable rate interest amounts calculated by reference to an agreed-upon notional principal amount.

Moreover, the short-term borrowings of the Company do not have a significant fair value or cash flow interest rate risk due to their short tenure.

As the Company does not have exposure to any floating-interest bearing assets, or any significant long-term fixed-interest bearing assets, its interest income and related cash inflows are not affected by changes in market interest rates.

As at the end of reporting period, the Company had the following long term variable interest rate borrowings and derivatives to hedge the interest rate risk as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Non-current variable interest rate borrowings	438.85	825.96
Derivatives to hedge interest rate risk		
Cross currency interest rate swaps	438.85	825.96
Net exposure	-	-

Interest rate sensitivity

No sensitivity analysis is prepared as the Company does not expect any material effect on the Company's results arising from the effects of reasonably possible changes to interest rates on interest bearing financial instruments at the end of the reporting period.

Equity price risk management

Equity price risk is related to the change in market price of the investments in quoted equity securities. The Company's exposure to equity price risk arises from investment held by the Company and classified as FVTOCI. In general, these investments are strategic investments and are not held for trading purposes. Reports on the equity portfolio are submitted to the Company's senior management on a regular basis.

Equity price sensitivity analysis

If prices of quoted equity securities had been 5% higher / (lower), the OCI for the year ended March 31, 2019 and 2018 would increase/ (decrease) by ₹ 98.94 crore and ₹ 85.94 crore respectively.

Credit risk management

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Company is exposed to credit risk from its operating activities, primarily trade and other receivables and from its financing activities, including deposits with banks and financial institutions, investment in mutual funds and other financial instruments.

The carrying amount of financial assets represents the maximum credit exposure, being the total of the carrying amount of balances with banks, short term deposits with banks, short term investment, trade and other receivables and other financial assets excluding equity investments.

Trade and other receivables

Trade and other receivables of the Company are typically unsecured and derived from sales made to a large number of independent customers. Customer credit risk is managed by each business unit subject to established policies, procedures and control relating to customer credit risk management. Before accepting new customer, the Company has appropriate level of control procedures to assess the potential customer's credit quality. The credit-worthiness of its customers are reviewed based on their financial position, past experience and other relevant factors. The credit period provided by the Company to its customers generally ranges from 0-60 days. Outstanding customer receivables are reviewed periodically.

The credit risk related to the trade receivables is mitigated by taking security deposits / bank guarantee / letter of credit - as and where considered necessary, setting appropriate credit terms and by setting and monitoring internal limits on exposure to individual customers.

There is no substantial concentration of credit risk as the revenue and trade receivables from any of the single customer do not exceed 10% of Company revenue.

For certain other receivables, where recoveries are expected beyond twelve months of the balance sheet date, the time value of money is appropriately considered in determining the carrying amount of such receivables.

Financial instruments and cash deposits

Credit risk from balances/investments with banks and financial institutions is managed in accordance with the Company's treasury risk management policy. Investments of surplus funds are made only with approved counterparties and within limits assigned to each counterparty. The limits are assigned based on corpus of investable surplus and corpus of the investment avenue. The limits are set to minimize the concentration of risks and therefore mitigate financial loss through counterparty's potential failure to make payments.

Financial guarantees

Financial guarantees disclosed in note 41.1(b) have been provided as corporate guarantees to financial institutions and banks that have extended credit facilities to the Company's subsidiaries. In this regard, the Company does not foresee any significant credit risk exposure.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

The Treasury Risk Management Policy includes an appropriate liquidity risk management framework for the management of the Company's short-term, medium-term and long term funding and cash management requirements. The Company manages the liquidity risk by maintaining adequate cash reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities. The Company invests its surplus funds in bank fixed deposit and liquid schemes of mutual funds, which carry no/negligible mark to market risks.

The below table analyses the Company's non-derivative financial liabilities as at the reporting date, into relevant maturity groupings based on the remaining period (as at that date) to the contractual maturity date. The amounts disclosed in the below table are the contractual undiscounted cash flows.

Particulars	₹ in crore					
	Carrying amount	Upto 1 year	1-3 years	3-5 years	Above 5 years	Total
As at March 31, 2019						
Borrowings and future interest thereon	707.92	713.08	-	-	-	713.08
Trade and other payables	240.61	240.37	0.24	-	-	240.61
Total	948.53	953.45	0.24	-	-	953.69
As at March 31, 2018						
Borrowings and future interest thereon	1,097.13	444.39	677.78	-	-	1,122.17
Trade and other payables	650.80	650.51	0.29	-	-	650.80
Total	1,747.93	1,094.90	678.07	-	-	1,772.97

The below table analyses the Company's derivative financial liabilities into relevant maturity groupings based on the remaining period (as at the reporting date) to the contractual maturity date.

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Current portion	1.67	0.13
Non-current portion (within one - three years)	-	-
Net	1.67	0.13

All the derivative financial liabilities are included in the above analysis, as their contractual maturity dates are essential for the understanding of the timing of the under-lying cash flows.

38. Capital management

The capital structure of the Company consists of net debt and total equity. The Company manages its capital to ensure that the Company will be able to continue as going concern while maximising the return to stakeholders through an optimum mix of debt and equity within the overall capital structure. The Company's risk management committee reviews the capital structure of the Company considering the cost of capital and the risks associated with each class of capital.

39. Related Party Disclosure:

(a) Related parties and their relationship (as defined under IndAS-24 Related Party Disclosures)

Subsidiaries

Direct

Rallis India Limited, India
Bio Energy Venture - 1 (Mauritius) Pvt. Ltd, Mauritius (note 7)
Ncourage Social Enterprise Foundation

Indirect

Rallis Chemistry Exports Limited, India
Metahelix Life Sciences Limited, India
Zero Waste Agro Organics Limited (ZWAOL), India
PT Metahelix Lifesciences Indonesia (PTLI), Indonesia
Valley Holdings Inc., United States of America
Tata Chemicals North America Inc., United States of America
General Chemical International Inc., United States of America
NHO Canada Holdings Inc., United States of America
Tata Chemicals (Soda Ash) Partners (TCSAP), United States of America **
Tata Chemicals (Soda Ash) Partners Holdings(TCSAPH), United States of America **
TCSAP Holdings
TCSAP LLC, United States of America
Homefield Pvt UK Limited, United Kingdom
TCE Group Limited (formerly known as Homefield 2 UK Limited)
Tata Chemicals Africa Holdings Limited, United Kingdom
Natrium Holdings Limited (formerly known as Tata Chemicals Europe Holdings Limited)
Tata Chemicals Europe Limited, United Kingdom
Winnington CHP Limited, United Kingdom
Brunner Mond Group Limited, United Kingdom
Brunner Mond Limited, United Kingdom ##
Tata Chemicals Magadi Limited, United Kingdom
Northwich Resource Management Limited, United Kingdom
Brunner Mond Generation Company Limited, United Kingdom*
Gusiute Holdings (UK) Limited, United Kingdom
TCNA (UK) Limited, United Kingdom
British Salt Limited, United Kingdom
Cheshire Salt Holdings Limited, United Kingdom
Cheshire Salt Limited, United Kingdom
Brinefield Storage Limited, United Kingdom
Cheshire Cavity Storage 2 Limited, United Kingdom
Cheshire Compressor Limited, United Kingdom
Irish Feeds Limited, United Kingdom
New Cheshire Salt Works Limited, United Kingdom
Tata Chemicals International Pte. Limited, Singapore
Tata Chemicals (South Africa) Proprietary Limited, South Africa
Magadi Railway Company Limited, Kenya
Alcad, United States of America **
Grown Energy Zambeze Holdings Pvt. Ltd, Mauritius
(ceased w.e.f June 28, 2017)
Grown Energy (Pty) Limited, South Africa (ceased w.e.f June 28, 2017)
Grown Energy Zambeze Limitada, Mozambique
(ceased w.e.f June 28, 2017)

Joint Ventures

Direct

Indo Maroc Phosphore S.A., Morocco
Tata Industries Limited (w.e.f March 27, 2019)

Indirect

The Block Salt Company Limited, United Kingdom (Holding by New Cheshire Salt Works Limited)
JOil (S) Pte. Ltd and its subsidiaries (Holding by Tata Chemicals International Pte. Limited)
Natronx Technologies LLC, United States of America (Holding by TCSAP) @

Other related parties

Tata Chemicals Ltd Provident Fund
Tata Chemicals Ltd Employees Pension Fund
Tata Chemicals Superannuation Fund
Tata Chemicals Employees Gratuity Trust
TCL Employees Gratuity Fund

Key Management Personnel

Mr. R. Mukundan, Managing Director and CEO
Mr. Zarir Langrana, Executive Director (w.e.f April 1, 2018)

Promoter Group

Tata Sons Private Ltd, India

List of subsidiaries and joint ventures of Tata Sons Private Ltd. @@

TATA AIG General Insurance Company Limited
Tata Autocomp Systems Limited
Tata Capital Forex Limited (ceased w.e.f October 30, 2017)
Tata Capital Financial Services Limited
TC Travel and Services Limited (ceased w.e.f October 30, 2017)
Tata International Limited
Tata Consultancy Services Limited
TATA AIA Life Insurance Company Limited
Tata Business Support Services Limited (ceased w.e.f November 27, 2017)
Tata Consulting Engineers Limited
Infiniti Retail Limited
TASEC Limited (formerly TAS-AGT Systems Limited)
Tata Industries Limited
Tata Unistore Limited (formerly Tata Industrial Services Limited) (ceased w.e.f March 27, 2019)
Tata Teleservices Limited
Ecofirst Services Limited
Tata Realty and Infrastructure Limited
Tata Investment Corporation Limited
Ewart Investments Limited
Simto Investment Company Limited
Tata Autocomp Hendrickson Suspensions Private Limited
Tata Advanced System Limited
Tata SmartFoodz Limited
Tata SIA Airlines Limited
Tata Africa Holdings (Tanzania) Limited
Tata Communications Limited
Tata Communications Collaboration Services Private Limited
Tata Teleservices (Maharashtra) Limited

@@ The above list includes the Companies with whom the Company has entered into the transactions during the course of the year.

** a general partnership formed under the laws of the State of Delaware (USA).

@ Natronx Technologies LLC dissolved with effect from December 5, 2018.

During the year ended March 31, 2016, the Company's wholly owned subsidiary Bio Energy Venture - 1 (Mauritius) Pvt. Ltd, had entered into an agreement for sale of its entire stake in Grown Energy Zambeze Holdings Pvt. Ltd. and its subsidiaries. The administrative approvals in the respective jurisdictions for effecting the proposed sale are awaited.

*Brunner Mond Generation Company Limited (Dissolved with effect from December 19, 2017)

Brunner Mond Limited (Dissolved with effect from January 2, 2018)

(b) Transactions with Related parties (as defined under Ind AS 24) during the year ended March 31, 2019 and balances outstanding as at March 31, 2019 and as at March 31, 2018

Particulars	Subsidiaries of Tata Chemicals Limited				Joint Venture of Tata Chemicals Limited				Subsidiaries and Joint Ventures of Private Limited				Key Management Personnel (KMP)	Total	
	Rallis India Limited	Metalex Limited	Nourage Social Enterprise Foundation	Tata Chemicals North America Inc	Tata Chemicals Magadi Limited	Tata Chemicals International Pte. Limited	Homefield UK Private Limited	Tata Chemicals Europe Limited	British Salt Limited	Indo Maroc Phosphate S.A.	Tata Industries Limited	Promoter Tata Sons Private Ltd.			Tata Travel and Services Limited
Transactions with related parties															
Investments	-	-	2.50	-	-	-	-	-	-	-	-	-	(3.48)	-	(0.98)
Purchase of goods (includes stock in transit) - (net of returns)	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	0.05
Sales (Net)	0.08	(3.12)	-	55.17	2.62	457.94	-	-	0.73	99.94	-	-	-	-	616.40
Sale of fixed assets	11.29	6.41	4.03	64.44	11.23	176.61	-	0.44	0.75	290.77	-	-	-	0.05	540.76
Other services - expenses & reimbursement of Expenses	-	-	2.44	-	0.08	-	-	-	-	-	-	-	-	-	15.81
Other services - Income	-	-	-	(1.84)	(1.43)	(0.04)	-	(1.82)	-	(0.18)	-	12.50	-	8.80	5.16
Dividend received	-	-	-	(1.29)	(0.94)	(0.04)	-	(1.69)	-	1.71	-	19.90	5.21	11.93	4.67
Miscellaneous purchases/ Services	-	-	-	-	1.43	5.59	4.00	0.11	-	0.01	0.19	-	-	0.17	3.71
Dividend paid	-	-	-	-	1.90	5.59	4.00	0.11	-	0.07	-	-	-	0.22	11.89
Interest paid	-	-	-	-	-	-	-	-	-	58.43	-	8.19	-	1.55	92.51
Grant paid	-	-	7.50	-	-	-	-	-	-	9.82	-	8.19	-	0.86	55.37
Contributions to employee benefit trusts	-	-	-	-	-	-	-	-	-	-	-	-	-	2.51	2.51
Other employees' related expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69	0.69
Compensation to key Managerial Personnel	-	-	-	-	-	-	-	-	-	-	131.53	-	-	37.76	169.29
Short-term employee benefits	-	-	-	-	-	-	-	-	-	-	54.24	-	-	18.88	73.12
Post-employment benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
Balances due from/to related parties	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
Amount receivables/advances/balances	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2018	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
Amount payables (in respect of goods purchased and other services)	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2018	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
Amount receivable on account of any management contracts	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
As at March 31, 2018	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.40
Footnotes:															
1. For Investment in related parties refer note 7															
2. For Guarantee to third parties on behalf of subsidiaries in related parties as at March 31, 2019 refer note 41.1(b)															
3. The above figures do not include provision for compensated absences and contribution to gratuity fund, as separate figures are not available for the Managing Director and Whole-time Directors.															
4. * value below ₹ 50,000															

The figures in light print are for previous year

40. Commitments

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Estimated amount of contracts remaining to be executed on capital account and not provided for	269.94	167.81
Commitment towards partly paid investment	9.19	9.19

The above commitments include ₹ Nil (2018: ₹ 1.01 crore) relating to discontinued operations.

41.1 Contingent liabilities

- (a) Claims not acknowledged by the Company relating to the cases contested by the Company and which, in the opinion of the Management, are not likely to devolve on the Company relating to the following areas:

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(i) Excise, Customs and Service Tax	41.31	42.43
(ii) Sales Tax	37.34	37.97
(iii) Demand for utility charges	16.26	14.47
(iv) Labour and other claims against the Company not acknowledged as debt	25.40	23.08
(v) Income Tax (pending before Appellate authorities in respect of which the Company is in appeal)	434.04	451.20
(vi) Income Tax (decided in Company's favor by Appellate authorities and Department is in further appeal)	16.05	47.15
(vii) Contractual obligation upto	100.11	100.11

Item (i) to (vii) above includes ₹100.11 crore (2018: ₹136.65 crore) relating to discontinued operations.

- (b) Guarantees provided by the Company to third parties on behalf of subsidiaries aggregates USD 54 million & GBP 2.76 million (₹ 398.39 crore) (2018: USD 124.80 million & GBP 2.76 million (₹ 838.82 crore)).
- (c) The Hon'ble Supreme Court of India ('SC') by their order dated February 28, 2019, in the case of Surya Roshani Limited & others v/s EPFO, set out the principles based on which allowances paid to the employees should be identified for inclusion in basic wages for the purposes of computation of Provident Fund contribution. Subsequently, a review petition against this decision has been filed and is pending before the SC for disposal.

In view of management, any additional financial liability for the period from date of the SC order (February 28, 2019) to March 31, 2019 is not significant.

In addition, pending the outcome of the review petition and directions from the EPFO, the impact for past periods, if any, is not ascertainable and consequently no financial effect has been provided for in the accounts.

41.2 Contingent assets

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
(i) Income Tax (pending before Appellate authorities in respect of which the Company is in appeal)	78.40	87.02

42. Approval of financial statements

The financial statements were approved for issue by the board of directors on May 3, 2019.

Signatures to notes forming part of the financial statements 1 - 42

As per our report of even date attached

For B S R & Co. LLP

Chartered Accountants

Firm's Registration No: 101248W/W - 100022

Vijay Mathur

Partner

Membership No. 046476

Mumbai, May 3, 2019

John Mulhall

Chief Financial Officer

Rajiv Chandan

General Counsel &

Company Secretary

For and on behalf of the Board

Bhaskar Bhat

Director

Nasser Munjee

Director

Dr. Y. S. P. Thorat

Director

Vibha Paul Rishi

Director

S. Padmanabhan

Director

Padmini Khare Kaicker

Director

R. Mukundan

Managing Director and CEO

Zarir Langrana

Executive Director

Independent Auditors' Report

To the Members of Tata Chemicals Limited

Report on the Audit of Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Tata Chemicals Limited (hereinafter referred to as the 'Holding Company') and its subsidiaries (Holding Company and its subsidiaries together referred to as "the Group") and its joint ventures, which comprise the consolidated balance sheet as at March 31, 2019, and the consolidated statement of profit and loss (including other comprehensive income), consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information (hereinafter referred to as "the consolidated financial statements").

In our opinion and to the best of our information and according to the explanations given to us, and based on the consideration of reports of other auditors on separate financial statements of such subsidiaries and joint ventures as were audited by the other auditors, the aforesaid consolidated financial statements give the information required by the Companies Act, 2013 ("Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the

Description of Key Audit Matter

Revenue recognition (refer notes 2.18 and 25 to the Consolidated financial statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>Revenue is measured net of discounts, rebates, incentives and sales returns earned by customers on the Group's sales.</p> <p>Due to the Group's presence across different marketing regions within the country and overseas countries and the competitive business environment, the estimation of the various types of discounts, rebates, incentives and sales returns to be recognized based on sales made during the year is material and considered to be judgmental.</p> <p>Estimation of sales returns together with the level of judgment involved makes its accounting treatment a significant matter for our audit.</p> <p>Therefore, there is a risk of revenue being misstated as a result of faulty estimations over discounts, rebates, incentives and sales returns.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> Assessing the appropriateness of the revenue recognition accounting policies, including those relating to discounts, rebates, incentives and sales returns by comparing with applicable accounting standards. Testing the design, implementation and operating effectiveness of the Company's general IT controls over the Company's systems and manual controls which govern recording of revenue and rebates/schemes in the general ledger accounting system. Performing substantive testing (including year-end cut-off testing) by selecting samples of revenue transactions recorded during the year (and before and after the financial year end) by verifying the underlying documents, which included sales invoices/contracts and shipping documents.

consolidated state of affairs of the Group and its joint ventures as at March 31, 2019, of its consolidated profit and other comprehensive income, consolidated changes in equity and consolidated cash flows for the year then ended.

Basis for Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those SAs are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group and its joint venture companies in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India, and we have fulfilled our other ethical responsibilities in accordance with the provisions of the Act. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The Key Audit Matter	How the matter was addressed in our audit
<p>Revenue is recognized when the control of the underlying products has been transferred to the customer. There is a risk of revenue being overstated due to fraud resulting from the pressure on management to achieve performance targets at the reporting period end.</p>	<ul style="list-style-type: none"> • Comparing the historical discounts, rebates, incentives and sales returns to current payment trends. We also considered the historical accuracy of the Group's estimates in previous years. • Assessing manual journals posted to revenue to identify unusual items. • Checking of completeness and accuracy of the data used by the management for the purpose of calculation of the provision for sales returns and checking of its arithmetical accuracy. • Comparison between the estimate of the provision for sales returns created in the past with subsequent actual sales returns and analysis of the nature of any deviations to corroborate the effectiveness of the management estimation process. • Considered the adequacy of the Group's disclosures in respect of revenue.

Litigations and claims (refer notes 20 and 45 to the Consolidated financial statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>The Group operates in various countries, exposing it to a variety of different Central and State/Local and Overseas laws, regulations and interpretations thereof. In this regulatory environment, there is an inherent risk of litigations and claims.</p> <p>Consequently provisions and contingent liability disclosures may arise from direct and indirect tax proceedings, legal proceedings, including regulatory and other government/department proceedings, as well as investigations by authorities and commercial claims.</p> <p>At March 31, 2019, the Group's contingent liabilities for legal matters were ₹835.53 crore (refer note 45 to the consolidated financial statements) and provisions for legal matters aggregated ₹142.42 crore. (refer note 20 to the consolidated financial statements).</p> <p>Management applies significant judgment in estimating the likelihood of the future outcome in each case when considering whether, and how much, to provide or in determining the required disclosure for the potential exposure of each matter. This is due to the highly complex nature and magnitude of the legal matters involved along with the fact that resolution of tax and legal proceedings may span over multiple years, and may involve protracted negotiation or litigation.</p> <p>These estimates could change substantially over time as new facts emerge and each legal case progresses</p> <p>Given the inherent complexity and magnitude of potential exposures across the Group and the judgment necessary to estimate the amount of provisions required or to determine required disclosures, this is a key audit matter.</p>	<p>Our procedures included:</p> <ul style="list-style-type: none"> • Reviewing the outstanding litigations against the Group for consistency with the previous years. Enquire and obtain explanations for movement during the year. • Discussing the status of significant known actual and potential litigation with the Group's in-house Legal Counsel and other senior management personnel who have knowledge of these matters and assessing their responses. • Reading the latest correspondence between the Group and the various tax/legal authorities where applicable, for matters selected on sample basis for detailed evaluation considering the same in evaluating the appropriateness of the Group's provisions or disclosures on such matters. • Examining the Group's legal expenses and reading the minutes of the board meetings, in order to ensure all cases have been identified. • With respect to tax matters, involving our tax specialists, and discussing with the Group's tax officers, their views and strategies on significant cases, as well as the related technical grounds relating to their conclusions based on applicable tax laws. • Assessing the decisions and rationale for provisions held or for decisions not to record provisions or make disclosures. • For those matters where management concluded that no provisions should be recorded, consider the adequacy and completeness of the Group's disclosures.

Impairment evaluation of Goodwill, intangible assets and intangible assets under development (refer notes 6, 36(b), 7 to the Consolidated financial statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>The carrying amount of Goodwill, intangible assets and intangible assets under development represents 34% of the Group's total assets.</p> <p>We consider the impairment evaluation of Goodwill, intangible assets and intangible assets under development by management to involve significant estimates and judgment, due to the inherent uncertainty involved in forecasting and discounting future cash flows. Further, due to the materiality in the context of total assets of the Group, this is considered to be significant to our overall audit strategy and planning.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> • Reviewing the appropriateness of management's basis to identify relevant Cash Generating Units (CGU) for which Goodwill, intangible assets and intangible assets under development is being tested. • Assessing if there are triggers for impairment basis the net assets value or the financial performance of the CGU. • Testing and challenging the assumptions used in the discounted cash flow analysis based on our knowledge of the Company and the markets in which the CGU operates with the assistance of our valuations team, wherever necessary. • Inquiring with management about its intention and probability to obtain product registrations in the respective geographies. • Comparing management's assessment with the past trends of product registrations awarded. • Testing the mathematical accuracy of the discounted cash flow model and evaluation of the assumptions and methodologies used by the Group. • Considering the adequacy of disclosures in respect of Goodwill, intangible assets and intangibles assets under development.

Employee benefits provision (refer notes 20 and 38 to the Consolidated financial statements)

The Key Audit Matter	How the matter was addressed in our audit
<p>We consider the valuation of employee benefits for the Holding Company's UK subsidiaries' by management (with the assistance of external independent actuaries) to involve significant estimates and judgment, due to the inherent uncertainties involved in estimating salary increase, mortality rate and discount rate and also applicability of and changes in provisions of UK Pension laws. Further, due to the materiality in the context of total liabilities of the Group, this is considered to be significant to our overall audit strategy and planning.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> Assessing the valuation methodology used by the actuary and evaluating and challenging the reasonableness of the assumptions used with the assistance of our subject matter expert team. Comparing assumptions to externally derived data in relation to key inputs such as discount rates and mortality rates with the assistance of our subject matter expert team. Performing sensitivity analysis on the assumptions noted above. Considering the adequacy of disclosures in respect of the employee benefits provision.

Information Other than the Consolidated Financial Statements and Auditors' Report Thereon

The Holding Company's management and Board of Directors are responsible for the other information. The other information comprises the information included in the Holding Company's annual report, but does not include the financial statements and our auditors' report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed and based on the work done/ audit reports of other auditors, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

The Holding Company's management and Board of Directors are responsible for the preparation and presentation of these consolidated financial statements in terms of the requirements of the Act that give a true and fair view of the consolidated state of affairs, consolidated profit and other comprehensive income, consolidated statement of changes in equity and consolidated

cash flows of the Group including its joint ventures in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) specified under Section 133 of the Act. The respective Board of Directors of the companies included in the Group and of its joint ventures are responsible for maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of each company and for preventing and detecting frauds and other irregularities; the selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring accuracy and completeness of the accounting records, relevant to the preparation and presentation of the consolidated financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the consolidated financial statements by the Directors of the Holding Company, as aforesaid.

In preparing the consolidated financial statements, the respective management and Board of Directors of the companies included in the Group and of its joint ventures are responsible for assessing the ability of each company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The respective Board of Directors of the companies included in the Group and of its joint ventures is responsible for overseeing the financial reporting process of each company.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(f) of the Act, we are also responsible for expressing our opinion on whether the Holding Company and such companies incorporated in India which are its subsidiary companies have adequate internal financial controls with reference to financial statements in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting in preparation of consolidated financial statements and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the appropriateness of this assumption. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are

based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group (Company and its subsidiaries) as well as its joint ventures to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of such entities or business activities within the Group and its joint ventures to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit of financial information of such entities included in the consolidated financial statements of which we are the independent auditors. For the other entities included in the consolidated financial statements, which have been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audits carried out by them. We remain solely responsible for our audit opinion. Our responsibilities in this regard are further described in para (a) of the section titled 'Other Matters' in this audit report.

We believe that the audit evidence obtained by us along with the consideration of audit reports of the other auditors referred to in sub-paragraph (a) of the Other Matters paragraph below, is sufficient and appropriate to provide a basis for our audit opinion on the consolidated financial statements.

We communicate with those charged with governance of the Holding Company and such other entities included in the consolidated financial statements of which we are the independent auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters.

We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

(a) We did not audit the financial statements of 31 subsidiaries, whose financial statements reflect total assets of ₹21,669.71 crore as at March 31, 2019, total revenues of ₹6,733.49 crore and net cash flows amounting to ₹190.63 crore for the year ended on that date, as considered in the consolidated financial statements. The consolidated financial statements also include the Group's share of net profit (and other comprehensive income) of ₹99.21 crore for the year ended March 31, 2019 in respect of 3 joint ventures, whose financial statements have not been audited by us. These financial statements have been audited by other auditors whose reports have been furnished to us by the Holding Company's management and our opinion on the consolidated financial statements, in so far as it relates to the amounts and disclosures included in respect of these subsidiaries and joint ventures, and our report in terms of sub-section (3) of Section 143 of the Act, in so far as it relates to the aforesaid subsidiaries and joint ventures is based solely on the audit reports of other auditors.

Certain of these subsidiaries and joint ventures are located outside India whose financial statements and other financial information have been prepared in accordance with accounting principles generally accepted in their respective countries and which have been audited by other auditors under generally accepted auditing standards applicable in their respective countries. The Holding Company's Management has converted the financial statements of such subsidiaries and joint ventures located outside India from accounting principles generally accepted in their respective countries to accounting principles generally accepted in India. We have audited these conversion adjustments made by the Holding Company's Management. Our opinion in so far as it relates to the balances and affairs of such subsidiaries and joint ventures located outside India is based on the reports of other auditors and the conversion adjustments prepared by the management of the Holding Company and audited by us.

(b) The consolidated financial statements also include the Group's share of net profit (including other comprehensive income) of ₹Nil for the year ended March 31, 2019, as considered in the consolidated financial statements, in

respect of 2 joint ventures, whose financial statements have not been audited either by us or by other auditors. These unaudited financial statements have been furnished to us by the Holding Company's Management and our opinion on the consolidated financial statements, in so far as it relates to the amounts and disclosures included in respect of these joint ventures and our report in terms of sub-section (3) of Section 143 of the Act in so far as it relates to the aforesaid joint ventures, is based solely on such unaudited financial statements. In our opinion and according to the information and explanations given to us by the Holding Company's Management, these financial statements are not material to the Group.

Our opinion on the consolidated financial statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the above matters with respect to our reliance on the work done and the reports of the other auditors and the financial statements/financial information certified by the Holding Company's Management.

Report on Other Legal and Regulatory Requirements

- A. As required by Section 143(3) of the Act, based on our audit and on the consideration of reports of the other auditors on separate financial statements of such subsidiaries and joint ventures as were audited by other auditors, as noted in the 'Other Matters' paragraph, we report, to the extent applicable, that:
- a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid consolidated financial statements.
 - b) In our opinion, proper books of account as required by law relating to preparation of the aforesaid consolidated financial statements have been kept so far as it appears from our examination of those books and the reports of the other auditors.
 - c) The consolidated balance sheet, the consolidated statement of profit and loss (including other comprehensive income), the consolidated statement of changes in equity and the consolidated statement of cash flows dealt with by this Report are in agreement with the relevant books of account maintained for the purpose of preparation of the consolidated financial statements.
 - d) In our opinion, the aforesaid consolidated financial statements comply with the Ind AS specified under Section 133 of the Act.

e) On the basis of the written representations received from the directors of the Holding Company as on 1 April 2019 taken on record by the Board of Directors of the Holding Company and the reports of the statutory auditors of its subsidiary companies incorporated in India, none of the directors of the Group companies incorporated in India is disqualified as on March 31, 2019 from being appointed as a director in terms of Section 164(2) of the Act.

f) With respect to the adequacy of the internal financial controls with reference to financial statements of the Holding Company and its subsidiary companies incorporated in India and the operating effectiveness of such controls, refer to our separate Report in "Annexure A".

B. With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditor's) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us and based on the consideration of the reports of the other auditors on separate financial statements of the subsidiaries and joint venture, as noted in the 'Other Matters' paragraph:

i. The consolidated financial statements disclose the impact of pending litigations as at March 31, 2019 on the consolidated financial position of the Group and its joint ventures. Refer Note 45 to the consolidated financial statements.

ii. Provision has been made in the consolidated financial statements, as required under the applicable law or Ind AS, for material foreseeable losses, on long-term contracts including derivative contracts. Refer Note 19 to the consolidated financial statements in respect of such items as it relates to the Group and its joint ventures.

iii. There has been no delay in transferring amounts to the Investor Education and Protection Fund by the Holding Company or its subsidiary companies incorporated in India during the year ended March 31, 2019.

iv. The disclosures in the consolidated financial statements regarding holdings as well as dealings in specified bank notes during the period from 8 November 2016 to 30 December 2016 have not been made in these financial statements since they do not pertain to the financial year ended 31 March 2019.

C. With respect to the matter to be included in the Auditor's report under Section 197(16) of the Act:

In our opinion and according to the information and explanations given to us and based on the reports of the statutory auditors of such subsidiary companies and joint ventures incorporated in India which were not audited by us, the remuneration paid during the current year by the Holding Company, its subsidiary companies and joint ventures incorporated in India to its directors is in accordance with the provisions of Section 197 of the Act. The remuneration paid to any director by the Holding Company, its subsidiary companies and joint ventures incorporated in India is not in excess of the limit laid down under Section 197 of the Act. The Ministry of Corporate Affairs has not prescribed other details under Section 197(16) of the Act which are required to be commented upon by us.

For **B S R & Co. LLP**

Chartered Accountants

(Firm's Registration No. 101248W/W-100022)

Vijay Mathur

Partner

(Membership No. 046476)

Place: Mumbai

Date: May 3, 2019

Annexure A to the Independent Auditors' report on the consolidated financial statements of Tata Chemicals Limited for the year ended March 31, 2019

Report on the internal financial controls with reference to the aforesaid consolidated financial statements under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013

(Referred to in paragraph A(f) under 'Report on Other Legal and Regulatory Requirements' section of our report of even date)

Opinion

In conjunction with our audit of the consolidated financial statements of Tata Chemicals Limited (hereinafter referred to as "the Holding Company") as of and for the year ended March 31, 2019, we have audited the internal financial controls with reference to consolidated financial statements of the Holding Company and such companies incorporated in India under the Companies Act, 2013 which are its subsidiary companies, as of that date.

In our opinion, the Holding Company and such companies incorporated in India which are its subsidiary companies have, in all material respects, adequate internal financial controls with reference to consolidated financial statements and such internal financial controls were operating effectively as at March 31, 2019, based on the internal financial controls with reference to consolidated financial statements criteria established by such companies considering the essential components of such internal controls stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (the "Guidance Note").

Management's Responsibility for Internal Financial Controls

The respective Board of Directors of the Holding Company and its subsidiary companies which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls with reference to consolidated financial statements based on the criteria established by the respective companies considering the essential components of internal control stated in the Guidance Note. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to

the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013 (hereinafter referred to as "the Act").

Auditors' Responsibility

Our responsibility is to express an opinion on the internal financial controls with reference to consolidated financial statements based on our audit. We conducted our audit in accordance with the Guidance Note and the Standards on Auditing, prescribed under section 143(10) of the Act, to the extent applicable to an audit of internal financial controls with reference to consolidated financial statements. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to consolidated financial statements were established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls with reference to consolidated financial statements and their operating effectiveness. Our audit of internal financial controls with reference to consolidated financial statements included obtaining an understanding of internal financial controls with reference to consolidated financial statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of the internal controls based on the assessed risk. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors of the relevant subsidiary companies incorporated in India in terms of their reports referred to in the Other Matters paragraph below, is sufficient and appropriate to provide a basis for our audit opinion on the internal financial controls with reference to consolidated financial statements.

Meaning of Internal Financial controls with Reference to Consolidated Financial Statements

A company's internal financial controls with reference to consolidated financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial controls with reference to consolidated financial statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial controls with Reference to consolidated Financial Statements

Because of the inherent limitations of internal financial controls with reference to consolidated financial statements, including

the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to consolidated financial statements to future periods are subject to the risk that the internal financial controls with reference to consolidated financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Other Matters

Our aforesaid report under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to consolidated financial statements insofar as it relates to 2 subsidiary companies, which are companies incorporated in India, is based on the corresponding reports of the auditors of such companies incorporated in India.

For **B S R & Co. LLP**
Chartered Accountants
(Firm's Registration No. 101248W/W-100022)

Place: Mumbai
Date: May 3, 2019

Vijay Mathur
Partner
(Membership No. 046476)

Consolidated Balance Sheet as at March 31, 2019

	Note	As at March 31, 2019	As at March 31, 2018
₹ in crore			
I. Assets			
(1) Non-current assets			
(a) Property, plant and equipment	4	4,293.41	3,987.19
(b) Capital work-in-progress		735.84	373.85
(c) Investment property	5	27.21	27.94
(d) Goodwill on consolidation	6	1,811.03	1,731.85
(e) Goodwill	36(b)	48.00	-
(f) Other intangible assets	7	7,371.34	7,039.72
(g) Intangible assets under development		37.99	35.03
(h) Investments in joint ventures	8(a)	870.56	352.72
(i) Financial assets			
(i) Other investments	8(b)	2,492.37	2,395.85
(ii) Loans	9	7.87	9.68
(iii) Other financial assets	10	7.35	23.01
(j) Deferred tax assets (net)	21	36.24	20.81
(k) Advance tax assets (net)	23(a)	815.00	671.55
(l) Other non-current assets	11	252.40	169.89
Total non-current assets		18,806.61	16,839.09
(2) Current assets			
(a) Inventories	12	1,725.58	1,462.27
(b) Financial assets			
(i) Investments	8(c)	2,252.34	91.81
(ii) Trade receivables	13	1,452.50	1,307.86
(iii) Cash and cash equivalents	14	1,888.38	3,945.93
(iv) Bank balances other than (iii) above	14	63.81	537.11
(v) Loans	9	1.33	1.63
(vi) Other financial assets	10	340.79	147.12
(c) Current tax assets (net)	23(a)	3.51	34.52
(d) Other current assets	11	370.07	412.96
		8,098.31	7,941.21
Assets classified as held for sale and discontinued operations	24(a)	-	1,098.34
Total current assets		8,098.31	9,039.55
Total assets		26,904.92	25,878.64
II. Equity and Liabilities			
Equity			
(a) Equity share capital	15	254.82	254.82
(b) Other equity	16	12,086.45	10,846.89
Equity attributable to equity share holders		12,341.27	11,101.71
Non-controlling interests	17	2,914.67	2,717.16
Total equity		15,255.94	13,818.87
Liabilities			
(1) Non-current liabilities			
(a) Financial liabilities			
(i) Borrowings	18	4,782.91	5,394.02
(ii) Other financial liabilities	19	48.08	29.08
(b) Provisions	20	1,503.92	1,675.07
(c) Deferred tax liabilities (net)	21	1,297.18	1,191.55
(d) Other non-current liabilities	22	68.25	66.72
Total non-current liabilities		7,700.34	8,356.44
(2) Current liabilities			
(a) Financial liabilities			
(i) Borrowings	18	352.46	140.21
(ii) Trade payables			
- Outstanding dues of micro enterprises and small enterprises		20.93	7.14
- Outstanding dues of creditors other than above		1,454.40	1,471.44
(iii) Other financial liabilities	19	1,454.55	993.71
(b) Other current liabilities	22	249.79	204.09
(c) Provisions	20	280.33	205.76
(d) Current tax liabilities (net)	23(b)	136.18	131.03
		3,948.64	3,153.38
Liabilities directly associated with discontinued operations	24(b)	-	549.95
Total current liabilities		3,948.64	3,703.33
Total liabilities		11,648.98	12,059.77
Total equity and liabilities		26,904.92	25,878.64
Notes forming part of the consolidated financial statements	1 - 47		

As per our report of even date attached
For B S R & Co. LLP
 Chartered Accountants
 Firm's Registration No: 101248W/W - 100022

Vijay Mathur
 Partner
 Membership No. 046476
 Mumbai, May 3, 2019

John Mulhall
Rajiv Chandan
 Chief Financial Officer
 General Counsel &
 Company Secretary

For and on behalf of the Board
Bhaskar Bhat Director
Nasser Munjee Director
Dr. Y. S. P. Thorat Director
Vibha Paul Rishi Director
S. Padmanabhan Director
Padmini Khare Kaicker Director
R. Mukundan Managing Director and CEO
Zarir Langrana Executive Director

Consolidated Statement of Profit and Loss for the year ended March 31, 2019

₹ in crore

	Note	Year ended March 31, 2019	Year ended March 31, 2018
I. Revenue from operations	25	11,296.33	10,345.36
II. Other income	26	411.64	159.46
III. Total income (I+II)		11,707.97	10,504.82
IV. Expenses			
(a) Cost of materials consumed		1,803.56	1,390.56
(b) Purchases of stock-in-trade		438.94	469.10
(c) Changes in inventories of finished goods, work-in-progress and stock-in-trade	27	(104.82)	(104.15)
(d) Excise duty on sale of goods	25	-	75.67
(e) Employee benefits expense	28	1,351.80	1,270.23
(f) Finance costs	29	363.10	325.58
(g) Depreciation and amortisation expense	30	571.39	518.01
(h) Other expenses	31	5,711.79	5,053.26
Total expenses (a to h)		10,135.76	8,998.26
V. Profit before exceptional items, share of profit of joint ventures and tax (III-IV)		1,572.21	1,506.56
VI. Exceptional gain (net)	32	70.33	64.34
VII. Profit after exceptional items, before share of profit of joint ventures and tax (V+VI)		1,642.54	1,570.90
VIII. Share of profit of joint ventures (net of tax)	8(a)	99.21	49.23
IX. Profit before tax (VII+VIII)		1,741.75	1,620.13
X. Tax expense			
(a) Current tax	33	381.02	334.99
(b) Deferred tax	33	(34.10)	(274.86)
Total tax expense (a+b)		346.92	60.13
XI. Profit for the year from continuing operations (IX-X)		1,394.83	1,560.00
XII. (Loss)/profit before tax from discontinued operations	34	(11.31)	437.72
XIII. Exceptional gain (net)	34	-	1,213.99
XIV. Tax expense of discontinued operations	34	(3.33)	509.22
XV. (Loss)/profit for the year from discontinued operations (XII+XIII-XIV)		(7.98)	1,142.49
XVI. Profit for the year (XI+XV)		1,386.85	2,702.49
XVII. Other comprehensive income (net of tax) ("OCI")			
(A) (i) Items that will not be reclassified to the Consolidated Statement of Profit and Loss			
- Changes in fair value of investments in equities carried at fair value through OCI		267.18	1,017.28
- Remeasurement of defined employee benefit plans (note 38)		88.53	183.43
(ii) Income tax relating to items that will not be reclassified to the Consolidated Statement of Profit and Loss		35.72	70.79
(B) (i) Items that will be reclassified to the Consolidated Statement of Profit and Loss			
- Effective portion of gain/(loss) on cash flow hedges		(68.54)	10.94
- Changes in foreign currency translation reserve		336.39	(31.63)
(ii) Income tax relating to items that will be reclassified to the Consolidated Statement of Profit and Loss		1.71	0.43
Total other comprehensive income (net of tax) (A (i-ii) +B (i-ii))		586.13	1,108.80
XVIII. Total comprehensive income for the year (XVI+XVII)		1,972.98	3,811.29
XIX. Profit for the year from continuing operations (XI)			
Attributable to:			
(i) Equity shareholders of the Company		1,163.89	1,290.59
(ii) Non-controlling interests		230.94	269.41
		1,394.83	1,560.00
XX. Profit for the year from discontinued operations (XV)			
Attributable to:			
(i) Equity shareholders of the Company		(7.98)	1,142.49
(ii) Non-controlling interests		-	-
		(7.98)	1,142.49
XXI. Profit for the year (XVI)			
Attributable to:			
(i) Equity shareholders of the Company		1,155.91	2,433.08
(ii) Non-controlling interests		230.94	269.41
		1,386.85	2,702.49
XXII. Other comprehensive income (net of tax) (XVII)			
Attributable to:			
(i) Equity shareholders of the Company		453.40	1,097.70
(ii) Non-controlling interests		132.73	11.10
		586.13	1,108.80
XXIII. Total comprehensive income for the year (XVIII)			
Attributable to:			
(i) Equity shareholders of the Company		1,609.31	3,530.78
(ii) Non-controlling interests		363.67	280.51
		1,972.98	3,811.29
XXIV. Earnings per share for continuing operations (in ₹)			
Basic and Diluted	35	45.69	50.66
XXV. Earnings per share for discontinued operations (in ₹)			
Basic and Diluted	35	(0.31)	44.85
XXVI. Earnings per share for continuing and discontinued operations (in ₹)			
Basic and Diluted	35	45.38	95.51
Notes forming part of the financial statements	1-47		

As per our report of even date attached
For B S R & Co. LLP
 Chartered Accountants
 Firm's Registration No: 101248W/W - 100022

Vijay Mathur
 Partner
 Membership No. 046476
 Mumbai, May 3, 2019

John Mulhall
Rajiv Chandan

Chief Financial Officer
 General Counsel &
 Company Secretary

For and on behalf of the Board

Bhaskar Bhat	Director
Nasser Munjee	Director
Dr. Y. S. P. Thorat	Director
Vibha Paul Rishi	Director
S. Padmanabhan	Director
Padmini Khare Kaicker	Director
R. Mukundan	Managing Director and CEO
Zarir Langrana	Executive Director

Consolidated Statement of Changes in Equity for the year ended March 31, 2019

a. Equity share capital (note 15)

Particulars	₹ in crore
Balance as at March 31, 2019	254.82
Balance as at March 31, 2018	254.82

b. Other equity (note 16) and non-controlling interests (note 17)

Particulars	Other Equity						Total attributable to the equity shareholders of the parent	Non-controlling interests	
	Reserves and surplus								
	Capital reserve and other reserves from amalgamation	Securities premium	Capital redemption reserve	Debt redemption reserve	General reserve	Retained earnings*			
Balance as at April 1, 2017	20.73	1,258.89	0.10	240.00	1,282.47	1,509.39	1,836.66	7,653.42	2,623.89
Profit for the year	-	-	-	-	-	2,433.08	-	2,433.08	269.41
Other comprehensive income (net of tax)	-	-	-	-	-	116.94	1,009.17	(42.12)	11.10
Total comprehensive income for the year	-	-	-	-	-	2,550.02	1,009.17	(42.12)	280.51
Transferred to Retained earnings - sale of non-current investments	-	-	-	-	-	903.98	(903.98)	-	-
Dividends including tax on dividend	-	-	-	-	-	(337.31)	-	-	(188.51)
Changes in ownership interests in subsidiaries									
Additional infusion by NCI	-	-	-	-	-	-	-	-	1.27
Balance as at March 31, 2018	20.73	1,258.89	0.10	240.00	1,282.47	4,626.08	1,941.85	1,457.46	2,717.16
Profit for the year	-	-	-	-	-	1,155.91	-	-	230.94
Other comprehensive income (net of tax)	-	-	-	-	-	82.14	234.22	(73.77)	132.73
Total comprehensive income for the year	-	-	-	-	-	1,238.05	234.22	(73.77)	363.67
Transferred to Retained earnings - sale of non-current investments	-	-	-	-	-	4.39	(4.39)	-	-
Dividends including tax on dividend	-	-	-	-	-	(675.66)	-	-	(167.50)
Changes in ownership interests in Joint ventures									
Joint venture accounting (note 8(a) and 36)	305.91	-	-	-	-	-	-	-	305.91
Changes in ownership interests in subsidiaries									
Additional infusion by NCI	-	-	-	-	-	-	-	-	1.34
Balance as at March 31, 2019	326.64	1,258.89	0.10	240.00	1,282.47	5,192.86	2,171.68	1,668.27	2,914.67

* Including remeasurement of defined employee benefit plans

Notes forming part of the consolidated financial statements - (note 1-47)

As per our report of even date attached

For BSR & Co. LLP

Chartered Accountants

Firm's Registration No: 101248WW/W - 100022

Vijay Mathur
Partner

Membership No. 046476
Mumbai, May 3, 2019

John Mulhall
Rajiv Chandan
Chief Financial Officer
General Counsel &
Company Secretary

For and on behalf of the Board

Bhaskar Bhat
Nasser Munjee
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S. Padmanabhan
Padmini Khare Kaicker
R. Mukundan
Zairir Langrana
Director
Director
Director
Director
Director
Managing Director and CEO
Executive Director

Consolidated Statement of Cash Flows for the year ended March 31, 2019

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
A. Cash flows from operating activities		
Profit before tax from continuing operations	1,741.75	1,620.13
Profit before tax from discontinued operations	(11.31)	1,651.71
	1,730.44	3,271.84
Adjustments for :		
Depreciation and amortisation expense	571.39	530.59
Impairment of assets (note 34)	-	65.40
Finance costs	365.28	388.99
Interest income	(85.31)	(22.98)
Dividend income	(24.09)	(60.31)
Profit on sale of discontinued operation (note 34)	-	(1,279.39)
Share of profit of joint ventures	(99.21)	(49.23)
Net gain on sale of current investments	(187.40)	(52.70)
Provision for employee benefits expense	53.87	34.33
Provision for doubtful debts and advances/bad debts written off	17.36	55.04
Provision for contingencies (net)	43.63	66.75
Liabilities no longer required written back	(125.54)	(24.88)
Realised foreign exchange loss due to financing activities	-	3.87
Unrealised foreign exchange loss/(gain) (net)	1.01	15.83
Loss on assets sold or discarded (net)	19.14	10.80
Operating profit before working capital changes	2,280.57	2,953.95
Adjustments for :		
Trade receivables, loans, other financial assets and other assets	322.57	(251.33)
Inventories	(411.61)	(118.60)
Trade payables, other financial liabilities and other liabilities	(125.33)	(199.18)
Cash generated from operations	2,066.20	2,384.84
Taxes paid (net of refund)	(484.91)	(514.70)
Net cash generated from operating activities	1,581.29	1,870.14
B. Cash flows from investing activities		
Acquisition of property, plant and equipment (including capital work-in-progress, intangible assets and intangible assets under development)	(1,082.30)	(750.32)
Proceeds from sale of property, plant and equipment	2.78	19.72
Proceeds from sale of other non-current investments	3.69	937.38
Proceeds from sale of current investments	15,232.91	14,944.94
Purchase of non-current investments	(1.47)	(40.14)
Purchase of current investments	(17,206.24)	(14,766.70)
Payment on acquisition of business (note 36(b))	(116.82)	-
Purchase of investments in joint ventures	(0.35)	(1.91)
Bank balances not considered as cash and cash equivalent	476.46	(322.59)
Proceeds from sale of discontinued operations (net) (note 34)	565.08	2,593.98
Proceeds from sale of subsidiaries	-	0.03
Interest received	85.55	22.49
Dividend received	82.52	70.13
Net cash (used in)/from investing activities	(1,958.19)	2,707.01

Consolidated Statement of Cash Flows for the year ended March 31, 2019 (contd.)

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
C. Cash flows from financing activities		
Proceeds from borrowings	962.06	3,855.36
Repayment of borrowings	(1,533.46)	(5,076.78)
Repayment towards finance lease (net)	(4.75)	(19.18)
Finance costs paid	(293.85)	(324.31)
Contribution from non-controlling interests	1.34	1.27
Payment to non-controlling interests	(167.50)	(188.51)
Bank balances in dividend and restricted account	(3.16)	(1.13)
Dividends paid including distribution tax	(672.51)	(336.18)
Net cash used in financing activities	(1,711.83)	(2,089.46)
Net (decrease)/increase in cash and cash equivalents	(2,088.73)	2,487.69
Cash and cash equivalents as at April 1	3,945.93	1,451.45
Movement in cash and cash equivalents pertaining to discontinued operations	1.04	(0.96)
Exchange difference on translation of foreign currency cash and cash equivalents	30.14	7.75
Cash and cash equivalents as at 31 March (note 14)	1,888.38	3,945.93

Footnote:

Reconciliation of borrowings

₹ in crore

	Year ended March 31, 2019	Year ended March 31, 2018
Non-current borrowings (note 18)	4,782.91	5,394.02
Current borrowings (note 18)	352.46	140.21
Current maturities of non-current borrowings (note 19)	1,002.58	568.57
Current maturities of finance lease obligations (note 19)	5.48	5.37
Borrowings relating to discontinued operations (note 34)	-	310.08
Assets/(liabilities) held to hedge non-current borrowings (net) (note 40)	(20.37)	(21.71)
	6,123.06	6,396.54
Proceeds from borrowings	962.06	3,855.36
Repayment of borrowings of continuing operations	(1,223.38)	(4,910.61)
Repayment of borrowings of discontinued operations	(310.08)	(166.17)
Repayment towards finance lease (net)	(4.75)	(19.18)
Realised foreign exchange loss due to financing activities (net)	-	3.87
Unrealised foreign exchange gain/(loss) (net)	279.05	175.98
Fair value changes (net)	1.34	(20.82)
Unamortised finance cost	22.28	36.44
Movement of borrowings (net)	(273.48)	(1,045.13)
Notes forming part of the consolidated financial statements (note 1-47)		

As per our report of even date attached

For B S R & Co. LLP

Chartered Accountants

Firm's Registration No: 101248W/W - 100022

Vijay Mathur

Partner

Membership No. 046476

Mumbai, May 3, 2019

John Mulhall
Rajiv ChandanChief Financial Officer
General Counsel &
Company Secretary

For and on behalf of the Board

Bhaskar Bhat

Director

Nasser Munjee

Director

Dr. Y. S. P. Thorat

Director

Vibha Paul Rishi

Director

S. Padmanabhan

Director

Padmini Khare Kaicker

Director

R. Mukundan

Managing Director and CEO

Zarir Langrana

Executive Director

Notes forming part of the financial statements

1. Corporate information

Tata Chemicals Limited (the 'Company') is a public limited company domiciled in India. Its shares are listed on two stock exchanges in India; the Bombay Stock Exchange ('BSE') and the National Stock Exchange ('NSE'). The Company and its subsidiaries (collectively the 'Group') is a diversified businesses dealing in basic chemistry products, consumer products and specialty products. The Group has a global presence with key subsidiaries in United States of America (USA), United Kingdom (UK) and Kenya that are engaged in the manufacture and sale of soda ash, industrial salt and related products.

2. Summary of basis of compliance, basis of preparation and presentation, critical accounting estimates, assumptions and judgements and significant accounting policies

2.1 Basis of compliance

The Consolidated Financial Statements ('CFS') comply, in all material aspects, with Indian Accounting Standards ('Ind AS') notified under Section 133 of the Companies Act, 2013 (the 2013 Act) read with Rule 3 of Companies (Indian Accounting Standards) Rules, 2015 and other relevant provisions of the Act.

2.2 Basis of preparation and presentation

The Consolidated financial statements have been prepared on the historical cost basis, except for certain financial instruments and defined benefit plans which are measured at fair value at the end of each reporting period. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

All assets and liabilities have been classified as current or noncurrent as per the Group's normal operating cycle and other criteria set out in the Schedule III to the 2013 Act.

2.3 Critical accounting estimates, assumptions and judgements

The preparation of the CFS requires management to make estimates, assumptions and judgments that affect the reported balances of assets and liabilities and disclosures as at the date of the financial statements and the reported amounts of income and expense for the periods presented.

The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates under different assumptions and conditions.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and future periods are affected.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying values of assets and liabilities within the next financial year are discussed below.

2.3.1 Impairment of goodwill

Goodwill is tested for impairment at least on an annual basis or more frequently, whenever circumstances indicate that the recoverable amount of the cash generating unit ('CGU') is less than its carrying value. The impairment indicators, the estimation of expected future cash flows and the determination of the fair value of CGU require the Management to make significant estimates, assumptions and judgments concerning the identification and validation of impairment indicators, fair value of tangible and intangible assets, revenue growth rates and operating margins used to calculate projected future cash flows, relevant risk-adjusted discount rate, future economic and market conditions, etc.

2.3.2 Deferred income tax assets and liabilities

Significant management judgment is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and the level of future taxable profits.

The amount of total deferred tax assets could change if management estimates of projected future taxable income or if tax regulations undergo a change.

Similarly, the identification of temporary differences pertaining to subsidiaries that are expected to reverse in the foreseeable future and the determination of the related deferred income tax liabilities, require the Management to make significant judgments, estimates and assumptions.

2.3.3 Useful lives of property, plant and equipment ('PPE') and intangible assets

Management reviews the estimated useful lives and residual value of PPE and Intangibles at the end of each reporting period. Factors such as changes in the expected level of usage, technological developments, units-of-production and product life-cycle, could significantly impact the economic useful lives and the residual values of these assets. Consequently, the future depreciation and amortisation charge could be revised and may have an impact on the profit of the future years.

2.3.4 Employee Benefit obligations

Employee benefit obligations are determined using actuarial valuations. An actuarial valuation involves making various assumptions that may differ from actual developments. These include the estimation of the appropriate discount rate, future salary increases and mortality rates. Due to the complexities involved in the valuation and its long-term nature, the employee benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

2.3.5 Provisions and contingencies

From time to time, the Group is subject to legal proceedings, the ultimate outcome of each being subject to uncertainties inherent in litigation. A provision for litigation is made when it is considered probable that a payment will be made and the amount can be reasonably estimated. Significant judgment is required when evaluating the provision including, the probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of potential loss. Litigation provisions are reviewed at each accounting period and revisions made for the changes in facts and circumstances. Contingent liabilities are disclosed in

the notes forming part of the consolidated financial statements. Contingent assets are not disclosed in the consolidated financial statements unless an inflow of economic benefits is probable.

2.4 Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the 'Functional Currency'). The CFS are presented in Indian Rupees (₹), which is the Group's presentation currency.

2.5 Basis of Consolidation:

The CFS comprise the financial statements of the Company, its subsidiaries and the Group's interest in joint ventures as at the reporting date.

Subsidiaries

Subsidiaries include all the entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns through its involvement in the entity and has the ability to affect those returns through its power to direct the relevant activities of the entity. Subsidiaries are consolidated from the date control commences until the date control ceases.

Joint venture

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Interests in joint venture are accounted for using the equity method of accounting (see (III) below).

The CFS have been prepared on the following basis:

- I. The financial statements of the Company and its subsidiary companies have been consolidated on a line-by-line basis by adding together of like items of assets, liabilities, income and expenses, after fully eliminating intra-group balances and intra-group transactions and resulting unrealised profit or losses, unless cost cannot be recovered, as per the applicable Accounting Standard. Accounting policies of the respective subsidiaries are aligned wherever necessary, so as to ensure consistency with the accounting policies that are adopted by the Group under Ind AS.

- II. The results of subsidiaries acquired or disposed of during the year are included in the CFS from the effective date of acquisition and up to the effective date of disposal, as appropriate.
- III. The CFS include the share of profit / loss of the joint ventures which are accounted as per the 'equity method'.

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit or loss, and the Group's share of movements in OCI of the investee in OCI. Dividends received or receivable from joint ventures are recognised as a reduction in the carrying amount of the investment.

When the Group's share of losses in an equity accounted investment equals or exceeds its interest in the entity, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

- IV. The CFS are presented, to the extent applicable, in accordance with the requirements of Schedule III of the 2013 Act as applicable to the Company's separate financial statements.
- V. Non-controlling interests ('NCI') in the net assets of the subsidiaries that are consolidated consists of the amount of equity attributable to non-controlling shareholders at the date of acquisition.

Profit or loss and each component of OCI are attributed to the equity holders of the parent and to the NCI, even if this results in the NCI having a deficit balance.

2.6 Foreign currency translation

(i) Foreign currency transactions and balances

On initial recognition, all foreign currency transactions are recorded at exchange rates prevailing on the date of the transaction. Monetary assets and liabilities, denominated

in a foreign currency, are translated at the exchange rate prevailing on the Consolidated Balance Sheet date and the resultant exchange gains or losses are recognised in the Consolidated Statement of Profit and Loss. Non-monetary items, which are carried in terms of historical cost, denominated in a foreign currency are reported using the exchange rate at the date of the transaction.

Foreign exchange differences regarded as an adjustment to the borrowing cost are presented in the Consolidated Statement of Profit and Loss within finance cost. Exchange differences arising from the translation of equity investments at Fair value through other comprehensive income ('FVTOCI') are recognised in OCI. All other foreign exchange gains and losses are presented on a net basis within other income or other expense.

(ii) Foreign operations

Assets and liabilities of entities with functional currencies other than presentation currency have been translated to the presentation currency using exchange rates prevailing on the Consolidated Balance Sheet date. The Statement of Profit and Loss has been translated using the average exchange rates. The net impact of such translation are recognised in OCI and held in foreign currency translation reserve ('FCTR'), a component of Equity.

On the disposal of a foreign operation (i.e. a disposal of the Group's entire interest in a foreign operation, a disposal involving loss of control, over a subsidiary that includes a foreign operation, or a partial disposal of an interest in a joint arrangement that includes a foreign operation of which the retained interest becomes a financial asset), the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Group are reclassified to the Consolidated Statement of Profit and Loss as part of the gain or loss on disposal.

In case of a partial disposal of interests in a subsidiary that includes a foreign operation that does not result in the

Group losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to NCI and are not recognised in the Consolidated Statement of Profit and Loss. For all other partial disposal (i.e. partial disposals of joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to the Consolidated Statement of Profit and Loss.

2.7 Business combinations

The Group accounts for its business combinations under acquisition method of accounting. Acquisition related costs are recognised in the Consolidated Statement of Profit and Loss as incurred. The acquiree's identifiable assets, liabilities and contingent liabilities that meet the condition for recognition are recognised at their fair values at the acquisition date except deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements, which are recognised and measured in accordance with Ind AS 12- Income taxes and Ind AS 19-Employee benefits, respectively.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of NCI in the acquiree, and the fair value of acquirer's previously held equity instrument in the acquiree (if any) over the net of acquisition date fair value of identifiable assets acquired and liabilities assumed. Where the fair value of identifiable assets and liabilities exceed the cost of acquisition, after reassessing the fair values of the net assets and contingent liabilities, the excess is recognised as capital reserve.

The interest of non-controlling shareholders is initially measured either at fair value or at the NCI's proportionate share of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting in a contingent consideration arrangement, such contingent consideration, on the acquisition date, is measured at fair value and included as a part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration

that qualify as measurement period adjustments, are adjusted retrospectively, with corresponding adjustments against goodwill or capital reserve as the case may be.

Measurement period adjustments are adjustments that arise from additional information during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as the measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at fair value at subsequent reporting dates with the corresponding gain or loss being recognised in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed off.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amount for the items for which the accounting is incomplete. Those provisional amount are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amount recognised at that date.

2.8 Changes in the proportion held by NCI

Changes in the proportion of the equity held by NCI are accounted for as equity transactions. The carrying amount of the controlling interests and NCI

are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the NCI are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Group.

2.9 Property, plant and equipment

An item of property, plant and equipment is recognised as an asset if it is probable that the future economic benefits associated with the item will flow to the Group and its cost can be measured reliably. This recognition principle is applied to the costs incurred initially to acquire an item of property, plant and equipment and also to costs incurred subsequently to add to, replace part of, or service it and subsequently carried at cost less accumulated depreciation and accumulated impairment losses, if any.

The cost of PPE includes interest on borrowings directly attributable to the acquisition, construction or production of a qualifying asset. A qualifying asset is an asset that necessarily takes a substantial period of time to be made ready for its intended use or sale. Borrowing costs and other directly attributable cost are added to the cost of those assets until such time as the assets are substantially ready for their intended use, which generally coincides with the commissioning date of those assets.

The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset if the recognition criteria for a provision is met.

Machinery spares that meet the definition of PPE are capitalised and depreciated over the useful life of the principal item of an asset.

All other repair and maintenance costs, including regular servicing, are recognised in the Consolidated Statement of Profit and Loss as incurred. When a replacement occurs, the carrying value of the replaced part is de-recognised. Where an item of property, plant and equipment comprises major components having different useful lives, these components are accounted for as separate items.

PPE acquired and put to use for projects are capitalised and depreciation thereon is included in the project cost till the project is ready for commissioning.

Depreciation methods, estimated useful lives and residual value

Depreciation on PPE (except leasehold improvements and PPE acquired under finance lease) is calculated using the straight-line method to allocate their cost, net of their residual values, over their estimated useful lives. However, leasehold improvements and PPE acquired under finance lease are depreciated on a straight-line method over the shorter of their respective useful lives or the tenure of the lease arrangement. Freehold land is not depreciated.

Schedule II to the Companies Act 2013 prescribes the useful lives for various class of assets. For certain class of assets, based on technical evaluation and assessment, Management believes that, the useful lives adopted by it reflects the periods over which these assets are expected to be used. Accordingly for those assets, the useful lives estimated by the management are different from those prescribed in the Schedule. Management's estimates of the useful lives for various class of fixed assets are as given below:

Asset	Useful life
Salt Works, Water works, Reservoirs and Pans	1-30 years
Plant and Machinery**	1-60 years
Traction Lines and Railway Sidings	15 years
Factory Buildings	5-60 years
Other Buildings	5-60 years
Water Works	15 years
Furniture and Fittings and Office Equipment (including Computers and Data Processing Equipment)	1-10 years
Vehicles	4-10 years
Mines and Quarries**	140 years

** Mines and quarries and certain plant and machinery which are in relation to the USA subsidiaries mine are depreciated using the units-of-production method. Approximately 3% (previous year 3%) of plant and machinery and 100% (previous year 100%) of mines and quarries are depreciated using the units-of-production method.

Useful lives and residual values of assets are reviewed at the end of each reporting period.

Losses arising from the retirement of, and gains or losses arising from disposal/adjustments of PPE are recognised in the Consolidated Statement of Profit and Loss.

2.10 Intangible assets

Goodwill

Goodwill represents the cost of the acquired businesses in excess of the fair value of identifiable tangible and intangible net assets purchased. Goodwill is not amortised; however it is tested annually for impairment and carried at cost less accumulated impairment losses, if any. The gains / (losses) on the disposal of an entity include the carrying amount of Goodwill relating to the entity disposed.

Other Intangible assets

Computer software, technical knowhow, product registration, contractual rights, rights to use railway wagons and mining rights of similar nature are initially recognised at cost. The intangible assets acquired in a business combination are measured at their fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less accumulated amortisation and accumulated impairment losses, if any.

The intangible assets with a finite useful life are amortised using straight line method over their estimated useful lives. The management’s estimates of the useful lives for various class of intangibles are as given below:

Asset	Useful life
Mining rights**	140 years
Computer software	3-8 years
Product registration, contractual rights and rights to use railway wagons	4-20 years
Technical knowhow	3 years

**Mining rights which are in relation to the USA subsidiaries mine are amortised using the units-of-production method. Approximately 99% (previous year 99%) of mining rights are amortised using the units-of-production method.

The estimated useful life is reviewed annually by the management.

Losses arising from the retirement or disposal of an intangible asset are determined as the difference between the net disposal proceeds and the carrying amount of the asset and recognised as income or expense in the Consolidated Statement of Profit and Loss.

2.11 Capital work-in-progress ('CWIP') and intangible assets under development

Projects under commissioning and other CWIP/ intangible assets under development are carried at cost, comprising direct cost, related incidental expenses and attributable borrowing cost.

Subsequent expenditures relating to property, plant and equipment are capitalised only when it is probable that future economic benefit associated with these will flow to the Group and the cost of the item can be measured reliably.

Advances given to acquire property, plant and equipment are recorded as non-current assets and subsequently transferred to CWIP on acquisition of related assets.

2.12 Investment property

Investment properties are land and buildings that are held for long term lease rental yields and/ or for capital appreciation. Investment properties are initially recognised at cost including transaction costs. Subsequently investment properties comprising building are carried at cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation on buildings is provided over the estimated useful lives as specified in note 2.9 above. The residual values, estimated useful lives and depreciation method of investment properties are reviewed, and adjusted on prospective basis as appropriate, at each reporting date. The effects of any revision are included in the Consolidated Statement of Profit and Loss when the changes arise.

An investment property is de-recognised when either the investment property has been disposed of or does not meet the criteria of investment property i.e. when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognised in the Consolidated Statement of Profit and Loss in the period of de-recognition.

2.13 Research and Development Expenses

Research expenses are charged to the Consolidated Statement of Profit and Loss as expenses in the

year in which they are incurred. Development costs are capitalised as an intangible asset under development when the following criteria are met:

- the project is clearly defined, and the costs are separately identified and reliably measured;
- the technical feasibility of the project is demonstrated;
- the ability to use or sell the products created during the project is demonstrated;
- the intention to complete the project exists and use or sale of output manufactured during the project;
- a potential market for the products created during the project exists or their usefulness, in case of internal use, is demonstrated, such that the project will generate probable future economic benefits; and
- adequate resources are available to complete the project.

These development costs are amortised over the estimated useful life of the projects or the products they are incorporated within. The amortisation of capitalised development costs begins as soon as the related product is released to production.

2.14 Non-current assets held for sale and discontinued operations

Non-current assets (including disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable.

Non-current assets classified as held for sale are measured at lower of their carrying amount and fair value less cost to sell.

Non-current assets classified as held for sale are not depreciated or amortised from the date when they are classified as held for sale.

Non-current assets classified as held for sale and the assets and liabilities of a disposal group classified as held for sale are presented separately from the other assets and liabilities in the Consolidated Balance Sheet.

A discontinued operation is a component of the entity that has been disposed off or is classified as held for sale and:

- represents a separate major line of business or geographical area of operations and;
- is part of a single co-ordinated plan to dispose of such a line of business or area of operations.

The results of discontinued operation are presented separately in the Consolidated Statement of Profit and Loss.

2.15 Financial instruments

2.15.1 Investments and other financial assets:

Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI, or through profit or loss), and
- those measured at amortised cost.

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in the Consolidated Statement of Profit and Loss or through OCI. For investments in debt instruments, this will depend on the business model in which the investment is held. For investments in equity instruments, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through OCI. The Group has elected to consider the carrying cost of equity investments in joint venture at cost.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

Debt instruments

Measurement

A financial asset or financial liability is initially measured at fair value plus, for an item not at fair value through profit and loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue. Transaction costs of financial assets carried

at fair value through profit or loss are expensed in the Consolidated Statement of Profit and Loss.

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Group classifies its debt instruments:

- **Amortised cost**
Assets that are held for collection of contractual cash flows, where those cash flows represent solely payments of principal and interest, are measured at amortised cost. A gain or loss on a debt investment (unhedged) that is subsequently measured at amortised cost is recognised in the Consolidated Statement of Profit and Loss when the asset is derecognised or impaired. Interest income from these financial assets is included in other income using the effective interest rate ('EIR') method.
- **Fair value through other comprehensive income ('FVTOCI')**
Assets that are held for collection of contractual cash flows and for selling the financial assets, where the asset's cash flows represent solely payments of principal and interest, are measured at FVTOCI. Movements in the carrying amount are recorded through OCI, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognised in the Consolidated Statement of Profit and Loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to the Consolidated Statement of Profit and Loss. Interest income from these financial assets is included in other income using the EIR.
- **Fair value through profit or loss ("FVTPL")**
Assets that do not meet the criteria for amortised cost or FVTOCI are measured at FVTPL. A gain or loss on a debt investment that is subsequently measured at FVTPL (unhedged) is recognised net in the Consolidated Statement of Profit and Loss in

the period in which it arises. Interest income from these financial assets is included in other income.

Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to the Consolidated Statement of Profit and Loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified to equity. Dividends from such investments are recognised in the Consolidated Statement of Profit and Loss within other income when the Group's right to receive payments is established. Impairment losses (and reversal of impairment losses) on equity investments measured at FVTOCI are not reported separately from other changes in fair value.

Cash and cash equivalents

The Group considers all highly liquid financial instruments, which are readily convertible into known amounts of cash, that are subject to an insignificant risk of change in value with a maturity within three months or less from the date of purchase, to be cash equivalents. Cash and cash equivalents consist of balances with banks which are unrestricted for withdrawal and usage.

Derecognition of financial assets

A financial asset is derecognised only when the Group

- has transferred the rights to receive cash flows from the financial asset; or
- retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients.

Where the Group transfers an asset, it evaluates whether it has transferred substantially all risks and rewards of ownership of the financial asset. Where the Group has transferred substantially all risks and rewards of ownership, the financial asset is derecognised. Where the Group has not transferred substantially all risks and rewards of

ownership of the financial asset, the financial asset is not derecognised. Where the Group has neither transferred a financial asset nor retained substantially all risks and rewards of ownership of the financial asset, the financial asset is derecognised if the Group has not retained control of the financial asset. Where the Group retains control of the financial asset, the asset is continued to be recognised to the extent of continuing involvement in the financial asset.

2.15.2 Debt and equity instruments

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement.

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recorded at the proceeds received, net of direct issue costs.

2.15.3 Financial liabilities

The Group's financial liabilities comprise borrowings, trade payables and other liabilities. These are initially measured at fair value, net of transaction costs, and are subsequently measured at amortised cost using the EIR method. The EIR is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period at effective interest rate. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Changes to the carrying amount of a financial liability as a result of renegotiation or modification of terms that do not result in derecognition of the financial liability, is recognised in the Consolidated Statement of Profit and Loss.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, its obligations are discharged, cancelled or they expire.

Presentation

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period.

2.15.4 Derivatives and hedging activities

In the ordinary course of business, the Group uses certain derivative financial instruments to reduce business risks which arise from its exposure to foreign exchange, fuel and interest rate fluctuations associated with borrowings (cash flow hedges). When the Group opts to undertake hedge accounting, the Group documents, at the inception of the hedging transaction, the economic relationship between hedging instruments and hedged items including whether the hedging instrument is expected to offset changes in cash flows or fair values of hedged items. The Group documents its risk management objective and strategy for undertaking various hedge transactions at the inception of each hedge relationship.

Derivatives are initially recognised at fair value on the date the derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged and the type of hedge relationship designated.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges, is recognised through OCI and as cash flow hedging reserve within equity, limited to the cumulative change in fair value of the hedged item on a present value basis from the inception of the hedge. The gain or loss relating to the ineffective portion is recognised immediately in the Consolidated Statement of Profit and Loss.

Amounts accumulated in equity are reclassified to the Consolidated Statement of Profit and Loss on settlement. When the hedged forecast transaction results in the recognition of a non-financial asset, the amounts accumulated in equity with respect to gain or loss relating to the effective portion of the spot

component of forward contracts, both the deferred hedging gains and losses and the deferred aligned forward points are included within the initial cost of the asset. The deferred amounts are ultimately recognised in the Consolidated Statement of Profit and Loss as the hedged item affects profit or loss.

When a hedging instrument expires, is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, then hedge accounting is discontinued prospectively and any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately transferred to the Consolidated Statement of Profit and Loss.

Derivatives that are not designated as hedges

When derivative contracts to hedge risks are not designated as hedges, such contracts are accounted through FVTPL.

The entire fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item exceeds 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item does not exceed 12 months.

2.15.5 Financial guarantee contracts

Financial guarantee contracts are recognised as a financial liability at the time of issuance of guarantee. The liability is initially measured at fair value and are subsequently measured at the higher of the amount of loss allowance determined, or the amount initially recognised less, the cumulative amount of income recognised.

2.15.6 Offsetting of financial instruments

Financial assets and financial liabilities are offset when the Group has a legally enforceable right (not contingent on future events) to off-set the recognised amounts either to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

2.15.7 Fair value of financial instruments

In determining the fair value of its financial instruments, the Group uses a variety of methods

and assumptions that are based on market conditions and risks existing at each reporting date. The methods used to determine fair value include discounted cash flow analysis, available quoted market prices and dealer quotes. All methods of assessing fair value result in general approximation of value.

2.16 Impairment

Financial assets (other than at fair value)

The Group assesses on a forward looking basis the expected credit losses associated with its assets carried at amortised cost and debt instruments carried at FVTOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk. In respect of trade receivables the Group applies the simplified approach permitted by Ind AS 109 - Financial Instruments, which requires expected lifetime losses to be recognised upon initial recognition of the receivables.

PPE, CWIP and intangible assets

The carrying values of assets / CGUs at each Balance Sheet date are reviewed to determine whether there is any indication that an asset may be impaired. If any indication of such impairment exists, the recoverable amount of such assets / CGU is estimated and in case the carrying amount of these assets exceeds their recoverable amount, an impairment loss is recognised in the Consolidated Statement of Profit and Loss. The recoverable amount is the higher of the net selling price and their value in use. Value in use is arrived at by discounting the future cash flows to their present value based on an appropriate discount factor. Assessment is also done at each Balance Sheet date as to whether there is indication that an impairment loss recognised for an asset in prior accounting periods no longer exists or may have decreased, consequent to which such reversal of impairment loss is recognised in the Consolidated Statement of Profit and Loss.

Goodwill

Goodwill is tested for impairment, at least annually and whenever circumstances indicate that it may be impaired. For the purpose of impairment testing, the Goodwill is allocated to a CGU or group of CGUs, which are expected to benefit from the synergies arising from the business combination in which the said Goodwill arose.

If the estimated recoverable amount of the CGU including the Goodwill is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU on a pro-rata basis of the carrying amount of each asset in the unit.

2.17 Inventories

Inventories are valued at lower of cost (on weighted average basis) and net realisable value after providing for obsolescence and other losses, where considered necessary. Cost includes all charges in bringing the goods to their present location and condition, including other levies, transit insurance and receiving charges. Work-in-progress and finished goods include appropriate proportion of overheads and, where applicable, taxes and duties. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

2.18 Revenue recognition

2.18.1 Sale of goods

Revenue is recognised upon transfer of control of promised goods to customers in an amount that reflects the consideration which the Group expects to receive in exchange for those goods.

Revenue from the sale of goods is recognised at the point in time when control is transferred to the customer which is usually on dispatch / delivery of goods, based on contracts with the customers.

Revenue is measured based on the transaction price, which is the consideration, adjusted for volume discounts, price concessions, incentives, and returns, if any, as specified in the contracts with the customers. Revenue excludes taxes collected from customers on behalf of the government. Accruals for discounts/incentives and returns are estimated (using the most likely method) based on accumulated experience and underlying schemes and agreements with customers. Due to the short nature of credit period given to customers, there is no financing component in the contract.

The Group has adopted Ind AS 115 Revenue from contracts with customers, with effect from April 1, 2018. Ind AS 115 establishes principles for reporting

information about the nature, amount, timing and uncertainty of revenues and cash flows arising from the contracts with its customers and replaces Ind AS 18 Revenue and Ind AS 11 Construction Contracts.

The Group has adopted Ind AS 115 using the cumulative effect method whereby the effect of applying this standard is recognised at the date of initial application (i.e. April 1, 2018). Accordingly, the comparative information in the statement of profit and loss is not restated. The impact of the adoption of the standard on the financial statements of the Group is given in note 25.

2.18.2 Interest income

For all debt instruments measured either at amortised cost or at FVTOCI, interest income is recorded using the EIR Method.

2.18.3 Dividend income

Dividend income is accounted for when Group's right to receive the income is established.

2.18.4 Insurance claims

Insurance claims are accounted for on the basis of claims admitted / expected to be admitted and to the extent that there is no uncertainty in receiving the claims.

2.19 Leases

The determination of whether an agreement is, or contains, a lease based on the substance of the agreement at the date of inception.

Finance leases:

Lease arrangements in which substantially all risks and rewards of ownership of the underlying assets are transferred to the Group, are classified as finance lease.

Assets held under finance leases are initially recognised at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the Consolidated Balance Sheet as a finance lease obligation. Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability.

Operating leases:

The leases which are not classified as finance lease are operating leases.

Lease arrangements where the risks and rewards of ownership of an asset substantially vest with the lessor are recognised as operating leases. Lease rentals under operating leases are recognised in the Consolidated Statement of Profit and Loss on a straight-line basis over the lease term unless the payments are structured to increase in line with expected general inflation to compensate for the lessor's expected inflationary cost increases.

2.20 Employee benefits plans

2.20.1 In respect of the Company and domestic subsidiaries

Employee benefits consist of provident fund, superannuation fund, gratuity fund, compensated absences, long service awards, post-retirement medical benefits, directors' retirement obligations and family benefit scheme.

(i) Post-employment benefit plans

Defined contribution plans

Payments to a defined contribution retirement benefit scheme for eligible employees in the form of superannuation fund are charged as an expense as they fall due. Such benefits are classified as Defined Contribution Schemes as the Group does not carry any further obligations, apart from the contributions made.

Defined benefit plans

Contributions to a Provident Fund are made to Trusts administered by the Group/ Regional Provident Fund Commissioners and are charged to the Consolidated Statement of Profit and Loss as incurred. The Group is liable for the contribution and any shortfall in interest between the amount of interest realised by the investments and the interest payable to members at the rate declared by the Government of India in respect of the Trust administered by the Group companies.

For defined benefit schemes in the form of gratuity fund, provident fund, post-retirement medical benefits, pension liabilities (including directors) and family

benefit scheme, the cost of providing benefits is actuarially determined using the projected unit credit method, with actuarial valuations being carried out at each Balance Sheet date.

The retirement benefit obligation recognised in the Consolidated Balance Sheet represents the present value of the defined benefit obligation as reduced by the fair value of scheme assets.

The present value of the said obligation is determined by discounting the estimated future cash outflows, using market yields of government bonds of equivalent term and currency to the liability.

The interest income / (expense) are calculated by applying the discount rate to the net defined benefit liability or asset. The net interest income / (expense) on the net defined benefit liability is recognised in the Consolidated Statement of Profit and loss.

Remeasurements, comprising of actuarial gains and losses, the effect of the asset ceiling (if any), are recognised immediately in the Consolidated Balance Sheet with a corresponding charge or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to the Consolidated Statement of Profit and Loss in subsequent periods.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognised immediately in the Consolidated Statement Profit and Loss as past service cost.

(ii) Short-term employee benefits

The short-term employee benefits expected to be paid in exchange for the services rendered by employees is recognised during the period when the employee renders the service. These benefits include compensated absences such as paid annual leave and performance incentives which are expected to occur within twelve months after the end of the period in which the employee renders the related services.

The cost of compensated absences is accounted as under:

- (a) In case of accumulating compensated absences, when employees render service that increase their entitlement of future compensated absences; and
- (b) In case of non - accumulating compensated absence, when the absences occur.

(iii) Other long-term employee benefits

Compensated absences which are not expected to occur within twelve months after the end of the period in which the employee renders the related services are recognised as a liability. The cost of providing benefits is actuarially determined using the projected unit credit method, with actuarial valuations being carried out at each Balance Sheet date. Long Service Awards are recognised as a liability at the present value of the obligation at the Balance Sheet date. All gains/losses due to actuarial valuations are immediately recognised in the Consolidated Statement of profit and loss.

2.2.0.2 In respect of overseas subsidiaries, the liabilities for employee benefits are determined and accounted as per the regulations and principles followed in the respective countries.

(i) Defined contribution schemes

The USA subsidiaries sponsors defined contribution retirement savings plans. Participation in one of these plans is available to substantially all represented and non-represented employees. These subsidiaries match employee contributions up to certain predefined limits for non-represented employees based upon eligible compensation and the employee's contribution rate. Contributions are charged as expense as they fall due.

For the UK and Kenyan subsidiaries, the contributions payable during the period under defined contribution schemes are charged to the Consolidated Statement of Profit and Loss.

(ii) Defined benefit plans

The USA subsidiaries use standard actuarial methods and assumptions to account for

pension and other post retirement benefit plans. Pension and post retirement benefit obligations are actuarially calculated using best estimates of the rate used to discount the future estimated liability, the long-term rate of return on plan assets, and several assumptions related to the employee workforce (compensation increases, health care cost trend rates, expected service period, retirement age and mortality). Pension and post retirement benefit expense includes the actuarially computed cost of benefits earned during the current service period. Actuarial gains and losses are recognised in OCI in the period in which they occur.

For UK subsidiaries, the cost of providing pension benefits is actuarially determined using the projected unit credit method and discounted at the current rate of return on a high quality corporate bond of equivalent term and currency to the liability, with actuarial valuations being carried out at each Balance Sheet date. Actuarial gains and losses are recognised in OCI in the period in which they occur.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognised immediately in the Consolidated Statement Profit and Loss as past service cost.

2.21 Termination benefits

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises cost for restructuring.

2.22 Employee separation compensation

Compensation paid / payable to employees who have opted for retirement under a Voluntary Retirement Scheme including ex-gratia is charged to the Consolidated Statement of Profit and Loss in the year of separation.

2.23 Borrowing costs

Borrowing costs are interest and ancillary costs incurred in connection with the arrangement of borrowings. General and specific borrowing costs attributable to acquisition and construction of

qualifying assets is added to the cost of the assets upto the date the asset is ready for its intended use. Capitalisation of borrowing costs is suspended and charged to the Consolidated Statement of Profit and Loss during extended periods when active development activity on the qualifying assets is interrupted. All other borrowing costs are recognised in the Consolidated Statement of Profit and Loss in the period in which they are incurred.

2.24 Government grants

Government grants and subsidies are recognised when there is reasonable assurance that the Group will comply with the conditions attached to them and the grants and subsidies will be received. Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred revenue in the Consolidated Balance Sheet and transferred to the Consolidated Statement of Profit and Loss on systematic and rational basis over the useful lives of the related asset.

2.25 Segment reporting

The operating segments are the segments for which separate financial information is available and for which operating profit/loss amounts are evaluated regularly by the Managing Director and Chief Executive Officer (who is the Group's chief operating decision maker) in deciding how to allocate resources and in assessing performance.

The accounting policies adopted for segment reporting are in conformity with the accounting policies of the Group. Segment revenue, segment expenses, segment assets and segment liabilities have been identified to segments on the basis of their relationship to the operating activities of the segment. Inter segment revenue is accounted on the basis of transactions which are primarily determined based on market / fair value factors. Revenue, expenses, assets and liabilities which relate to the Group as a whole and are not allocable to segments on a reasonable basis have been included under 'unallocated revenue / expenses / assets / liabilities'.

2.26 Income tax

Tax expense for the year comprises current and deferred tax. The tax currently payable is based on taxable profit for the year. Taxable profit differs from

net profit as reported in the Statement of Profit and Loss because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

Current tax assets and current tax liabilities are offset when there is a legally enforceable right to set off the recognised amounts and there is an intention to realise the asset or to settle the liability on a net basis.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying values of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences arising between the tax base of assets and liabilities and their carrying amount, except when the deferred income tax arises from the initial recognition of an asset or liability in a transaction that is not a business combination and affects neither accounting nor taxable profit or loss at the time of the transaction. In contrast, deferred tax assets are only recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised.

The carrying value of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised based on the tax rates and tax laws that have been enacted or substantially enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to cover or settle the carrying value of its assets and liabilities.

Deferred tax assets and liabilities are offset to the extent that they relate to taxes levied by the same tax authority and there are legally enforceable rights to set off current tax assets and current tax liabilities within that jurisdiction.

Current and deferred tax are recognised as an expense or income in the statement of profit and loss, except when they relate to items credited or debited either in other comprehensive income or directly in equity, in which case the tax is also recognised in OCI or directly in equity.

Deferred tax assets include a credit for the Minimum Alternate Tax ('MAT') paid in accordance with the tax laws, which is likely to give future economic benefits in the form of availability of set off against future income tax liability. MAT asset is recognised as deferred tax assets in the Balance Sheet when the asset can be measured reliably, and it is probable that the future economic benefit associated with the asset will be realised.

2.27 Provisions and contingencies

A provision is recognised when the Group has a present obligation as a result of past events and it is probable that an outflow of resources will be required to settle the obligation, in respect of which a reliable estimate of the amount can be made. Provisions are determined based on best estimate required to settle the obligation at the Balance Sheet date. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of the money is material). The increase in the provisions due to passage of time is recognised as interest expense. Provisions are reviewed as at each reporting date and adjusted to reflect the current estimate.

Contingent liabilities are disclosed when there is a possible obligation arising from past events, the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group or a present obligation that arises from past events where it is either not probable that an outflow of resources will be required to settle or a reliable estimate of the amount cannot be made.

Contingent assets are not disclosed in the financial statements unless an inflow of economic benefits is probable.

2.28 Dividend

Final dividend on shares are recorded as a liability, on the date of approval by the shareholders and interim dividends are recorded as a liability on the date of declaration by the Company's Board of Directors.

3. Recent accounting pronouncements which are not yet effective

Ind AS 116 – Leases:

The Group is required to adopt Ind AS 116, Leases from April 1, 2019. Ind AS 116 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases. It replaces existing leases guidance, Ind AS 17, Leases.

The Group is in the process of completing its detailed assessment and quantitative impact of adoption of Ind AS 116 on the consolidated financial statements in the period of initial application is not reasonably estimable as at present.

i. Leases in which the Group is a lessee

The Group will recognise new assets and liabilities for its operating leases of offices, warehouse and factory facilities. The nature of expenses related to those leases will now change because the Group will recognise a depreciation charge for right-of-use assets and interest expense on lease liabilities.

Previously, the Group recognised operating lease expense on a straight-line basis over the term of the lease, and recognised assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognised.

In addition, the Group will include the payments due under the lease in its lease liability and apply Ind

AS 36, Impairment of Assets to determine whether the right-of-use asset is impaired and to account for any impairment.

ii. **Transition**

The Group plans to apply Ind AS 116 initially on April 1, 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting Ind AS 116 will be recognised as an adjustment to the opening balance of retained earnings at April 1, 2019, with no restatement of comparative information.

The Group plans to apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply Ind AS 116 to all

contracts entered into before April 1, 2019 and identified as leases in accordance with Ind AS 17.

Amendments to Ind AS 12 – Income Taxes (Appendix C – Uncertainty over Income Tax Treatments):

This interpretation, which will be effective from April 1, 2019, clarifies how entities should evaluate and reflect uncertainties over income tax treatments, in particular when assessing the outcome a tax authority might reach with full knowledge and information if it were to make an examination. The Group is in the process of evaluating the impact of this amendment on its consolidated financial statements.

4. Property, plant and equipment

₹ in crore

Particulars	Freehold Land	Leasehold Land	Factory Buildings	Other Buildings*	Plant and Machinery	Furniture and Fittings and Office Equipments	Vehicles	Salt works, Water Reservoirs and Pans	Traction Lines, Railway Sidings and Wagons	Mines and Quarries#	Total
Gross Block											
Balance as at April 1, 2017	259.47	17.30	607.99	194.40	3,257.35	110.03	26.60	31.74	23.10	152.13	4,680.11
Additions / adjustments	-	-	68.42	17.14	479.67	17.92	4.42	5.52	2.36	0.57	596.02
Disposals	-	(8.45)	(2.25)	(0.85)	(13.63)	(2.48)	(2.77)	-	-	-	(30.43)
Transferred to Investment property (note 24 and 34)	(1.13)	-	-	(23.15)	-	-	-	-	-	-	(24.28)
Transferred to Discontinued operations	-	-	(38.27)	(1.03)	(149.48)	(5.12)	(0.15)	-	(4.73)	-	(198.78)
Exchange fluctuations	15.52	-	17.73	0.06	107.68	1.03	0.10	0.09	0.10	0.77	143.08
Balance as at March 31, 2018	273.86	8.85	653.62	186.57	3,681.59	121.38	28.20	37.35	20.83	153.47	5,165.72
Additions / adjustments	2.85	-	55.30	5.98	614.44	13.11	0.50	13.70	4.07	19.85	729.80
Disposals	(0.46)	-	(0.32)	(0.61)	(39.96)	(1.68)	(2.94)	(0.01)	-	(0.14)	(46.12)
Reclassified from assets held for sale (note 24)	-	13.91	-	-	-	-	-	-	-	-	13.91
Exchange fluctuations	(2.16)	-	11.44	0.71	54.83	2.77	1.24	(0.01)	0.69	9.16	78.67
Balance as at March 31, 2019	274.09	22.76	720.04	192.65	4,310.90	135.58	27.00	51.03	25.59	182.34	5,941.98
Accumulated Depreciation											
Balance as at April 1, 2017	-	2.14	79.73	18.79	619.58	39.49	7.26	10.69	7.65	8.03	793.36
Depreciation for the year	-	0.17	40.83	8.58	348.31	19.75	5.87	2.69	2.15	4.06	432.41
Impairment	-	-	15.10	0.44	47.06	1.01	0.06	-	1.72	-	65.39
Disposals	-	(0.75)	(0.37)	(0.09)	(8.07)	(1.59)	(2.54)	-	-	-	(13.41)
Transferred to Investment property (note 24 and 34)	-	-	-	(1.92)	-	-	-	-	-	-	(1.92)
Transferred to Discontinued operations	-	-	(21.11)	(0.52)	(96.65)	(3.24)	(0.08)	-	(2.78)	-	(124.38)
Exchange fluctuations	-	-	2.92	0.03	23.67	0.19	0.05	0.09	0.04	0.09	27.08
Balance as at March 31, 2018	-	1.56	117.10	25.31	933.90	55.61	10.62	13.47	8.78	12.18	1,178.53
Depreciation for the year	-	0.36	41.27	8.57	380.50	18.22	5.83	4.10	2.33	13.78	474.96
Disposals	-	-	(0.22)	(0.01)	(20.64)	(0.88)	(2.67)	-	-	(0.14)	(24.56)
Reclassified from assets held for sale (note 24)	-	1.26	-	-	-	-	-	-	-	-	1.26
Exchange fluctuations	-	-	2.72	0.21	13.19	0.88	0.40	(0.01)	0.39	0.60	18.38
Balance as at March 31, 2019	-	3.18	160.87	34.08	1,306.95	73.83	14.18	17.56	11.50	26.42	1,648.57
Net Block as at March 31, 2018	273.86	7.29	536.52	161.26	2,747.69	65.77	17.58	23.88	12.05	141.29	3,987.19
Net Block as at March 31, 2019	274.09	19.58	559.17	158.57	3,003.95	61.75	12.82	33.47	14.09	155.92	4,293.41

* Other buildings includes cost of residential flats aggregating ₹0.01 crore (2018: ₹3.18 crore) for which legal formalities relating to transfer of title are pending.

Pertaining to assets situated in mines and quarries.

5. Investment property

₹ in crore			
Particulars	Land	Building	Total
Gross Block			
Balance as at April 1, 2017	2.45	3.37	5.82
Transferred from property, plant and equipment	1.13	23.15	24.28
Balance as at March 31, 2018	3.58	26.52	30.10
Additions	-	-	-
Balance as at March 31, 2019	3.58	26.52	30.10
Accumulated Depreciation			
Balance as at April 1, 2017	-	0.16	0.16
Depreciation for the year	-	0.08	0.08
Transferred from property, plant and equipment	-	1.92	1.92
Balance as at March 31, 2018	-	2.16	2.16
Depreciation for the year	-	0.73	0.73
Balance as at March 31, 2019	-	2.89	2.89
Net Block as at March 31, 2018	3.58	24.36	27.94
Net Block as at March 31, 2019	3.58	23.63	27.21

Footnotes:

a) Disclosures relating to fair valuation of investment property

Fair value of the above investment property as at March 31, 2019 is ₹363.01 crore based on external valuations.

Fair Value Hierarchy

The fair value of investment property has been determined by external independent property valuers, having appropriate recognised professional qualification and recent experience in the location and category of the property being valued.

The fair value measurement for all of the investment property has been categorised as a level 3 fair value based on the inputs to the valuation techniques used.

Description of valuation technique used

The Group obtains independent valuations of its investment property after every three years as per requirement of Ind AS 40. The fair value of the investment property have been derived using the Direct Comparison Method. The direct comparison approach involves a comparison of the investment property to similar properties that have actually been sold in arms-length distance from investment property or are offered for sale in the same region. This approach demonstrates what buyers have historically been willing to pay (and sellers willing to accept) for similar properties in an open and competitive market, and is particularly useful in estimating the value of the land and properties that are typically traded on a unit basis. This approach leads to a reasonable estimation of the prevailing price. Given that the comparable instances are located in close proximity to the investment property; these instances have been assessed for their locational comparative advantages and disadvantages while arriving at the indicative price assessment for investment property.

b) The Group has not earned any material rental income on the above properties.

6. Goodwill on consolidation

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Carrying value as at April 1	1,731.85	1,698.41
Exchange fluctuations	79.18	33.44
Carrying value as at March 31	1,811.03	1,731.85

Goodwill of ₹1,447.18 crore (2018: ₹1,363.89 crore) and ₹211.92 crore (2018: ₹216.03 crore) relates to the CGUs - Tata Chemicals North America Inc. and its subsidiaries ('TCNA Group') and Cheshire Salt Holdings Limited Group and its subsidiaries ('CSHL Group') respectively. The estimated value in use of the CGUs are based on future cash flows assuming an annual growth rate 2% to 3% for the period subsequent to the forecast period of 5 years and discount rates in the range of 6% to 8%, which consider the operating and macro-economic environment in which the entities operate.

An analysis of the sensitivity of the change in key parameters (operating margin, discount rates and long term average growth rate), based on reasonably probable assumptions, did not result in any probable scenario in which the recoverable amount of the CGUs would decrease below the carrying amount.

Goodwill of ₹151.93 crore (2018: ₹151.93 crore) has been allocated to three CGUs (Individually immaterial) within the specialty products, and evaluated based on their recoverable amounts which exceeds their carrying amounts.

7. Other intangible assets

₹ in crore

Particulars	Computer Software	Technical knowhow	Product registration, contractual rights and others*	Mining rights	Total
Gross Block					
Balance as at April 1, 2017	15.91	11.37	21.93	7,204.56	7,253.77
Additions	3.15	3.99	0.26	32.09	39.49
Disposals	(1.61)	-	-	(0.24)	(1.85)
Transferred to Discontinued operations (note 24 and 34)	(0.04)	-	-	-	(0.04)
Exchange fluctuations	0.06	-	-	53.66	53.72
Balance as at March 31, 2018	17.47	15.36	22.19	7,290.07	7,345.09
Additions	1.52	5.53	1.43	-	8.48
Disposals	(0.02)	-	(0.55)	-	(0.57)
Exchange fluctuations	0.62	-	-	434.00	434.62
Balance as at March 31, 2019	19.59	20.89	23.07	7,724.07	7,787.62
Accumulated Amortisation					
Balance as at April 1, 2017	8.05	6.29	11.31	174.91	200.56
Amortisation for the year	2.27	3.49	4.48	87.86	98.10
Impairment	0.01	-	-	-	0.01
Disposals	(0.04)	-	-	-	(0.04)
Transferred to Discontinued operations (note 24 and 34)	(0.02)	-	-	-	(0.02)
Exchange fluctuations	0.04	-	-	6.72	6.76
Balance as at March 31, 2018	10.31	9.78	15.79	269.49	305.37
Amortisation for the year	2.10	4.47	1.41	87.72	95.70
Disposals	-	-	(0.21)	-	(0.21)
Exchange fluctuations	0.44	-	-	14.98	15.42
Balance as at March 31, 2019	12.85	14.25	16.99	372.19	416.28
Net Block as at March 31, 2018	7.16	5.58	6.40	7,020.58	7,039.72
Net Block as at March 31, 2019	6.74	6.64	6.08	7,351.88	7,371.34

* Others include rights to use the wagon provided by the Ministry of Railways to carry goods at concessional freight.

8. (a) Investments in joint ventures

The Group's interest in joint ventures are accounted for using the equity method in the consolidated financial statements.

Following are details of investments in Joint ventures:

Particulars	Country of incorporation	Percentage of ownership Interest
Indo Maroc Phosphore S.A. ('IMACID')	Morocco	33.33%
Natronx Technologies LLC (dissolved w.e.f. December 5, 2018)	United States of America	33.30%
JOil (S) Pte. Ltd. ('Joil')	Singapore	33.78%
Tata Industries Ltd. (note 36)	India	9.13%
The Block Salt Company Ltd.	United Kingdom	50.00%

The Group had no contingent liabilities or capital commitments relating to its interest in joint ventures as at March 31, 2019 and 2018. The joint ventures have no other contingent liabilities or capital commitments as at March 31, 2019 and 2018.

Carrying amount of investment in joint ventures

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Indo Maroc Phosphore S.A.	391.73	351.42
Natronx Technologies LLC*	-	-
JOil (S) Pte. Ltd.*	-	-
The Block Salt Company Ltd.	2.73	2.53
Tata Industries Ltd. (w.e.f. March 27, 2019) (note 36)	476.10	-
Margin elimination on stock	-	(1.23)
Total	870.56	352.72

*The Group has impaired 100% investment during the year ended March 31, 2015.

₹ in crore

Summary of movement of investment in joint ventures		Year ended March 31, 2019	Year ended March 31, 2018
Opening carrying value as at April 1	A	352.72	292.21
Add/(Less):			
Additional Investment	B	0.35	1.91
Transfer from other investment (fair valued)	C	476.10	-
Add: Share of profit of joint ventures			
Group's share of profit for the year		97.98	47.00
Margin elimination on stock		1.23	2.23
	D	99.21	49.23
Dividend received during the year	E	(58.43)	(9.82)
Exchange fluctuations	F	0.61	19.19
Closing carrying value as at March 31	A to F	870.56	352.72

8. (b) Other investments

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Holdings	Amount	Holdings	Amount
	No of shares	₹ in crore	No of shares	₹ in crore
Investments in equity instruments (Fair value through other comprehensive income)				
(i) Quoted				
Crystal Peak Minerals Inc.	2,90,55,612	27.03	2,90,55,612	25.45
The Indian Hotels Co. Ltd.	1,06,89,348	165.58	1,06,89,348	138.32
Oriental Hotels Ltd.	25,23,000	11.62	25,23,000	10.53
Tata Investment Corporation Ltd.	4,41,015	36.75	4,75,840	35.01
Tata Steel Ltd.	28,90,693	150.61	28,90,693	165.07
Tata Steel Ltd. (Partly Paid)	1,99,358	1.28	1,99,358	2.80
Tata Motors Ltd.	19,66,294	34.26	19,66,294	64.27
Titan Company Ltd.	1,38,26,180	1,578.74	1,38,26,180	1,302.84
Spartek Ceramics India Ltd.	7,226	-	7,226	-
Nagarjuna Finance Ltd.	400	-	400	-
Pharmaceuticals Products of India Limited	10,000	-	10,000	-
Balasure Alloys Ltd.	504	*	504	*
J.K.Cement Ltd.	44	*	44	*
Total quoted investment (i)		2,005.87		1,744.29
(ii) Unquoted				
The Associated Building Co. Ltd.	550	0.02	550	0.02
Taj Air Ltd.	40,00,000	-	40,00,000	-
Tata Industries Ltd. (till March 27, 2019)	-	-	98,61,303	170.19
Tata Capital Ltd.	32,30,859	16.35	32,30,859	16.15
Tata International Ltd.	48,000	140.64	48,000	137.76
Tata Projects Ltd.	1,93,500	266.53	1,93,500	264.48
Tata Services Ltd.	1,260	0.13	1,260	0.13
Tata Sons Ltd.	10,237	56.86	10,237	56.86
Tata Teleservices Ltd. (footnote 'i')	12,85,110	-	12,85,110	-
IFCI Venture Capital Funds Ltd.	2,50,000	0.67	2,50,000	0.67
Kowa Spinning Ltd.	60,000	*	60,000	*
Global Innovation And Technology Alliance (GITA)	15,000	1.50	15,000	1.50
Water Quality India Association	7,100	0.01	7,100	0.01
Gk Chemicals And Fertilizers Limited	1,24,002	-	1,24,002	-
Biotech Consortium India Ltd.	50,000	0.05	50,000	0.05
Indian Potash Ltd.	54,000	0.01	54,000	0.01
Bharuch Enviro Infrastructure Ltd.	36,750	0.04	36,750	0.04
Narmada Clean Tech Ltd.	3,00,364	0.30	3,00,364	0.30
Cuddalore SIPCOT Industries Common Utilities Ltd.	113	*	113	*
Patancheru Enviro-Tech Ltd.	10,822	0.01	10,822	0.01
Amba Trading & Manufacturing Company Private Ltd.	1,30,000	*	1,30,000	*
Associated Inds. (Assam) Ltd.	30,000	*	30,000	*
Uniscans & Sonics Ltd.	96	*	96	*

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Holdings	Amount	Holdings	Amount
	No of shares	₹ in crore	No of shares	₹ in crore
Impetis Biosciences Ltd	5,68,414	3.38	5,68,414	3.38
Caps Rallis (Private) Ltd.	21,00,000	-	21,00,000	-
Total unquoted investment (ii)		486.50		651.56
Total investments (i + ii)		2,492.37		2,395.85
Aggregate amount of quoted investments		2,005.87		1,744.29
Aggregate market value of quoted investments		2,005.87		1,744.29
Aggregate carrying value of unquoted investments		486.50		651.56
#Aggregate amount of impairment in value of Investments		1.51		1.51

Footnote:

i. Shares can be transferred only with the prior approval of the Board of Directors of Tata Teleservices Ltd.

* value below ₹50,000/-

8. (c) Current investments (FVTPL)

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Investment in mutual funds - unquoted	2,252.34	91.81
Total current investments	2,252.34	91.81

9. Loans

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
Unsecured, considered good		
Loans to employees (footnote 'i')	1.13	1.38
Security Deposit	6.74	8.30
	7.87	9.68
Current		
Unsecured, considered good		
Loans to employees (footnote 'i')	0.40	0.51
Security Deposit	0.93	1.12
	1.33	1.63

Footnote:

(i) Loans to employees includes ₹* (2018: ₹Nil) due from officer of the Group. Maximum balance outstanding during the year is ₹*(2018 : ₹*).

* value below ₹50,000

10. Other financial assets

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Fixed deposits with banks	0.69	0.85
(b) Deposit with others	4.77	4.56
(c) Derivatives (note 40)	1.89	17.60
	7.35	23.01
Current		
(a) Claim receivable - Related party (note 43)	0.50	0.13
(b) Derivatives (note 40)	54.65	45.88
(c) Accrued income	53.39	79.70
(d) Advance recoverable - Related party	1.03	16.24
(e) Subsidy receivable (footnote 'i')	224.75	-
(f) Others	6.47	5.17
	340.79	147.12

Footnote:

- (i) Subsidy receivable from the Government relates to Phosphatic Fertiliser business and Trading business. Subsidy receivable as at March 31, 2018 is reflected in note 34.

11. Other assets

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Capital advances	107.94	32.12
(b) Claim receivable	5.50	6.65
(c) Deposit with public bodies and others	56.16	37.73
(d) Prepaid expenses	24.54	26.03
(e) Net defined benefit assets (note 38)	48.37	56.94
(f) Others	9.89	10.42
	252.40	169.89
Current		
(a) Prepaid expenses	59.98	79.61
(b) Advance to suppliers	50.32	56.24
(c) Statutory receivables	202.37	230.51
(d) Others	57.40	46.60
	370.07	412.96

12. Inventories

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
(a) Raw materials (footnote 'i')	619.80	495.06
(b) Work-in-progress	112.43	102.54
(c) Finished goods	594.62	499.81
(d) Stock-in-trade (footnote 'i')	125.34	129.30
(e) Stores, spare parts and packing materials (footnote 'i')	273.39	235.56
	1,725.58	1,462.27

Footnotes:

- (i) Inventories includes goods in transit.
- (ii) The cost of inventories recognised as an expense includes ₹8.64 crore (2018: ₹16.07 crore) in respect of write-down of inventories to net realisable value, and has been reduced by ₹2.73 crore (2018: ₹7.26 crore) in respect of reversal of such write-down. Reversal of previous write-downs have been largely as a result of increased selling prices of certain products.
- (iii) Inventories have been offered as security against the working capital facilities provided by the bank.

13. Trade receivables

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Current		
(a) Secured, considered good	70.79	94.33
(b) Unsecured, considered good	1,381.71	1,213.53
(c) Unsecured, which have significant increase in Credit Risk	3.24	-
(d) Unsecured, credit impaired	88.19	34.34
Less: Impairment loss allowance	(91.43)	(34.34)
	1,452.50	1,307.86

Footnotes:

- (i) The Group has appropriate levels of control procedures which ensure the potential customer's credit quality. Credit limits attributed to customers are reviewed periodically by the Management.
- (ii) Movement in Credit impaired

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
Balance at the beginning of the year	34.34	61.08
Credit impaired pertaining to discontinued operations (reclassification)	48.28	(31.33)
Provision during the year	16.85	11.43
Reversal during the year	(8.12)	(7.09)
Exchange fluctuation	0.08	0.25
Balance at the end of the year	91.43	34.34

- (iii) Trade receivables have been offered as security against working capital facilities provided by the bank.

14. Cash and cash equivalents and other bank balances

₹ in crore

Particulars	As at	
	March 31, 2019	March 31, 2018
Cash and cash equivalents:		
(a) Balance with banks	241.18	239.31
(b) Cash on hand	0.14	0.13
(c) Deposit accounts (with original maturity less than 3 months)	1,647.06	3,706.49
Cash and cash equivalents as per Statement of Cash Flow	1,888.38	3,945.93
Other bank balances:		
(a) Earmarked balances with banks	20.46	17.30
(b) Deposit accounts (other than (c) above, with maturity less than 12 months from the balance sheet date)	43.35	519.81
	63.81	537.11

Footnote:

(i) Non cash transactions

The Group has not entered into non cash investing and financing activities.

15. Equity share capital

Particulars	As at March 31, 2019		As at March 31, 2018	
	No of shares	₹ in crore	No of shares	₹ in crore
(a) Authorised:				
Ordinary shares of ₹ 10 each	27,00,00,000	270.00	27,00,00,000	270.00
(b) Issued :				
Ordinary shares of ₹ 10 each	25,48,42,598	254.84	25,48,42,598	254.84
(c) Subscribed and fully paid up:				
Ordinary shares of ₹ 10 each	25,47,56,278	254.76	25,47,56,278	254.76
(d) Forfeited shares:				
Amount originally paid-up on forfeited shares	86,320	0.06	86,320	0.06
		254.82		254.82

Footnotes:

(i) The movement in number of shares and amount outstanding at the beginning and at the year end

Particulars	Year ended March 31, 2019		Year ended March 31, 2018	
	No of shares	₹ in crore	No of shares	₹ in crore
Issued share capital:				
Ordinary shares :				
Balance as at April 1	25,48,42,598	254.84	25,48,42,598	254.84
Balance as at March 31	25,48,42,598	254.84	25,48,42,598	254.84
Subscribed and paid up:				
Ordinary shares :				
Balance as at April 1	25,47,56,278	254.76	25,47,56,278	254.76
Balance as at March 31	25,47,56,278	254.76	25,47,56,278	254.76

(ii) Terms/ rights attached to equity shares

The Company has issued one class of ordinary shares at par value of ₹10 per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting except in the case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company, after distribution of all preferential accounts, in proportion to their shareholding.

(iii) Details of shares held by each shareholder holding more than 5% shares.

Particulars	As at March 31, 2019		As at March 31, 2018	
	No. of shares	%	No. of shares	%
Ordinary shares with voting rights				
(i) Tata Sons Private Ltd.	5,97,86,423	23.47	5,97,86,423	23.47
(ii) HDFC Trustee Company Limited	2,26,13,010	8.88	1,38,30,156	5.43
(iii) Life Insurance Corporation Of India	1,55,71,496	6.11	*	*
(iv) ICICI Prudential Mutual fund	*	*	1,54,19,534	6.05
(v) Tata Investment Corporation Ltd.	1,52,00,001	5.97	1,52,00,001	5.97

* Not holding more than 5% shares

16. Other equity

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
1 Capital reserve and other reserves from amalgamation	326.64	20.73
2 Securities premium	1,258.89	1,258.89
3 Capital redemption reserve	0.10	0.10
4 Debenture redemption reserve	240.00	240.00
5 General reserve	1,282.47	1,282.47
6 Foreign currency translation reserve	1,668.27	1,457.46
7 Retained earnings	5,192.86	4,626.08
8 Equity instruments through other comprehensive income	2,171.68	1,941.85
9 Effective portion of cash flow hedges	(54.46)	19.31
Total other equity	12,086.45	10,846.89

The movement in other equity

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
16.1 Capital reserve and other reserves from amalgamation		
Balance at the beginning of the year	20.73	20.73
Changes during the year (note 8(a) and 36)	305.91	-
Balance at the end of the year	326.64	20.73
16.2 Securities premium		
Balance at the beginning of the year	1,258.89	1,258.89
Balance at the end of the year	1,258.89	1,258.89
Footnote:		
Securities premium is used to record the premium on issue of shares. The reserve is eligible for utilisation in accordance with the provisions of the 2013 Act.		
16.3 Capital redemption reserve		
Balance at the beginning of the year	0.10	0.10
Balance at the end of the year	0.10	0.10

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
16.4 Debenture redemption reserve		
Balance at the beginning of the year	240.00	240.00
Balance at the end of the year	240.00	240.00
Footnote:		
The Group is required to create a debenture redemption reserve out of the profits which is available for the purpose of redemption of debentures.		
16.5 General reserve		
Balance at the beginning of the year	1,282.47	1,282.47
Balance at the end of the year	1,282.47	1,282.47
Footnote:		
The general reserve represents amounts appropriated out of retained earnings based on the provisions of the Act prior to its amendment.		
16.6 Foreign currency translation reserve		
Balance at the beginning of the year	1,457.46	1,499.58
Changes during the year	210.81	(42.12)
Balance at the end of the year	1,668.27	1,457.46
Footnote:		
The Foreign currency translation reserve represents all exchange differences arising from translation of financial statements of foreign operations.		
16.7 Retained earnings		
Balance at the beginning of the year	4,626.08	1,509.39
Profit for the year	1,155.91	2,433.08
Remeasurement of defined employee benefit plans (net of tax)	82.14	116.94
Transfer from Equity instruments through other comprehensive income	4.39	903.98
Dividends including tax on dividend	(675.66)	(337.31)
Balance at the end of the year (note 'ii')	5,192.86	4,626.08
Footnotes:		
(i) The amount that can be distributed by the holding company as dividends to its equity shareholders is determined based on the separate financial statements of the holding company and also considering the requirements of the Companies Act, 2013. Thus, the amounts reported above are not distributable in entirety.		
The Board of Directors has recommended a final dividend of 125% (2018: 110 % and a special dividend of 110% to reflect disposal of the Fertiliser Business aggregating to 220%) for the financial year 2018-19 ₹12.50 per share (2018: ₹22 per share) which is subject to the approval of shareholders.		
(ii) Includes balance of remeasurement of net defined benefit plans loss of ₹707.12 crore (2018: ₹789.26 crore).		
16.8 Equity instruments through other comprehensive income		
Balance at the beginning of the year	1,941.85	1,836.66
Changes in fair value of equity instruments at FVTOCI (net of tax)	234.22	1,009.17
Transfer to retained earnings	(4.39)	(903.98)
Balance at the end of the year	2,171.68	1,941.85
Footnote:		
This reserve represents the cumulative gains and losses arising on the revaluation of equity instruments measured at fair value through other comprehensive income, net of amounts reclassified to retained earnings when those assets have been disposed off.		

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
16.9 Effective portion of cash flow hedges (note 40(c))		
Balance at the beginning of the year	19.31	5.60
Changes during the year	(73.77)	13.71
Balance at the end of the year	(54.46)	19.31

Footnote:

The effective portion of cash flow hedges represents the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged transactions that have not yet occurred.

17. Non-controlling interests ('NCI')

Subsidiaries that have material non-controlling interests are listed below:

Name	Country of incorporation and operation	Non-controlling interests share	
		As at March 31, 2019	As at March 31, 2018
Rallis India Limited	India	49.94%	49.94%
Tata Chemicals (Soda Ash) Partners Holdings**	United States of America	25.00%	25.00%
Tata Chemicals (Soda Ash) Partners **	United States of America	25.00%	25.00%
PT Metahelix Lifesciences Indonesia	Indonesia	34.23%	34.23%
Alcad**	United States of America	50.00%	50.00%

** a general partnership formed under the laws of the State of Delaware (USA).

₹ in crore

Movement of non-controlling interests	Year ended March 31, 2019	Year ended March 31, 2018
Opening as at April 1	2,717.16	2,623.89
Add/(Less):		
Profit for the year	230.94	269.41
Other comprehensive income for the year	132.73	11.10
Dividends including tax on dividend	(167.50)	(188.51)
Additional infusion by NCI	1.34	1.27
Closing as at March 31	2,914.67	2,717.16

18. Borrowings

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
Secured - at amortised cost		
(a) Term loans - bank (footnote 'a')	2,898.32	2,752.05
(b) Term loans - others (footnote 'b')	0.47	0.72
(c) Obligations under finance leases (note 37)	13.58	18.43
Unsecured - at amortised cost		
(a) Non-convertible debentures (footnote 'c')	-	250.00
(b) Term loans - bank (footnote 'd')	1,921.14	2,438.86
(c) Term loans - others (footnote 'e')	0.17	0.25
(d) Other loans (footnote 'f')	5.55	5.70
	4,839.23	5,466.01

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Less: Unamortised finance cost	56.32	71.99
	4,782.91	5,394.02
Current		
Loans repayable on demand		
Secured - from banks		
(a) Cash/packing credits (footnote 'g')	36.95	0.61
(b) Working capital demand loan (footnote 'h')	30.83	9.93
Unsecured - from banks		
(a) Working capital demand loan (footnote 'j')	117.56	73.54
(b) Suppliers' credit (footnote 'i')	167.12	56.13
	352.46	140.21

Footnotes:

- (a) (i) Secured term loans owed by Natrium Holdings and its subsidiaries ('Natrium Holdings Limited Group'):
- Secured term loans of Natrium Holdings Limited Group comprise of a £ 80 million term loan ('Term loan') and a £ 20 million revolving credit facility ('RCF'). As at March 31, 2019, the debt outstanding under the term loan amounts to ₹724.19 crore (2018: ₹738.22 crore) (£ 80 million (2018: £ 80 million)).
- A maximum of £ 20 million can be drawn down under the RCF, of which ₹162.95 crore (2018: ₹83.05 crore) (2019: £ 18 million and 2018: £ 9 million) had been drawn down as at March 31, 2019. Interest on this facility is payable at LIBOR plus 1.15% per annum (2018: 1.15% per annum). The debt facilities are secured by fixed and floating charges over the assets of the sub-group. Both the above loans are repayable in full in March 2023.
- (ii) Secured term loans owed by Cheshire Salt Holdings Limited ('CSHL Group'):
- Secured term loans of CSHL Group comprise of a £ 50 million term loan ('Term loan') and a £ 5 million revolving credit facility ('RCF'). As at March 31, 2019, the debt outstanding under the term loan amounts to ₹452.62 crore (2018: ₹461.39) (£ 50 million (2018: £ 50 million)). The RCF is unutilised as at March 31, 2019.
- Interest on these facility is payable at LIBOR plus 1.35% per annum. The debt facilities are secured by fixed and floating charges over the assets of the sub-group. The term loans is repayable in instalments commencing March 2021 and ending in March 2023.
- (iii) Secured term loans owed by Tata Chemicals North America ('TCNA') Group:
- Secured term loans of TCNA comprise of a USD 315 million term loan ('Term loan') and a USD 25 million revolving line of credit ('Revolver').
- The term loans are secured by a first-priority interest in the TCNA's 75% interest in TCSAPH, the TCNA's assets, and equity interest in foreign subsidiaries. As at March 31, 2019, the debt outstanding under this agreement is ₹1,558.06 crore (USD 225.30 million) and 2018: ₹1,468.39 crore (USD 225.30 million). The Term loan and revolver are repayable in full on August 9, 2020.
- The borrowing under this facility bears interest at either LIBOR plus applicable margin or an alternate base rate based upon the greatest of (a) the Prime rate in effect on such day, (b) the Federal Funds Effective Rate in effect on such day plus 1/2 of 1% and (c) the Adjusted LIBOR for a one month Interest period on such day plus 1%. The applicable margin on the Term loan and revolver is 2.75% per annum on LIBOR borrowings and 1.75% per annum on alternate base rate loans.
- (iv) Secured term loans owed by Metahelix Life Sciences Limited ('Metahelix'):
- The other term loan is secured by a first charge on entire movable fixed assets and agricultural property funded by the bank. The balance outstanding as at March 31, 2019 is ₹1.00 crore (2018: ₹1.50 crore) (of which ₹0.50 crore (2018: ₹0.50 crore) has been disclosed in note 19 within the heading current maturity of non-current borrowings under other financial liabilities (current)) repayable in 12 equated quarterly installments of ₹0.13 crore. The rate of interest on this loan is 7.50% per annum.

(b) Debt owed by Metahelix:

Term loan from Biotechnology Industry Partnership Project is secured by hypothecation of all equipment, apparatus machineries, machineries spares, tools and other accessories, goods and/or the other movable property of Metahelix, present and future to a value equivalent to the amount of loan and interest thereon and the royalty payable on grant-in-aid till the full and final settlement of all dues. Term loan is repayable along with interest in 10 equal half yearly installments from December 2015 and June 2017. The balance payable as on March 31, 2019 is ₹0.72 crore (2018: ₹0.97 crore) of which ₹0.25 crore (2018: ₹0.25 crore) has been disclosed in note 19 within the heading current maturity of non-current borrowings under other financial liabilities (current). Rate of interest on this loan is 2% per annum.

(c) Unsecured redeemable non-convertible debentures having face value of ₹10 lakhs each are redeemable at par on July 2, 2019 and bears interest rate of 10% per annum. This has been disclosed in note 19 within the heading current maturity of non-current borrowings under other financial liabilities (current).

(d) (i) The External Commercial Borrowings ('ECB') are due for repayment during October 2019 ₹438.85 crore (2018: ₹413.60 crore) (USD 63.46 million) and bear interest of LIBOR plus spread of 1.95% semi-annually. Current portion due for repayment within one year ₹438.85 crore (2018: ₹412.36 crore). This amount has been disclosed in note 19 within the heading current maturities of non-current borrowings under other financial liabilities (current).

(ii) Debt owed by Homefield Pvt UK Limited:

Term Loan USD 45 Million: The amounts outstanding were ₹311.20 crore (2018: ₹293.29 crore). The loan is repayable in full in March 2020 and has been disclosed in note 19 within the heading current maturities of non-current borrowings under other financial liabilities (current). Interest on this loan is payable based on USD LIBOR plus a margin of 1.50% per annum.

(iii) Term Loan USD 28.50 Million: The amount outstanding is ₹197.09 crore for the year ended March 31, 2019 (2018: ₹185.75 crore). This loan repayable in full in March 2023. Interest on this loan is payable based on USD LIBOR plus a margin of 1.15% per annum.

(iv) Debt owed by Rallis India Limited:

Loan of ₹15.00 crore is repayable in 20 quarterly installments. The repayment began after a moratorium of 24 months from February 2018. The first repayment of ₹0.75 crore fell due in May 2018. The balance outstanding as at March 31, 2019 is ₹12.00 crore of which ₹3.00 crore has been grouped in note 19 within current maturities of non-current borrowings under other financial liabilities (current), which are payable in next 12 months.

(v) Debt owed by Tata Chemicals Magadi Limited ('TCML):

The term loan of TCML was refinanced during the year. The outstanding loan as at the year end is ₹331.94 crore (USD 48 million) (2018: ₹384.53 crore (USD 59 million)). The loan is repayable in instalments commencing July 2021 and ending January 2024. Interest on this loan is payable based on USD LIBOR plus a margin of 1.80% per annum. During the previous year ₹153.82 crore (USD 23.6 million), has been disclosed in note 19 within current maturities of non-current borrowings under other financial liabilities (current).

(vi) Debt owed by Tata Chemicals International Pte. Limited ('TCIPL):

The outstanding loan as at March 31, 2019 is ₹1,383.11 crore (2018: ₹1,303.50 crore) (USD 200 million (2018: USD 200 million)). The loan bear an effective interest rate of 3.81% (2018: 2.97%). The loan is repayable in full on December 12, 2022.

(e) Debt owed by Metahelix:

Term loan from Council of Scientific and Industrial Research: The balance payable as on March 31, 2019 is ₹0.25 crore (2018: ₹0.33 crore) of which an amount of ₹0.08 crore (2018: ₹0.08 crore) has been disclosed in note 19 within the heading current maturity of non-current borrowings under other financial liabilities (current). The same is repayable alongwith interest in 7 annual installments. The loan bears interest of 3% per annum.

(f) Debt owed by Rallis India Limited:

Sales Tax Deferral Scheme: The loan is repayable in annual installments which range from a maximum of ₹1.13 crore to a minimum of ₹0.15 crore over the period stretching from April 1, 2019 to March 31, 2027. The amount outstanding is free of interest. The balance outstanding as at March 31, 2019 is ₹5.70 crore (2018: ₹5.78 crore), out of which ₹0.15 crore (2018: ₹0.08 crore) has been disclosed in note 19 within the heading current maturity of non-current borrowings under other financial liabilities (current).

- (g) (i) Debt owed by TCL:
Loans from banks on Cash Credit carry an interest ranging from 8.70% per annum to 9.10% per annum and are secured by way of hypothecation of stocks of raw materials, finished products, stores and work-in-process as well as book debts.
- (ii) Debt owed by Rallis:
Bank overdrafts and cash credit facility are secured by first pari passu charge on inventories (including raw material, finished goods and work-in-progress) and book debts.
- (h) (i) Debt owed by TCML:
Outstanding loan of ₹13.83 crore (2018: ₹9.78 crore)(2019: USD 2 million and 2018: USD 1.5 million). It is a secured overdraft facility against dues receivable from Kenyan Revenue Authority. The rate of interest for this borrowing is 9% per annum.
- (ii) Debt owed by Rallis India Limited:
Loan of ₹17.00 crore (2018: ₹0.15 crore) is secured by first paripassu charge on stock (including raw material, finished goods and work-in-progress) and book debts and carries a weighted average interest of 8.56% per annum.
- (i) Suppliers' credit:
As at March 31, 2019: Unsecured Supplier's credit repayable on demand bears interest ranging from 2.69% to 3.12% per annum
As at March 31, 2018: Unsecured Supplier's credit repayable on demand bears interest ranging from 1.70% to 1.90% per annum.
- (j) Debt owed by TCIPL:
₹117.56 crore (2018: ₹73.54 crore)(2019: USD 17.00 million and 2018: USD 11.28 million) is towards unsecured working capital facility and is repayable within 90 days (2018: 90 days) . Interest is charged at 2.60% to 3.99% (2018: 2.60% to 3.03%) per annum over US\$ LIBOR.

19. Other financial liabilities

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Derivatives (note 40)	28.66	11.87
(b) Deposit payable	6.41	6.07
(c) Others	13.01	11.14
	48.08	29.08
Current		
(a) Current maturities of non-current borrowings (note 18)		
(i) Non-convertible debentures - unsecured	250.00	-
(ii) From Banks - Secured	0.84	1.11
(iii) From Banks - Unsecured	753.05	569.18
(iv) From Others - Secured	-	0.25
(v) From Others - Unsecured	0.15	0.16
	1,004.04	570.70
Less: Unamortised cost of Borrowings	1.46	2.13
	1,002.58	568.57
(b) Current maturities of finance lease obligations (note 37)	5.48	5.37
(c) Interest accrued	37.75	38.92
(d) Creditors for capital goods	123.43	102.38
(e) Unclaimed dividend	20.49	17.34
(f) Unclaimed debenture interest	0.01	0.01
(g) Derivatives (note 40)	39.23	19.38
(h) Security deposits from customers	42.49	42.55
(i) Contingent consideration	6.37	-
(j) Others	176.72	199.19
	1,454.55	993.71

20 . Provisions

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-Current		
(a) Provision for employee benefits		
(i) Pension and other post retirement benefits (note 38)	1,319.18	1,398.08
(ii) Compensated absences and long service awards	4.24	4.29
	1,323.42	1,402.37
(b) Other provisions (footnote 'i')	180.50	272.70
	1,503.92	1,675.07
Current		
(a) Provision for employee benefits		
(i) Pension and other post retirement benefits (note 38)	25.20	47.78
(ii) Compensated absences and long service awards	90.89	85.75
	116.09	133.53
(b) Other provisions (footnote 'i')	164.24	72.23
	280.33	205.76

Footnotes:

i) Other provisions include:

₹ in crore

Particulars	Asset retirement obligation (1)	Provision for emission allowance (2)	Provision for warranty (3)	Provision for restructuring expenses (4)	Others (5)	Total
Balance as at April 1, 2017	159.98	11.56	0.39	13.98	229.05	414.96
Provision pertaining to discontinued operations	-	-	-	-	(92.29)	(92.29)
Provisions recognised during the year	9.64	47.04	0.32	-	9.75	66.75
Payments/utilisations/surrenders during the year	(2.45)	(44.53)	(0.15)	(2.28)	(0.04)	(49.45)
Exchange fluctuations	0.83	1.79	-	1.79	0.55	4.96
Balance at March 31, 2018	168.00	15.86	0.56	13.49	147.02	344.93
Provision pertaining to discontinued operations	-	-	-	-	100.16	100.16
Provisions recognised during the year	8.95	27.21	0.39	-	7.08	43.63
Payments/utilisations/surrenders during the year	(4.09)	(34.69)	(0.56)	(1.63)	(119.60)	(160.57)
Exchange fluctuations	9.26	(0.20)	-	(0.23)	7.76	16.59
Balance as at March 31, 2019	182.12	8.18	0.39	11.63	142.42	344.74
Balance at March 31, 2018						
Non-Current	152.11	-	-	13.49	107.10	272.70
Current	15.89	15.86	0.56	-	39.92	72.23
Total	168.00	15.86	0.56	13.49	147.02	344.93
Balance at March 31, 2019						
Non-Current	168.87	-	-	11.63	-	180.50
Current	13.25	8.18	0.39	-	142.42	164.24
Total	182.12	8.18	0.39	11.63	142.42	344.74

Nature of provisions :

- 1) Provision for asset retirement obligation represents site restoration expense and decommissioning charges in India and cost towards reclamation of the mine and land upon the termination of the partnership in USA. The timing of the outflows is expected to be within a period of one to ninety six years from the date of consolidated balance sheet.

- 2) Provision for emission allowance represents obligations to surrender carbon emission allowances under the EU emissions trading scheme.
- 3) Provision for warranty relates certain products that fail to perform satisfactorily during the warranty period. Provision made as at respective year ends represents the amount of the expected cost of meeting such obligations of rectification/replacement. The timing of the outflows is expected to be within a period of one year from the date of consolidated balance sheet.
- 4) Provision for restructuring expenses represents costs to be incurred following the closure of plant in UK and committed expenditure to demolish redundant power facilities owned by the Group in UK.
- 5) Provision for others represents management's best estimate of outflow of economic resources in respect of water charges, entry tax, land revenue and other disputed items including direct taxes, indirect taxes and other claims. The timing of outflows is uncertain and will depend on the cessation of the respective cases.

21. Deferred tax assets (net) and liabilities (net)

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(a) Deferred tax assets (net) (footnote 'i')	36.24	20.81
(b) Deferred tax liabilities (net) (footnote 'ii')	(1,297.18)	(1,191.55)

(i) Deferred tax assets (net)

₹ in crore

Particulars	As at April 1, 2018	Recognised in profit or loss (continuing operations)	Recognised in profit or loss (discontinued operations)	Recognised in other comprehensive income	Tax Receivables	Exchange fluctuations	As at March 31, 2019
Deferred tax assets/(liabilities) in relation to:							
Property, plant and equipments and intangible asset	(11.66)	12.96	-	-	-	(0.20)	1.10
Allowance for doubtful debts and advances	3.50	0.85	-	-	-	-	4.35
Defined benefit obligation	0.62	0.03	-	-	-	-	0.65
Others	0.03	0.01	-	-	-	-	0.04
	(7.51)	13.85	-	-	-	(0.20)	6.14
Tax losses	7.72	(5.62)	-	-	-	-	2.10
Unused credits	20.60	7.40	-	-	-	-	28.00
	20.81	15.63	-	-	-	(0.20)	36.24

Particulars	As at April 1, 2017	Recognised in profit or loss (continuing operations)	Recognised in profit or loss (discontinued operations)	Recognised in other comprehensive income	Tax Receivables	Exchange fluctuations	As at March 31, 2018
Deferred tax assets/(liabilities) in relation to:							
Property, plant and equipments and intangible asset	(10.13)	(1.53)	-	-	-	-	(11.66)
Allowance for doubtful debts and advances	3.33	0.17	-	-	-	-	3.50
Defined benefit obligation	0.55	0.07	-	-	-	-	0.62
Others	0.01	0.02	-	-	-	-	0.03
	(6.24)	(1.27)	-	-	-	-	(7.51)
Tax losses	16.68	(8.96)	-	-	-	-	7.72
Unused credits	13.23	7.37	-	-	-	-	20.60
	23.67	(2.86)	-	-	-	-	20.81

(ii) Deferred tax liabilities (net)

₹ in crore

Particulars	As at April 1, 2018	Recognised in profit or loss (continuing operations)	Recognised in profit or loss (discontinued operations)	Recognised in other comprehensive income	Tax Receivables	Exchange fluctuations	As at March 31, 2019
Deferred tax assets/(liabilities) in relation to:							
Property, plant and equipments and intangible asset	(1,384.17)	57.46	-	-	-	(63.51)	(1,390.22)
Allowance for doubtful debts and Advances	40.92	10.62	-	-	-	-	51.54
Accrued expenses allowed in the year of payment	74.02	(12.98)	-	(32.63)	-	-	28.41
Mark to market gains on mutual funds and derivatives	-	(19.94)	-	-	-	-	(19.94)
Finance lease	(0.41)	0.41	-	-	-	-	-
Financial assets at FVTOCI	5.53	-	-	-	-	-	5.53
Partnership tax basis differences for USA Subsidiaries	(37.77)	(1.53)	-	3.46	-	(2.33)	(38.17)
Defined benefit obligation	34.89	0.23	-	(6.32)	-	2.06	30.86
Alternative Minimum Tax ('AMT') Credit (note 33)	92.80	(6.71)	-	-	(27.74)	5.74	64.09
Others	(17.36)	(9.09)	(0.07)	(1.94)	-	(0.82)	(29.28)
	(1,191.55)	18.47	(0.07)	(37.43)	(27.74)	(58.86)	(1,297.18)

Particulars	As at April 1, 2017	Recognised in profit or loss (continuing operations)	Recognised in profit or loss (discontinued operations)	Recognised in other comprehensive income	Tax Receivables	Exchange fluctuations	As at March 31, 2018
Deferred tax assets/(liabilities) in relation to:							
Property, plant and equipments and intangible asset	(1,402.23)	22.19	0.11	-	-	(4.24)	(1,384.17)
Allowance for doubtful debts and Advances	22.09	1.74	17.09	-	-	-	40.92
Accrued expenses allowed in the year of payment	116.05	(26.08)	4.64	(20.59)	-	-	74.02
Finance lease	2.52	(1.67)	(1.26)	-	-	-	(0.41)
Financial assets at FVTOCI	-	5.53	-	-	-	-	5.53
Partnership tax basis differences for USA Subsidiaries	(131.03)	105.84	-	(12.96)	-	0.38	(37.77)
Defined benefit obligation	180.94	(108.07)	-	(37.25)	-	(0.73)	34.89
Alternative Minimum Tax ('AMT') Credit (note 33)	-	268.63	-	-	(178.83)	3.00	92.80
Others	(26.41)	9.61	-	(0.42)	-	(0.14)	(17.36)
	(1,238.07)	277.72	20.58	(71.22)	(178.83)	(1.73)	(1,191.55)

(iii) Unrecognised deferred tax assets

Deferred tax assets have not been recognised in respect of the following items, because it is not probable that future taxable profit will be available against which the Group can use the benefits therefrom:

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Gross amount	Tax effect	Gross amount	Tax effect
Deductible temporary differences	1,304.95	248.66	1,451.79	271.88
Unused tax losses	784.51	166.81	968.37	219.90
	2,089.46	415.47	2,420.16	491.78

The tax losses amounting to ₹257.29 crore (2018: ₹425.25 crore) for which no deferred tax asset has been recognised, expire between FY 2020 - 2024. The deductible temporary differences and other unused tax losses do not expire under current tax legislation.

22. Other liabilities

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Non-current		
(a) Pension payable on employee separation	0.24	0.29
(b) Deferred income (including government grants)	27.76	29.22
(c) Others	40.25	37.21
	68.25	66.72
Current		
(a) Statutory dues	134.94	105.07
(b) Advance received from customers	92.66	81.67
(c) Deferred income (including government grants and emission trading allowance)	10.34	12.71
(d) Others	11.85	4.64
	249.79	204.09

23. Tax assets and liabilities

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(a) Tax assets		
Non-current - Advance tax assets (net)	815.00	671.55
Current - Current tax assets (net)	3.51	34.52
(b) Current tax liabilities (net)	136.18	131.03

24. Held for sale and discontinued operations

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(a) Assets classified as held for sale and discontinued operations		
(i) Assets held for sale (footnote 'i')	-	12.65
(ii) Discontinued operations (footnote 'ii')	-	1,085.69
	-	1,098.34
(b) Liabilities directly associated with discontinued operations		
(i) Discontinued operations (footnote 'ii')	-	549.95
	-	549.95

Footnotes:

- (i) In the previous year, the Group intended to surrender the leasehold land which it no longer intended to utilise. During the year, the Group has filed an application and is in process of obtaining an extension letter for leasehold land as the Group intends to start manufacturing activities, hence management has considered this asset as no longer being assets held for sale and reclassified the same into leasehold land under "property, plant and equipment".
- (ii) Discontinued operations comprise of assets and liabilities of Phosphatic Fertilisers business and Trading business as at March 31, 2018 (note 34).

25. Revenue from operations

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
(a) Sales of products (footnote 'ii' to 'v')	11,217.91	10,256.63
(b) Other operating revenues		
(i) Liabilities no longer required-written back	-	6.09
(ii) Miscellaneous income (footnote 'i')	78.42	82.64
	78.42	88.73
	11,296.33	10,345.36

Footnotes:

(i) Miscellaneous income primarily includes sales of scrap of ₹48.80 crore (previous year ₹39.58 crore).

(ii) Reconciliation of sales of products

Revenue from contract with customer	11,928.51	10,858.27
Adjustments made to contract price on account of		
(a) Discounts / Rebates / Incentives	(193.13)	(190.09)
(b) Sales Returns / Credits / Reversals - Agri business	(517.47)	(487.22)
(c) Excise duty invoiced	-	75.67
	11,217.91	10,256.63

(iii) On adoption of Ind AS 115 - Revenue from Contracts with Customers with effect from April 1, 2018, the Group has evaluated its performance obligations relating to freight arrangements on sales to customers. Consequently following the cumulative effect method, freight and forwarding charges and revenue from operations are higher by ₹172.54 crore for the year ended March 31, 2019 (comparatives have not been restated); however, these do not have any impact on the profit.

(iv) For operating segments revenue, geographical segments revenue, revenue from major products and revenue from major customers refer note 39.1 .

(v) Sales includes excise duty upto June 30, 2017 and hence figures are not comparable.

26. Other income

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
(a) Dividend income from		
(i) Current investments measured at FVTPL	0.17	33.25
(ii) Non-current investments measured at FVTOCI	23.92	27.06
	24.09	60.31
(b) Interest income from financial assets at amortised cost		
(i) On bank deposits	70.37	15.90
(ii) Other interest	14.94	6.74
	85.31	22.64
(c) Interest on refund of taxes	16.23	16.01
(d) Others		
(i) Rental and town income	15.16	2.21
(ii) Gain on sale/redemption of investments (net)	187.40	52.70
(iii) Insurance claim received	45.33	-
(iv) Miscellaneous income (footnote 'i')	38.12	5.59
	286.01	60.50
	411.64	159.46

Footnote:

(i) Miscellaneous income primarily includes export benefits and liabilities written back.

27. Changes in inventories of finished goods, work-in-progress and stock-in-trade

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Opening stock		
Work-in-progress	102.54	112.95
Finished goods	499.81	423.20
Stock-in-trade (acquired for trading)	129.30	160.62
	731.65	696.77
Closing stock		
Work-in-progress	112.43	102.54
Finished goods	594.62	499.81
Stock-in-trade (acquired for trading)	125.34	129.30
	832.39	731.65
Less: Inventory on account of Discontinued operations	3.56	-
Exchange fluctuations	(7.64)	(69.27)
Total inventory change	(104.82)	(104.15)

28. Employee benefits expense

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Salaries, wages and bonus	1,087.02	999.42
(b) Contribution to provident and other funds	95.90	99.74
(c) Staff welfare expense	168.88	171.07
	1,351.80	1,270.23

29. Finance costs

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Interest costs		
(i) Interest on loans at amortised cost	309.05	255.32
(ii) Interest on obligations under finance leases	2.11	2.42
(b) Translation differences (footnote 'i')	(17.05)	(18.30)
(c) Discounting and other charges	68.99	86.14
	363.10	325.58

Footnote:

- (i) Translation differences on foreign currency loans regarded as borrowing cost net of changes in fair value of derivative contracts.

30. Depreciation and amortisation expense

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Depreciation of property, plant and equipment	474.96	419.84
(b) Depreciation of Investment property	0.73	0.08
(c) Amortisation of other intangible assets	95.70	98.09
	571.39	518.01

31. Other expenses

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Stores and spare parts consumed	266.47	270.93
(b) Packing materials consumed	379.71	334.15
(c) Power and fuel	1,480.14	1,272.51
(d) Repairs - Buildings	10.21	11.55
- Machinery	383.50	335.19
- Others	7.45	8.90
(e) Rent	168.85	154.11
(f) Royalty, rates and taxes	364.39	347.46
(g) Excise duty adjustment for stocks	-	(3.66)
(h) Distributor's service charges	21.99	21.40
(i) Sales promotion expenses	173.48	159.95
(j) Insurance charges	35.11	32.22
(k) Freight and forwarding charges (note 25, footnote 'iii')	1,743.60	1,578.73
(l) Loss on assets sold, discarded or written off	18.09	10.61
(m) Bad debts written off	3.48	3.27
(n) Provision for doubtful debts and advances (net)	13.51	8.71
(o) Foreign exchange loss (net)	6.16	10.69
(p) Director's fees and commission	9.68	10.64
(q) Others	625.97	485.90
	5,711.79	5,053.26

32. Exceptional gain (net)
For the year ended March 31, 2019

- (a) A charge of ₹5.69 crore represent increase in pension liability for the Group's UK entities, following the UK High court ruling with respect to Guaranteed Minimum Pension (GMP) equalization.
- (b) Consequent to the advanced Brexit-related timetable for surrendering European Emission Allowances under the EU Emissions Trading Scheme, TCE Group, UK had to incur an expenditure of ₹38.84 crore.
- (c) The superior court of Justice, Canada, issued an order in the matter of bankruptcy of General Chemicals Canada Limited ("GCCL"), (an erstwhile subsidiary of General Chemicals which was assigned with bankruptcy under Canada's Bankruptcy and harmony Act in Nov 2005), discharging the Trustee and thereby concluding the bankruptcy proceedings. Accordingly TCNA has written back the negative carrying value associated with GCCL amounting to ₹114.86 crore.

For the year ended March 31, 2018

Relate to operations at Tata Chemicals North America, Inc. and it's Subsidiaries ('TCNA'):

- (a) A gain of ₹82.80 crore, based on actuarial valuation, due to changes announced on certain Post Retiral Medical Plans.
- (b) An estimated charge of ₹18.46 crore payable due to employees' severance packages.

33. Income tax expense relating to continuing operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(a) Tax expense		
Current tax		
In respect of the current year	414.14	334.99
In respect of earlier years	(33.12)	-
	381.02	334.99
Deferred tax		
In respect of the current year (footnote 'i' and note 21)	(34.10)	(274.86)
	(34.10)	(274.86)
Total tax expense	346.92	60.13

Footnote:

(i) During the year ended March 31, 2018, as a result of changes in income tax legislation in the USA, the TCNA Group recognised a deferred tax gain of ₹251.63 crore in Consolidated Statement of Profit and Loss (as deferred tax) and loss of ₹44.70 crore in other comprehensive income (Items that will not be reclassified to the Consolidated Statement of Profit and Loss).

(b) The income tax expenses for the year can be reconciled to the accounting profit as follows:

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Profit before tax from continuing operations	1,741.75	1,620.13
Income tax expenses calculated at 34.944 % (2018: 34.608%) (Company's domestic tax rate)	608.64	560.69
Differences in tax rates in foreign jurisdictions	(77.68)	(54.17)
Share of profit of equity accounted investees	(34.77)	(17.62)
Effect of income that is exempt from taxation	(16.57)	(36.99)
Effect of expenses not deductible for tax computation	22.07	25.09
Effect of concessions (research and development and other allowances)	(85.68)	(73.45)
Effect of prior period adjustments in deferred tax	(42.16)	-
Effect of Mark to market gains on investments not chargeable to tax	(20.86)	-
Others	47.92	(19.78)
	400.91	383.77
Adjustments recognised in the current year in relation to the current tax of prior years on account of completed assessments.	(32.18)	-
Tax Reform - Tax Rate Change	-	(41.10)
Alternative Minimum Tax - differential	(12.68)	(260.94)
Effect of unused tax losses and tax offsets not recognised as deferred tax assets	(9.13)	(21.60)
Total income tax expense recognised for the year relating to continuing operations	346.92	60.13

34. Discontinued operations

(I) Disposal of Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers

On June 1, 2018, the Company consummated the sale and transfer of its Phosphatic Fertiliser Business located at Haldia and the Trading Business comprising bulk and non-bulk fertilisers to IRC Agrochemicals Private Limited ("IRC") as per Business Transfer Agreement dated November 6, 2017.

Exceptional gain includes pre-tax loss of ₹ 65.40 crore towards the shortfall between the carrying value of net Property, plant and equipment ('PPE') and the recoverable value for the year ended March 31, 2018.

(II) Disposal of urea and customised fertilisers business

During the previous year, the Company entered into an agreement with Yara Fertilisers India Private limited ('Yara India') to transfer its Urea Business (which comprises of manufacturing facilities for urea and customised fertilisers at Babrala, Uttar Pradesh), by way of a slump sale.

On January 12, 2018, the Company consummated the sale and transfer of its Urea and Customised Fertilisers Business to Yara India as contemplated in the Scheme of Arrangement dated August 10, 2016. The pre-tax gain of ₹1,279.39 crore for the year ended March 31, 2018 is included under exceptional gain for discontinued operations.

The financial performance and cash flows for Urea Business (till the date of sale) and Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers (till the date of sale):
(a) Analysis of profit from discontinued operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Profit for the year from discontinued operations		
Revenue from operations (footnote 'i')	624.55	4,087.25
Expenses		
Depreciation and amortisation	-	12.58
Other expenses	635.86	3,636.95
(Loss)/profit before exceptional item and tax	(11.31)	437.72
Exceptional gain (net)		
Profit on sale of discontinued operation	-	1,279.39
Impairment of assets (footnote 'ii')	-	(65.40)
(Loss)/profit before tax	(11.31)	1,651.71
Tax expense	(3.33)	167.60
Tax on sale of discontinued operations	-	341.62
(Loss)/profit after tax	(7.98)	1,142.49

Footnotes:

- (i) Revenue from operations includes subsidy income of ₹24.40 crore (2018: ₹1,979.51 crore)
- (ii) The shortfall between the carrying value of net PPE and the recoverable value.

(b) Net cash flows attributable to the discontinued operations

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Net cash (outflows)/inflows from operating activities	309.04	240.47
Net cash used in investing activities	-	(29.58)
Net cash (outflows)/inflows from financing activities	(310.08)	(209.99)
Net cash (outflows)/inflows	(1.04)	0.90

(c) Book value of assets and liabilities of discontinued operations:

₹ in crore

Particulars	Phosphatic Fertilisers business and Trading business	
	As at March 31, 2019	As at March 31, 2018
Property, plant and equipment and intangible assets (including CWIP)	-	75.05
Other non-current assets	-	29.27
Inventories	-	149.80
Trade receivables (including subsidy of ₹Nil (2018 : ₹802.10 crore)) (footnote 'ii')	-	808.23
Cash and cash equivalents	-	1.04
Current financial assets	-	0.04
Other current assets	-	22.26
Total Assets (A)	-	1,085.69
Non-current financial liabilities - provisions	-	1.54
Borrowings (footnote - 'i' and 'ii')	-	310.08
Trade payables	-	112.26
Other financial liabilities	-	18.57
Other current liabilities	-	8.32
Current liabilities - provisions	-	99.18
Total Liabilities (B)	-	549.95
Net assets (A - B)	-	535.74

Footnotes:

- (i) (a) The Department of Fertilizers, Government of India, has notified 'Special Banking Arrangement' scheme to address the concern of delay in subsidy disbursement. This arrangement has been made by the Government with the State Bank of India Consortium (SBI Consortium). Loans under this scheme are secured by hypothecation of subsidy receivables.
- Fixed interest rate of 7.80% per annum out of which 6.84% per annum shall be borne by the Government and repaid in April 2018. The remaining 0.96% per annum shall be borne by the Company and will be recovered upfront for 60 days from the Company at the time of disbursement of the facility. Balance as at March 31, 2019 : ₹Nil [2018 : ₹307.95 crore].
- (b) Cash credit (Secured) of ₹Nil (2018: ₹2.13 crore)
- (ii) Subsidy receivables and borrowings related to Phosphatic fertilisers and Trading business along with the related revenue and expenses are disclosed as discontinued operations. These receivables and borrowings are not transferred on disposal of business (note 10).

(d) Gain on disposal of discontinued operations:

₹ in crore

Particulars	Phosphatic Fertilisers business and Trading business	Urea and customised fertilisers business
	Year ended March 31, 2019	Year ended March 31, 2018
Cash consideration received (net of cost to sell)	565.08	2,593.98
Net assets transferred (footnote 'i')	565.08	1,314.59
Gain on disposal	-	1,279.39

Footnote:
(i) Information of assets and liabilities transferred

₹ in crore

	Year ended March 31, 2019	Year ended March 31, 2018
Property, plant and equipment and intangible assets (including CWIP)	75.00	545.09
Other non-current assets	0.01	2.45
Inventories	298.13	27.50
Trade receivables	233.31	786.64
Other current assets	21.96	99.85
Total Assets (A)	628.41	1,461.53
Other non-current liabilities	10.37	129.73
Other current liabilities	52.96	17.21
Total Liabilities (B)	63.33	146.94
Net assets (A - B)	565.08	1,314.59

35. Earnings per share

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
Basic and Diluted earnings per share (₹)		
From continuing operations (₹)	45.69	50.66
From discontinued operations (₹)	(0.31)	44.85
Total Basic and Diluted earnings per share (₹)	45.38	95.51

Footnotes:

The earnings and weighted average numbers of equity shares used in the calculation of basic and diluted earnings per share are as follows.

(a) Earnings used in the calculation of basic and diluted earnings per share:	₹ in crore	₹ in crore
Profit for the year from continuing operations attributable to equity shareholders of the Company	1,163.89	1,290.59
Profit for the year from discontinued operations attributable to equity shareholders of the Company	(7.98)	1,142.49
	1,155.91	2,433.08
(b) Weighted average number of equity shares used in the calculation of basic and diluted earnings per share:	No. of shares	No. of shares
Weighted average number of equity shares used in the calculation of basic and diluted earnings per share from continuing operations and from discontinued operations	25,47,56,278	25,47,56,278

36. Group Information

(a) Particulars of subsidiaries and joint ventures which have been considered in the preparation of the consolidated financial statements:

Name of the Company	Country of Incorporation	Nature of Business	% Equity Interest	
			As at March 31, 2019	As at March 31, 2018
Subsidiaries				
Direct				
Rallis India Limited ('Rallis')	India	Manufacturing	50.06%	50.06%
Bio Energy Venture - 1 (Mauritius) Pvt. Ltd ###	Mauritius	Investment	100.00%	100.00%
Ncourage Social Enterprise Foundation @@	India	CSR Activity	100.00%	100.00%
Indirect				
Rallis Chemistry Exports Limited ^^	India	Manufacturing	100.00%	100.00%
Metahelix Life Sciences Limited ^^^	India	Manufacturing	100.00%	100.00%
Zero Waste Agro Organics Limited ('ZWAOL')##	India	Manufacturing	100.00%	100.00%
PT Metahelix Lifesciences Indonesia ('PTLI')	Indonesia	Manufacturing	65.77%	65.77%
Valley Holdings Inc.	United States of America	Investment	100.00%	100.00%
Tata Chemicals North America Inc.('TCNA')	United States of America	Trading	100.00%	100.00%
General Chemical International Inc.	United States of America	Dormant	100.00%	100.00%
NHO Canada Holdings Inc.	United States of America	Dormant	100.00%	100.00%
Tata Chemicals (Soda Ash) Partners ('TCSAP')**	United States of America	Investment	75.00%	75.00%
Tata Chemicals (Soda Ash) Partners Holdings**('TCSAPH')	United States of America	Manufacturing	75.00%	75.00%
TCSAP LLC	United States of America	Investment	75.00%	75.00%
Homefield Pvt UK Limited	United Kingdom	Investment	100.00%	100.00%
TCE Group Limited (formerly known as Homefield 2 UK Limited)	United Kingdom	Investment	100.00%	100.00%
Tata Chemicals Africa Holdings Limited	United Kingdom	Investment	100.00%	100.00%
Natrium Holdings Limited (formerly known as Tata Chemicals Europe Holdings Limited)	United Kingdom	Investment	100.00%	100.00%
Tata Chemicals Europe Limited	United Kingdom	Manufacturing	100.00%	100.00%
Winnington CHP Limited	United Kingdom	Manufacturing	100.00%	100.00%
Brunner Mond Group Limited	United Kingdom	Investment	100.00%	100.00%
Brunner Mond Limited	United Kingdom	Investment	NA	***
Tata Chemicals Magadi Limited	United Kingdom	Manufacturing	100.00%	100.00%
Northwich Resource Management Limited	United Kingdom	Dormant	100.00%	100.00%
Brunner Mond Generation Company Limited	United Kingdom	Dormant	NA	***
Gusiute Holdings (UK) Limited	United Kingdom	Investment	100.00%	100.00%
TCNA (UK) Limited	United Kingdom	Trading	100.00%	100.00%
British Salt Limited	United Kingdom	Manufacturing	100.00%	100.00%
Cheshire Salt Holdings Limited	United Kingdom	Investment	100.00%	100.00%
Cheshire Salt Limited	United Kingdom	Investment	100.00%	100.00%
Brinefield Storage Limited	United Kingdom	Dormant	100.00%	100.00%
Cheshire Cavity Storage 2 Limited	United Kingdom	Dormant	100.00%	100.00%
Cheshire Compressor Limited	United Kingdom	Dormant	100.00%	100.00%
Irish Feeds Limited	United Kingdom	Dormant	100.00%	100.00%

Name of the Company	Country of Incorporation	Nature of Business	% Equity Interest	
			As at March 31, 2019	As at March 31, 2018
New Cheshire Salt Works Limited	United Kingdom	Investment	100.00%	100.00%
Tata Chemicals International Pte. Limited ('TCIPL')	Singapore	Trading	100.00%	100.00%
Tata Chemicals (South Africa) Proprietary Limited	South Africa	Trading	100.00%	100.00%
Magadi Railway Company Limited	Kenya	Dormant	100.00%	100.00%
Alcad**	United States of America	Manufacturing	50.00%	50.00%

** a general partnership formed under the laws of the State of Delaware (USA).

*** Brunner Mond Generation Company Limited and Brunner Mond Limited, subsidiaries in United Kingdom, have been dissolved during the year ended March 31, 2018.

@@ Ncourage Social Enterprise Foundation is incorporated as a wholly owned direct subsidiary under Section 8 of the Companies Act, 2013 with effect from December 8, 2017.

^^ During the year, Rallis Chemistry Exports Ltd., a wholly owned subsidiary of Rallis has made an application to the Registrar of Companies for removal of its name from the register of companies for which the approval is awaited.

^^^ The Board of Directors of Rallis approved the Scheme of Amalgamation of Metahelix Life Sciences Limited (a wholly owned subsidiary of Rallis) with Rallis pursuant to the provisions of Sections 230 to 232 of the Companies Act, 2013 subject to necessary statutory and regulatory approvals, including the National Company Law Tribunal.

The Board of Directors of Rallis approved the Scheme of Amalgamation of Zero Waste Agro Organics Limited (a wholly owned subsidiary of Rallis) with Rallis pursuant to the provisions of Sections 230 to 232 of the Companies Act, 2013 subject to necessary statutory and regulatory approvals, including the National Company Law Tribunal.

The Board of Directors of the Company has approved the Scheme of Amalgamation ('Scheme') under the provisions of Section 234 read with Sections 230 to 232 of the Companies Act, 2013 for the merger of Bio Energy Venture - 1 (Mauritius) Pvt. Ltd., a wholly owned subsidiary of the Company, with the Company, subject to necessary statutory and regulatory approvals, including the National Company Law Tribunal. The Scheme is in the process of being filed.

Name of the Company	Country of Incorporation	Nature of Business	% Equity Interest	
			As at March 31, 2019	As at March 31, 2018
Joint Ventures				
Direct				
Indo Maroc Phosphore S. A.@	Morocco	Manufacturing	33.33%	33.33%
Tata Industries Ltd.@	India	Diversified	9.13%	NA
Indirect				
The Block Salt Company Limited (Holding by New Cheshire Salt Works Limited)	United Kingdom	Manufacturing	50.00%	50.00%
JOil (S) Pte. Ltd and its subsidiaries (Holding by TCIPL)	Singapore	Manufacturing	33.78%	33.78%
Natronx Technologies LLC (Holding by TCSAP) (dissolved w.e.f. December 5, 2018)	United States of America	Manufacturing	33.30%	33.30%
Promoter Group				
Tata Sons Private Limited	India			

@ Consequent to Tata Industries Limited ('TIL') obtaining approval of its shareholders at the General Meeting held on 27 March, 2019, the Company along with Tata Sons Private Limited will exercise joint control over the key activities of TIL. Accordingly, the investment in TIL has been reclassified as a Joint Venture. The difference between fair value and carrying value of investment of ₹305.91 crore has been accounted for as capital reserve in the financial statement.

b) Business combination

The transaction to acquire the precipitated silica business of M/s Allied Silica Limited, situated in Cuddalore, Tamil Nadu on a slump sale and going concern basis was consummated through a Business Transfer Agreement ('BTA') on June 18, 2018.

The consideration of ₹123.19 crore is towards property, plant and equipment and the normalised net working capital of which ₹6.37 crore is outstanding as payable as at March 31, 2019 on account of contingent consideration (Subject to compliance with conditions mentioned in the BTA by June-19).

Identifiable assets acquired and liabilities recognised on the date of acquisition are based on their fair values as presented below.

Particulars	₹ in crore
Property, plant and Equipment *	75.00
Inventories (based on replacement cost)	0.03
Trade receivables (gross contractual amounts)	0.37
Trade payables (gross contractual amounts)	(0.21)
Total identifiable net assets at fair value	75.19

* determined on a provisional basis considering depreciated replacement cost and will be revised in FY 20, based on external valuers report and settlement of contingent consideration.

The resultant provisional goodwill amounts to ₹48.00 crore. Goodwill paid reflects the premium for gaining immediate entry to markets and access to a start-up facility, with all the regulatory permits and clearances which will enable the Group to participate in the silica market. The goodwill recognised is expected to be deductible for income tax purposes.

The Group incurred acquisition related costs of ₹1.51 crore on transfer fees, legal fees, valuation costs, etc which are included in other expenses.

37. Finance leases (including hire purchase) and operating leases

Finance lease commitments

The Group has finance lease contracts for certain items of plant and machinery and vehicles. The Group's obligations under finance leases are secured by the lessor's title to the leased assets.

Future minimum lease payments ('MLP') under finance lease contracts together with the present value of the net MLP are as follows:

₹ in crore

Particulars	March 31, 2019		March 31, 2018	
	MLP	Present value of MLP	MLP	Present value of MLP
Within one year	6.96	5.48	7.21	5.37
After one year but not more than five years	14.96	13.58	21.36	18.43
More than five years	-	-	-	-
Total MLP	21.92	19.06	28.57	23.80
Less : amounts representing finance charges	2.86		4.77	
Present value of MLP	19.06		23.80	
Included in the financial statements as:				
- Non-current borrowings (note 18)		13.58		18.43
- Current maturity of finance lease obligations (note 19)		5.48		5.37
		19.06		23.80

Interest rates ranging from 8% to 12% per annum, underlying all obligations under finance leases, are fixed at respective contract dates.

Operating leases

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Total of minimum lease payments	321.61	314.47
(a) The total of minimum lease payments for a period:		
(i) Not later than one year	81.69	83.60
(ii) Later than one year and not later than five years	146.65	138.28
(iii) Later than five years	93.27	92.59
(b) Lease payments recognised (non-cancellable operating lease)*	126.62	114.65

* In the Consolidated Statement of Profit and Loss for the year (included in rent and cost of materials consumed)

38. Employee benefits obligations
(A) In respect of the Company and domestic subsidiaries

The Company and its domestic subsidiaries make contributions towards provident fund, in substance a defined benefit retirement plan and towards pension and superannuation funds which are defined contribution retirement plans for qualifying employees. The provident fund is administered by the Trustees of the Provident Fund and the superannuation fund is administered by the Trustees of the Superannuation Fund. The Company and its domestic subsidiaries are liable to pay to the provident fund to the extent of the amount contributed and any shortfall in the fund assets based on Government specified minimum rates of return relating to current services. Such contribution and shortfall if any, are recognised as an expense in the year in which these are incurred.

On account of the above contribution plans, a sum of ₹16.20 crore (2018: ₹19.25 crore) has been charged to the Consolidated Statement of Profit and Loss.

The Company and its domestic subsidiaries make annual contributions to the Employees' Gratuity Trust and to the Employees' Group Gratuity-cum-Life Assurance Scheme of the Life Insurance Corporation of India, for funding the defined benefit plans for qualifying employees. The scheme provides for lump sum payment to vested employees at retirement or death while in employment or on termination of employment. Employees, upon completion of the vesting period, are entitled to a benefit equivalent to either half month, three fourth month and full month salary last drawn for each completed year of service depending upon the completed years of continuous service in case of retirement or death while in employment. In case of termination, the benefit is equivalent to fifteen days salary last drawn for each completed year of service in line with the Payment of Gratuity Act, 1972. Vesting occurs upon completion of five years of continuous service.

The Company also provides post retirement medical benefits to eligible employees under which employees at Mithapur who have retired from service of the Company are entitled for free medical facility at the Company hospital during their lifetime. Other employees are entitled to domiciliary treatment exceeding the entitled limits for the treatments covered under the Health Insurance Scheme upto slabs defined in the scheme. The floater mediclaim policy also covers retired employees based on eligibility, for such benefit.

The Company provides pension, housing/house rent allowance and medical benefits to retired Managing and Executive Directors who have completed ten years of continuous service in Tata Group and three years of continuous service as Managing Director/ Executive Director or five years of continuous service as Managing Director/Executive Director. The directors are entitled upto seventy five percent of last drawn salary for life and on death 50% of the pension is payable to the spouse for the rest of his/her life.

Domestic subsidiaries also include a supplemental pay scheme (a life long pension), an unfunded scheme, covering certain Executives.

Family benefit scheme is applicable to all permanent employees in management, officers and workmen who have completed one year of continuous service. In case, of untimely death of the employee, the nominated beneficiary is entitled to an amount equal to the last drawn salary (Basic Salary, DA and FDA) till the normal retirement date of the deceased employee.

The most recent actuarial valuations of plan assets and the present values of the defined benefit obligations were carried out at March 31, 2019. The present value of the defined benefit obligations and the related current service cost and past service cost, were measured using the Projected Unit Credit Method.

(B) In respect of overseas subsidiaries, the liabilities for employee benefits are determined and accounted as per the regulations and principles followed in the respective countries.

(i) UK and Kenyan subsidiaries

The Homefield UK Private Limited - Group operates defined contribution schemes, under which costs of ₹13.90 crore (2018: ₹12.66 crore) are charged to the Consolidated Statement of Profit and Loss on the basis of contributions payable.

The Group also operates defined benefit schemes, the assets of which are held in separate trustee administered funds.

Defined benefit scheme - Tata Chemicals Europe Limited ('TCEL')

TCEL operates defined benefit pension arrangements in the UK, which were available to substantially all employees but are now closed to new members and closed for further accruals from May 31, 2016. The assets of the scheme are held in separate trustee administered funds.

As part of the 2017 valuation, a new payment schedule has been agreed between the trustees of the pension scheme and TCEL whereby TCEL will make contributions towards the deficit in the fund from December 2017 to March 2041.

TCEL will also continue to make contributions towards the expenses of the fund. The present value of the defined benefit obligation, the related current service cost and past service cost were measured using the projected unit method. The projected unit method is an accrued benefits valuation method in which the scheme liabilities make allowance for projected earnings.

Defined benefit scheme - British Salt Limited ('BSL')

BSL operates defined benefit pension arrangements in the UK. Eligible employees of the salt business were members of the British Salt Retirement Income and Life Assurance Plan ('RILA') which was closed to future accrual and new members on January 31, 2008.

RILA is funded by the payment of contributions to a defined benefit scheme and separately administered trust fund. The fund is valued every three years using the projected unit method by an independent, professionally qualified actuary who has also set the contribution rates for the year.

The most recent triennial valuation was performed as in June, 2016. The assumptions which had the most significant effect on the results of the valuation were those relating to investment returns and price inflation.

(ii) USA subsidiaries - Tata Chemicals North America and its subsidiaries ('TCNA')

TCNA also sponsor defined contribution retirement savings plans. Participation in one of these plans is available to substantially all represented and non-represented employees. TCNA matches employee contributions up to certain predefined limits for non-represented employees based upon eligible compensation and the employee's contribution rate.

TCNA's contribution to these plans was ₹5.56 crore (2018: ₹4.04 crore) for the year ended March 31, 2019 and March 31, 2018 respectively.

Pension plans and other post retirement benefit

TCNA maintains several defined benefit pension plans covering substantially all employees. A participating employee's annual post retirement pension benefit is determined by the employee's credited service and, in most plans, final average annual earnings with the TCNA. Vesting requirements are two years. TCNA's funding policy is to annually contribute the statutorily required minimum amount as actuarially determined. TCNA also maintains several plans providing non-pension post retirement benefits covering substantially all hourly and certain salaried employees. TCNA funds these benefits on a pay-as-you-go basis.

Plan assets

The assets of TCNA's defined benefit plans are managed on a commingled basis in a Master Trust. The investment policy and allocation of the assets in the Master Trust were approved by TCNA's Investment Committee, which has oversight responsibility for the retirement plans.

The pension fund assets are invested in accordance with the statement of Investment Policies and Procedures adopted by TCNA, which are reviewed annually. Pension fund assets are invested on a going-concern basis with the primary objective of providing reasonable rates of return consistent with available market opportunities, a quality standard of investment, and moderate levels of risk.

(C) The following tables set out the funded status and amounts recognised in the Group's consolidated financial statements as at March 31, 2019 and March 31, 2018 for the Defined benefits plans:
(i) Changes in the defined benefit obligation:

₹ in crore

Particulars	Year ended March 31, 2019		Year ended March 31, 2018	
	Funded	Unfunded	Funded	Unfunded
At the beginning of the year	4,909.65	270.50	4,626.73	370.29
Current service cost	41.36	13.36	43.33	8.76
Interest cost	158.46	13.83	150.94	17.88
Remeasurements (gain)/loss				
Actuarial (gain) / loss arising from:				
- Changes in financial assumptions	160.10	0.86	(103.12)	(12.16)
- Changes in demographic assumptions	(108.06)	(7.18)	(9.24)	0.79
- Experience adjustments	(60.64)	(20.00)	8.81	(12.80)
Benefits paid	(200.88)	(14.33)	(192.76)	(14.22)
Transfer out*	(8.75)	(15.69)	(17.22)	(6.89)
Past Service Cost	5.69	1.40	1.19	-
Plan amendments (note 32(a))	-	-	-	(82.80)
Effect of curtailment	(18.20)	0.30	-	-
Exchange fluctuations	45.07	8.77	400.99	0.21
Retiree Drug Subsidy Reimbursement	-	1.30	-	1.44
	4,923.80	253.12	4,909.65	270.50
Extinguishment due to discontinued operations	-	-	(8.75)	(1.26)
At the end of the year	4,923.80	253.12	4,900.90	269.24

* Pertaining to Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers and urea and customised fertilisers business.

(ii) Changes in the fair value of plan assets:

₹ in crore

Particulars	Year ended March 31, 2019		Year ended March 31, 2018	
	Funded	Unfunded	Funded	Unfunded
At the beginning of the year	3,788.69	-	3,474.20	-
Interest on plan assets	123.35	-	113.45	-
Administrative expenses	(11.25)	-	(11.57)	-
Remeasurement (gain)/loss				
Annual return on plan assets less interest on plan assets	60.69	-	56.08	-
Contributions	95.56	-	59.42	-
Benefits paid	(200.88)	-	(192.76)	-
Transfer out*	(7.10)	-	(16.15)	-
Exchange fluctuations	32.02	-	306.02	-
	3,881.08	-	3,788.69	-
Extinguishment due to discontinued operations	-	-	(7.10)	-
Value of plan assets at the end of the year	3,881.08	-	3,781.59	-
Impact of assets ceiling	(0.17)	-	(0.37)	-
Liability (net)	1,042.89	253.12	1,119.68	269.24

* Pertaining to Phosphatic Fertilisers business and Trading business of bulk and non-bulk fertilisers and urea and customised fertilisers business.

(iii) Net employee benefit expense for the year

₹ in crore

Particulars	Year ended March 31, 2019		Year ended March 31, 2018	
	Funded	Unfunded	Funded	Unfunded
Current service cost	41.36	13.36	43.33	8.76
Past service Cost	5.69	1.40	1.19	-
Plan amendments	-	-	-	(82.80)
Administrative expenses	11.25	-	11.57	-
Interest on defined benefit obligation (net)	35.14	13.83	37.49	17.88
Effect of curtailment	(18.20)	0.30	-	-
Extinguishment due to discontinued operations	-	(1.29)	(1.03)	-
Components of defined benefits costs recognised in the consolidated statement of profit or loss	75.24	27.60	92.55	(56.16)
Remeasurements				
Actuarial (gain) / loss arising from:				
- Changes in financial assumptions	160.10	0.86	(103.12)	(12.16)
- Changes in demographic assumptions	(108.06)	(7.18)	(9.24)	0.79
- Experience adjustments	(60.64)	(20.00)	8.81	(12.80)
Impact of assets ceiling	(0.23)	-	0.37	-
Return on plan assets less interest on plan assets	(60.69)	-	(56.08)	-
Components of defined benefits costs recognised in other comprehensive income	(69.52)	(26.32)	(159.26)	(24.17)
Net benefit expense	5.72	1.28	(66.71)	(80.33)

(iv) Categories of the fair value of total plan assets:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Government Securities/Corporate Bonds (Quoted)	2,234.36	2,175.13
Government Securities/Corporate Bonds (Unquoted)	501.04	469.13
Equity Instruments (Quoted)	267.14	332.48
Equity Instruments (Unquoted)	634.58	530.64
Insurer Managed/Hedged Funds	75.96	81.69
Others (Quoted)	98.65	135.41
Others (Unquoted)	69.35	64.21
Total	3,881.08	3,788.69

Each year an Asset-Liability-Matching study is performed in which the consequences of the strategic investment policies are analysed in terms of risk-and-return profiles. Investment and contribution policies are integrated within this study.

(v) Risk Exposure :

Through its defined benefit plans, the Group is exposed to a number of risks, the most significant of which are detailed below :

Investment risk :	If future investment returns on assets are lower than assumed in valuation, the scheme's assets will be lower, and the funding level higher than expected.
Changes in bond yields :	A decrease in yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.
Longevity risk :	If improvements in life expectancy are greater than assumed, the cost of benefits will increase because pensions are paid for longer than expected. This will mean that the funding level will be higher than expected.
Inflation risk :	If inflation is greater than assumed, the cost of benefits will increase as pension increases and deferred revaluations are linked to inflation.

(vi) (a) Assumptions used to determine net periodic benefit costs:

Particulars	India		USA Plans		UK Plans	
	Funded	Unfunded	Funded	Unfunded	Funded	
Discount rate	As at March 31, 2019	7.00% to 7.70% p.a.	7.00% to 7.70% p.a.	4.09% p.a.	4.00% p.a.	2.40% p.a.
	As at March 31, 2018	7.75% to 7.78% p.a.	7.75% to 7.78% p.a.	4.11% p.a.	4.05% p.a.	2.65% p.a.
Increase in Compensation cost	As at March 31, 2019	7.50% - 8.00% p.a.	7.50% - 8.00% p.a.	5.30% to 8.40% p.a.	NA	NA
	As at March 31, 2018	7.50% - 8.00% p.a.	7.50% - 8.00% p.a.	4.50% to 9.00% p.a.	NA	NA
Healthcare cost increase rate	As at March 31, 2019	NA	8.00% p.a.	NA	7.00% p.a.	NA
	As at March 31, 2018	NA	8.00% - 10.00% p.a.	NA	7.25% p.a.	NA
Pension increase rate	As at March 31, 2019	NA	6.00% p.a.	NA	NA	3.00% p.a.
	As at March 31, 2018	NA	6.00% p.a.	NA	NA	2.90% p.a.

- (a) Discount rate for the domestic plans is based on the prevailing market yields of Indian Government securities as at the Balance Sheet date for the estimated term of the obligations. Discount rate for USA Subsidiaries is based on high quality bonds and for UK subsidiaries it is based on corporate bonds.
- (b) The estimates of future salary increases considered in actuarial valuation take into account inflation, seniority, promotion and other relevant factors.
- (c) The details of post-retirement and other benefit plans for its employees given above are certified by the actuaries and relied upon by the Auditors.

(vi) (b) Average longevity at retirement age for current beneficiaries of the plan (years)

Particulars	India	UK	USA	India	UK	USA
	As at March 31, 2019	As at March 31, 2019	As at March 31, 2019	As at March 31, 2018	As at March 31, 2018	As at March 31, 2018
Males	8 to 22 years	22 to 23 years	23 to 24 years	8 to 18 years	22 to 25 years	24 to 25 years
Females	8 to 25 years	25 to 26 years	25 to 26 years	8 to 22 years	25 to 28 years	26 to 27 years

(vii) Sensitivity Analysis

Impact on defined benefit obligation due to change in assumptions as at March 31, 2019

₹ in crore

Particulars	TCL		Rallis		USA		UK	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Discount Rate								
0.25% change	-	-	-	-	-	-	(116.57)	123.94
0.5% change	(8.93)	9.84	-	-	(119.98)	140.10	-	-
1% change	-	-	(3.02)	3.54	-	-	-	-
Compensation rate								
0.5% change	2.68	(2.54)	-	-	28.17	(32.11)	-	-
1% change	-	-	2.50	(2.13)	-	-	-	-
Pension rate								
1% change	3.43	(3.01)	-	-	-	-	-	-
Healthcare costs								
1% change	9.28	(7.49)	-	-	0.20	(0.19)	-	-

Impact on Defined benefit obligation due to change in assumptions as at March 31, 2018

₹ in crore

Particulars	TCL		Rallis		USA		UK	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Discount Rate								
0.25% change	-	-	-	-	-	-	(123.20)	131.09
0.5% change	(10.77)	11.90	-	-	(115.74)	135.46	-	-
1% change	-	-	(3.24)	3.37	-	-	-	-
Compensation rate								
0.5% change	2.90	(2.72)	-	-	34.06	(35.11)	-	-
1% change	-	-	2.48	(2.24)	-	-	-	-
Pension rate								
1% change	3.29	(2.86)	-	-	-	-	#	#
Healthcare costs								
1% change	13.41	(10.65)	-	-	0.33	(0.31)	-	-

Not material

The sensitivity analysis above has been determined based on reasonably possible changes of the respective key assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

(viii) Maturity profile of the defined benefit obligation as at March 31, 2019 is as follows:

₹ in crore

Particulars (expected payments)	India	US	UK
Within the next 12 months (next annual reporting period)	21.02	95.02	105.66
Later than 1 year and not later than 5 years	72.05	415.21	448.03
6 years and above	537.41	569.98	621.82
Weighted average duration of the payments	6-16 years	14-15 years	15-16 years

Maturity profile of the defined benefit obligation as at March 31, 2018 is as follows:

Particulars (expected payments)	₹ in crore		
	India	US	UK
Within the next 12 months (next annual reporting period)	21.97	88.12	105.26
Later than 1 year and not later than 5 years	67.04	386.04	445.75
6 years and above	700.94	535.46	617.23
Weighted average duration of the payments	7-20 years	14-15 years	16-17 years

(D) Provident Fund

The Company and its domestic subsidiaries operate Provident Fund Schemes and the contributions are made to the recognised funds maintained. The Company and its domestic subsidiaries are required to offer a defined benefit interest rate guarantee on provident fund balances of employees. The interest rate guarantee is payable to the employees for the year when the exempt fund declares a return on provident fund investments which is less than the rate declared by the Regional Provident Fund Commissioner ('RPFC') on the provident fund corpus for their own subscribers. The Actuary has provided a valuation for provident fund liabilities on the basis of guidance issued by Actuarial Society of India and based on the below provided assumptions, shortfall between plan assets as the end of the year and the present value of funded obligation has been recognised in the Balance Sheet and Other Comprehensive Income.

The details of fund and plan assets position are given below:

Particulars	₹ in crore			
	TCL		Rallis	
	As at March 31, 2019	As at March 31, 2018	As at March 31, 2019	As at March 31, 2018
Plan assets at the end of the year	329.40	365.31	81.43	71.13
Present value of funded obligation	336.71	365.45	77.72	67.65
Amount recognised in the Balance Sheet	(7.31)	-	-	-

Assumptions used in determining present value of obligation of interest rate guarantee under a deterministic approach:

Particulars	As at March 31, 2019	As at March 31, 2018
Guaranteed rate of return	8.65%	8.55% - 8.65%
Discount rate for remaining term to maturity of investments	7.75% - 7.78%	7.65% - 7.78%
Discount rate	7.70%	7.75%
Expected rate of return on investments	7.99% - 8.13%	7.99% - 8.38%

39. Segment information

39.1 Continuing operations

(a) Information about operating segments

Based on the recommendations of the Audit Committee, post divestment of the Fertiliser business, the Board of Directors has approved the revised segment reporting, from April 1, 2018, as under:

- Basic chemistry products : Soda Ash and other bulk chemicals
- Consumer products : Branded consumer products such as salt, pulses, spices, etc
- Specialty products : Nutrition solutions, agri Solutions and advance materials

Inter segment pricing is determined on an arm's length basis using transfer pricing principles. The corresponding information for the previous periods presented in these financial statement has been restated.

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
1. Segment revenue (Revenue from operations)		
(i) Basic chemistry products	8,309.05	7,672.92
(ii) Consumer products	1,847.28	1,512.24
(iii) Specialty products	2,026.29	1,843.38
	12,182.62	11,028.54
Inter segment revenue	(903.42)	(702.17)
	11,279.20	10,326.37
Unallocated	17.13	18.99
	11,296.33	10,345.36

2. Segment result (Reconciliation with profit from continuing operations)

₹ in crore

Particulars	Year ended March 31, 2019	Year ended March 31, 2018
(i) Basic chemistry products	1,303.61	1,461.10
(ii) Consumer products	313.89	234.67
(iii) Specialty products	172.13	203.92
Total Segment results	1,789.63	1,899.69
Net unallocated income/(expenditure)	216.01	(3.21)
Finance costs	(363.10)	(325.58)
Profit before share of profit/loss from investment in joint ventures and tax	1,642.54	1,570.90
Share of profit of joint ventures (net of tax)	99.21	49.23
Tax expense	(346.92)	(60.13)
Profit for the year from continuing operations	1,394.83	1,560.00

3. Segment assets and segment liabilities

₹ in crore

Particulars	Segment assets		Segment liabilities	
	As at March 31, 2019	As at March 31, 2018	As at March 31, 2019	As at March 31, 2018
(i) Basic chemistry products	15,142.21	14,213.24	2,636.93	2,880.41
(ii) Consumer products	220.44	140.54	181.69	137.27
(iii) Specialty products*	2,486.94	1,983.86	852.52	756.12
	17,849.59	16,337.64	3,671.14	3,773.80
Unallocated	9,055.33	8,455.31	7,977.84	7,736.02
	26,904.92	24,792.95	11,648.98	11,509.82

* Including assets held for sale

4. Other information

₹ in crore

Particulars	Addition to non-current assets *		Depreciation and amortisation		Other non-cash expenses	
	Year ended March 31, 2019	Year ended March 31, 2018	Year ended March 31, 2019	Year ended March 31, 2018	Year ended March 31, 2019	Year ended March 31, 2018
(i) Basic chemistry products	728.51	603.20	504.35	451.34	126.75	133.98
(ii) Consumer products	1.17	4.87	1.37	0.87	6.12	3.64
(iii) Specialty products	409.21	82.21	50.20	50.07	13.22	8.81
	1,138.89	690.28	555.92	502.28	146.09	146.43
Unallocated	10.33	27.10	15.47	15.73	(2.54)	(1.48)
	1,149.22	717.38	571.39	518.01	143.55	144.95

*Comprises additions to Property, plant and equipment, Capital work-in-progress, Goodwill, Other intangible assets and Intangible assets under development.

(b) Information about geographical areas

The geographical segments revenue are disclosed on the basis of sales as follows:

- Asia (other than India): Comprising sales to customers located in Asia (other than India).
- Europe: Comprising sales to customers located in Europe.
- Africa: Comprising sales to customers located in Africa.
- America: Comprising sales to customers located in America.

1. Geographical Segment revenue*
Year ended March 31, 2019

₹ in crore

Particulars	Basic chemistry products	Consumer products	Specialty products	Unallocated	Total
(i) India	2,062.85	1,845.76	1,374.54	17.13	5,300.28
(ii) Asia (other than India)	548.11	1.52	374.53	-	924.16
(iii) Europe	1,401.45	-	0.35	-	1,401.80
(iv) Africa	280.73	-	30.44	-	311.17
(v) America	3,101.59	-	235.56	-	3,337.15
(vi) Others	10.91	-	10.86	-	21.77
	7,405.64	1,847.28	2,026.28	17.13	11,296.33

Year ended March 31, 2018

₹ in crore

Particulars	Basic chemistry products	Consumer products	Specialty products	Unallocated	Total
(i) India	2,086.39	1,511.23	1,363.87	18.99	4,980.48
(ii) Asia (other than India)	331.32	1.01	336.33	-	668.66
(iii) Europe	1,387.21	-	4.82	-	1,392.03
(iv) Africa	307.24	-	30.14	-	337.38
(v) America	2,850.62	-	99.01	-	2,949.63
(vi) Others	7.99	-	9.19	-	17.18
	6,970.77	1,512.24	1,843.36	18.99	10,345.36

* Including operating revenues and net of inter segment revenue

2. Non-current assets*

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(i) India	3,631.53	2,896.39
(ii) Asia (other than India)	0.03	0.06
(iii) Europe	1,321.28	1,287.60
(iv) Africa	115.87	120.13
(v) America	10,275.14	9,675.90
	15,343.85	13,980.08

*non-current assets other than investments in joint ventures, financial assets, deferred tax assets (net) and net defined benefit assets

(c) Revenue from major products

The following is an analysis of Group's segment revenue from continuing operations from its major products

₹ in crore

Particulars	Year ended March 31, 2019*	Year ended March 31, 2018*
(i) Basic chemistry products		
- Soda Ash	5,990.22	5,532.98
- Bicarb	429.32	467.02
- Others	986.09	970.75
(ii) Consumer products		
- Salt	1,608.43	1,400.34
- Others	238.85	111.90
(iii) Specialty products		
- Crop Protection (includes Fungicides, Herbicides and Insecticides)	1,481.48	1,333.84
- Seeds	311.19	291.30
- Others	233.62	218.24
(iv) Unallocated	17.13	18.99
	11,296.33	10,345.36

* Including operating revenues and net of inter segment revenue

(d) Revenue from major customers

No single customer contributed 10% or more to the Group's revenue for the year ended March 31, 2019 and March 31, 2018.

(e) Other note

Segment revenue, results, assets and liabilities include the respective amounts identifiable to each of the segments and amounts allocated on a reasonable basis.

39.2 Discontinued operations (note 34)
(a) Information about operating segment

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
Revenue from operations (external)	624.55	4,086.91
Result :		
Segment result	(9.13)	1,715.12
Finance costs	(2.18)	(63.41)
Profit before tax	(11.31)	1,651.71
Tax expenses	3.33	(509.22)
Profit from discontinued operations after tax	(7.98)	1,142.49

Other information:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Segment assets	-	1,085.69
Segment liabilities	-	549.95

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
Addition to non-current assets*	-	10.58
Depreciation and amortisation	-	12.58
Other non-cash (income)/expenses	(8.54)	103.20

*Comprises additions to Property, plant and equipment, Capital work-in-progress and Intangible assets

(b) Information about geographical area

Discontinued operations sells its products mainly within India where the conditions prevailing are uniform.

(c) Revenue from major products

Discontinued operations segment deals in one product group i.e fertiliser and other agri inputs.

(d) Revenue from major customers

No single customer contributed 10% or more to the discontinued operations of the Group's revenue for the year ended March 31, 2019 and March 31, 2018.

39.3 Reconciliation of information on reportable segment to Consolidated Balance Sheet and Consolidated Statement of Profit and Loss
(a) Reconciliation of profit for the year as per Consolidated Statement of Profit and Loss

Particulars	₹ in crore	
	Year ended March 31, 2019	Year ended March 31, 2018
Profit for the year from continuing operations (note 39.1 (a) (2))	1,394.83	1,560.00
Profit for the year from discontinued operations (note 39.2 (a))	(7.98)	1,142.49
Profit for the year as per Consolidated Statement of Profit and Loss	1,386.85	2,702.49

(b) Reconciliation of total assets as per Consolidated Balance Sheet

₹ in crore

Particulars	As at	
	March 31, 2019	March 31, 2018
Total assets as per continuing operations (note 39.1 (a) (3))	26,904.92	24,792.95
Total assets as per discontinued operations (note 39.2 (a))	-	1,085.69
Total assets as per Consolidated Balance Sheet	26,904.92	25,878.64

(c) Reconciliation of total liabilities as per Consolidated Balance Sheet

₹ in crore

Particulars	As at	
	March 31, 2019	March 31, 2018
Total liabilities as per continuing operations (note 39.1 (a) (3))	11,648.98	11,509.82
Total liabilities as per discontinued operations (note 39.2 (a))	-	549.95
Total liabilities as per Consolidated Balance Sheet	11,648.98	12,059.77

40. Derivative financial instruments and hedging activities

(a) The details of the various outstanding derivative financial instruments are given below:

₹ in crore

Particulars	As at March 31, 2019		As at March 31, 2018	
	Assets	Liabilities	Assets	Liabilities
Current portion				
Derivatives designated in cash flow hedges				
- Forward contracts	3.94	0.36	0.70	4.82
- Interest rate swaps	3.85	4.95	6.01	5.01
- Commodity swaps	5.93	28.84	28.40	9.42
Total designated derivatives	13.72	34.15	35.11	19.25
Derivatives not designated in a hedge relationship				
- Forward contracts	1.17	5.08	2.68	0.13
- Option contracts	0.20	-	0.08	-
- Cross currency interest rate swaps	39.56	-	8.01	-
Total un-designated derivatives	40.93	5.08	10.77	0.13
Total current portion	54.65	39.23	45.88	19.38
Non-current portion				
Derivatives designated in cash flow hedges				
- Forward contracts	0.45	0.63	1.21	-
- Interest rate swaps	0.05	18.14	7.82	-
- Commodity swaps	1.39	9.89	3.70	11.87
Total designated derivatives	1.89	28.66	12.73	11.87
Derivatives not designated in a hedge relationship				
- Cross currency interest rate swaps	-	-	4.87	-
Total un-designated derivatives	-	-	4.87	-
Total non-current portion	1.89	28.66	17.60	11.87
Total	56.54	67.89	63.48	31.25

Derivatives not designated in a hedge relationship are effective as hedges from an economic perspective, however these are not considered for hedge accounting.

(b) The details of the gross notional amounts of derivative financial instruments outstanding are given in the table below:

Derivative instruments	Underlying	As at March 31, 2019	As at March 31, 2018
Forward contracts	USD/INR	\$ 4.6 million	\$ 17.7 million
Forward contracts	EUR/INR	€ 1.4 million	€ 1.8 million
Forward contracts	CHF/INR	CHF 0.8 million	-
Forward contracts	EUR/GBP	€ 14.7 million	€ 20.9 million
Forward contracts	USD/GBP	\$ 8.4 million	-
Forward contracts	GBP/USD	-	£ 9 million
Forward contracts	USD/ZAR	\$ 2.7 million	\$ 1 million
Forward contracts	JPY/INR	JPY 67.9 million	JPY 487.3 million
Forward contracts	INR/USD	82.3 crore	63.4 crore
Option contracts	USD/INR	\$ 1.5 million	\$ 0.9 million
Cross currency interest rate swaps	USD/INR and floating to fixed	\$ 63.5 million	\$ 126.7 million
Commodity swaps	Heavy fuel oil	3200 MT	2800 MT
Commodity swaps	Natural Gas (US)	14.7 MMBTU	6.8 MMBTU
Commodity swaps	Natural Gas (UK)	69.8 million therms	68.8 million therms
Interest rate swaps	Floating to fixed	\$ 320 million	\$ 424 million

c) The following table analyses the movement in the effective portion of Cash Flow Hedge Reserve ('CFHR') for the year ended March 31, 2019 and 2018

	Forward contracts	Interest rate swaps	Commodity swaps	Total
	₹ in crore			
Balance as at April 1, 2017	(1.14)	6.91	(0.17)	5.60
Net (losses) / gains recognised in the CFHR	(10.21)	9.82	(4.30)	(4.69)
Amount re-classified from the CFHR and included in the Consolidated Statement of Profit & Loss (due to settlement of contracts) within:				
Power and Fuel cost	-	-	12.05	12.05
Other expenses	9.38	-	-	9.38
Finance costs	-	(2.60)	-	(2.60)
Deferred income tax	(0.48)	(1.66)	1.71	(0.43)
Balance as at March 31, 2018	(2.45)	12.47	9.29	19.31
Net (losses) / gains recognised in the CFHR	2.84	(25.89)	7.75	(15.30)
Amount re-classified from the CFHR and included in the Consolidated Statement of Profit & Loss (due to settlement of contracts) within:				
Power and Fuel cost	-	-	(52.73)	(52.73)
Other expenses	3.82	-	-	3.82
Finance costs	-	(7.85)	-	(7.85)
Deferred income tax	(1.06)	1.57	(2.22)	(1.71)
Balance as at March 31, 2019	3.15	(19.70)	(37.91)	(54.46)

41. Disclosures on financial instruments

(a) Financial instruments by category

The following table presents the carrying amounts of each category of financial assets and liabilities as at March 31, 2019.

₹ in crore

Particulars	Investments - FVTOCI	Investments - FVTPL	Derivatives - FVTPL	Derivatives - FVTOCI	Amortised cost	Total carrying value
Financial assets						
(a) Investments - non current						
Equity instrument at fair value	2,492.37	-	-	-	-	2,492.37
(b) Investments - current						
Investment in mutual funds	-	2,252.34	-	-	-	2,252.34
(c) Trade receivables	-	-	-	-	1,452.50	1,452.50
(d) Cash and cash equivalents	-	-	-	-	1,888.38	1,888.38
(e) Other bank balances	-	-	-	-	63.81	63.81
(f) Loans - non-current	-	-	-	-	7.87	7.87
(g) Loans - current	-	-	-	-	1.33	1.33
(h) Other financial assets - non-current	-	-	-	1.89	5.46	7.35
(i) Other financial assets - current	-	-	40.93	13.72	286.14	340.79
Total	2,492.37	2,252.34	40.93	15.61	3,705.49	8,506.74
Financial liabilities						
(a) Borrowings - non-current					4,782.91	4,782.91
(b) Borrowings - current					352.46	352.46
(c) Trade payables					1,475.33	1,475.33
(d) Other financial liabilities - non-current				28.66	19.42	48.08
(e) Other financial liabilities - current			5.08	34.15	1,415.32	1,454.55
Total			5.08	62.81	8,045.44	8,113.33

The following table presents the carrying amounts of each category of financial assets and liabilities as at March 31, 2018

₹ in crore

Particulars	Investments - FVTOCI	Investments - FVTPL	Derivatives - FVTPL	Derivatives - FVTOCI	Amortised cost	Total carrying value
Financial assets						
(a) Investments - non current						
Equity instrument at fair value	2,395.85	-	-	-	-	2,395.85
(b) Investments - current						
Investment in mutual funds	-	91.81	-	-	-	91.81
(c) Trade receivables	-	-	-	-	1,307.86	1,307.86
(d) Cash and cash equivalents	-	-	-	-	3,945.93	3,945.93
(e) Other bank balances	-	-	-	-	537.11	537.11
(f) Loans - non-current	-	-	-	-	9.68	9.68
(g) Loans - current	-	-	-	-	1.63	1.63
(h) Other financial assets - non-current	-	-	4.87	12.73	5.41	23.01
(i) Other financial assets - current	-	-	10.77	35.11	101.24	147.12
Total	2,395.85	91.81	15.64	47.84	5,908.86	8,460.00
Financial liabilities						
(a) Borrowings - non-current					5,394.02	5,394.02
(b) Borrowings - current					140.21	140.21
(c) Trade payables					1,478.58	1,478.58
(d) Other financial liabilities - non-current				11.87	17.21	29.08
(e) Other financial liabilities - current			0.13	19.25	974.33	993.71
Total			0.13	31.12	8,004.35	8,035.60

(b) Fair value hierarchy

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows:

Level 1 - Quoted (unadjusted) market prices in active markets for identical assets or liabilities

Level 2 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable

Level 3 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

The following table provides the fair value measurement hierarchy of the Group's financial assets and liabilities that are measured at fair value or where fair value disclosure is required

₹ in crore

Particulars	As at March 31, 2019			
	Fair value measurement using			
	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets measured at fair value:				
Derivative financial assets				
Cross currency interest rate swaps	39.56	-	39.56	-
Commodity swap	7.32	-	7.32	-
Interest rate swaps	3.90	-	3.90	-
Forward contracts	5.56	-	5.56	-
Option contracts	0.20	-	0.20	-
FVTOCI financial investments				
Quoted equity instruments	2,005.87	2,005.87	-	-
Unquoted equity instruments	486.50	-	-	486.50
FVTPL financial investments				
Investment in mutual funds	2,252.34	-	2,252.34	-
Liabilities measured at fair value:				
Derivative financial liabilities				
Forward contracts	6.07	-	6.07	-
Interest rate swaps	23.09	-	23.09	-
Commodity swap	38.73	-	38.73	-
Liabilities for which fair values are disclosed :				
Borrowings				
Unsecured non-convertible debentures	250.67	250.67	-	-

There have been no transfers between levels during the period.

₹ in crore

Particulars	As at March 31, 2018			
	Fair value measurement using			
	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets measured at fair value:				
Derivative financial assets				
Cross currency interest rate swaps	12.88	-	12.88	-
Commodity swap	32.10	-	32.10	-
Interest rate swaps	13.83	-	13.83	-
Forward contracts	4.59	-	4.59	-
Option contracts	0.08	-	0.08	-
FVTOCI financial investments				
Quoted equity instruments	1,744.29	1,744.29	-	-
Unquoted equity instruments	651.56	-	-	651.56
FVTPL financial investments				
Investment in mutual funds	91.81	-	91.81	-
Liabilities measured at fair value:				
Derivative financial liabilities				
Forward contracts	4.95	-	4.95	-
Interest rate swaps	5.01	-	5.01	-
Commodity swap	21.29	-	21.29	-
Liabilities for which fair values are disclosed :				
Borrowings				
Unsecured non-convertible debentures	256.32	256.32	-	-

There have been no transfers between levels during the period.

(c) The following tables shows a reconciliation from the opening balance to the closing balance for level 3 fair values.

Particulars	FVTOCI financial investments
Balance as at April 1, 2017	577.13
Addition / (deletion) during the year	(14.91)
Add / (less): Fair value through Other comprehensive income	89.34
Balance as at March 31, 2018	651.56
Addition / (deletion) during the year	-
Investment transferred to investment in Joint venture	(170.19)
Add / (less): Fair value through Other comprehensive income	5.13
Balance as at March 31, 2019	486.50

(d) **Valuation technique to determine fair value**

The following methods and assumptions were used to estimate the fair values of financial instruments:

- The management assessed that fair value of cash and cash equivalents, trade receivables, trade payables, bank overdrafts and other current financial assets and liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments.

- (ii) The fair values of the equity investment which are quoted, are derived from quoted market prices in active markets. The Investments measured at fair value and falling under fair value hierarchy Level 3 are valued on the basis of valuation reports provided by external valuers with the exception of certain investments, where cost has been considered as an appropriate estimate of fair value because of a wide range of possible fair value measurements and cost represents the best estimate of fair values within that range.
- (iii) The fair values of investments in mutual fund units is based on the net asset value ('NAV') as stated by the issuers of these mutual fund units in the published statements as at Balance Sheet date. NAV represents the price at which the issuer will issue further units of mutual fund and the price at which issuers will redeem such units from the investors.
- (iv) The Group enters into derivative financial instruments with various counterparties, principally financial institutions with investment grade credit ratings. The fair value of derivative financial instruments is based on observable market inputs including currency spot and forward rate, yield curves, currency volatility, credit quality of counterparties, interest rate curves and forward rate curves of the underlying commodity etc. and use of appropriate valuation models.
- (v) The fair value of non-current borrowings carrying floating-rate of interest is not impacted due to interest rate changes, and will not be significantly different from their carrying amounts as there is no significant change in the underlying credit risk of the Group (since the date of inception of the loans).
- (vi) The fair values of the 10% unsecured redeemable non-convertible debenture (included in current maturities of non-current borrowings) are derived from quoted market prices. The Group has no other non-current borrowings with fixed-rate of interest.

(e) Financial risk management objectives

The Group is exposed to market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group's risk management strategies focus on the un-predictability of these elements and seek to minimise the potential adverse effects on its financial performance. The Board of Directors/Committee of Board of the respective operating entities approve the risk management policies. The implementation of these policies is the responsibility of the operating entities. The Board of Directors/Committee of Board of the respective operating entities periodically review the exposures to financial risks, and the measures taken for risk mitigation and the results thereof.

All hedging activities for risk management purposes are carried out by specialist teams that have the appropriate skills, experience and supervision. The Group's policy is not to trade in derivatives for speculative purposes.

Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk, such as equity price risk and commodity price risk. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates, equity price fluctuations, commodity price, liquidity and other market changes. Financial instruments affected by market risk include borrowings, deposits, investments and derivative financial instruments.

Foreign currency risk management

Foreign exchange risk arises on future commercial transactions and all recognised monetary assets and liabilities which are denominated in a currency other than the functional currency of the entities of the Group. The foreign exchange risk management policy requires operating entities to manage their foreign exchange risk against their functional currency and to meet this objective they enter into derivatives such as foreign currency forwards, option and swap contracts, as considered appropriate and whenever necessary.

The Group has international operations and hence, it is exposed to foreign exchange risk arising from various currencies, primarily with respect to USD. As at the end of the reporting period, the carrying amounts of the Group's foreign currency denominated monetary assets and liabilities, in respect to the primary foreign currency exposure i.e. USD, and derivative to hedge the foreign currency exposure are as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
USD exposure		
Assets	1,245.68	1,151.52
Liabilities	(715.77)	(941.62)
Net	529.91	209.90
Derivatives to hedge USD exposure		
Forward contracts - (USD/INR)	31.54	115.03
Option contracts - (USD/INR)	10.37	6.04
Cross currency interest rate swaps	438.85	825.96
	480.76	947.03
Net exposure	1,010.67	1,156.93

The Group's exposure to foreign currency changes for all other currencies is not material.

Foreign currency sensitivity analysis

The following table demonstrates the sensitivity to a reasonable possible change in USD exchange rate, with all other variables held constant. The impact on the Group's profit before tax due to changes in the fair value of monetary assets and liabilities and derivatives is as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
If INR had (strengthened) / weakened against USD by 5% (Decrease) / increase in profit for the year	50.53	57.85

Based on the movements in the foreign exchange rates historically and the prevailing market conditions as at the reporting date, the Group's Management has concluded that the above mentioned rates used for sensitivity are reasonable benchmarks.

Interest rate risk management

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market rates. The Group's exposure to the risk of changes in market rates relates primarily to the Group's non-current debt obligations with floating interest rates.

The Group's policy is generally to undertake non-current borrowings using facilities that carry floating-interest rate. The Group manages its interest rate risk by entering into interest rate swaps, in which it agrees to exchange, at specified intervals, the difference between fixed and variable rate interest amounts calculated by reference to an agreed-upon notional principal amount.

Moreover, the short-term borrowings of the Group do not have a significant fair value or cash flow interest rate risk due to their short tenure.

As the Group does not have exposure to any floating-interest bearing assets, or any significant long-term fixed-interest bearing assets, its interest income and related cash inflows are not affected by changes in market interest rates.

As at the end of reporting period, the Group had the following long term variable interest rate borrowings and derivative to hedge the interest rate risk as follows:

Particulars	₹ in crore	
	As at March 31, 2019	As at March 31, 2018
Non-current variable interest rate borrowings	5,263.06	5,756.09
Derivatives to hedge interest rate risk		
Cross currency interest rate swaps (not designated in a hedge relationship)	438.85	825.96
Interest rate swaps (designated in Cash flow hedges)	1,904.53	2,763.42
Total	2,343.38	3,589.38
Net exposure	2,919.68	2,166.71

Interest rate sensitivity

The following table demonstrates the impact to the Group's profit before tax and other comprehensive income to a reasonably possible change in interest rates on long term floating rate borrowings, with all other variables held constant:

	₹ in crore		
	Increase/ decrease in basis points	Effect on profit before tax	Effect on other comprehensive income
March 31, 2019	+50/-50	(26.05)/ 26.05	0.23/ (0.23)
March 31, 2018	+50/-50	(28.70)/ 28.70	0.40/ (0.40)

The effect on other comprehensive income is calculated on change in fair of cash flow hedges entered to hedge the interest rate risks.

Based on the movements in the interest rates historically and the prevailing market conditions as at the reporting date, the Group's Management has concluded that the above mentioned rates used for sensitivity are reasonable benchmarks.

Equity price risks management

Equity price risk is related to the change in market reference price of the investments in quoted equity securities. The Group's exposure to equity price risk arises from investments held by the Group and classified in the Consolidated Balance Sheet as FVTOCI. In general, these investments are strategic investments and are not held for trading purposes. Reports on the equity portfolio are submitted to the Group's senior management on a regular basis.

Equity price sensitivity analysis

If prices of equity instrument had been 5% higher/(lower), the OCI for the year ended March 31, 2019 and 2018 would increase/(decrease) by ₹ 100.29 crore and ₹ 87.22 crore respectively.

Commodity price risk

Certain entities within the Group are affected by the volatility in the price of commodities. Its operating activities require the ongoing production of steam and electricity and therefore require a continuous supply of fuels. Due to potential volatility in the price of fuels, the Group has put in place a risk management strategy whereby the cost of fuels are hedged.

Commodity price sensitivity

The following table shows the effect of price changes in commodities to OCI due to changes in fair value of cash flow hedges entered to hedge commodity price risk.

		₹ in crore	
If the prices of the future contracts were higher / (lower) by 10%	Commodity	As at March 31, 2019	As at March 31, 2018
Increase / (decrease) in OCI for the year	Natural gas	38.92	36.91
Increase / (decrease) in OCI for the year	HFO	0.77	0.68

Credit risk management

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities, primarily trade and other receivables and from its investing activities, including deposits with banks and financial institutions, investment in mutual funds and other financial instruments.

The carrying amount of financial assets represents the maximum credit exposure, being the total of the carrying amount of balances with banks, short term investment, trade receivables and other financial assets excluding equity investments.

Trade and other receivables

Trade and other receivables of Group are majorly unsecured and derived from sales made to a large number of independent customers. Customer credit risk is managed by each business unit subject to the established policy, procedures and control relating to customer credit risk management. Before accepting any new customer, the Group has appropriate level of control procedures to assess the potential customer's credit quality. The credit-worthiness of its customers are reviewed based on their financial position, past experience and other factors. The credit period provided by the Group to its customers generally ranges from 0-60 days. Outstanding customer receivables are regularly monitored.

The credit risk related to the trade receivables is mitigated by taking security deposits / bank guarantee / letter of credit - as and where considered necessary, setting appropriate payment terms and credit period, and by setting and monitoring internal limits on exposure to individual customers.

As the revenue and trade receivables from any of the single customer do not exceed 10% of Group revenue, there is no substantial concentration of credit risk.

For certain other receivables, where recoveries are expected beyond twelve months of the balance sheet date, the time value of money is appropriately considered in determining the carrying amount of such receivables.

Financial instruments and cash deposits

Credit risk from balances/investments with banks and financial institutions is managed in accordance with the Risk management policy. Investments of surplus funds are made only with approved counterparties and within limits assigned to each counterparty. The limits are assigned based on corpus of investable surplus and corpus of the investment avenue. The limits are set to minimise the concentration of risks and therefore mitigate financial loss through counterparty's potential failure to make payments.

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they become due. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

The Risk Management Policy includes an appropriate liquidity risk management framework for the management of the Group's short-term, medium-term and long term funding and liquidity management requirements. The Group manages the liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities. The Group invests its surplus funds in bank fixed deposit and liquid schemes of mutual funds, which carry no/negligible mark to market risks.

The below table analyses the Group's non-derivative financial liabilities as at the reporting date, into relevant maturity groupings based on the remaining period (as at that date) to the contractual maturity date. The amounts disclosed in the below table are the contractual undiscounted cash flows.

₹ in crore

Particulars	Carrying amount	Upto 1 year	1-3 years	3-5 years	Above 5 years	Total
As at March 31, 2019						
Borrowings and future interest thereon	6,143.43	1,562.67	1,941.12	3,185.22	1.80	6,690.81
Trade and other payables	1,902.01	1,882.59	19.42	-	-	1,902.01
Total	8,045.44	3,445.26	1,960.54	3,185.22	1.80	8,592.82
As at March 31, 2018						
Borrowings and future interest thereon	6,108.17	885.25	2,914.38	2,874.57	5.10	6,679.30
Trade and other payables	1,896.18	1,878.97	17.21	-	-	1,896.18
Total	8,004.35	2,764.22	2,931.59	2,874.57	5.10	8,575.48

The below table analyses the Group's derivative financial liabilities into relevant maturity groupings based on the remaining period (as at the reporting date) to the contractual maturity date.

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Current portion	39.23	19.38
Non-current portion (within one - three years)	28.66	11.87
Net	67.89	31.25

All the derivative financial liabilities are included in the above analysis, as their contractual maturity dates are essential for the understanding of the timing of the under-lying cash flows.

42. Capital management

The capital structure of the Group consists of net debt and total equity. The Group manages its capital to ensure that the Group will be able to continue as going concern while maximising the return to stakeholders through an optimum mix of debt and equity within the overall capital structure. The Group's risk management committee reviews the capital structure of the Group considering the cost of capital and the risks associated with each class of capital.

43. Related Party Disclosure

(a) Related parties and their relationship (as defined under IndAS-24 Related Party Disclosures)

I. Joint Ventures

Direct

Indo Maroc Phosphore S.A., Morocco
Tata Industries Limited (w.e.f. March 27, 2019)

Indirect

Joil (S) Pte. Ltd. and its subsidiaries, Singapore (Holding by Tata Chemicals International Pte. Limited)
The Block Salt Company Limited, United Kingdom (Holding by New Cheshire Salt Works Limited)
Natronx Technologies LLC, United States of America (Holding by TCSAP) #

II. Key Management Personnel ('KMP')

Mr. R. Mukundan, Managing Director and CEO
Mr. Zarir Langrana, Executive Director (w.e.f. April 1, 2018)

III. Promoter Group

Tata Sons Private Limited, India

IV. Other Related Parties @

Tata AIG General Insurance Company Limited	Simto Investment Company Limited
Tata Autocomp Systems Limited	Tata Autocomp Hendrickson Suspensions Private Limited
Tata Capital Forex Limited (ceased w.e.f. October 30, 2017)	Tata Advanced System Limited
Tata Capital Financial Services Limited	Tata SmartFoodz Limited
TC Travel and Services Limited (ceased w.e.f. October 30, 2017)	Tata SIA Airlines Limited
Tata International Limited	Tata Africa Holdings (Tanzania) Limited
Tata Consultancy Services Limited	Tata Africa Services (Nigeria) Ltd.
TATA AIA Life Insurance Company Limited	Tata Communications Limited
Tata Business Support Services Limited (ceased w.e.f. November 27, 2017)	Tata Communications Collaboration Services Private Limited
Tata Consulting Engineers Limited	Tata Teleservices (Maharashtra) Limited
Infiniti Retail Limited	Tata Chemicals Ltd. Provident Fund
TASEC Limited (formerly TAS-AGT Systems Limited)	Tata Chemicals Ltd. Employees Pension Fund
Tata Industries Limited	Tata Chemicals Superannuation Fund
Tata Unistore Limited (formerly Tata Industrial Services Limited) (ceased w.e.f. March 27, 2019)	Tata Chemicals Employees Gratuity Trust
Tata Teleservices Limited	TCL Employees Gratuity Fund
Ecofirst Services Limited	
Tata Realty and Infrastructure Limited	
Tata Investment Corporation Limited	
Ewart Investments Limited	

Natronx Technologies LLC dissolved with effect from December 5, 2018.

@ The above list includes the Companies with whom Tata Chemicals Limited has entered into the transactions during the course of the year.

(b) Transactions with Related parties (as defined under Ind AS 24) during the year ended March 31, 2019 and balances outstanding as at March 31, 2019 and as at March 31, 2018

Particulars	Joint Ventures of Tata Chemicals Limited				Promoter	Subsidiaries and Joint ventures of Tata Sons		Other Related parties	KMP	Total
	Indo Maroc Phosphore S. A.	Natronx Technologies LLC	The Block Salt Company Ltd.	Tata Industries Ltd.	Tata Sons Private Limited	Tata Consultancy Services Limited	Other Entities			
Investments	-	-	-	-	-	-	(3.48)	-	-	(3.48)
Purchase of goods (includes stock in transit) - (net of returns)	99.94	-	-	-	-	-	0.05	-	-	99.99
Sales (Net)	-	-	6.60	-	-	-	0.05	-	-	6.65
Other Services - expenses (net of reimbursements)	(0.18)	0.35	-	-	20.75	10.60	5.61	-	-	37.13
Other Services - Income	1.71	1.92	-	-	26.59	17.12	11.02	-	-	58.36
Dividend received	58.43	-	-	-	8.19	-	1.57	-	-	68.19
Miscellaneous purchases / services	-	-	-	-	-	-	2.51	-	-	2.51
Dividend paid	-	-	-	-	131.53	-	37.76	-	-	169.29
Interest paid	-	-	-	-	-	-	0.40	-	-	0.40
Contributions to employee benefit trusts	-	-	-	-	-	-	-	32.37	-	32.37
Compensation to KMPs	-	-	-	-	-	-	-	-	37.81	37.81
Short-term employee benefits	-	-	-	-	-	-	-	-	10.51	10.51
Post-employment benefits	-	-	-	-	-	-	-	-	5.84	5.84
	-	-	-	-	-	-	-	-	(0.82)	(0.82)
Amount receivables / advances / balances										
As at March 31, 2019	-	-	0.67	-	-	-	0.45	6.82	-	7.94
As at March 31, 2018	-	-	0.70	-	-	-	0.64	23.31	-	24.65
Amount payables (in respect of goods purchased and other services)										
As at March 31, 2019	-	-	-	-	6.21	0.75	0.76	2.14	-	9.86
As at March 31, 2018	0.52	2.12	-	-	6.71	0.60	0.59	2.49	-	13.03
Amount receivable on account of any management contracts										
As at March 31, 2019	0.07	-	-	0.04	0.16	-	0.23	-	-	0.50
As at March 31, 2018	-	-	-	-	0.07	-	0.06	-	-	0.13

Footnotes:

The figures in light print are for previous year.

- For Investment in related parties refer note 8.
- The above figures do not include provision for Compensated absences and contribution to gratuity fund, as separate figures are not available for the Managing Director and Whole-time Directors.

44. Commitments

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
Estimated amount of contracts remaining to be executed on capital account and not provided for	456.06	348.24
Capital commitment towards investment in joint ventures/subsidiaries	-	1.20
Commitment towards partly paid investment	9.19	9.19

For commitments related to derivatives and leases refer note 40 and 37 respectively.

The above commitments include ₹Nil (2018 : ₹1.01 crore) relating to discontinued operations.

45. Contingent liabilities and assets

45.1 Contingent liabilities

- (a) Claims not acknowledged by the Group relating to cases contested by the Group and which, in the opinion of the Management, are not likely to devolve on the Group relating to the following areas:

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(i) Excise, Customs and Service Tax	48.51	49.73
(ii) Sales Tax	50.48	51.70
(iii) Demand for utility charges	16.26	14.47
(iv) Labour and other claims against the Group not acknowledged as debt	31.21	29.59
(v) Income Tax (pending before Appellate authorities in respect of which the Group is in appeal)	673.02	656.29
(vi) Income Tax (decided in Group's favour by Appellate authorities and Department is in further appeal)	16.05	47.15
(vii) Contractual obligation upto	100.11	100.11

Item (i) to (vii) above includes ₹100.11 crore (2018: ₹136.65 crore) relating to discontinued operations.

- (b) Various claims pending before Industrial Tribunals and Labour Courts of which amounts are indeterminate.
- (c) The Hon'ble Supreme Court of India ("SC") by their order dated February 28, 2019, in the case of Surya Roshani Limited & others v/s EPFO, set out the principles based on which allowances paid to the employees should be identified for inclusion in basic wages for the purposes of computation of Provident Fund contribution. Subsequently, a review petition against this decision has been filed and is pending before the SC for disposal.

In view of management, any additional financial liability for the period from date of the SC order (February 28, 2019) to March 31, 2019 is not significant.

In addition, pending the outcome of the review petition and directions from the EPFO, the impact for past periods, if any, is not ascertainable and consequently no financial effect has been provided for in the accounts.

45.2 Contingent assets

₹ in crore

Particulars	As at March 31, 2019	As at March 31, 2018
(i) Income Tax (pending before Appellate authorities in respect of which the Group is in appeal)	78.40	87.02

46. Statement of net assets and Profit or Loss attributable to owners and non-controlling interests

₹ in crore

Sl. No.	Name of the Company	Net assets i.e. total assets minus total liabilities		Share in Profit or Loss		Share in other comprehensive income		Share in total comprehensive income	
		As % of consolidated net assets	₹ in crore	As % of consolidated profit or loss	₹ in crore	As % of consolidated other comprehensive income	₹ in crore	As % of consolidated total comprehensive income	₹ in crore
Parent									
	Tata Chemicals Limited	35.63	11,796.21	49.19	909.74	93.99	232.99	54.48	1,142.73
Subsidiaries									
Indian subsidiaries									
1	Rallis India Limited	3.77	1,248.36	6.97	128.98	(0.35)	(0.86)	6.11	128.12
2	Rallis Chemistry Exports Limited	-	-	(0.00)	(0.02)	-	-	(0.00)	(0.02)
3	Metahelix Life Sciences Ltd	0.40	131.64	1.22	22.64	(0.23)	(0.57)	1.05	22.07
4	Zero Waste Agro Organics Ltd.	0.05	17.86	0.09	1.68	(0.01)	(0.02)	0.08	1.66
5	Ncourage Social Enterprise Foundation	0.01	1.92	(0.03)	(0.63)	-	-	(0.03)	(0.63)
Foreign subsidiaries									
1	Tata Chemicals International Pte. Limited	10.64	3,521.68	0.47	8.69	-	-	0.41	8.69
2	Homefield Pvt. UK Limited	(3.55)	(1,174.58)	(2.91)	(53.75)	(1.25)	(3.11)	(2.71)	(56.86)
3	TCE Group Limited (formerly known as Homefield 2 UK Limited)	0.07	24.75	(0.42)	(7.69)	-	-	(0.37)	(7.69)
4	Natrium Holdings Limited (formerly known as Tata Chemicals Europe Holdings Limited)	(1.60)	(530.02)	(0.73)	(13.44)	-	-	(0.64)	(13.44)
5	Brunner Mond Group Limited	2.07	684.32	0.68	12.66	-	-	0.60	12.66
6	Tata Chemicals Europe Limited	(2.58)	(855.18)	(8.10)	(149.73)	33.04	81.91	(3.23)	(67.82)
7	Tata Chemicals Magadi Limited	(0.56)	(186.33)	1.01	18.62	(1.10)	(2.72)	0.76	15.90
8	Tata Chemicals South Africa (Pty) Limited	0.12	41.07	0.48	8.90	-	-	0.42	8.90
9	Northwich Resource Management Limited	-	-	-	-	-	-	-	-
10	Tata Chemicals Africa Holdings Limited	0.04	12.22	0.56	10.40	-	-	0.50	10.40
11	Magadi Railway Company Limited	0.00	0.01	-	-	-	-	-	-
12	Winnington CHP Limited	0.13	41.60	5.00	92.46	(21.32)	(52.86)	1.89	39.60
13	Gusiute Holdings (UK) Limited	15.59	5,161.91	6.93	128.23	-	-	6.11	128.23
14	Valley Holdings Inc.	21.22	7,025.18	7.49	138.55	-	-	6.61	138.55
15	Tata Chemicals North America Inc.	3.44	1,138.67	(0.74)	(13.67)	-	-	(0.65)	(13.67)
16	TCNA (UK) Limited	0.01	2.27	0.02	0.44	-	-	0.02	0.44
17	General Chemical International Inc.	0.00	0.01	-	-	-	-	-	-
18	NHO Canada Holdings Inc.	-	-	-	-	-	-	-	-

₹ in crore

Sl. No.	Name of the Company	Net assets i.e. total assets minus total liabilities		Share in Profit or Loss		Share in other comprehensive income		Share in total comprehensive income	
		As % of consolidated net assets	₹ in crore	As % of consolidated profit or loss	₹ in crore	As % of consolidated other comprehensive income	₹ in crore	As % of consolidated total comprehensive income	₹ in crore
19	Tata Chemicals (Soda Ash) Partners	4.84	1,601.30	24.80	458.62	-	-	21.87	458.62
20	TCSAP Holdings	0.01	1.70	(0.02)	(0.34)	-	-	(0.02)	(0.34)
21	TCSAP LLC	-	-	0.17	3.15	-	-	0.15	3.15
22	Bio Energy Venture - 1 (Mauritius) Pvt. Ltd.	9.69	3,207.69	0.06	1.12	-	-	0.05	1.12
23	British Salt Limited	0.44	146.02	1.38	25.57	(2.77)	(6.87)	0.89	18.70
24	Cheshire Salt Holdings Limited	0.01	3.65	-	-	-	-	-	-
25	Cheshire Salt Limited	0.03	10.66	-	-	-	-	-	-
26	Brinefield Storage Limited	(0.00)	(0.05)	-	-	-	-	-	-
27	Cheshire Cavity Storage 2 Limited	-	*	-	-	-	-	-	-
28	Cheshire Compressor Limited	-	*	-	-	-	-	-	-
29	Irish Feeds Limited	-	*	-	-	-	-	-	-
30	New Cheshire Salt Works Limited	0.05	17.21	0.02	0.33	-	-	0.02	0.33
31	PT. Metahelix Lifesciences Indonesia	0.01	3.52	(0.06)	(1.16)	-	-	(0.06)	(1.16)
32	ALCAD	0.03	8.33	6.44	119.13	-	-	5.68	119.13
		100.00	33,103.60	100.00	1,849.48	100.00	247.89	100.00	2,097.37
a)	Non-controlling Interests								
	Indian subsidiaries								
	Rallis India Limited		(702.61)		(77.24)		0.74		(76.50)
	Foreign subsidiaries								
	TCSAP Holdings		(2,210.22)		(154.30)		(133.47)		(287.77)
	PT. Metahelix Lifesciences Indonesia		(1.84)		0.60		-		0.60
			(2,914.67)		(230.94)		(132.73)		(363.67)
b)	Joint Ventures (Investment as per the Equity method)								
	JOil (S) Pte. Ltd. and its subsidiaries		-		-		-		-
	The Block Salt Company Limited		2.73		0.26		-		0.26
	Natronx Technologies LLC		-		(0.35)		-		(0.35)
	Indo Maroc Phosphore S.A.		391.73		98.07		-		98.07
	Tata Industries Ltd. (w.e.f. 27 March, 2019)		476.10		-		-		-
	Margin elimination on stock		-		1.23		-		1.23
			870.56		99.21		-		99.21
c)	Adjustments arising out of Consolidation		(18,718.22)		(561.84)		338.24		(223.60)
	Consolidated		12,341.27		1,155.91		453.40		1,609.31

* value below ₹50,000/-

47. Approval of financial statements

The financial statements were approved for issue by the board of directors on May 3, 2019.

Signatures to notes forming part of the consolidated financial statements 1 - 47

As per our report of even date attached

For B S R & Co. LLP

Chartered Accountants

Firm's Registration No: 101248W/W - 100022

Vijay Mathur

Partner

Membership No. 046476

Mumbai, May 3, 2019

John Mulhall

Chief Financial Officer

Rajiv Chandan

General Counsel &

Company Secretary

For and on behalf of the Board

Bhaskar Bhat

Director

Nasser Munjee

Director

Dr. Y. S. P. Thorat

Director

Vibha Paul Rishi

Director

S. Padmanabhan

Director

Padmini Khare Kaicker

Director

R. Mukundan

Managing Director and CEO

Zarir Langrana

Executive Director

Statement pursuant to first proviso to sub-section (3) of section 129 of the Companies Act 2013, read with rule 5 of Companies (Accounts) Rules, 2014 in the prescribed Form AOC-1 relating to subsidiary and joint venture companies for the year ended March 31, 2019

Sr. No.	Name of the Subsidiary Company	Date of acquisition / Incorporation	Reporting Currency	Exchange rate	Share Capital	Reserves	Total Assets	Total Liabilities	Investments	Turnover	Profit Before Taxation	Provision for Taxation	Profit After Taxation	Dividend	% Equity Interest
1	Tata Chemicals International Pte. Limited	October 23, 2005	USD	69.16	4,126.74	(605.06)	5,144.67	1,622.99	4,850.10	816.52	8.61	0.01	8.60	-	100.00
2	Homefield Pvt. UK Limited	November 01, 2005	USD	69.16	909.59	(2,084.17)	45.86	1,220.44	41.49	-	(53.18)	-	(53.18)	-	100.00
3	TCE Group Limited	December 14, 2010	GBP	90.53	189.35	(164.60)	440.27	415.52	440.27	-	(7.58)	-	(7.58)	-	100.00
4	Natrium Holdings Limited	December 07, 2010	GBP	90.53	189.35	(719.37)	871.44	1,401.46	*	-	(13.26)	-	(13.26)	-	100.00
5	Brunner Mond Group Limited	October 22, 2005	GBP	90.53	575.89	108.43	684.32	-	-	-	12.49	-	12.49	-	100.00
6	Tata Chemicals Europe Limited	October 22, 2005	GBP	90.53	154.25	(1,009.43)	742.22	1,597.40	-	877.97	(151.42)	(3.67)	(147.75)	-	100.00
7	Tata Chemicals Magadi Limited	February 28, 2005	USD	69.16	305.49	(491.82)	324.77	511.10	-	509.21	18.43	-	18.43	-	100.00
8	Tata Chemicals (South Africa) Proprietary Limited	April 09, 1996	ZAR	4.77	0.81	40.26	83.13	42.06	-	139.52	11.58	3.25	8.33	9.54	100.00
9	Northwich Resource Management Limited	October 22, 2005	GBP	90.53	*	-	*	-	-	-	-	-	-	-	100.00
10	Tata Chemicals Africa Holdings Limited	October 22, 2005	GBP	90.53	35.72	(23.50)	12.22	-	-	10.26	-	-	10.26	-	100.00
11	Magadi Railway Company Limited	February 28, 2005	KSH	0.69	0.01	-	0.01	-	-	-	-	-	-	-	100.00
12	Wilmington CHP Limited	June 13, 2013	GBP	90.53	-	41.60	384.72	343.12	-	459.35	91.24	-	91.24	-	100.00
13	Gustite Holdings (UK) Limited	December 04, 2007	USD	69.16	4,919.25	242.66	5,164.11	2.20	5,086.01	-	126.87	-	126.87	128.82	100.00
14	Valley Holdings Inc.	January 30, 2008	USD	69.16	*	7,025.18	7,031.77	6.59	7,005.15	-	137.07	(0.01)	137.08	137.28	100.00
15	Tata Chemicals North America Inc.	March 26, 2008	USD	69.16	*	1,138.67	2,617.06	1,478.39	1,714.40	22.19	(4.07)	9.46	(13.53)	138.31	100.00
16	TCNA (UK) Limited	August 22, 2014	USD	69.16	-	2.27	5.27	3.00	-	112.36	0.53	0.10	0.43	-	100.00
17	General Chemical International Inc.	March 26, 2008	USD	69.16	0.01	-	0.01	-	-	-	-	-	-	-	100.00
18	NHO Canada Holdings Inc.	March 26, 2008	USD	69.16	*	-	*	-	-	-	-	-	-	-	100.00
19	Tata Chemicals (Soda Ash) Partners ¹	March 26, 2008	USD	69.16	-	1,601.30	2,566.05	964.75	-	3,080.26	453.76	-	453.76	311.20	75.00
20	Tata Chemicals (Soda Ash) Partners Holdings ²	March 26, 2008	USD	69.16	-	1.70	1.70	-	-	-	(0.34)	-	(0.34)	-	75.00
21	TCSAP LLC	March 26, 2008	USD	69.16	-	-	-	-	-	-	3.11	-	3.11	3.11	75.00
22	Bio Energy Venture - 1 (Mauritius) Pvt. Ltd.	October 11, 2008	USD	69.16	3,979.05	(771.37)	4,245.15	1,037.47	4,179.63	-	1.15	0.04	1.11	-	100.00
23	Rallis India Limited	January 18, 2012	INR	1.00	19.45	1,228.91	1,855.18	606.82	368.99	1,671.50	187.88	58.90	128.98	-	50.06
24	Rallis Chemistry Exports Limited	September 15, 2010	INR	1.00	0.25	(0.25)	-	-	-	-	(0.02)	-	(0.02)	-	100.00
25	Metahelix Life Sciences Ltd	December 30, 2010	INR	1.00	0.11	131.54	423.06	291.41	30.77	336.21	28.01	5.37	22.64	-	100.00
26	Zero Waste Agro Organics Ltd.	October 18, 2012	INR	1.00	0.07	17.78	19.79	1.94	15.22	10.05	2.34	0.66	1.68	-	100.00
27	PT. Metahelix Lifesciences Indonesia	May 19, 2016	Rupiah	0.00	6.69	(3.17)	3.83	0.31	-	1.23	(1.17)	0.01	(1.18)	-	65.77
28	British Salt Limited	January 18, 2011	GBP	90.53	*	146.02	662.55	516.53	6.94	343.87	28.83	3.60	25.23	-	100.00
29	Cheshire Salt Holdings Limited	January 18, 2011	GBP	90.53	1.26	2.38	3.64	-	3.62	-	*	-	*	-	100.00
30	Cheshire Salt Limited	January 18, 2011	GBP	90.53	*	10.66	10.68	0.02	3.62	-	*	-	*	-	100.00
31	Brinefield Storage Limited	January 18, 2011	GBP	90.53	0.01	(0.06)	-	0.05	-	-	-	-	-	-	100.00
32	Cheshire Cavity Storage 2 Limited	January 18, 2011	GBP	90.53	*	-	*	-	-	-	-	-	-	-	100.00
33	Cheshire Compressor Limited	January 18, 2011	GBP	90.53	*	-	*	-	-	-	-	-	-	-	100.00
34	Irish Feeds Limited	January 18, 2011	GBP	90.53	*	-	*	-	-	-	-	-	-	-	100.00
35	New Cheshire Salt Works Limited	January 18, 2011	GBP	90.53	6.90	10.31	17.21	-	1.33	-	0.32	-	0.32	-	100.00
36	Alcad	March 26, 2008	USD	69.16	-	8.33	38.20	29.87	-	359.90	117.86	-	117.86	-	50.00
37	Ncourage Social Enterprise Foundation	December 08, 2017	INR	1.00	2.55	(0.63)	7.67	5.75	0.59	10.13	(0.63)	-	(0.63)	-	100.00

Notes

- The financial statements of subsidiaries are converted into Indian Rupees on the basis of exchange rate as on closing day of the financial year.
- \$ Partner's capital included as reserves
- Items highlighted (asterisk (*)) denotes figures below ₹ 50,000.

Statement pursuant to first proviso to sub-section (3) of section 129 of the Companies Act 2013, read with rule 5 of Companies (Accounts) Rules, 2014 in the prescribed Form AOC-1 relating to subsidiary and joint venture companies for the year ended March 31, 2019 (contd.)

Sr. No.	Name	Date of acquisition as Joint Ventures	Currency	Shares of Joint Ventures held by the company on the year end		Description of how there is significant influence	Reason why the joint venture is not consolidated	Network Shareholding as per latest audited Balance Sheet	Profit / Loss for the year Considered in Consolidation	Profit / Loss for the year Not Considered in Consolidation
				Latest audited Balance Sheet Date	Number of Shares					
1	JOIL (S) Pte. Ltd.	January 28, 2009	SGD	2,50,00,000	135.43	Note 4	Note 5	-	-	Not Applicable
2	The Block Salt Company Limited	January 18, 2011	GBP	15,00,00,000	1.36	Note 4	Not Applicable	2.73	0.26	Not Applicable
3	Natronx Technologies LLC (dissolved w.e.f. December 5, 2018)	March 26, 2008	USD	-	-	Note 3	Not Applicable	-	(0.35)	Not Applicable
4	Indo Maroc Phosphore S.A.	May 02, 2005	MAD	2,06,666	166.26	Note 4	Not Applicable	277.67	98.07	Not Applicable
5	Tata Industries Limited (w.e.f. March 27, 2019)	March 27, 2019	INR	98,61,303	170.19	Note 4	Not Applicable	425.62	-	Not Applicable

Notes

- Investment impaired during the year ended March 31, 2015
- Local GAAP Financial Statement audited as on December 31, 2018 and figures are based on audited fit for consolidation statement as on March 31, 2019
- There is significant influence due to interest in joint control over economic activities
- There is significant influence due to shareholding and joint control over the economic activities
- Since the Group has no further commitment to absorb losses in excess of its investment, it has not accounted for additional losses reported by JOIL.

	For and on behalf of the Board
	Bhaskar Bhat Director
	Nasser Munjee Director
	Dr. Y. S. P. Thorat Director
	Vibha Paul Rishi Director
	S. Padmanabhan Director
	Padmini Khare Kaicker Managing Director and CEO
	R. Mukundan Executive Director
	Zarir Langrana
	John Mulhall Chief Financial Officer
	Rajiv Chandan General Counsel & Company Secretary
	Mumbai, May 3, 2019

Notice

NOTICE IS HEREBY GIVEN THAT THE EIGHTIETH ANNUAL GENERAL MEETING OF TATA CHEMICALS LIMITED will be held on Monday, July 8, 2019 at 3.00 p.m. at Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine Lines, Mumbai 400 020, to transact the following businesses:-

Ordinary Business

1. To receive, consider and adopt the Audited Standalone Financial Statements of the Company for the financial year ended March 31, 2019, together with the Reports of the Board of Directors and Auditors thereon.
2. To receive, consider and adopt the Audited Consolidated Financial Statements of the Company for the financial year ended March 31, 2019, together with the Report of the Auditors thereon.
3. To declare dividend on the Ordinary Shares for the financial year ended March 31, 2019.
4. To appoint a Director in place of Mr. S. Padmanabhan (DIN: 00306299), who retires by rotation and being eligible, offers himself for re-appointment.

Special Business

5. **Re-appointment of Ms. Vibha Paul Rishi (DIN: 05180796) as an Independent Director of the Company**

To consider and, if thought fit, to pass the following resolution as a Special Resolution:

“RESOLVED THAT pursuant to the provisions of Sections 149, 152 and other applicable provisions, if any, of the Companies Act, 2013 (‘the Act’) read with Schedule IV of the Act, the Companies (Appointment and Qualifications of Directors) Rules, 2014 (including any statutory modification(s) or re-enactment(s) thereof for the time being in force) and Regulation 17 and other applicable provisions of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (‘Listing Regulations’), as amended from time to time, Ms. Vibha Paul Rishi (DIN: 05180796), who was appointed as an Independent Director of the Company to hold office upto August 31, 2019, and who being eligible for re-appointment as an Independent Director, has given her consent along with a declaration that she meets the criteria for independence under Section 149(6) of the Act and Regulation 16(1)(b) of the Listing Regulations and in respect of whom the Company has received a Notice in writing from a Member under Section 160(1) of the Act proposing

her candidature for the office of Director, be and is hereby re-appointed as an Independent Director of the Company, not liable to retire by rotation, to hold office for a second term of five consecutive years commencing from September 1, 2019 upto August 31, 2024.”

6. **Ratification of Remuneration of Cost Auditors**

To consider and, if thought fit, to pass the following resolution as an Ordinary Resolution:

“RESOLVED THAT pursuant to the provisions of Section 148(3) and other applicable provisions, if any, of the Companies Act, 2013 and the Companies (Audit and Auditors) Rules, 2014, (including any statutory modification(s) or re-enactment(s) thereof for the time being in force), the Company hereby ratifies the remuneration of ₹ 6,00,000 per annum plus taxes, travel and out-of-pocket expenses incurred in connection with the audit payable to Messrs D. C. Dave & Co., Cost Accountants (Firm Registration No. 000611), who are appointed as Cost Auditors by the Board of Directors of the Company to conduct audit of the cost records of the Company for the year ending March 31, 2020.

RESOLVED FURTHER THAT the Board of Directors (including any Committee thereof) be and is hereby authorised to take all such steps as may be necessary, proper and expedient to give effect to this resolution.”

Notes:

1. The Explanatory Statement pursuant to Section 102 of the Companies Act, 2013 (‘the Act’), in respect of the business as set out in Item Nos. 5 and 6 above and the relevant details of the Directors seeking appointment/re-appointment as required by Regulations 26(4) and 36(3) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (‘Listing Regulations’) and as required under Secretarial Standard – 2 on General Meetings issued by the Institute of Company Secretaries of India, are annexed hereto.
2. **A MEMBER ENTITLED TO ATTEND AND VOTE AT THE ANNUAL GENERAL MEETING (‘AGM’) IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE INSTEAD OF HIMSELF AND THE PROXY NEED NOT BE A MEMBER OF THE COMPANY.** The instrument appointing the proxy should, however, be deposited at the registered office of the Company not less than 48 hours before the commencement of the AGM i.e. by 3.00 p.m. on July 6, 2019. A Proxy Form is annexed to this Annual Report. Proxies submitted on behalf

of limited companies, societies, etc. must be supported by appropriate resolution or authority as applicable.

A person can act as a proxy on behalf of members not exceeding 50 and holding in aggregate not more than 10% of the total share capital of the Company carrying voting rights. A member holding more than 10% of the total share capital of the Company carrying voting rights may appoint a single person as a proxy and such person shall not act as a proxy for any other person or Member.

3. Book Closure and Dividend:

The Register of Members and the Share Transfer Books of the Company will be closed from **Tuesday, July 2, 2019 to Monday, July 8, 2019**, both days inclusive.

The dividend, if declared at the AGM, will be paid on and from Wednesday, July 10, 2019 to those persons:

- (a) whose names appear as Beneficial Owners as at the end of the business hours on Monday, July 1, 2019 in the list of beneficial owners to be furnished by the National Securities Depository Limited ('NSDL') and Central Depository Services (India) Limited ('CDSL') in respect of the shares held in electronic form; and
- (b) whose names appear as Members in the Register of Members holding physical shares of the Company after giving effect to all the valid transmission and transposition requests lodged with the Company/ Registrar and Share Transfer Agent before the end of the business hours on Monday, July 1, 2019.

4. National Automated Clearing House ('NACH'):

- (a) To avoid loss of dividend warrants in transit and undue delay in receipt of dividend warrants, the Company has provided NACH facility to the Members for the remittance of dividend. Members holding shares in physical form and desirous of availing this facility are requested to provide their latest bank account details (Core Banking Solutions Enabled Account Number, 9 digit MICR and 11 digit IFS Code), along with their Folio Number, to the Company's Registrar and Share Transfer Agent, TSR Darashaw Limited.
- (b) Members holding shares in electronic form are hereby informed that bank particulars registered against their respective depository accounts will be used by the Company for payment of dividend. The Company or its Registrar cannot act on any request received directly from the Members holding shares in electronic form for any change of bank particulars or bank mandates. Such changes are to be advised only to the Depository Participant(s) ('DPs') of the Members.

5. SEBI has mandated the transfer of securities to be carried out only in dematerialised form (except in case of transmission or transposition of securities) effective from April 1, 2019. Accordingly, requests for physical transfer of securities of listed entities shall not be processed from April 1, 2019 onwards. In view of such amendment and in order to eliminate the risks associated with physical holding of shares, Members who are holding shares in physical form are hereby requested to dematerialise their holdings.

6. Members holding shares in physical form in identical order of names in more than one folio are requested to send to the Company or its Registrar and Share Transfer Agent, the details of such folios together with the share certificates for consolidating their holdings in one folio. A consolidated share certificate will be returned to such Members after making requisite changes thereon.

7. Members/proxyholders and authorised representatives are requested to bring to the Meeting, the duly filled in attendance slip(s) enclosed herewith along with their copy of Annual Report. Corporate Members intending to send their authorised representatives to attend the Meeting pursuant to Section 113 of the Act are requested to send to the Company, a certified copy of the Board Resolution authorising representative to attend and vote on its behalf at the Meeting.

8. In case of jointholders attending the Meeting, only such jointholder who is higher in the order of names as per the Register of Members of the Company will be entitled to vote.

9. Nomination Facility:

As per the provisions of Section 72 of the Act, facility for making nomination is available for the Members in respect of the shares held by them. Members holding shares in single name and who have not yet registered their nomination are requested to register the same by submitting Form No. SH-13. If a Member desires to cancel the earlier nomination and record a fresh nomination, he may submit the same in Form No. SH-14. Members holding shares in physical form are requested to obtain the nomination forms from the Company's Registrar and Share Transfer Agent. Members holding shares in electronic form may obtain the nomination forms from their respective DPs. Both the forms are also available on the website of the Company at <https://www.tatachemicals.com/Investors/Investor-resources/Other-forms>.

10. Transfer to Investor Education and Protection Fund:

(i) Transfer of unclaimed dividend

Members are hereby informed that under the Act the Company is required to transfer the dividend which remains unpaid or unclaimed for a period of seven

consecutive years or more to the credit of the Investor Education and Protection Fund ('the IEPF'). In view of the same, dividend of ₹ 1,80,01,240, pertaining to FY 2010-11 which remained unpaid or unclaimed was transferred to the IEPF Authority on September 29, 2018.

Members are requested to note the following due date(s) for claiming the unpaid or unclaimed dividend declared by the Company for FY 2011-12 and thereafter –

Financial Year	Date of Declaration	Dividend per share (₹)	Last date for claiming unpaid dividend
2011-12	August 22, 2012	10	September 21, 2019
2012-13	August 26, 2013	10	September 25, 2020
2013-14	August 21, 2014	10	September 20, 2021
2014-15	August 11, 2015	12.50	September 10, 2022
2015-16	August 11, 2016	10	September 10, 2023
2016-17	August 9, 2017	11	September 8, 2024
2017-18	July 25, 2018	22	August 24, 2025

Members who have not encashed the dividend warrants so far in respect of the aforesaid period(s) are requested to make their claim to TSR Darashaw Limited, Registrar and Share Transfer Agent, well in advance of the above due dates.

(ii) Transfer of shares

Pursuant to the provisions of Section 124 of the Act read with the Investor Education and Protection Fund Authority (Accounting, Audit, Transfer and Refund) Rules, 2016, as amended ('IEPF Rules'), all the shares on which dividends remain unpaid or unclaimed for a period of seven consecutive years or more shall be transferred to the demat account of the IEPF Authority as notified by the Ministry of Corporate Affairs. Accordingly, the Company has transferred 97,645 Ordinary Shares of face value of ₹ 10 per share to the demat account of the IEPF Authority during FY 2018-19.

The Company had sent individual notice to all the Members whose shares were due to be transferred to the IEPF Authority and had also published newspaper advertisement in this regard. The details of such dividends/shares transferred to IEPF are uploaded on the website of the Company at <https://www.tatachemicals.com/html/Investors/unclaimed-dividends.html>.

(iii) Claim from IEPF Authority

Members/Claimants whose shares and unclaimed dividends have been transferred to the IEPF Authority can claim the same by making an application to the IEPF

Authority in e-Form IEPF-5 (available at www.iepf.gov.in) and sending duly signed physical copy of the same to the Company along with requisite documents as prescribed in the instruction kit of e-Form IEPF-5. Members/claimants can file only one consolidated claim in a financial year as per the IEPF Rules. Link to e-Form IEPF-5 is also available on the website of the Company at <https://www.tatachemicals.com/html/investors/unclaimed-dividends.html>. No claims shall lie against the Company in respect of the dividend/shares so transferred.

(iv) Details of unclaimed dividend on the website

As per the IEPF Rules, the Company has uploaded the information in respect of the unclaimed dividends as on the date of the previous AGM i.e. July 25, 2018 (79th AGM) on the website of the IEPF viz. www.iepf.gov.in and on the website of the Company at <https://www.tatachemicals.com/html/Investors/unclaimed-dividends.html>.

11. To prevent fraudulent transactions, Members are advised to exercise due diligence and notify the Company of any change in address or change in bank account details or demise of any Member as soon as possible. Members are also advised not to leave their demat account(s) dormant for long. Periodic statement of holdings should be obtained from the DPs and holdings should be verified.
12. Members holding shares in electronic form are requested to submit the Permanent Account Number ('PAN') and bank account details to their DPs with whom they are maintaining their demat accounts. Members holding shares in physical form are required to submit their PAN and bank account details to the Company's Registrar and Share Transfer Agent, if not submitted already.
13. To support the 'Green Initiative', the Members who have not registered their e-mail addresses are requested to register the same with Registrar/DPs. Electronic copy of the Annual Report for FY 2018-19 is being sent to all the Members whose email addresses are registered with the Company/DPs for communication purposes unless any Member has requested for a hard copy of the same. For Members who have not registered their email address, physical copies of the Annual Report for FY 2018-19 are being sent in the permitted mode.
14. Members desiring to obtain/avail any information relating to Accounts are requested to write to the Company well in advance so as to enable the management to keep the information ready at the AGM. Members are requested to carry their copy of the Annual Report to the AGM.
15. A route map along with the landmark showing directions to reach the venue of the 80th AGM forms part of the Annual Report.

16. Process and Manner for voting through electronic means:
- I. In compliance with the provisions of Section 108 of the Act, Rule 20 of the Companies (Management and Administration) Rules, 2014 as amended from time to time and Regulation 44 of the Listing Regulations, the Members are provided with the facility to exercise their right to vote electronically, through the e-voting services provided by NSDL, i.e. facility of casting the votes by the Members using an electronic voting system from a place other than the venue of the AGM (remote e-voting) on all the resolutions set forth in this Notice. Instructions for remote e-voting are given herein below.
 - II. The facility for voting through electronic voting system or by ballot paper shall also be made available at the meeting and Members attending the meeting who have not already cast their vote by remote e-voting shall be able to exercise their right at the meeting.
 - III. The remote e-voting period commences on **Thursday, July 4, 2019 (9.00 a.m. IST)** and ends on **Sunday, July 7, 2019 (5.00 p.m. IST)**. During this period, Members of the Company, holding shares either in physical form or in dematerialised form, as on the **cut-off date of Monday, July 1, 2019**, may cast their vote by remote e-voting. The remote e-voting module shall be disabled by NSDL for voting thereafter. Once the vote on a resolution is cast by the Member, the Member shall not be allowed to change it subsequently. A person who is not a Member as on the cut-off date should treat this Notice for information purpose only. Members who have cast their vote by remote e-voting prior to the AGM are also eligible to attend the meeting but shall not be entitled to cast their vote again.
 - IV. The process and manner for remote e-voting are as under:
 Step 1: Log-in to NSDL e-voting system at <https://www.evoting.nsdl.com>
 Step 2: Cast your vote electronically on NSDL e-voting system.

Details on Step 1 are mentioned below:

How to Log-in to NSDL e-voting website?

1. Visit the e-voting website of NSDL. Open web browser by typing the following URL: <https://www.evoting.nsdl.com> either on a personal computer or on a mobile.
2. Once the home page of e-voting system is launched, click on the icon 'Login' which is available under 'Shareholders' section.
3. A new screen will open. You will have to enter your User ID, your Password and a Verification Code as shown on the screen.

Alternatively, if you are registered for NSDL e-services i.e. IDEAS, you can log-in at <https://eservices.nsdl.com> with your existing IDEAS login. Once you log-in to NSDL e-services after using your log-in credentials, click on e-voting and you can proceed to Step 2 i.e. cast your vote electronically.

4. Your User ID details are given below:

Manner of holding shares i.e. Demat (NSDL or CDSL) or Physical	Your User ID is:
(a) For Members who hold shares in demat account with NSDL.	8 Character DP ID followed by 8 Digit Client ID For example, if your DP ID is IN300*** and Client ID is 12***** then your User ID is IN300***12*****.
(b) For Members who hold shares in demat account with CDSL.	16 Digit Beneficiary ID For example, if your Beneficiary ID is 12***** then your User ID is 12*****.
(c) For Members holding shares in Physical Form.	EVEN Number followed by Folio Number registered with the Company. For example, if Folio number is 001*** and EVEN is 110662 then User ID is 110662001***.

5. Your password details are given below:
- (a) If you are already registered for e-voting, then you can use your existing password to login and cast your vote.
 - (b) If you are using NSDL e-voting system for the first time, you will need to retrieve the 'initial password' which was communicated to you. Once you retrieve your 'initial password', you need to enter the 'initial password' and the system will force you to change your password.
 - (c) How to retrieve your 'initial password'?
 - (i) If your email ID is registered in your demat account or with the Company, your 'initial password' is communicated to you on your email ID. Trace the email sent to you from NSDL from your mailbox. Open the email and open the attachment i.e. a .pdf file. Open the .pdf file. The password to open the .pdf file is your 8 digit client ID for NSDL account, last 8 digits of client ID for CDSL account or Folio Number for shares held in physical form. The .pdf file contains your 'User ID' and your 'initial password'.
 - (ii) If your email ID is not registered, your 'initial password' is communicated to you on your postal address.

6. If you are unable to retrieve or have not received the 'Initial password' or have forgotten your password:
 - (a) Click on "Forgot User Details/Password?" (If you are holding shares in your demat account with NSDL or CDSL) option available on www.evoting.nsdl.com.
 - (b) 'Physical User Reset Password?' (If you are holding shares in physical mode) option available on www.evoting.nsdl.com.
 - (c) If you are still unable to get the password by aforesaid two options, you can send a request at evoting@nsdl.co.in mentioning your Demat account number/Folio Number, your PAN, your name and your registered address.
 - (d) Members can also use the One Time Password (OTP) based login for casting their votes on the e-voting system of NSDL.
7. After entering your password, tick on Agree to 'Terms and Conditions' by selecting on the check box.
8. Now, you will have to click on 'Login' button.
9. After you click on the 'Login' button, home page of e-voting will open.

Details on Step 2 are given below:

How to cast your vote electronically on NSDL e-voting system?

1. After successful login at Step 1, you will be able to see the home page of e-voting. Click on e-voting. Then, click on Active Voting Cycles.
2. After clicking on Active Voting Cycles, you will be able to see all the companies 'EVEN' in which you are holding shares and whose voting cycle is in active status.
3. Select 'EVEN' of the Company which is 110662.
4. Now you are ready for e-voting as the voting page opens.
5. Cast your vote by selecting appropriate options i.e. assent or dissent, verify/modify the number of shares for which you wish to cast your vote and click on 'Submit' and also 'Confirm' when prompted.
6. Upon confirmation, the message 'Vote cast successfully' will be displayed.
7. You can also take the printout of the votes cast by you by clicking on the 'print' option on the confirmation page.
8. Once you confirm your vote on the resolution, you will not be allowed to modify your vote.

General Guidelines for Members

1. Institutional Members (i.e. other than individuals, HUF, NRI, etc.) are required to send scanned copy (PDF/JPG Format) of the relevant Board Resolution/Authority letter, etc. with attested specimen signature of the duly authorised signatory(ies) who are authorised to vote, to the Scrutiniser by email to tcl.scrutinizer@gmail.com with a copy marked to evoting@nsdl.co.in.
2. It is strongly recommended not to share your password with any other person and take utmost care to keep your password confidential. Login to the e-voting website will be disabled after five unsuccessful attempts to key in the correct password. In such an event, you will need to go through the 'Forgot User Details/Password?' or 'Physical User Reset Password?' option available on www.evoting.nsdl.com to reset the password.
- V. In case of any queries, Members may refer the Frequently Asked Questions ('FAQs') and remote e-voting user manual available in the 'downloads' section of www.evoting.nsdl.com or send a request at evoting@nsdl.co.in or call on Toll free no.: 1800-222-990. In order to address any grievances relating to e-voting, you may also contact NSDL as under:
 - Mr. Amit Vishal: +91 22 24994360 or amitv@nsdl.co.in
 - Ms. Pallavi Mhatre: +91 22 24994545 or pallavid@nsdl.co.in
 - Mr. Pratik Bhatt: +91 22 24994738 or pratikb@nsdl.co.in
 - Ms. Sarita Mote: +91 22 24994890 or saritam@nsdl.co.in
- VI. If you are already registered with NSDL for remote e-voting, then you can use your existing User ID and Password/PIN for casting your vote.
- VII. You can also update your mobile number and email id in the user profile details of the folio which may be used for sending future communication(s).
- VIII. The voting rights of Members shall be in proportion to their shares of the paid-up equity share capital of the Company as on the cut-off date of Monday, July 1, 2019.
- IX. Any person, who acquires shares of the Company and becomes a Member of the Company after despatch of the Notice and holding shares as on the cut-off date i.e. Monday, July 1, 2019, may obtain the user ID and password by sending a request at evoting@nsdl.co.in or investors@tatachemicals.com.

However, if you are already registered with NSDL for remote e-voting, then you can use your existing user ID and password for casting your vote. If you forgot your password, you can reset your password by using 'Forgot User Details/Password' option available on www.evoting.nsdl.com or contact NSDL at the following Toll free no.: 1800-222-990.

- X. A person whose name is recorded in the Register of Members or in the Register of Beneficial Owners maintained by the depositories as on the cut-off date only shall be entitled to avail the facility of remote e-voting as well as voting at the AGM.
- XI. Mr. P. N. Parikh (Membership No.: FCS 327) and failing him, Mr. Mitesh Dhaliwala (Membership No.: FCS 8331) of Messrs Parikh & Associates, Practicing Company Secretaries, has been appointed as the Scrutiniser for providing facility to the Members of the Company to scrutinise remote e-voting process as well as voting at the AGM in a fair and transparent manner.
- XII. The Chairman shall, at the AGM, at the end of discussion on the resolutions on which voting is to be held, allow voting with the assistance of Scrutiniser, by use of e-voting system or by ballot paper for all those members who are present at the AGM but have not cast their votes by availing the remote e-voting facility.
- XIII. The Scrutiniser shall, after the conclusion of voting at the AGM, first count the votes cast at the meeting and, thereafter unblock the votes cast through remote e-voting, in the presence of at least two witnesses not in the employment of the Company and shall make, not later than 48 hours from the conclusion of the AGM, a Consolidated Scrutiniser's Report of the total votes cast in favour or against, if any, to the Chairman or a person authorised by him in writing, who shall countersign the same and declare the result of the voting forthwith.
- XIV. The results declared along with the Scrutiniser's Report, shall be placed on the website of the Company at www.tatachemicals.com and on the website of NSDL at www.evoting.nsdl.com immediately after the declaration of results by the Chairman or a person authorised by him in writing. The results shall also be immediately forwarded to the Stock Exchanges where the Company's shares are listed viz. BSE Limited and the National Stock Exchange of India Limited. The results shall also be displayed on the notice board at the Registered Office of the Company.
- XV. Subject to receipt of requisite number of votes, the resolutions shall be deemed to be passed on the date of AGM i.e. Monday, July 8, 2019.

17. Updation of Members' Details:

The format of the Register of Members prescribed by the Ministry of Corporate Affairs under the Act requires the Company/Registrar and Share Transfer Agent to record additional details of Members, including their PAN details, email address, bank details for payment of dividend, etc. A form for capturing the additional details is appended at the end of this Annual Report. Members holding shares in physical form are requested to submit the filled in form to the Company or its Registrar and Share Transfer Agent. Members holding shares in electronic form are requested to submit the details to their respective DPs.

18. Webcast Facility:

The Members are informed that the Company will be providing a facility to view the live streaming of the AGM Webcast on the NSDL website. You may access the same at <https://www.evoting.nsdl.com> by using your remote e-voting credentials. The link will be available in 'Shareholder Login' where the EVEN of the Company will be displayed.

For further assistance or queries in connection with the webcast facility, the Members may contact NSDL on the following numbers:

- Mr. Amit Vishal: +91 22 24994360 or amitv@nsdl.co.in
- Ms. Pallavi Mhatre: +91 22 24994545 or pallavid@nsdl.co.in
- Mr. Chetan Angane: +91 22 24994638 or chetana@nsdl.co.in
- Mr. Sagar Gudhate: +91 7506682282 or sagarg@nsdl.co.in

By Order of the Board of Directors

Rajiv Chandan
General Counsel & Company Secretary

Mumbai, May 3, 2019

Registered Office:

Tata Chemicals Limited
Bombay House
24, Homi Mody Street, Fort
Mumbai 400 001

CIN: L24239MH1939PLC002893

Tel. No: + 91 22 6665 8282

Fax No: + 91 22 6665 8144

Email: investors@tatachemicals.com

Website: www.tatachemicals.com

EXPLANATORY STATEMENT PURSUANT TO SECTION 102 OF THE COMPANIES ACT, 2013

Pursuant to Section 102 of the Companies Act, 2013 ('the Act'), the following Explanatory Statement sets out all material facts relating to the business mentioned under Item Nos. 5 and 6 of the accompanying Notice dated May 3, 2019:

Item No. 5

Ms. Vibha Paul Rishi (DIN: 05180796) is currently an Independent Director of the Company and the Chairperson of the Stakeholders' Relationship Committee as well as a Member of the CSR, Safety and Sustainability Committee of the Board of Directors of the Company. Ms. Rishi was appointed as an Independent Director of the Company for a term of five consecutive years from September 1, 2014 upto August 31, 2019.

Ms. Rishi is eligible for re-appointment for a second term on the Board of the Company as an Independent Director, not liable to retire by rotation, effective from September 1, 2019 to August 31, 2024, subject to the approval of the Members by a Special Resolution. Based on the recommendations of the Nomination and Remuneration Committee, the Board of Directors propose the re-appointment of Ms. Rishi as an Independent Director of the Company. The Company has in terms of Section 160(1) of the Act received a notice from a Member proposing her candidature for the office of a Director.

Based on the performance evaluation of the Independent Directors and as per the recommendations of the Nomination and Remuneration Committee, given her background, experience and contribution, the Board is of the opinion that Ms. Rishi's continued association would be of immense benefit to the Company and it is therefore desirable to continue to avail her service as an Independent Director.

The Company has received a declaration from Ms. Rishi confirming that she meets the criteria of independence as prescribed under Section 149(6) of the Act and Regulation 16(1)(b) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('Listing Regulations'). In terms of Regulation 25(8) of the Listing Regulations, Ms. Rishi has confirmed that she is not aware of any circumstance or situation which exists or may be reasonably anticipated that could impair or impact her ability to discharge her duties. Ms. Rishi has also confirmed that she is not debarred from holding the office of a Director by virtue of any SEBI Orders or any such Authority pursuant to circular dated June 20, 2018, issued by BSE Limited and the National Stock Exchange of India Limited pertaining to enforcement of SEBI Orders regarding appointment of Directors by listed companies. Further, Ms. Rishi is not disqualified from being appointed as a Director in terms of Section 164 of the Act and has given her consent to act as a Director.

In the opinion of the Board, Ms. Rishi fulfils the conditions specified in the Act and the Listing Regulations for re-appointment as an Independent Director and that she is independent of the Management. A copy of the draft letter for re-appointment of the Independent Director setting out the terms and conditions of her re-appointment is available for inspection by the Members at the Registered Office of the Company during the business hours (except on Saturdays and Sundays) and will also be available at the venue of the AGM till the conclusion of the AGM.

Ms. Rishi, 59 years, is an experienced marketing professional with stints in Indian and international markets, coupled with an abiding passion for people. Her last role was as the Executive Director, Brand and Human Capital of Max India Limited, prior to which she was the Director, Marketing and Customer Strategy at the Future Group.

Ms. Rishi has been with PepsiCo for 17 years in leadership roles in the areas of marketing and innovation in India, US and UK. She was also one of the founding team members of PepsiCo and Titan watches when they started operations in India. She later moved to PepsiCo's headquarters to be a part of its international marketing team, which was followed by an innovation leadership role in London. She serves on the Boards of several reputed companies and is also on the Board of Pratham Education Foundation, a NGO that works to provide education to underprivileged children in India.

A brief profile, including details of current directorships and remuneration paid / payable, of all the Directors whose re-appointment has been proposed forms part of this Notice.

In compliance with the provisions of Section 149 read with Schedule IV of the Act, Regulation 17 of the Listing Regulations and other applicable regulations, the re-appointment of Ms. Rishi as an Independent Director is now placed for the approval of the Members by a Special Resolution.

The Board commends the Special Resolution set out in Item No. 5 of the accompanying Notice for approval of the Members.

Except Ms. Vibha Paul Rishi, none of the Directors or Key Managerial Personnel ('KMP') of the Company and their respective relatives is concerned or interested, financially or otherwise, in the resolution set out at Item No. 5 of the accompanying Notice. Ms. Vibha Paul Rishi is not related to any other Director or KMP of the Company.

Item No. 6

The Company is directed under the provisions of Section 148 of the Act read with the Companies (Cost Records and Audit) Rules, 2014, as amended from time to time, to have the audit of its cost records conducted by a Cost Accountant. Further, in accordance

with the provisions of Section 148 of the Act read with the Companies (Audit and Auditors) Rules, 2014, the remuneration payable to the Cost Auditors has to be ratified by the Members of the Company.

The Board of Directors, on the recommendation of the Audit Committee, has approved the appointment of Messrs D. C. Dave & Co., Cost Accountants, as the Cost Auditors to conduct the audit of the cost records of the Company for the Financial Year ending March 31, 2020 at a remuneration of ₹ 6,00,000 per annum plus applicable taxes, travel and out-of-pocket expenses.

Accordingly, consent of the Members is sought by way of an Ordinary Resolution as set out at Item No. 6 of the accompanying Notice for ratification of the remuneration amounting to ₹ 6,00,000 per annum plus applicable taxes, travel and out-of-pocket expenses payable to the Cost Auditors for the Financial Year ending March 31, 2020.

The Board accordingly commends the Ordinary Resolution set out at Item No. 6 of the accompanying Notice for the approval of the Members.

None of the Directors or KMP of the Company and their respective relatives is concerned or interested, financially or otherwise, in the resolution at Item No. 6 of the accompanying Notice.

By Order of the Board of Directors

Rajiv Chandan
General Counsel & Company Secretary

Mumbai, May 3, 2019

Registered Office:

Tata Chemicals Limited

Bombay House

24, Homi Mody Street, Fort

Mumbai 400 001

CIN: L24239MH1939PLC002893

Tel. No: + 91 22 6665 8282

Fax No: + 91 22 6665 8144

Email: investors@tatachemicals.com

Website: www.tatachemicals.com

DETAILS OF DIRECTORS SEEKING RE-APPOINTMENT AT THE AGM PURSUANT TO REGULATIONS 26(4) AND 36(3) OF LISTING REGULATIONS AND SECRETARIAL STANDARD – 2 ON GENERAL MEETINGS:

Name of the Director	Mr. S. Padmanabhan (Non-Executive Non Independent Director)	Ms. Vibha Paul Rishi (Non-Executive Independent Director)
DIN	00306299	05180796
Date of Birth	May 15, 1958	June 19, 1960
Age	61 years	59 years
Date of first appointment	December 23, 2016	September 1, 2014
Qualifications	Mr. Padmanabhan is a Glaxo Marketing Scholar Medalist, a Distinguished Alumnus from IIM Bangalore. He is also a Gold Medalist, a Distinguished Alumnus from PSG College of Technology, Coimbatore. He has completed the Advanced Management Program at the Harvard Business School. He is a life member of Computer Society of India and a Senior Member of the Institute of Electrical and Electronics Engineers.	Ms. Vibha Paul Rishi holds a BA Degree in Economics from Delhi University and is an MBA with specialisation in Marketing from the Faculty of Management Studies, New Delhi.
Expertise in specific functional areas	Mr. Padmanabhan has extensive experience in the field of Human Resources, Corporate Strategy, Operations, Sustainability, Ethics, Business Excellence and General Management.	Ms. Vibha Paul Rishi has expertise in the field of Marketing, Human Resource, Finance and Strategy. She also possesses relevant experience and knowledge in General Management.
Terms and conditions of appointment or re-appointment	N.A.	Re-appointment as an Independent Director of the Company not liable to retire by rotation for a period of five consecutive years commencing from September 1, 2019 to August 31, 2024.
Details of remuneration last drawn (FY 2018-19)	Sitting Fees: ₹ 7,20,000 Commission: Nil ^a	Sitting Fees: ₹ 4,30,000 Commission: ₹ 45,00,000

Directorships in other Public Limited Companies (excluding foreign companies, private companies and Section 8 companies)	<ul style="list-style-type: none"> • Infiniti Retail Limited • Tata Consulting Engineers Limited • The Associated Building Company Limited • Ecofirst Services Limited • Tata SIA Airlines Limited 	<ul style="list-style-type: none"> • Escorts Limited* • The Indian Hotels Company Limited* • Piem Hotels Limited • Go Airlines (India) Limited • ELEL Hotels and Investments Limited • Tata Teleservices Limited • Signify Innovations India Limited • Asian Paints Limited* • ICICI Prudential Life Insurance Company Limited*
Membership / Chairpersonship of Committees in other public limited companies	<ul style="list-style-type: none"> • Infiniti Retail Limited <ul style="list-style-type: none"> - Nomination and Remuneration Committee - Committee of the Board • Tata Consulting Engineers Limited <ul style="list-style-type: none"> - Committee of the Board (Chairman) - Corporate Social Responsibility Committee (Chairman) - Nomination and Remuneration Committee - Audit and Risk Management Committee • Tata SIA Airlines Limited <ul style="list-style-type: none"> - Corporate Social Responsibility and Safety Committee - Nomination and Remuneration Committee 	<ul style="list-style-type: none"> • Escorts Limited <ul style="list-style-type: none"> - Audit Committee - Corporate Social Responsibility Committee - Nomination and Remuneration Committee - Stakeholders Relationship Committee • The Indian Hotels Company Limited* <ul style="list-style-type: none"> - Nomination and Remuneration Committee • Asian Paints Limited <ul style="list-style-type: none"> - Corporate Social Responsibility Committee • Tata Teleservices Limited <ul style="list-style-type: none"> - Audit Committee • Go Airlines (India) Limited <ul style="list-style-type: none"> - Corporate Social Responsibility Committee (Chairperson) • Piem Hotels Limited <ul style="list-style-type: none"> - Audit Committee - Corporate Social Responsibility Committee - Nomination and Remuneration Committee • ICICI Prudential Life Insurance Company Limited <ul style="list-style-type: none"> - Customer Service and Policy Holder Committee (Chairperson) • Signify Innovations India Limited <ul style="list-style-type: none"> - Corporate Social Responsibility Committee (Chairperson) - Nomination and Remuneration Committee (Chairperson)
No. of Board meetings attended during the year	9	9
No. of shares held: (a) Own (b) For other persons on a beneficial basis	– –	– –

^ In line with the internal guidelines, Mr. S. Padmanabhan, being in full-time employment of other Tata company, did not draw any commission.

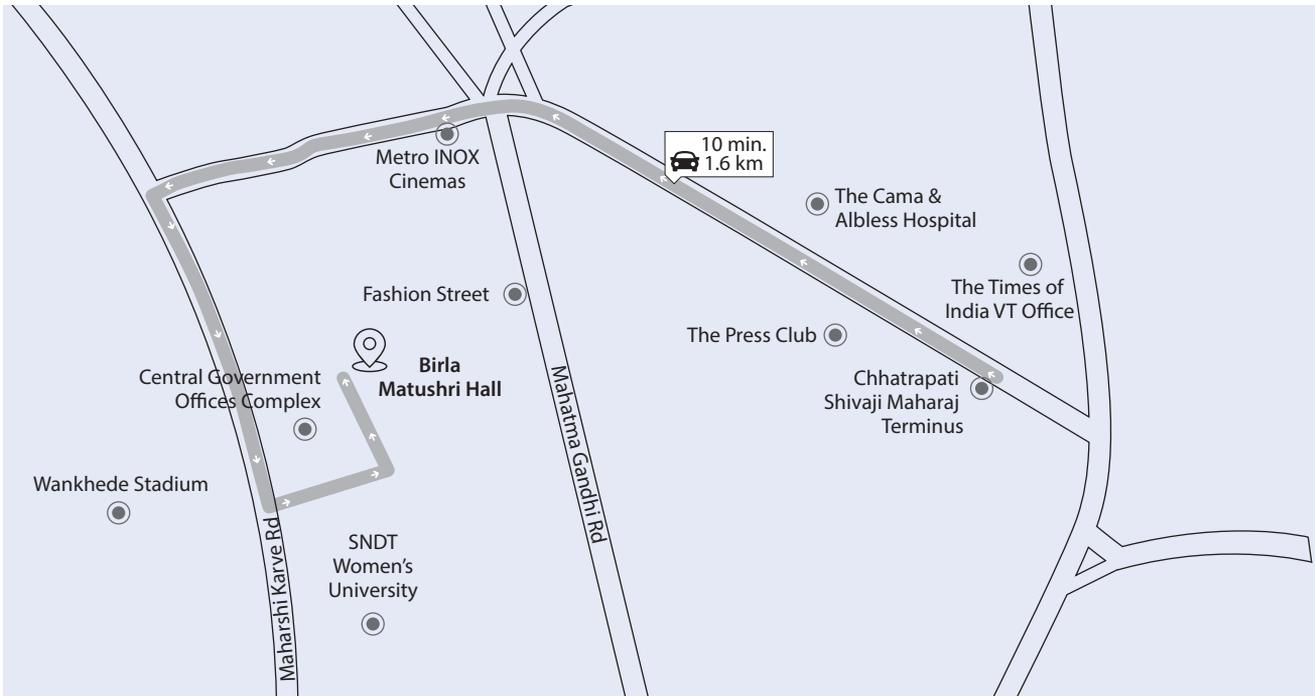
* Listed company

Note: Mr. S. Padmanabhan and Ms. Vibha Paul Rishi are not related to any Director or Key Managerial Personnel.

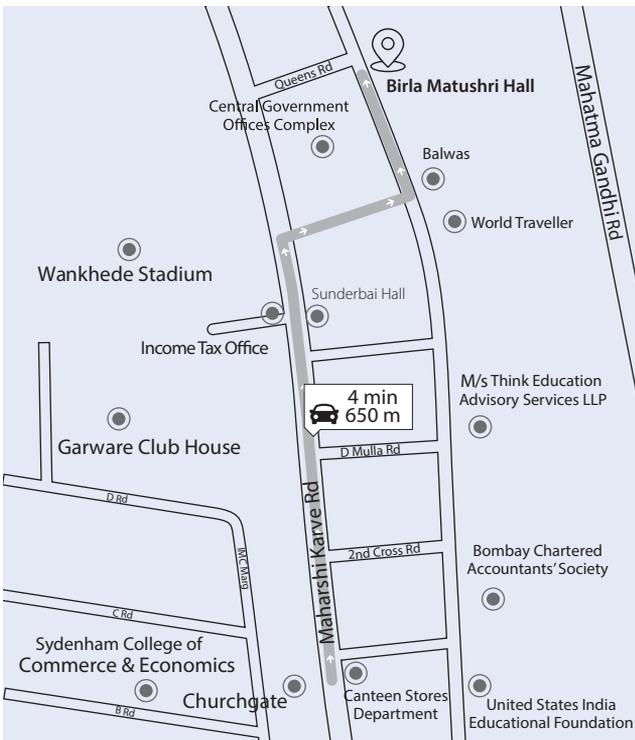
Route Map to the AGM Venue

Venue: Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine Lines, Mumbai 400 020.

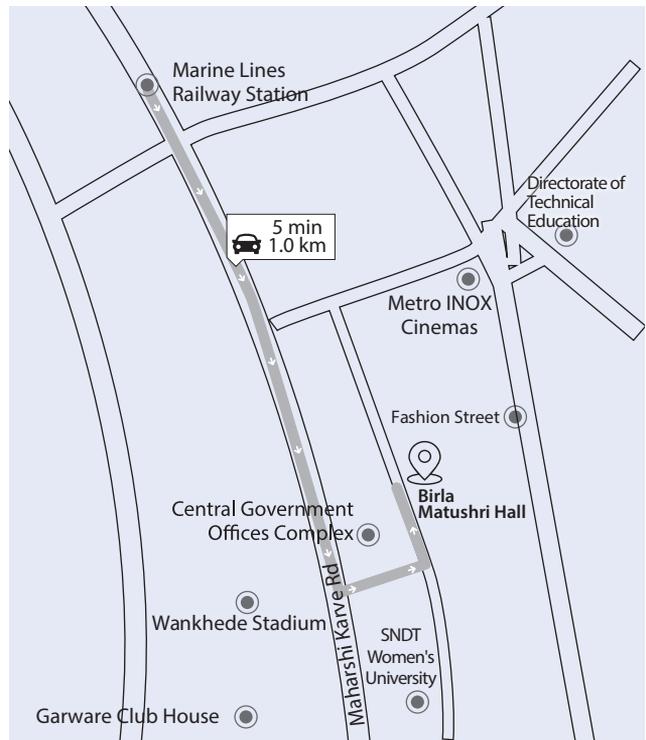
Landmark: Next to Bombay Hospital



Distance from Chhatrapati Shivaji Maharaj Terminus Railway Station: 1.6 km



Distance from Churchgate Railway Station: 0.65 km



Distance from Marine Lines Railway Station: 1 km

To
TSR Darashaw Consultant Private Limited (erstwhile TSR Darashaw Limited)
Unit: Tata Chemicals Limited
6-10 Haji Moosa Patrawala Industrial Estate
20 Dr. E. Moses Road, Mahalaxmi, Mumbai 400 011

Updation of Shareholder Information

I/We request you to record the following information against my/our Folio No.:

General Information:

Folio No.:	
Name of the first named Shareholder:	
PAN:*	
CIN/Registration No.:* (applicable to Corporate Shareholders)	
Tel. No. with STD Code:	
Mobile No.:	
Email Id:	

* Self attested copy of the document(s) enclosed

Bank Details:

IFSC: (11 digit)	
MICR: (9 digit)	
Bank A/c Type:	
Bank A/c No.:@	
Name of the Bank:	
Bank Branch Address:	

@ A blank cancelled cheque is enclosed to enable verification of bank details

I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed because of incomplete or incorrect information, I/We would not hold the Company/RTA responsible. I/We undertake to inform any subsequent changes in the above particulars as and when the changes take place. I/We understand that the above details shall be maintained till I/We hold the securities under the above mentioned Folio No./Beneficiary account.

Place: _____

Signature of sole/first holder

Date: _____

Note: Members holding shares in demat form are requested to submit the Updation Form to their respective Depository Participant.

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Financial Statistics - Standalone

Year	Capital Accounts			Revenue Accounts							Distributable profit for the year ₹ in lakh	Earnings per Ordinary Share (Basic) ₹	Dividend per Ordinary Share ₹	Net Worth per Ordinary Share ₹
	Share Capital ₹ in lakh	Reserves ₹ in lakh	Borrowings@ ₹ in lakh	Capital Employed ₹ in lakh	Net Block# ₹ in lakh	Gross revenue*** ₹ in lakh	Expenses ₹ in lakh	Depreciation ₹ in lakh	Profit before taxes ₹ in lakh	Taxes ₹ in lakh				
1944-45	152	8	69	229	179	16	29	—	(13)	—	—	—	—	8.11
1949-50	152	10	126	288	223	116	107	9	—	—	—	—	0.07	7.83
1954-55	192	24	86	302	210	223	191	18	14	—	—	14	1.03	10.80
1959-60	312	64	325	701	501	351	303	21	27	1	12	12	0.90	11.68
1964-65	362	220	281	863	643	876	649	72	155	63	80	80	2.91	15.52
1974-75	994	906	1189	3089	2390	3464	2652	201	611	250	309	309	3.82	18.06
1979-80	994	2036	2848	5878	4432	5860	4421	968	926	364	434	434	5.97	31.80
1984-85	1594	6705	11987	20286	9715	13570	10429	2056	2173	450	1204	1204	12.34	53.70
1989-90	4917	25926	34129	64972	21293	30902	23172	2056	5674	1600	3612	3612	8.29	62.73
1990-91	7375	26070	58398	91843	33942	35202	27354	2403	5445	1000	3945	3945	6.03	45.35
1991-92	7375	29831	62262	99468	51179	41204	29580	2650	8974	3000	3974	3974	8.10	50.45
1992-93	9262	41931	95966	147159	98308	48743	34754	2623	11366	3871	6495	6495	8.91	54.84
1993-94	11268	71225	125245	207738	171930	64698	40424	2266	22008	500	16508	16508	20.21	73.03
1994-95	11288	92630	152664	256582	183030	92443	59171	4601	28671	6	23165	23165	25.38	92.00
1995-96	18069	113349	154892	286310	187603	155565	103420	10489	41656	2200	22321	22321	21.83	72.72
1996-97	18070	125449	161606	305125	193962	162813	122372	11409	29032	3800	20487	20487	13.96	79.42
1997-98	18070	141396	152755	312221	201843	166151	121432	11513	33205	4350	28863	28863	15.97	88.28
1998-99	18070	149537	157023	324630	203479	150030	117432	11615	20983	2816	18167	18167	10.06	92.79
1999-00	18070	151240	137023	306313	202244	165882	139190	12347	14345	2616	11729	11729	6.50	98.73
2000-01	18070	176474	114627	309171	188436	173411	141518	13284	18609	2114	16495	16495	9.13	105.36
2001-02	18070	137066	106071	307638	181467	151605	118278	13321	20006	7324	12682	12682	7.02	84.35
2002-03	18070	145516	81626	289288	168441	170483	130588	13693	26202	6544	19658	19658	10.88	89.81
2003-04	21516	182018	76554	324291	174145	272984	225961	14415	32608	10555	22053	22053	10.25	94.48
2004-05	21516	178268	132422	367544	156239	322515	263451	13770	45294	11239	34055	34055	15.83	92.80
2005-06	21516	195254	145449	394514	155097	373461	308481	13893	51087	15784	35303	35303	16.41	100.45
2006-07	21516	217768	104177	372583	151474	426923	348504	15035	63384	18963	44421	44421	20.65	111.07
2007-08	23406	333762	234384	619375	151258	484819	354233	14876	115710	20792	94918	94918	42.82	152.64
2008-09	23523	362407	367610	763842	184375	872402	790072	16303	66027	20822	45205	45205	19.25	90.00
2009-10	24332	403964	294651	741969	183009	576975	499443	18719	58813	15335	43478	43478	18.38	176.07
2010-11	25482	448586	297594	771822	192763	656776	580460	20446	55870	15021	40849	40849	16.32	186.09
2011-12	25482	468069	336709	839127	208104	846375	747472	22468	76435	17775	58660	58660	23.03	193.73
2012-13	25482	505250	371640	914847	205984	897412	793447	21429	82536	18205	64331	64331	25.25	208.33
2013-14	25482	544641	303469	895153	203713	911890	839120	15882	56888	13281	43607	43607	17.12	223.79
2014-15	25482	578845	271588	895038	197529	1053087	948407	19271	85409	21612	63797	63797	25.04	237.22
2015-16^	25482	783143	352372	848385**	205270	1093794	985888	19879	88027	21407	66620	66620	26.15	317.41
2016-17^	25482	860063	241132	819678**	213340	863080	747132	16988	98960	29689	69271	69271	27.19	347.60
2017-18^	25482	1106932	140721	965720**	169824	908530	639087	13913	255530	78834	176696	176696	69.36	444.51
2018-19^	25482	1154139	70792	936950**	222718	516235	381060	14323	120852	29878	90974	90974	35.71	463.04

Note: (a) Includes the balance lying in share capital suspense account amounting to ₹ 3,446 lakh
 @ From year ended March 31, 2011 onwards' borrowing include non-current (long-term) borrowing + current (short-term) borrowing + current maturity of non-current (long-term) borrowing and finance lease
 # From year ended March 31, 2011 onwards net block includes capital work-in-progress + capital advances
 ^ From year ended March 31, 2016 onwards, the Company has followed IND AS
 ** Capital Employed: total assets minus current liabilities plus current (short-term) borrowing plus current maturities of non-current (long-term) borrowing and finance lease obligations minus investment in subsidiary companies (other than Rallis India Limited)
 *** including other income and exceptional gains

Financial Statistics - Standalone

Equity Shares Issued on Conversion of Bonds/Debentures		Rights Issue			Bonus Issue			
Year	₹ lakh	Premium	₹ lakh	₹ lakh	₹ lakh	₹ lakh	₹ lakh	
1982-83	116	₹ 8/- per share	1954-55	1 for 2 at par	48	1966-67	1 for 10	30
1983-84	300	₹ 10/- per share	1957-58	4 for 5 at par	112	1968-69	3 for 10	100
1984-85/1985-89	600	₹ 30/- per share	1961-62	1 for 5 at Prem Re. 0.5 per share	50	1970-71	1 for 5	87
1987-88	725	₹ 40/- per share	1972-73	1 for 5 at Prem Re. 0.5 per share	104	1974-75	1 for 2	311
1987-88	725	₹ 40/- per share	1985-86	2 for 5		1985-86	2 for 5	777
1992-93	1960	₹ 40/- per share	1990-91	1 for 2		1990-91	1 for 2	2458
1993-94	1960	₹ 40/- per share	1995-96	3 for 5		1995-96	3 for 5	6777
2007-08	1889	₹ 220.78/- per share						
2008-09	117	₹ 220.78/- per share						
2009-10	809	₹ 220.78/- per share						
	9201				314			10540

Financial Statistics - Consolidated

Year	Capital Accounts				Revenue Accounts				Earnings per Ordinary Share (Basic)	Net Worth per Ordinary Share							
	Share Capital	Minority Interest	Borrowings *	Capital Employed	Gross Revenue ***	Expenses	Depreciation	Profit before taxes			Taxes	Minority Interest	Share of Profit/(Loss) in Associate				
2005-06	21516	200419	-	182769	430024	277941	70749	425315	346846	18404	60065	17231	-	-	42834	19.91	103.11
2006-07	21516	235666	-	186420	469081	305605	76324	60283	504082	27388	74813	24009	-	-	50804	23.62	119.52
2007-08	23406	348439	4234	480669	885172	337121	464924	67783	528813	31383	117587	21147	-	-	96440	43.51	158.96
2008-09	23523	453455	15219	628381	1122734	376696	562128	1300712	1166716	42264	91732	15751	11171	-	64810	27.59	202.81
2009-10	24332	447310	35006	499372	1007837	383096	532470	983144	845176	44678	93290	20932	13114	1347	60591	25.61	193.89
2010-11	25482	519687	40645	569972	1161268	449047	563242	1136412	979211	45105	112096	27492	19257	-	65347	26.10	214.00
2011-12	25482	608145	44809	706073	1381258	495141	635874	1425027	1232095	50868	138343	34392	19946	(246)	83759	32.88	248.72
2012-13	25482	615874	53614	838400	1532813	468350	662702	1545211	1400520	53388	91303	30252	20703	(308)	40040	15.72	251.75
2013-14	25482	531069	65522	839306	1480479	476215	672261	1636983	1641748	47124	(51889)	28878	22100	(333)	(103200)	(40.51)	218.46
2014-15	25482	529689	67349	837884	1481024	460432	695699	1768873	1606708	46314	115851	35112	20553	(540)	59646	23.41	217.92
2015-16@	25482	659950	259846	909042	2164099**	1202595	176193	1764956	1579960	57137	127859	28732	23558	1489	77058	30.25	269.05
2016-17@	25482	765342	262389	744256	2109338**	1183144	169841	1546394	1327495	55244	163655	41807	24099	1562	99311	38.98	310.42
2017-18@	25482	1084689	271716	641825	2320108**	1157090	173185	1593580	1218260	53059	322261	56935	26941	4923	243308	95.51	435.78
2018-19@	25482	1208645	291467	614343	2431680**	1262173	181103	1240285	1020023	57139	163123	34359	23094	9921	115591	45.38	484.43

* From year ended March 31, 2011 onwards borrowing include non-current (long-term) borrowing + current (short-term) borrowing + current maturity of non-current (long-term) borrowing and finance lease

From year ended March 31, 2011 onwards net block includes capital work-in-progress + intangibles assets held under development + capital advances

@ From year ended March 31, 2016 onwards, the Company has followed IND AS

** Capital Employed: Total assets minus current liabilities plus current (short-term) borrowing plus current maturities of non-current (long-term) borrowing and finance lease obligations

*** including other income and exceptional gains



TATA CHEMICALS LIMITED

Corporate Identity Number (CIN) - L24239MH1939PLC002893

Registered Office: Bombay House, 24, Homi Mody Street, Fort, Mumbai 400 001

Tel. No: +91 22 6665 8282 **Fax No:** +91 22 6665 8144

Email address: investors@tatachemicals.com **Website:** www.tatachemicals.com

ATTENDANCE SLIP

80th ANNUAL GENERAL MEETING ON MONDAY, JULY 8, 2019 AT 3.00 P.M.

at Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine Lines, Mumbai 400 020.

Folio No.:	DP ID No.:	Client ID No.:
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I/We hereby record my/our presence at the EIGHTIETH ANNUAL GENERAL MEETING of the Company at Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine Lines, Mumbai 400 020, at 3.00 p.m. on Monday, July 8, 2019.

Name of the Member: _____	Signature: _____
Name of the Proxyholder: _____	Signature: _____

- Notes:
1. Only Member/Proxyholder can attend the Meeting.
 2. Please complete the Folio No./DP ID No., Client ID No. and name of the Member/Proxyholder, sign this Attendance Slip and hand it over, duly signed, at the entrance of the Meeting Hall.
 3. A Member/Proxyholder attending the meeting should bring copy of the Annual Report for reference at the meeting.



TATA CHEMICALS LIMITED

Corporate Identity Number (CIN) - L24239MH1939PLC002893

Registered Office: Bombay House, 24, Homi Mody Street, Fort, Mumbai 400 001

Tel. No: +91 22 6665 8282 **Fax No:** +91 22 6665 8144

Email address: investors@tatachemicals.com **Website:** www.tatachemicals.com

PROXY FORM

[Pursuant to Section 105(6) of the Companies Act, 2013 and Rule 19(3) of the Companies (Management and Administration) Rules, 2014]

Name of the Member(s) : _____

Registered address: _____ E-mail Id: _____

Folio No./Client ID No.: _____ DP ID No.: _____

I/We, being the Member(s) of _____ Shares of Tata Chemicals Limited, hereby appoint:

1. Name: _____ Email Id: _____

Address: _____

Signature: _____ Or failing him/her;

2. Name: _____ Email Id: _____

Address: _____

Signature: _____ Or failing him/her;

3. Name: _____ Email Id: _____

Address: _____

Signature: _____

as my/our Proxy to attend and vote (on a poll) for me/us and on my/our behalf at the EIGHTIETH ANNUAL GENERAL MEETING of the Company to be held on Monday, July 8, 2019 at 3.00 p.m. at Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, New Marine lines, Mumbai 400 020 and at any adjournment thereof in respect of such resolutions as are indicated overleaf:

*I/We wish my/our above Proxy to vote in the manner as indicated in the box below:

Sr. No.	Resolutions	For	Against
Ordinary Business			
1.	To receive, consider and adopt the Audited Standalone Financial Statements of the Company for the Financial Year ended March 31, 2019, together with the Reports of the Board of Directors and Auditors thereon		
2.	To receive, consider and adopt the Audited Consolidated Financial Statements of the Company for the Financial Year ended March 31, 2019, together with the Report of the Auditors thereon		
3.	To declare dividend on the Ordinary Shares for the Financial Year ended March 31, 2019		
4.	To appoint a Director in place of Mr. S. Padmanabhan (DIN: 00306299), who retires by rotation and being eligible, offers himself for re-appointment		
Special Business			
5.	Re-appointment of Ms. Vibha Paul Rishi (DIN: 05180796) as an Independent Director of the Company		
6.	Ratification of Remuneration of Cost Auditors		

Signed this _____ day of _____ 2019

Signature of the Member _____ Signature of Proxyholder(s) _____

Affix
Revenue
Stamp

- Note:
- This Form in order to be effective should be duly filled, stamped, signed and deposited at the Registered Office of the Company at Bombay House, 24, Homi Mody Street, Fort, Mumbai 400 001, not less than 48 hours before the commencement of the Meeting.**
 - A proxy need not be a Member of the Company.
 - This is only optional. Please put a '✓' in the appropriate column against the resolutions indicated in the box. If you leave the 'For' or 'Against' column blank against any or all the resolutions, your proxy will be entitled to vote in the manner as he/she thinks appropriate.
 - For the Resolutions, Explanatory Statement and Notes, please refer to the Notice of the EIGHTIETH ANNUAL GENERAL MEETING of the Company.

Glossary

- BBS studies (Behaviour Based Safety)
- Bombay Chamber of Commerce and Industry (BCCI)
- Carbon Disclosure Project (CDP)
- Council of Scientific and Industrial Research-Central Electrochemical Research Institute (CSIR-CECRI)
- Central Food Technologies Research Institute (CFTRI)
- Centre for Materials for Electronics Technology (C-MET)
- Chemical Industries Association (CIA)
- Construction Design and Management (CDM)
- Combined Heat and Power (CHP)
- Consumer Products Business (CPB)
- Commonwealth of Independent States (CIS)
- Compound Annual Growth Rate (CAGR)
- Confederation of Indian Industry (CII)
- Corporate Social Responsibility (CSR)
- Cross Functional Team (CFT)
- Crushed Refined Soda (CRS)
- Distributed Control Systems (DCS)
- Dry Sorbent Injection (DSI)
- Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)
- Environmental Management Plan (EMP)
- Electric Vehicles (EV)
- European Soda Ash Producers Association (ESAPA)
- European Union (EU)
- Federation of Indian Chambers of Commerce & Industry (FICCI)
- Food & Beverage (F&B)
- Food and Drug Administration (FDA)
- Faculty of Management Studies (FMS)
- FMD (foot-and-mouth disease)
- Food Safety and Standards Authority of India (FSSAI)
- Fructo-Oligosaccharides (FOS)
- Galacto-Oligosaccharide (GOS)
- Genetically Modified organisms (GMOs)
- Gigajoule (GJ)
- Greenhouse gas (GHG)
- Global Reporting Initiative (GRI)
- Good Manufacturing Practices (GMP)
- Grow Out Test (GOT)
- Gross Domestic Product (GDP)
- Hazard and Operability Study (HAZOP)
- Hazard Identification and Risk Analysis (HIRA)
- Highly Dispersible Silica (HDS)
- High-Intensity Sweeteners (HIS)
- Heavy Fuel Oil (HFO)
- Haemorrhagic Septicaemia (HS)
- Industrial Minerals Association - North America (IMA/NA)
- Indian Institute of Management (IIM)
- Indian Institute of Technology (IIT)
- Innovation Centre (IC)
- International Chamber of Commerce (ICC)
- International Integrated Reporting Council (IIRC)
- Indian Space Research Organization (ISRO)
- Iodine Deficiency Disorders (IDD)
- Thousand Tonne (KT)
- Know Around Me (KAM)
- Lead, Engage, Aspire and Perform (LEAD)
- Long-Term Strategic Plan (LTSP)
- Make-up Water (MUW)
- Market Development Representative (MDR)

- Mechanical Vapor Recompression/Thermal Vapor Recompression (MVR/TVR)
- Memorandum of Understanding (MOU)
- Metahelix Life Sciences Limited (Metahelix)
- Metric Tonnes Per Annum (MTPA)
- Metric Tonne (MT)
- Million Cubic Feet (MCFT)
- Metric Tonne Carbon Dioxide equivalent (mtCO₂)
- Nitrogen Oxide (NO_x)
- National Accreditation Board for Testing and Calibration Laboratories (NABL)
- National Iodine Deficiency Disorders Control Programme (NIDDCCP)
- Ozone Depleting Substances (ODS)
- Ordinary Portland Cement (OPC)
- Out Patient Department (OPD)
- Pure Ash Magadi (PAM)
- Passenger Car Redial (PCR)
- Political, Economic, Social, Technological, Legal and Environmental (PESTLE)
- Plastic waste management programme (PWM)
- Portland Pozzolana Cement (PPC)
- Profit Before Tax (PBT)
- Profit After Tax (PAT)
- Rallis Innovation Chemistry Hub (RICH)
- Rallis India Limited (Rallis)
- Royal Society for the Prevention of Cruelty to Animals (RSPCA)
- Science Based Targets Initiative (SBTI)
- Safety Health and Environment (SHE)
- Securities and Exchange Board of India (SEBI)
- Sequential Simulated Moving Bed (SSMB)
- Strategic Business Unit (SBU)
- Strategy Deployment Matrix (SDM)
- Strategic Objective (SO)
- Strengths, Weaknesses, Opportunity, Threats (SWOT)
- Sulfur Oxide (SO_x)
- Sustainability Development Goals (SDG)
- Tata Chemicals Europe (TCE)
- Tata Chemicals International Pte. Ltd (TCIPL)
- Tata Chemicals Limited (TCL)
- Tata Chemicals North America (TCNA)
- Tata Chemicals Magadi (TCM)
- Tata Chemicals South Africa (TCSA)
- Tata Chemicals Society for Rural Development (TCSRSD)
- Turnaround Time (TAT)
- Environment Agency (EA)
- Environmental Protection Agency (EPA)
- Welsh Mountain Zoo (WMZ)
- Work Safe Online (WSO)
- Xavier School of Management (XLRI)

Awards

Tata Chemicals wins an award at CII 12th National Six Sigma Competition 2018

Tata Chemicals Mithapur bags Best HR practice awards

Tata Nx Zero Sugar awarded Ayush Ratna for India's Best Natural Sweeteners

Tata Chemicals wins at Asia's Most Trusted Companies Awards 2018

Tata Chemicals bags the coveted CII Most Innovative Knowledge Enterprise Award 2018

Tata Chemicals' Legal Team wins 'Compliance In-House Legal Team of the Year' award

Tata Chemicals ranked #1 company for Sustainability & CSR

Tata Sampann recognised at ET Best Brands 2019

Tata Salt's Hat-trick Win at Media Abbey Awards

The Annual Safety Innovation Award at EU Salt Annual General Meeting 2018



TATA CHEMICALS

Registered Address

Bombay House,
24, Homi Mody Street,
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