Responding To Climate Change Concerns

Awareness and understanding of the adverse impact of greenhouse gases on global climate change in being evidenced with scientific findings. Developing countries in particular are faced with the challenge of meeting the growing demand for energy. This is bringing focus onto improvements in energy efficiency and clean and efficient energy generation technologies.

We are working on technologies that can mitigate changes through 'Green Chemistry' and product offerings that will make a difference like flue gas treatment, carbon absorption and nano glass- coatings for insulation. We have received carbon credits for the registered projects at UNFCCC (United Nations Framework Convention on Climate Change) mostly related to energy reduction and methane reduction and are exploring further new CDM projects. We are a member of the steering committee & working Group of Climate Change by led by Tata Quality Management Services for the Tata Group. We are actively involved in the advocacy forums on Climate Change and are a member of TERI-CoREBCSD, signatory to Global Roundtable on Climate at Earth Institute, Columbia University, CII Mission on sustainable growth. We actively participate in the activities of CII, Bombay Chamber of Commerce, FICCI, FAI and AMAI and IFA etc on Climate Change. We are participating in various missions of National Action Plan for Climate Change. We are responding to the Carbon Disclosure Project.

We are leveraging the strength of engagement of our people in the plants, facilities and laboratories to achieve technological breakthroughs that will help address climate change, energy efficiency, conservation and security of supply.

We are continuing our effort that started way back in 1940, through exploiting solar energy in our salt pans to produce salt for our soda ash plant, to investing in natural soda ash in Kenya and USA for the reduction in our energy intensity profile. The fertilizer plant at Babrala is benchmarked as one of the lowest in the world in specific energy consumption. We have utilized our knowledge of chemistry and agriculture to build capacities in bio-fuels by using alternative and environment friendly feed stocks like Sweet Sorghum and working on Jatropha seeds development for bio-fuels feedstock management.

Moreover, with the establishment of Innovation Center in Pune, we plan to work on the cutting-edge processes in Bio and Nano field for Green Chemistry and Alternate Energy and the Center for Agritechnology at Aligarh is engaged in improving agri-productivity and technologies for sustainable food security.. Tata Chemicals' pollution prevention programs include periodic measurement of various emissions and inventorisation of GHG's, maintaining the process emissions well below the statutory requirements, reduction in solid wastes generation, efforts towards zero water discharges, restoring ecological balance in the surrounding habitats and continuous engagement of stakeholders.

Towards our concern for global warming, we initiated efforts for inventories and measurement of the GHG emissions at all manufacturing sites, taken leadership by looking into CDM opportunities among our class of industries. We have achieved reduction of 44164 MT of GHG emission through various initiatives for GHG reduction. Our ongoing efforts on reduction of GHG emission and energy conservation has in-turn resulted in reduction of 4.01% our GHG emissions per ton of production from 2005-06 to 2009-10.

We have started monitoring our GHG emissions to implement various initiatives for managing climate change. Our corporate strategy has considered Climate Change as one of the major environmental challenge and has established a corporate strategy cell on climate change to respond to the challenge and to develop action for a low carbon economy.

The Cell has successfully developed CDM projects and has registered four projects. In April 2008, we undertook internal assessment of the CO_2 emissions across its operations and year. Tata Chemicals has assessed the carbon footprint of all its operations and is developing plans for reduction of carbon intensity of its products by 20% by 2020 through abatement by operational efficiency improvements, carbon conscious growth and product portfolio changes to reduce carbon intensity and create offsets through renewable energy like biofuels, solar & wind energy etc.

Mithapur site has, as a commitment to Montreal Protocol 1987, stopped producing Methyl & Ethyl bromides - that are identified Ozone Depleting Substances. The site has also achieved zero consumption of CTC & Freon-12. All sites for the last five years have achieved legal compliance in all the environmental norms. Periodic monitoring and installation of on-line analyzers has ensured the quality of flue gas emissions as per the statutory requirements laid down by SPCB.

Treated effluent quality in final discharge has been maintained well below the statutory norms at all manufacturing sites. Specific effluent generation at all sites has been reduced from 19.7 to 17.2 KL per ton of production since 2005-06 to 2009-10.

Actual GHG emissions (Million MT of Co_2e) and Sp. GHG Emission (MT of CO_2e/MT of production)

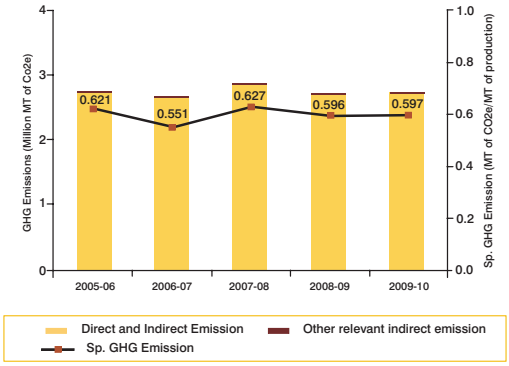

Fig. Cc-01

Emissions to Air

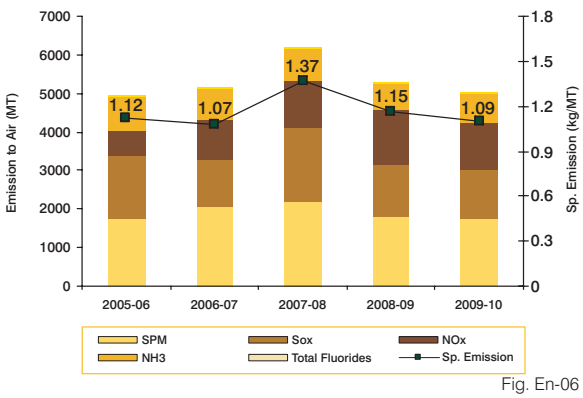

Fig. En-06