

P3.1-1 Low Carbon Society: A Green Roadmap for India

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India has National Climate Change Action Plan, consisting of 8 missions; 1) Solar Energy (20 GW by 2022, 20 GW off-grid, 20m sq. m collectors), 2) Enhanced energy efficiency (avoided capacity of 19000MW by 2014-15), 3) Sustainable habitat, 4) Water Sector (20% water use efficiency improvement), 5) Sustaining the Himalayan eco-system, 6) A 'Green India' (20 Mil. Hectare afforestation by 2020; Forest cover from 23 to 33%), 7) Sustainable agriculture (micro irrigation promotion in 40m ha) and 8) Strategic knowledge for climate change

After Copenhagen, some domestic actions have been committed and implemented, for example; tax on coal of 1\$/ton, fund to be used for clean energy; enhancement of energy efficiency measures including mandate to reduce specific energy consumption and energy savings certificates and trading etc; mass distribution of CFL (resulting in about 6 GW reduction of electricity demand) and Sustainable habitat with energy efficiency in residential, commercial and urban transportation as well as netter management of water,

wastewater and soil waste with recycling reuse and energy creation.

LCS scenarios are developed with an integrated modelling framework (BAU projection with ANSWER MARKAL model): Stabilisation of emission in 2050 compared to 2000, with a peak in 2030.

Carbon intensity reduction rate needs to change from 1.5 to 1.9% to achieve Copenhagen commitment and some Technology Cooperation areas seem necessary: energy efficiency (short term), renewable energies (Mid Term – 2020 targets) and nuclear and CCS (Long Term).

In another Scenario (Sustainability), some technologies do not appear (no nuclear) and co-operation seems more important in major areas: urban planning, behavioral changes, and transport infrastructures technologies. Carbon prices in this scenario are \$117 in 2050, \$15 in 2010. Energy security and air quality represent co benefit of this scenario.