

Abstract

The budgets of GHGs, urban air pollutants and their future emission scenarios in selected mega-cities in Asia, Tokyo, Seoul, Beijing, Shanghai, Delhi, Calcutta and Manila was the focus of this project. The need for integrating global environmental concerns into local air pollution is evident in mega-cities to tap synergistic policy measures; present research contributes to this endeavor. It focuses on key urban sectors, namely urban transportation, residential, commercial, and waste sectors for energy use and resulting emissions. Consumption pressures, in the form of embodied emissions, are analyzed in this study, which partly represent sustainability implication arising from indirect energy consumption and emissions of Carbon dioxide. Modeling, situation analyses and future scenarios are the major parts of this study. A combination of bottom-up and top-down type of models are developed which are equipped to test the feasibility of various locally operational policy measures. This research is an ongoing activity far from completed. The integrated policy scenarios and their impacts are expected to complete by March 2004. APN support was crucial to this research in supporting various workshops and activities. The available outcomes have already added new knowledge in the areas of urban energy use and their GHG linkages in case study cities by quantifying and projecting them. These are described in the section of *Outcomes and Products*. The models and methodologies developed in this study have a great potential to apply to smaller cities; regional variation in data and methodologies needs to be clarified further in the future to stimulate future research in this area.

