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Mitigating emissions in cities

The United Nations conference on climate change, now on in Bangkok, is expected to produce an agreement to cut global emissions drastically by 2050. Over the years, countries committed to cutting emissions have submitted their estimates to UNFCCC. In 2004, India estimated that it emits 1,228,540 Gigagram (Gg) or about 1,228 million tonnes of anthropogenic greenhouse gases (GHG) every year. (The CO₂ emission accounts for 817,023 Gg or about 65 per cent of the CHG. Transportation sector alone contributes 79,880 Gg and land use change (including forestry) 37,675 Gg of CO₂. Much attention is paid to clean vehicle technologies and emission standards, while architecture and urban planning have not been viewed as a means to reduce emissions. An automobile-dependent urban planning leads to greater CO₂ emissions. Low-density communities characterise the current urban sprawl in Indian cities. Such development reduces the optimum use of land and increases the number of trips between residence and place of work and other activities. The carbon footprints of such cities are increasing to discomfoting levels.)

Studies also show that low-density suburbs consume twice as much energy as the dense core areas. In this context, an integrated transport and land use plan becomes important to mitigate climate change. The Stern Review on the economics of climate change shows that buildings contribute 8 per cent of world GHGs. Tokyo leads by example: it has made rooftop greening practices mandatory for new buildings. Large buildings with more than 10,000 square metres of floor space have to disclose their environmental plans at the approval stage and businesses classified as energy-consuming need to have in place plans to reduce energy use. The per capita GHG emission in India is 1.3 tonnes, which is far lower than in the United States and other developed countries. The government has argued that India cannot be equated with industrialised countries as the per capita figures bear no comparison. In terms of international equity this might appear reasonable, and certainly the industrial world needs to be asked to cut their emissions much more sharply than they are inclined to. But for India not to do anything until its per capita emissions reach industrial country levels would be extremely unenlightened and would amount to shooting itself in the foot. The government needs to take firm and effective steps to cut emission levels. Cities would be a good point to begin.