

# Reducing the



## Greenhouse gases: local action, global impact

Whereas national governments continue to struggle to reduce national greenhouse gas (GHG) emissions and mitigate the threat posed by global climate change, local authorities are directly influencing energy use and emissions, principally through city-wide strategies that include retrofitting city buildings for energy efficiency, power-saving technologies, waste recycling, and providing alternatives to single passenger vehicle use. Some 850 local authorities in Europe are now jointly implementing local climate protection action plans, while in Japan, more than 50 municipalities are setting local environmental targets. The International Council for Local Environmental Initiatives (ICLEI) has brought together more than 400 municipalities to reduce emissions in cities in central and eastern Europe. In the United States, some 70 local authorities are

Växjö, Sweden, is committed to eliminating the municipal use of fossil fuels, and to achieving a 50 percent per capita reduction from 1993 levels in carbon dioxide emissions from fossil fuels by the year 2010. These ambitious targets will be achieved through encouraging changes in people's patterns of consumption, along with energy efficiency measures, including the use of bio-fuels. Växjö has already reduced its carbon dioxide emissions from heating to less than half the national average.

already eliminating 7.5 million tonnes of equivalent carbon dioxide per year, while in Canada, some 60 municipalities are implementing local climate action plans, as are more than 100 in Australia. Local authorities in Mexico and the Philippines have undertaken similar initiatives, while projects are being launched in South Africa, India and Indonesia, thus including two of the three top GHG emitters in the developing world.

# City's Footprint

## Urban self-sufficiency

Urban agriculture and urban forestry in low-income economies can combine environmental goals with broader economic and social goals, allowing cities to generate some of their own resources. A study in Kenya shows that almost 2/3 of 1,500 households in six Kenyan towns produced part of their own food and fuel. In Lusaka, Zambia, urban agriculture on vacant plots by more than half of the households in low-income areas provides food supplements. In Calcutta, a third of the city's sewage is fed into local marshes that have become fish ponds producing 7,500 tons of fish yearly. Some of the sewage is used by farms producing 150 tons of vegetables daily.

## Transport demand management

The bulk of Japan's post-World War II transport infrastructure investment has gone into rail. Today, more than 53 percent of the population in Tokyo as a whole, and 91.6 percent of passengers in downtown Tokyo, commute by rail. In addition, more than 15 percent of Japanese citizens commute to work by bicycle. By applying demand-management measures for automobile travel, Japanese cities are saving a lot of energy.<sup>2</sup>

## Implementing a recycling policy

The annual volume of municipal solid waste in Hungary is about 1.8 m<sup>3</sup> per capita and growing at about two to three percent per year. Packaging material constitutes about 20 percent of all waste, of which only two percent is recycled. In 1996, a law on environmental charges was passed, levying a rate on defined products at the first point of sale for domestic goods, or custom duty for imported goods. The law will be replaced in the future with one that makes recycling a legal obligation.<sup>3</sup>



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