

Issues for the urban millennium





- In 1950 less than one person in three lived in a town or city. Today nearly half the world's population is urban. By 2030 the proportion will be more than 60 per cent.
- Virtually all population growth in the next quarter-century will be in urban areas in the less developed countries. The fastest growth will not be in the bigger cities but in urban centres with fewer than 500,000 people.
- In 2000 there were 402 cities with between 1 and 5 million inhabitants; and 22 cities with between 5 and 10 million. In 1950 New York was the only city with more than 10 million people. By 2015, there will be 23 such cities, 19 of them in developing countries.
- In the more developed countries, 75 per cent of the population is urban. The proportion of urban dwellers in the Asian region is less than 40 per cent, but its urban population is 1.5 billion—more than Europe, Latin America, Oceania and North America combined. Africa is the least urbanized continent, but its urban population is the fastest growing.
- Urbanization in the developed world has largely coincided with economic growth and increases in welfare. This is not the case with developing countries. For example, in Africa, more than 70 per cent of the urban population—over 160 million people—lives in slums. Since 1990, Africa's urban slum population has grown by almost 5 per cent a year and is on course to double every 15 years.

- At least 1 billion people, mainly in Asia, Africa and Latin America live in improvised slums and informal squatter settlements, which are neither legally recognized nor serviced by city authorities. By 2020 the figure could be more than 2 billion people.
- One of the targets of Millennium Development Goal 7 (to ensure environmental sustainability) is to significantly improve the lives of at least 100 million slum dwellers by the year 2020. Environmental factors are a major cause of death, disease and lost productivity, all of which conspire to perpetuate poverty.
- Unsafe water and inadequate sanitation are typical hazards of living in slums. Diarrhoea is the second most common cause of child mortality, estimated to be responsible for 12 per cent of deaths of children under five in developing countries—1.3 million deaths every year.
- Slum dwellers generally also have to contend with poor air quality. Approximately 2 million children under five die each year from acute respiratory infections. The largest global killer of young children, these infections are aggravated by environmental factors such as indoor and outdoor air pollution.
- According to the World Health Organization, 1.5 billion urban residents endure levels of outdoor air pollution that exceed maximum recommended levels. As many as half a million deaths can be



© Ernst Tobsch/UNEP

- attributed to particulate and sulphur dioxide air pollution alone, mostly from vehicle exhaust emissions. One study estimates that up to one in five lung cancer cases in the United States are due to vehicle emissions.
- Burning refuse, especially plastics and other hazardous waste, also affects air quality. The global health costs of air pollution are estimated at US \$1 billion. In developed countries air pollution costs are close to 2 per cent of GDP; in developing countries the figure is between 5 and 20 per cent.
 - Power generation, industry and transport—currently mainly associated with towns and cities in the developed world—are responsible for the majority of emissions of carbon dioxide, the main greenhouse gas that is causing climate change.
 - Over the next quarter-century, it is estimated that carbon dioxide emissions, mostly from cars, trucks and power stations, will rise by 60 per cent. More than two-thirds of the increase will come from developing countries as a consequence of fast economic growth and a significant increase in car ownership.
 - Climate change is a threat to low-lying and coastal towns and cities due to sea level rise, and more frequent and severe storms. Growing urban populations—especially those in slums—are more vulnerable to natural disasters. Approximately 40 per cent of the world's population lives within 60 kilometres of the coast.
 - Urbanization and economic development habitually goes hand-in-hand with increased per capita resource consumption and waste generation. Urban dwellers in the developed world generate up to six times as much waste as in developing countries.
 - Municipalities can spend as much as 30 per cent of their budget on waste disposal, mostly on transportation. The costs are often exacerbated by diminishing availability of suitable land as urban areas spread and land prices rise.
 - In developing countries, the cost of solid waste management can be even higher, up to 50 percent of recurrent budgets. The infrastructure for safe disposal of waste is also often lacking. Between 30 and 60 per cent of urban solid waste is uncollected and less than 50 per cent of the population is served.
 - As towns and cities develop so does their reliance on resources from further afield, as well as their environmental impact—what is known as their ecological footprint.
 - The ecological footprint of London, UK, is 120 times the city's area. An average North American city with a population of 650,000 requires 30,000 square kilometres of land to service its needs. In contrast, a similar sized city but less affluent city in India requires 2,800 square kilometres.
 - Since 1950 global fossil fuel use has increased by 500 per cent. Freshwater consumption has nearly doubled since 1960, and the marine

catch has quadrupled. A city of 10 million people—for example Manila, Cairo or Rio de Janeiro—imports at least 6,000 tonnes of food every day.

- More than half of freshwater tapped for human use goes to urban areas: for industry, for drinking and sanitation purposes, or via irrigation for crops. Up to 65 per cent of water used for irrigation is wasted.
- In many developing country cities between 40 and 60 per cent of costly drinkable water is lost because of leaks in pipes and illegal connections. Even in industrialized countries, as much as a quarter of piped water is wasted.
- Urban air temperatures can be as much as 5 C hotter than the surrounding countryside when natural land cover is replaced by roads and buildings. This phenomenon, known as the 'heat island effect', can be mitigated by preserving or creating green spaces in cities.
- Green areas in urban settlements serve many other purposes. Urban forests produce oxygen and absorb carbon dioxide, thus enhancing air quality. They provide storm water control and provide a home for urban wildlife.
- Managed well, urban settlements can support growing concentrations of people, limiting their impact on the environment and improving their health and living standards. National and local laws and subsidies can discourage waste, encourage conservation and promote sustainable solutions.



© FX Bambang/UNEP

- Examples of good management include the use of so-called grey water to flush toilets; low-polluting vehicles and efficient public transport systems that solve gridlock problems and clean up the atmosphere; low-energy lighting that saves energy; and waste recycling schemes.
- There are many examples from around the globe of local governments, citizens' organizations, business and industry devising and implementing innovative answers to the issues of the urban millennium and creating Green Cities. Links to their activities, and more information about urbanization and the environment is available from the UNEP World Environment Day Website <http://www.unep.org/wed/2005/english/>.