

CHALLENGES ASSOCIATED WITH URBANIZATION

IN AFRICA

A range of environmental health concerns are associated with rapid and uncontrolled urbanization, including:

HOUSING QUALITY & AVAILABILITY

It is estimated that more than two-thirds of residents in African cities live in slums that do not meet the definition of "healthy housing" (UN-HABITAT 2008g). In some African cities, the vast majority, or all urban residents are described as living in slum conditions. African urban slums or informal settlements may reach vast dimensions. The Kibera settlement in Nairobi, Kenya, for example, has been estimated to house around one million people.

WATER & SANITATION QUALITY & QUANTITY

Access to safe water and sanitation are fundamental aspects of housing, and are critical for health. The relationship between safe water, improved sanitation, and infant mortality has been well established by the World Health Organization. Yet in 2000, over 300 million people in Africa did not have access to safe water and over 500 million were without adequate sanitation (Martínez et al. 2008).

AIR QUALITY

It is generally recognized, however, that there are three important air pollution scenarios in African cities; the burning of solid and liquid fuels for domestic cooking, space heating and lighting, vehicular emissions and industrial emissions. From one place to another, other sources of air pollution may also be important, such as smoke from cooking street foods in Accra (Arku et al. 2008), the use of poor quality gasoline and two-stroke motorbikes in Cotonou, Benin (Fanou et al. 2006) and the Harmattan wind that blows dust particles across the City of Lagos from the Sahara Desert (Baumbach 1995).

TRANSPORT & TRAFFIC

In urban settings, there is particular concern

about the contribution of road-based transport and vehicle emissions to ambient air pollution (Krzyzanowski et al. 2005). Tailpipe emissions may include particulate matter, as well as gaseous pollutants such as nitrogen dioxide, carbon monoxide, sulphur dioxide and benzene. Unpaved roads have also been associated with elevated concentrations of particulate matter in the air. For example, levels of particulate matter, carbon monoxide and benzene, a known carcinogen and risk factor for hematological disorders, frequently exceed national standards in Nigeria, as well as WHO guidelines (Baumbach 1995).

For the most part, public transport gaps have been filled by informal, small-scale entrepreneurs. Vehicles used for informal transport are often old, poorly maintained or unroadworthy. Consequently, they are associated with particularly high levels of vehicular emissions. In some of the poorest cities in sub-Saharan Africa, for example Dar es Salaam, such informal transport systems (for example minibuses, vans, taxis, station wagons, three-wheelers, motorcycles) are the dominant or only option available to citizens (Cervero and Golub 2007; Olvera 2003). In Nairobi around 33% of the total demand for transport is served by informal operators or "matutus".

Traffic congestion, noise and elevated injuries and mortality are also important concerns, especially in the light of poor enforcement of road traffic law (Walters 2008). Around the world approximately 1.2 million people are killed on roads every year and up to 50 million more are injured. Most road traffic deaths and injuries occur in developing countries, where the use of motorized transport is increasing. Most of the loss and suffering associated with road traffic deaths and injuries are preventable. Pedestrians and cyclists using roads are at particular at risk.

Box 1. World Health Organization Urbanization & Health Facts

- Of the three billion people who live in urban settings, an estimated one billion live in slums.
- An estimated 130 000 premature deaths and 50–70 million incidents of respiratory illness occur each year due to episodes of urban air pollution in developing countries, half of them in East Asia.
- An estimated 150 000 children are living and working on the streets in China.
- In Nairobi, where 60% of the city's population lives in slums, child mortality in the slums is 2.5 times greater than in other areas of the city.
- In spite of nightmarish congestion, motor vehicle use in developing cities is soaring. In 1980, the third world accounted for only 18% of global vehicle ownership; by 2020 about half of the world's projected 1.3 billion cars, trucks and buses will clog the streets and alleys of poorer countries.
- The World Health Organization considers traffic to be one of the worst health hazards facing the urban poor, and predicts that road accidents by 2020 will be the third leading cause of death.
- In Kumasi, Ghana, a country which privatized public toilets in the 1990s, private toilet use once a day for a family costs 10% of the basic wage.
- In Kenyan slums such as Mathare it costs US6c for every visit to a privatized toilet. This is too expensive for most poor people, who prefer to defecate in the open and spend their money on water or food.

Source: WHO Facts: Urban settings as a social determinant of health. http://www.who.int/social_determinants/publications/urbanization/factfile/en/