

# Essential elements

Asphalt, steel, plastic and petrol may be more familiar elements to city dwellers than the traditional water, fire, earth and air. But like everyone else urbanites depend on the natural world, just the same.

Here's how.

photo: Topfoto/Image Works

## ▼ Air

Half of the world's city dwellers – men, women and children – have to breathe potentially dangerous air every day. Many hundreds of thousands die from outdoor air pollution; many more become ill from asthma, bronchitis, lung and heart diseases.

Mexico City's air pollution is amongst the worst in the world – in the past, birds have fallen dead out of the sky over its central square. Ozone levels exceed international standards 300 hours a year, mainly due to the city's 4 million ageing motor vehicles and more than 30,000 factories.

But there are solutions. Los Angeles was once a byword for

smog. But southern California has done much to clean up its air and has introduced measures to green the car. Most cities in developed countries have phased out leaded petrol, which can damage children's brains. Switching to unleaded petrol saves money too – the United States saved \$10 for every \$1 invested in the switch, through reduced health costs, low engine maintenance and improved fuel efficiency.



photo: Topfoto/R. Roberts

## ▲ Food

The world's towns and cities grow by another million people each week, and as they swell to take in the newcomers, there is less land to feed urban dwellers. Food has to travel further to reach them: up to a third of it is spoilt in transit.

Farming the city helps solve this. Around the world, 850 million city dwellers (a quarter of the world's urban population) are fed by some 200 million urban farmers cultivating plots ranging from community gardens and commercial farms to domestic yards and rented municipal land in public allotments. Some supply local



photo: Shihua Zhao/UNEP/Topham

markets and businesses; others just eat what they grow. Farming the city provides jobs, as well as vital nutrition.

But high pollution rates and inadequate waste disposal can contaminate crops; poor animal husbandry can hasten the spread of diseases to humans; and using urban land for farming can increase sprawl, as displaced people and businesses seek space nearby. Sometimes it makes economic sense to rely on fertile rural lands and use metropolitan space to yield a higher financial return.

But in cities as varied as Jerusalem, Dakar and St Petersburg (where more than half the city's 5 million residents cultivate produce), urban farming is improving people's lives.

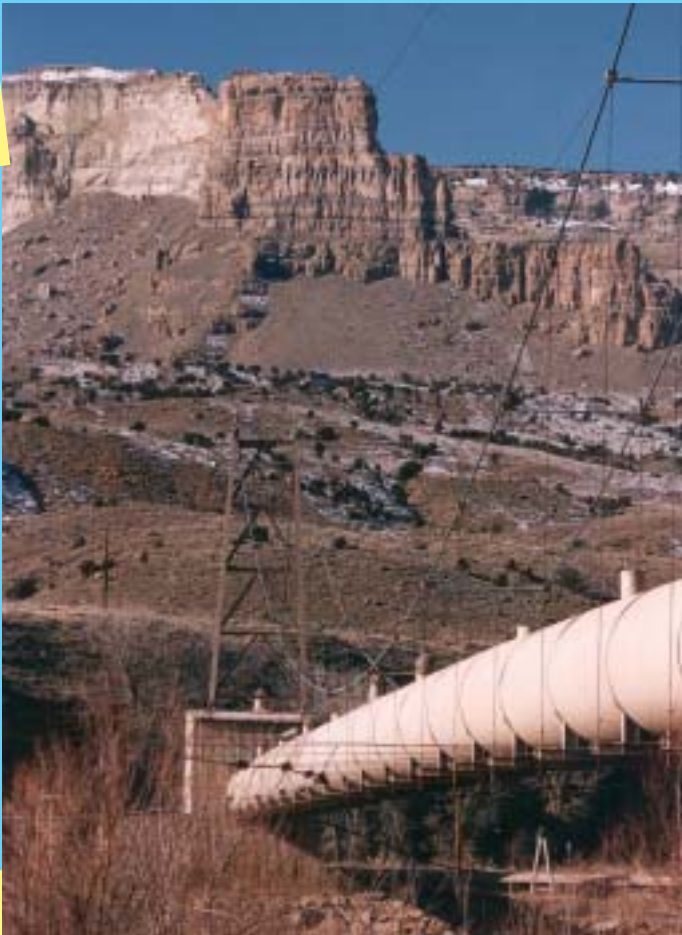


photo: Dale Hinman/UNEP/Topham

## ▲ Water

Poor children in city slums die more often of waterborne diseases than their counterparts in the countryside, even though urban areas are better supplied with water and sanitation than rural ones. Infections and viruses flourish in the concentrated waste produced by high densities of people.

In Latin America 120 million urban people are estimated to have no easy access to clean water: in Africa this rises to 150 million and in Asia 700 million. Even more lack sanitation: 150 million in Latin America, 180 million in Africa and 800 million in Asia.

Meanwhile cities from Phoenix to Johannesburg, Lima to Madrid

have to bring in water from hundreds of kilometres away, as rains fail and they use up their groundwater supplies.

The world's leaders have pledged to halve the number of people without clean water and sanitation by 2015. Progress is mixed, but some countries – like South Africa – are well ahead of the target, showing what can be done. Meanwhile conserving water and planting trees on watersheds can protect precious supplies.

## ▼ Parks

Humans have long recognized the value of urban green spaces – from the 6th century Hanging Gardens of Babylon and the palatial horticulture of Renaissance Florence to planned garden cities in Victorian England and today's Central Park in New York.

Parks and natural settings have been shown to improve the physical, mental and emotional health of people as varied as cancer patients, schoolgirls and occupants of tenement housing. Public greenery can strengthen civic pride, create jobs, engage youth and the elderly, and improve public health and safety.

Citizens know the worth of parks and other green spaces, and have often rallied to save them when they have been threatened by development.

Indeed one of the world's great cities owes its existence to a park. In 1652, Jan van Riebeeck of the Dutch East India Trading Company planted what is now called Company's Garden to provide fresh vegetables to Dutch sailors sailing round the tip of Africa. The city of Cape Town then grew up around the grounds – which today house public paths, fountains, pools, a botanical garden, museums and the South African parliament.



photo: KGH

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