Locked out of progress: a girl waits for a private water vendor to unlock a tap in the Kibera slum in Nairobi, Kenya

Marco Longari/ AFP

Apocalypse, now

There is enough water but it does not reach the poor, and that threatens us all, writes **Fiona Harvey**

On the outskirts of Nairobi, a dirty blue tanker truck has pulled up at the side of a row of shacks and a man is selling jerrycans full of water to a small queue of women. Nearby, hanging from the trees and lying on the ground are scores of plastic bags. These are the "flying toilets" discarded by residents of the slums.

A few miles away, in the lawn-fronted compound of the United Nations Environment Programme, the world's governments discuss climate change and how to help poor nations adapt to the problems, such as droughts and floods, that it will bring.

The arrival of the water seller, by tanker or in the form of people on foot with a barrel strapped to their backs, is a common sight in the slums of the developing world, and it will become more common. More people live in cities than in the countryside, for the first time in history, and at least a third of those live in slums, most without taps and toilets. About Ibn people have no clean water and about 2.6bn lack adequate sanitation.

But the paradox is that poor people in slums pay much more for their water than the rich in the spacious air-conditioned villas of the same cities. The water sellers of Nairobi can charge between 2 and 20 Kenyan shillings for up to 20 litres of water. Rich people In developed countries, by contrast, frequently have water services subsidised by the government.

The world faces a water crisis. One in three people live in water-scarce regions. Rising populations, and increasing agricultural production to feed them, along with greater prosperity, have placed greater pressure than ever on the supply of fresh water. At the same time, global warming is causing changes in precipitation patterns that may leave some areas much drier than in the past, while others suffer flooding. Pollution, meanwhile, has reduced the amount of fresh water available in swathes of rapidly developing countries such as China and India as companies have emptied effluent into water courses.

The problem is worsening. For instance, by 2050, there will be only half as much fresh water available per person in the Middle East and North Africa as there is today, the World Bank warned last week. What is already one of the most arid areas of the world will become much drier.

"Drinking water services will become more erratic than they already are," said the bank in a report*. "Cities will come to rely more and more on expensive desalination, and during droughts will have to rely more frequently on emergency supplies brought by tanker or barge."

Drought has also stricken regions from Australia to America, China, India and Europe.

Our diminishing access to fresh water has grave human and economic consequences. Every year, 1.8m children die from diarrhoea and other diseases caused by unclean water and poor sanitation, according to the UN Development Programme. Water-related diseases cost 443m school days each year. Unclean water is the second biggest killer of children, a huge barrier to progress in health and education, and a cause of low economic growth,

'The solution is in public investment, regulation, and public/private sector partnerships'

says Kevin Watkins, director of the UN Human Development Report Office.

Yet part of this problem is of our own making. As the United Nations has pointed out, there is still enough water in the world for all of our needs. Mr Watkins explains: "The issue is not really one of scarcity." Governments in much of the developing world do not include the poor in designing their water infrastructure, or do not place a high priority on slum water Improvements. Mr Watkins says: "The problem here is that water systems do not reach the poor, who are priced out of markets.

"The solution is to be found through public investment, regulation and partnerships between the public and private sectors."

Some charities have argued that giving private companies contracts to supply water to the poor has a long history of going wrong. They point to projects abandoned, or areas where poor people were unable to pay the price demanded of them for new water infrastructure. Instead, they say, the public sector should provide water as a human right.

Water companies reject these assertions. Gerard Payen, president of AquaFed, an International association of private water operators, says: "Private water operators are used to making the right to access to water and to sanitation a tangible reality for people. That IN their job all over the globe They have improved water access and sanitation to tens of millions of families in the developing world."

Mark Spelman, head of European strategy at Accenture, says: "You need to look at both the macro and the micro policies, so you can create the mini structure but you must also look at how individuals and companies use the resources "

A further issue is that we are

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simply using too much water in some areas, largely because the true cost of it is not factored in and we are careless of future supplies.

As Mr Watkins explains: "Water is priced and used not as a scarce environmental resource, but as an infinitely available commodity." This means we are "building up a huge and unsustainable hydrological debt" by extracting more water from underground sources, rivers and lakes than can be sustained. "The symptoms of stress are clearly evident: sinking groundwater tables, rivers," he says.

The most infamous example is the Aral Sea in central Asia: it has shrunk by as much as two-thirds of its original size and the remaining water has become oversalinated and polluted, as rivers that fed it were diverted to irrigate land.

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In the Middle East and North Africa, in particular, countries are racing through their underground resources of water, partly because energy prices are so cheap that farmers and water companies can afford to pump it up from aquifers. But these aquifers could take hundreds of years to refill. Some of the water is "fossil water", which -has remained under the ground for millennia - sometimes as long as 40,000 years, well before the end of the last ice age.

Around the globe, farmers and water companies are digging their wells deeper, pumping more water from underground sources, and tapping new sources where they can. As these sources are depleted, water - seemingly the most renewable of the planet's resources, because it falls as rain - is growing more scarce.

Water shortages also extract a terrible price in social terms. In the developing world, women must fetch and carry the water for their families, and the growing scarcity of the resource in regions that are already dry means they must travel further each day to find the water they need. This ensures girls cannot attend school, and exposes them to the danger of violence as they walk far from home. President Jacques Chirac of France, at an environment conference in Paris this year, warned that the problem was spreading HIV/Aids.

Beverley Duckworth, head of campaigns at the World Development Movement charity, says: "If men were responsible for fetching and carrying water, no doubt this problem would have been solved decades ago. But... it is a badly neglected development issue. The key to the provision of clean, affordable water is for governments and donors to invest in efficient, transparent and accountable public and community providers that place the needs and views of women and all water users at their heart."

Water, however, is increasingly being seen as a business opportunity. General Electric has been buying filtration companies and other water businesses to make up its water and process technologies arm. Peter Macios of GE says the company sees potential in selling water purification units that can produce clean water from sewage at $3,500 for a unit that will serve 500 people for 10 years, with low running costs. The company has sold 5,000 units, many in India, and hopes to sell 100,000 more in the next decade.

Dow Chemical recently formed Dow Water Solutions, a business unit comprising products and technologies in desalination, water purification, contaminant removal and water recycling. The unit has sales of $400m, and aims to increase that to $lbn by 2015.

Investors must also take account of how water issues will affect their returns, according to Generation Investment Management, the asset manager. The company found in an investigation into direct water consumption of companies, judged by litres of water per unit of sales, that most companies outside the agriculture sector were not materially affected by water dependence. What is more material, however, is indirect water use - water used as "embedded" or "virtual" water, in the production of goods from jeans to cars. Therefore, "best practice corporate frameworks treat water as a resource that must be managed efficiently and transparently".

If water is not better managed, conflicts are likely to increase. These will not be confined to the developing world, such as potential flashpoints between India and Pakistan, Israel and Palestine, and over the Niger and Volta rivers in west Africa. Experts also predict water conflicts between the US and Mexico, and problems in southern Europe. Martin Mulenga, senior researcher at the International Institute for Environment and Development, an international policy research institute funded by governments, says: "This is a problem for the whole world."

www.worldbank.org

Fonte: Financial Times, USA, March.22 2007, p. 2-3