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The polluted river that flows through Dhaka holds the key to life and death for 10m people. **John Vidal** meets the expert who has to balance competing demands

Water of strife

The Buri Ganga river in the centre of Bangladesh's capital, Dhaka, is to Western eyes a most extraordinary sight. It swills through the capital of one of the poorest countries in the world, a heaving, bustling, thrillingly chaotic mega-city of 10 million people, of whom almost a quarter live in indescribably squalid slums.

Thirty years ago Dhaka had just 250,000 people and its waters were relatively clean. Now the Buri Ganga is one of the most polluted rivers in the world.

Boatbuilders, charcoal factories, brickworks, tanneries, mosques, rubbish dumps, sewers, swimmers, ferries, animals, children, fishers, huge freighters and commuter boats — all vie for its space and water. Its embankments are made of rubbish bags, houses regularly collapse into it, boats regularly sink. It is a giant public lavatory and a huge wash-house, a playground, a bazaar, a building site, a market place and a commuter route rolled into one.

But, above all, the Buri Ganga is an open sewer and, as such, is of great concern to Dr Azhurul Haq, who must have the most difficult job in the subcontinent. With 2,500 employees and next to no money, the head of the Dhaka water and sewerage authority must each day provide healthy water and sanitation for the city.

If Dhaka were an ordinary city simply without any money it would be hard enough to provide water and sewage. But being built on a giant floodplain near the confluence of many large rivers, it regularly floods — sometimes so badly that millions

of people must live knee-deep in foul, polluted water.

Dr Haq is sanguine. "The problem here is serious — so serious that it is hard to understand," he says. "The city has grown beyond belief. It has been built on human waste and rubbish. It's how the land is filled, to raise the soil level. The whole place is a landfill site and a cesspit."

Providing water, he says, is a nightmare. "We need a minimum of 1.6bn litres of water a day. At the moment, our theoretical capacity is 1.35bn litres a day and our actual production is 1.26bn litres, which means that a lot of people cannot have water.

"We have 370 wells but, because of severe electrical problems, only 60% of them work. We also need to replace 600km of water pipe out of the 2,000km we have. Some are pipes made of asbestos cement, which is very dangerous. We also get 97% of our water from deep underground, which is lowering the water table and is not sustainable."

Dr Haq must deal with problems that few other water company chiefs have faced. His workers openly steal and divert the water.

"They manipulate the valves to provide more water to certain areas," he says. "But they are on very, very low salaries, so I cannot expect them to be legal always. A pump operator is on the lowest wages, about \$1.50 a day. How can he survive on that? So they harass consumers for money. Some even have small businesses, turning the water on and off. If one of my workers is idle for just one minute, then 30 households do not get water."



A woman and child washing in the gutter in Dhaka Photograph: Still Pictures

Legally he is not allowed to connect the slums to the water and sanitation because they are not landowners. As a public servant, it irks him. "So now we are working with NGOs like Wateraid and Tearfund. It's a major breakthrough. They have set up 111 water points in the city slums, most of which have little or no sanitation and water."

If the supply problem is difficult, dealing with the waste of 10 million people and some very polluting industries is even harder. "It is getting worse by the minute, not the day," he

says. About 70% of people have no sewerage system at all, and their waste collects and rots and finds its way to the rivers and lagoons. "I am very worried. Only 30% of the city is covered by the sewerage system, and 90% of it is untreated."

It gets worse: Dhaka's sewerage pipes are in bad shape. "Our sewers are supposed to carry only human waste, but industry has connected waste pipes into them illegally, so they are now loaded with heavy metals, which means the waste is toxic and we cannot use it as manure. We

have 16 lagoons where the waste goes, but people are cultivating fish in them, and so the fish are loaded with heavy metals, too. We will have to kill all the fish," says Dr Haq. He will not be popular.

Dhaka's capacity to process human waste is 120,000 cubic metres a day. In fact, only 50,000 cubic metres actually reaches the plant daily because the main sewer pipe is broken. "Hydrologically the whole system is overloaded, but biologically it is overloaded," Dr Haq says. "There is a desperately serious problem of waterborne diseases here." Wateraid and Tearfund say tens of thousands of children die each year in the city because of diseases and polluted water.

"We have serious water contamination 365 days a year," Dr Haq says. "In April each year the hospitals are over loaded with people with waterborne diseases. Nobody understands why. We know that 30% of the contamination comes from our own distribution network, but 70% comes via consumers' own premises, because they store water in underground tanks and then pump this to rooftop reservoirs which are never cleaned."

But Dr Haq is not despondent. "Up to 1998 we did not even have a master plan. Now we know that we need \$500m over the next 15 years. But I do not think the World Bank can help." It loaned the city \$80m for water treatment works, but devaluation means that it may never be fully paid back. So now Dr Haq is seeking bilateral loans — especially with the Chinese — to build treatment works.

Sometimes, he admits, it is all too much. "My first priority sometimes is to run away. I cannot sleep at night now thinking about the problems. Up to 1996, I was never ill; now I have heart attacks."

"A few weeks ago one community which did not have any water because of a breakdown kidnapped three of my workers and tied them up. They told me that if I hadn't supplied water to them within 24 hours then they would slaughter them as sacrificial animals. What can I do?"