PREFACE

Water is life and the sewage it generates is water's life-story.

The subject of the Citizens' Seventh Report on the State of India's Environment (SOE) has, seemingly, a simple plot – it only asks where Indian cities get their water from and where their waste goes. The answers occupy our pages and unfold more than we had anticipated – it is not just a question or answer about water, pollution or waste. It is about the way Indian cities will develop (and, perhaps, cities even in many other parts of the similarly placed world). It is about finding the paradigm of growth which is both sustainable and affordable.

This is not the first time that SOE – a report which presents a state-of-art through the eyes of people and researchers – has decided to focus on a specific issue concerning water and its management in the country. In 1991, the citizens' third report *Floods, Flood Plains and Environmental Myths* looked at living and dying with excess of water. It shattered the understanding, dominant then, that floods, particularly in the vast plains of north India, were caused primarily because of deforestation in the Himalaya. Instead, and controversially, it explained that floods were creations of the poor planning of our river systems, where engineers had built thinking that they could change the course of rivers, conquer nature and destroy the drainage of flood plains. It argued for society to rethink environmental management. Today, in the age of climate change where rainfall patterns are becoming even more variable and more extreme, the lessons of the report must be re-heard.

Then in 1997, the citizens' fourth report looked at the other side of water – how society had learnt to live with scarcity. *Dying Wisdom: the rise, fall and potential of India's traditional water harvesting systems* detailed the technological sophistication and marvel of water systems in the diverse ecosystems of India. It understood and explained how every region of the country had learnt to live with, indeed to celebrate, its water endowment by learning to value the raindrop. This report also went against the grain of engineering practice prevalent at that time. But knowledge can lead to wisdom. The understanding of the ways of the past paved the way for the present. Today, there is no hesitation or embarrassment that water security will require millions of structures to capture water where and when it falls. Water literacy has grown.

Now the citizens' seventh report *Excreta Matters: How urban India is soaking up water, polluting rivers and drowning in its own excreta* turns to yet another aspect – the water we use and the waste we generate. Clearly, India's urbanization, relentless as it is, will only grow in speed and scale. How will we manage our water needs so that we don't drown in our own excreta? This is what we have asked and tried to answer.

What has amazed us is the complete lack of data, research and understanding on this issue in the country. This is when this matter concerns us all. We need water; we get it in our homes, we discharge waste, we can see our rivers die. But we don't make the connection. We don't join our flush to our river.

It is as if we do not want to know. We need to ask why.

Is this a reflection of the caste system of Indian society, where removing waste was somebody else's business? The business was untouchable. Certainly it was unspeakable. Or is it a reflection of current governance systems, where water and waste are government's business and, within that, is it the sole business of a lowly water and sanitation bureaucracy? Or is it simply a reflection of Indian society's extreme arrogance – our belief we can fix it all as and when we get rich? In this case, water scarcity and waste are only temporary problems, which will disappear mysteriously as we turn the corner to wealth. Then infrastructure will be built, water will flow clean and the embarrassing fact of excreta in our cities will just vanish.

Whatever the reasons, it is clear is that we know little about the water we use and the waste we discharge. We hope that the citizens' seventh report will bring this issue home to all of us.

We hope that it will help to build new ways to the future and build society that is water-prudent and water wise.

It was in the late 1990s that environmentalist Anil Agarwal, who imagined and crafted the state of India's environment reports, had said we need to understand the political economy of defecation – where the rich are subsidised to excrete in convenience.

In 2011, when we write this report, which explains this political economy of defecation in more detail, we are struck by one fact that should make us all angry, really angry.

While researching this book, we have found countless instances where a city's drain – called a *nullah* today – was actually once a river. Delhi knows today the Najafgarh drain – which spills the city's guts into the Yamuna. But what is not known is that this 'drain' has its source in a *jheel* (lake) a river

once flowed from – the Sahibi. Now the Sahibi is gone; what has replaced it in living memory is a drain, which is not water, only pollution. Worse, new Gurgaon, arising out of the nothing that surrounded the hills of Delhi, is now dumping its sewage into the same Najafgarh Jheel.

The Budha Nullah in Ludhiana is called a drain, because it is that – full of stench and stain. But not so long ago Budha was not called a drain, but a *darya* – a river. It had freshwater which flowed clean. One generation has changed its form and its name.

The Mithi is maximum city Mumbai's shame. When the floods drowned the city in 2005, the city learnt that it had a clogged drain called Mithi. This drain is still full of pollution and encroachments. But what Mumbai does not realize is that Mithi has not shamed the city, the city has shamed Mithi. This drain, which originates near the city, was really a river. It was called a river. It flowed like a river. But today even an official environmental status report only knows this living river as a stormwater drain. One more city has lost its river in one generation.

But why are we surprised? Today we take water from our rivers – for irrigation, drinking and now to build hydro-electric plants to meet our insatiable energy needs. We take water, we give back waste. The river does not flow any more with water. It disappears under the load of excreta and industrial effluents.

We should be angry: we are already a generation which has lost its rivers. But more worrying is the fact that if we don't change our ways, we will deliberately murder more rivers, lakes and waterbodies. We will then be a generation that has not just lost its rivers, but has committed deliberate hydrocide. Maybe, there will be a time our children will forget that the Yamuna, the Cauvery or the Damodar were rivers. They will know them as drains, only drains.

This is the nightmare that stares us in the face. Our tomorrow.

We hope you will read this state of India's environment report and will join us to change this future, today.

Sunita Narain