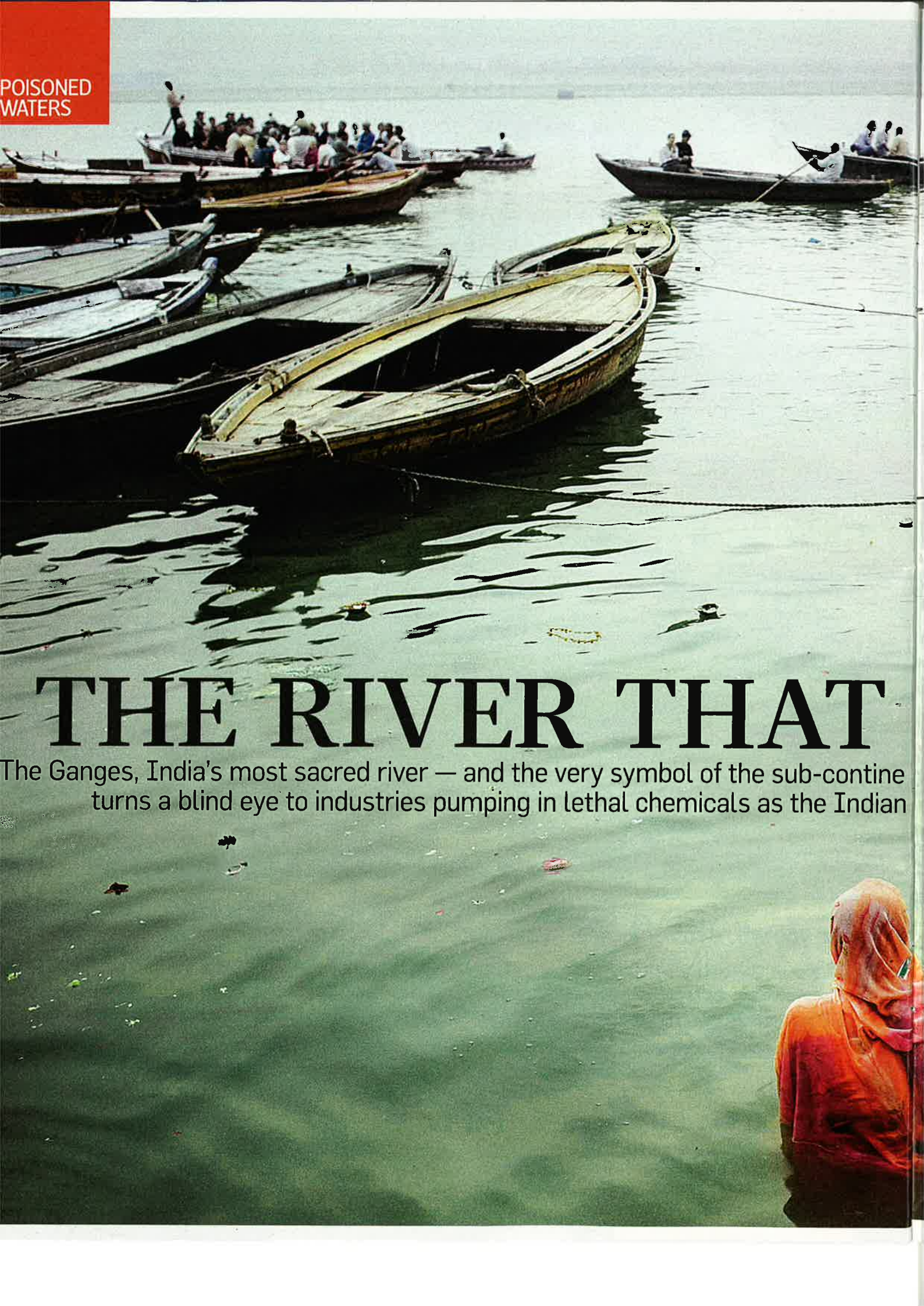
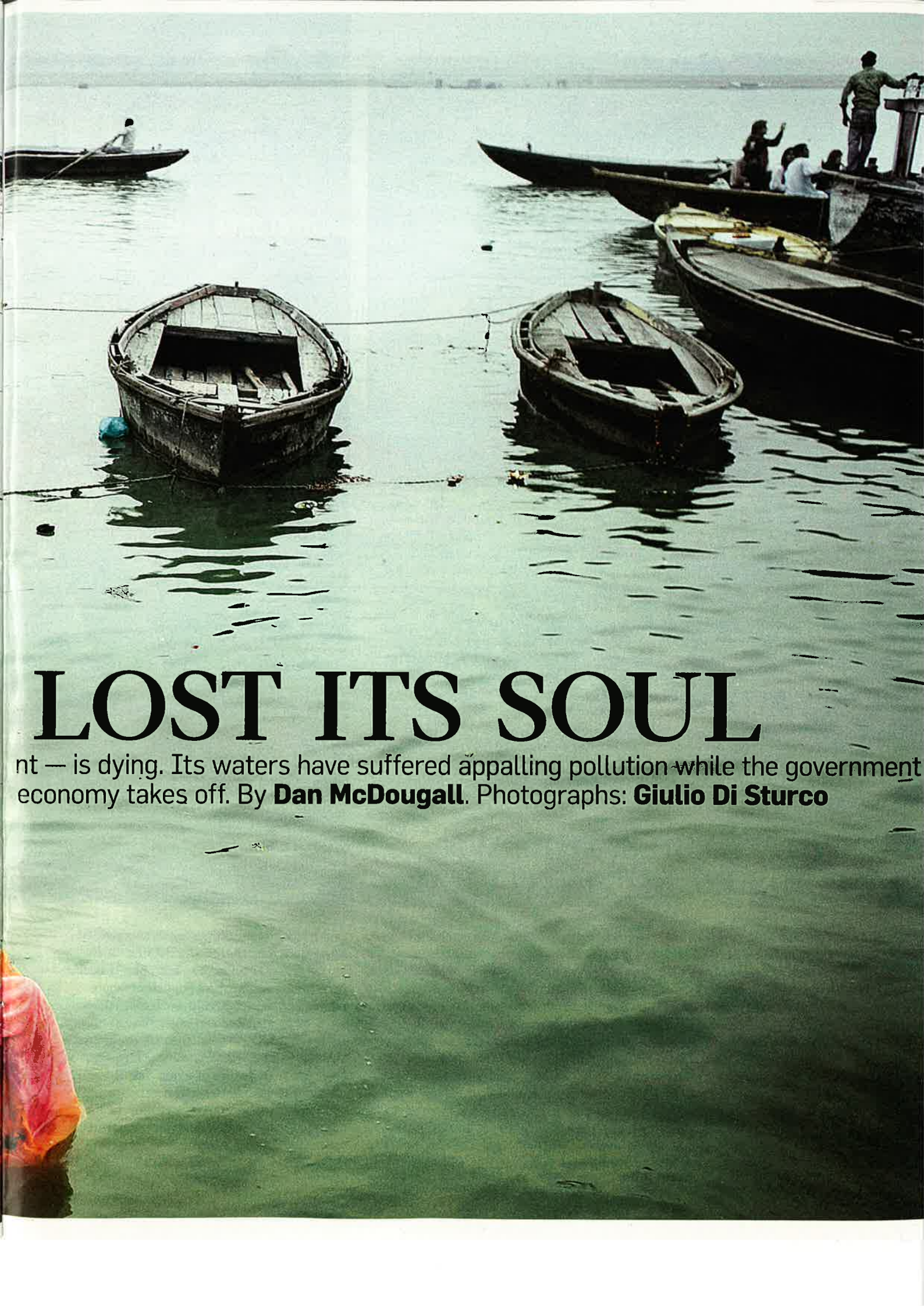


POISONED
WATERS



THE RIVER THAT

The Ganges, India's most sacred river — and the very symbol of the sub-continent turns a blind eye to industries pumping in lethal chemicals as the Indian



LOST ITS SOUL

nt — is dying. Its waters have suffered appalling pollution while the government economy takes off. By **Dan McDougall**. Photographs: **Giulio Di Sturco**



His forehead smeared with sandalwood paste, G D Agrawal winces as a nurse adjusts the drip pumping dextrose into his body. This tube is the only thing keeping him alive. Spread on the bed before India's most radical environmentalist is a crumpled map of Northern India, but he is too weak to even trace his finger across it. At 80, he is in the midst of his third hunger strike in as many years.

He is starving himself to raise awareness about the environmental catastrophe facing the mighty River Ganges and the 480m people living along its polluted banks. To India's small, but dedicated, band of environmental

Swami's followers sit in sombre vigil as the dull clang of hundreds of temple bells fill the humid air above the Ganges as it meanders through the holy city of Varanasi, a stretch of water that is toxic. Upstream and downstream, along the river's 1,569 miles, dozens of others are engaged in the same fight.

To understand the plight of the Ganges we must contemplate its might. The river begins in the small Himalayan mountain town of Gangotri where it pours out of the glacier as pure as the gods intended. From here, a distance of 142 miles or so will take you downstream to the sacred town of Rishikesh, where, in 1968, the Beatles came to stay at the Maharishi's ashram.

Beyond this point the river becomes

'SHROUDED BABIES, THROWN IN BY PAUPERS, BOB INTO VIEW'

campaigners, its decline has coincided with two decades of breakneck economic growth that has placed the world's most sacred waterway at an ecological tipping point.

G D Agrawal's painful waltzes with death in the fading years of his life have changed him beyond recognition, and not just physically. Last year, in protest at the lack of government action against pollution, he stood down as India's leading environmental engineer, renouncing the material world to become a Hindu holy man. Clad in saffron robes he is now known as Swami Gyan Swaroop Sanand. Outside his white-tiled hospital room the

overwhelmingly polluted. To reach the Bay of Bengal, where the Ganges meets the sea, you must pass across the heart of India and through 30 cities, more than 80 towns and thousands of villages, where the chronic waste of half a subcontinent and the toxic effluent from thousands of industrial zones spills carelessly into the river's flow.

Kanpur, the first big city on the river, is at the heart of India's leather industry. It supplies shoes, handbags and leather car interiors to Britain. The plants belch out hydrochloric acid, acetone and toxic dyes. The Blacksmith Institute, which monitors global pollution,

says it is one of the filthiest cities ever created. Beyond Kanpur, the disaster defiling the river for the next 500 miles or so is humanity itself. In Varanasi, India's most popular and holy pilgrimage site, faecal coliform levels, which measure human waste in water, have been recorded at 100,000 per 100ml — the highest such figure on Earth. Waterborne illnesses, such as viral hepatitis, dysentery, typhoid, cholera and gastroenteritis, affect entire communities who live on the river.

"The Ganges is already dead. Huge tracts are beyond saving. We cannot resuscitate the dead," Ravi Chopra, one of India's leading



WADING IN FILTH
Believers wash in the Ganges but pollution can be 3,000 times the safe bathing limit. Above left: the river starts clean at a mountain source

environmental campaigners, told me the day before he quit the National Ganga River Basin Authority (NGRBA), an Indian government steering group established to clean up the river. He added: "They can get away with this gross neglect of India's environment because the middle class in the country don't care. They would rather look the other way, towards the shopping mall or a new residential complex."

Expanded in 1801 by the British to supply their army in India, Kanpur sits on the higher, southern bank of the river and is the ninth largest city in India, and one of its most severely polluted. Its eastern districts have

about 350 industrial tanneries, many of which discharge untreated waste into groundwater and directly into the Ganges. These pollutants include toxic levels of metal contaminants such as chromium, mercury and arsenic.

For children, chromium is the most worrisome: popular in the tanning industry because it makes leather goods stronger, its waste form, hexavalent chromium, can cause lung cancer, liver failure, kidney damage and premature dementia. The sludge from factories that cling to the bank here is so toxic that methane trapped inside it catches fire during the hot months, releasing harmful toxins into

the air. "Even the water here tastes of metal. It burns the eyes of the children who swim in it. Our bodies itch after bathing," Kumala Mishra, a mother of two infants, told me on a bank close to the tannery area of Jajmau on the outskirts of the city. "In our village we drink Thums Up [a local cola drink] rather than water, but we can't always afford it so we boil water when we are desperately thirsty and drink it warm. We can't trust the groundwater in our wells.

"When we wake up in the morning we all have this black dust in our nostrils. But we cannot move. We cannot afford to. Our husbands need to work here. We need to be >>>

TOXIC MIX Chemicals and waste discarded by the leather industry (centre and bottom left) are causing cancer, organ failure and dementia. An ill-fated dam project submerged houses in the holy city of Tehri (left) while leaving tributaries dry (right)



‘MY CITY IS A CESSPIT. THE RIVER WASTE IS EIGHT METRES DEEP’

close to them.” In Kanpur today there are 402 listed tanneries and hundreds more smaller units. Of these, at least 100 use chromium-based systems to process leather. More than 80% of the waste water flows untreated into the river. Unicef claims that bacteria in the water here has led to severe outbreaks of typhoid, dysentery and cholera in the hundreds of villages that line the banks. They were victims of partially treated sewage used to irrigate fields. It contaminated groundwater and caused the water table to rise, making the soil saline and unproductive. The locals distrust promises of cleanups — they have heard it all before.

Along the bank, close to Jajmau, schoolgirls leave footprints in the ash-coloured dust that cloaks the pathways and trees. Women cover the windows of their village huts with newspaper to protect infants from filthy air. “This place is a



living hell,” says Abishek Sethi, a community human-rights campaigner. “Kanpur has grown beyond belief but it has been built on human waste and rubbish. My city is a cesspit. In some places the river waste is eight metres deep and you can’t swim across because it’s so thick.

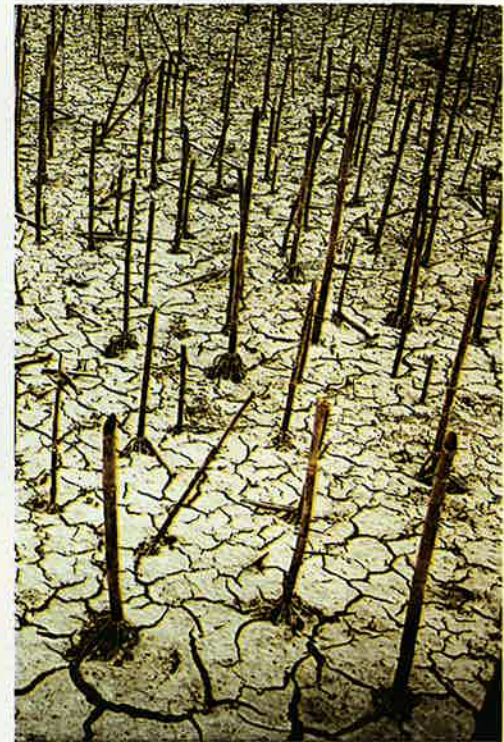
“We read in the newspapers that India’s economy is booming, but this is the frontline of progress. We are literally wading through shit to get home at night.” He added: “The drinking water here is foul, not even the cows would risk it. If they can’t fix the drinking water in a city, how can they fix an entire river that sustains 400m people?”

A sign of the crisis facing Kanpur is the black-green hue to the river, which comes from the chrome that flows out of tanneries. An attempt to tackle the waste from tanneries was funded by the Dutch government who built chrome recovery plants at

six of the biggest tanneries in Jajmau, but it is a pinprick on the map. Most smaller tanneries have refused to install such plants, saying they are too expensive. Despite such horrors, India’s green movement has been slow to join forces. As is often the case in India, matters are being brought to a head by humble men of God.

The desperate measures being undertaken by activists to raise awareness of the plight of the River Ganges is, according to some environmentalists, a response to a covert war being waged by big business and the government against their campaigns. The Intelligence Bureau, India’s internal intelligence agency and the world’s oldest spy network, has been accused of harassment of green groups, and placing activists under surveillance.

India’s beleaguered Green Party has barely had an impact. That’s ironic, because the green movement lies deep in India’s political culture and inspired the West. Mahatma Gandhi was an early green, and the original “tree-huggers” were Indians: the chipko movement used Gandhian methods,



hunger striking and sit-downs, to prevent deforestation in the Himalayas in the 1980s. The Indian film director, Shekhar Kapur, who was nominated for seven academy awards for his epic *Elizabeth: The Golden Age*, says celebrities have a responsibility to drag the nation into the 21st century and become engaged in social issues.

Kapur, a high-profile environmental voice, said: "The fight to preserve the environment needs big names, figureheads. These young Bollywood stars are idolised by a billion people across the world and arguably have a broader reach than Angelina Jolie, but are they engaged in the environment? The answer is no because they all have corporate sponsors, they make more money from advertising than acting. It's the same with India's cricket stars. As always in my country, the real advocates for change remain the poorest and most marginalised."

There is nowhere on earth like Varanasi. the Ganges is India's holiest river and Varanasi its most sacred city. Above the river it is a filthy web of alleys and lanes crammed with humanity. Every day, some 60,000 Hindus perform rituals along the ghats — stone steps that lead into the river, before washing in it,

praying in it and often drinking from it. Death is everywhere. This is where Hindus come to die and have their ashes sprinkled on the water at dawn. At Manikarnika ghat, the main cremation temple, workers stack enormous planks of wood, piles constantly being added to and denuded as logs are weighed to fuel the never-ending flow of funerals.

Corpses wrapped in red shrouds are carried, even through the night, to the banks by chanting mourners sprinkling sandalwood oil to mask the smell. On the banks the pilgrims' feet slip deep into the mud, a heavy tar of rotting rubbish, human and animal faeces, urine and decaying vegetation — a foul stew feasted upon by emaciated cows.

A thousand Indian children die of diarrhoeal sickness every day. In places, the Ganges is simply black and septic. As it enters the city, Hinduism's sacred river is toxic in tracts with 120 times more faecal coliform than is considered safe for bathing.

Four miles downstream, with inputs from 24 gushing sewers and 60,000 pilgrim-bathers, the concentration is 3,000 times over the safety limit. The centre of the river is no better. The Hindu scripture says a person

whose ashes are placed in the Ganges goes straight to Nirvana. But cremation costs at least \$100, so some poor people illegally dump their dead into the water. Floating across the water here you are forced to avert your eyes as the corpses of semi-cremated adults and shrouded babies, thrown into the river by paupers, bob into view.

Next year an unfathomable 60m Hindus could congregate on the rubbish-strewn banks of the Ganges, close to the city of Allahabad, for the 2013 Kumbh Mela — the largest gathering of humanity on Earth. They will come from across the subcontinent in the belief that the river will wash away sins. Religious devotion to the river is also destroying it.

As in Gandhi's time, Varanasi at dawn is life and death laid bare. On the riverbank, above the call of mynah birds and jackdaws, naked Sadhus, their faces stained with turmeric, hold out palm-frond coracles filled with pale white marigolds and candles to launch by the thousands into the sacred river, each one fading into the mist like the dying embers of stars.

At 5am my boatman greets me as he stands waist-high in the filthy river — cupping his hands to his face with blue-black water he slurps at the "nectar" offered freely by the Great Mother. Around him, small pools of engine oil, cow shit and rubbish gather in congealed pools. This is India at its paradoxical worst. Where we see filth and squalor, through their faith, the devotees see only beauty ■