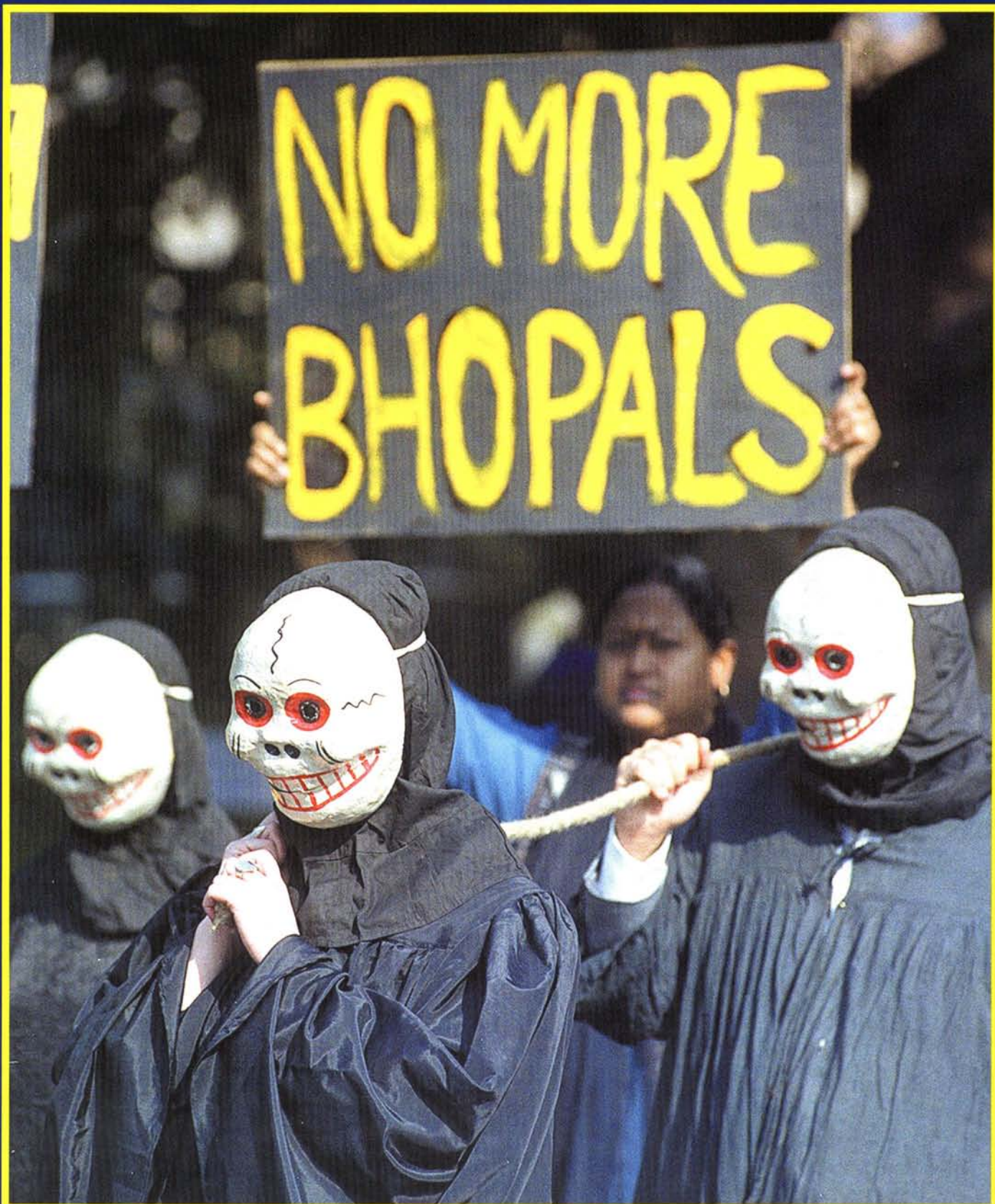


# Tribune

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AND INDIA'S 20-YEAR WAIT FOR JUSTICE MUST BE ENDED



# The deadly leg

Twenty years after an act of industrial homicide that took the lives of thousands and devastated the health of thousands more, justice is still denied **Neil Hodge** in Bhopal reports. He also took the photos

**T**HE Bhopal disaster is a sorry tale of inefficiency, ineptitude, corruption and a lack of accountability from the world's largest chemicals company to the Indian Government. Twenty years on from the world's largest industrial accident, more than 500,000 people – most living in poverty – are still waiting for their compensation claims to be settled. The money – around \$327 million – has been lying in the Reserve Bank of India, the country's central bank, for 15 years due to bureaucratic bungling and legal tangles surrounding who should receive the funds.

The state government of Madhya Pradesh (of which Bhopal is the capital), the Bharatiya Janata Party (BJP), the state's ruling party, the hospital trust set up through the Union Carbide settlement to provide free treatment to those deemed gas-affected, as well as the victims themselves, have been vying for the funds for a decade. It was only in August this year that the Indian Supreme Court decided in favour of the victims – all 572,000 of them. The Welfare Commission for Bhopal Gas Victims, set up by the state government to deal with compensation claims, hopes to disperse the remaining cash by next April.

But no one – with the exception of moneylenders and corrupt officials – is going to get rich from the payouts. Averaging between just \$500 to \$700 depending on whether those eligible for the funds survived or died as a result of the leak, many Bhopalis have already spent their compensation awards several times over on private medical care, legal fees, bribes, usury, and just day to day living. Equalling a paltry \$2 a month since the disaster took place, the compensation award approved by the Indian Government does not even address the most basic economic and

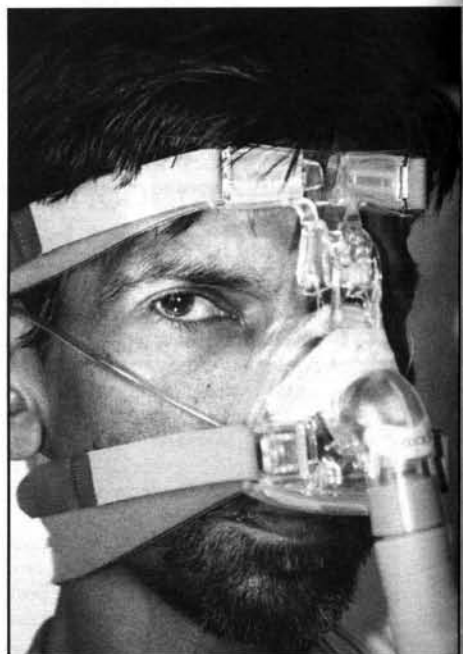
medical rehabilitation needed by sufferers. It is inconceivable that any company would get away with such a pay award if it had killed over 10,000 people in the United States or Britain and affected over 500,000 others.

Shortly after midnight on December 2-3 1984 around 43 tonnes of poisonous gases, including methyl isocyanate (MIC), phosgene (mustard gas), hydrogen cyanide, and carbon monoxide, escaped from the Carbide plant after water entered a MIC storage tank and caused a violent chemical reaction. Safety measures which could have prevented the leak were either not in operation, or failed completely.

Carbide maintains that the leak was an act of sabotage by a disgruntled employee – a version of events that has few supporters outside the company's boardroom. Official estimates place the death toll within the first weeks of the disaster at around 3,000-4,000: activists say the real figure is 2 or 3 times that, with 100,000 people still seriously ill.

Union Carbide was merged into Dow Chemical, the world's largest chemicals firm, in February 2001. Dow has denied all responsibility for an act it says was committed by a company it did not own or operate at the time. Dow's net income for the third quarter of this year was \$617 million, an 86 per cent increase on the same period last year.

Union Carbide medical experts insisted at the time of the leak that MIC could only cause superficial injury, and that it does not enter the bloodstream or cross the lung barrier. However, later blood and tissue analysis revealed evidence of methyl carbamylation in the blood of victims who had died, and MIC trimer, a chemical found in the



**THIS** Gas-affected victim lived 400 yards from the factory. His lung damage is irreversible

residues in Tank 610 which is known to be the source of the gas leak.

The Indian Council for Medical Research (ICMR) found that 96 per cent of men and women in the severely affected areas reported respiratory system damage immediately after the leak. A medical survey conducted by an NGO in March 1985 found that 94.6 per cent of people living between a half and two kilometres away from the factory had symptoms such as coughs and chest pain, and 104 days after the accident, 79.7 per cent still complained of respiratory illness. Five years later, a survey found that 70 per cent of the sample from the severely affected area reported breathlessness. Ten years later, a study found persistent obstruction of the small airways in survivors.

Even more poisonous than the gas leak itself is the settlement that was concluded five years later between Union Carbide and the Indian Government in 1989. This provided that Union Carbide in the US would pay \$420 million in compensation, with the Indian subsidiary contributing a further \$50 million in rupees to the disaster fund in return for any criminal charges against the firm being dropped.

In October 1991, the Supreme Court of India upheld the civil settlement. But the Court also required the Government of India to purchase, out of the settlement fund, a group medical insurance policy to cover 100,000 persons who may later develop symptoms. It also required the Indian Government to make up any shortfall in the settlement fund. Moreover, Carbide contends that Eveready Industries India Ltd (EIIC), the renamed Union Carbide India Ltd which took over the site as a separate corporate entity, is liable for any further clean up and environmental remediation. Therefore, a substantial part of the settlement is the



**AN EFFIGY** of Warren Anderson the chief executive of of Union Carbide who absconded from justice

# Legacy of Bhopal

responsibility of the Indian Government

The Indian Government agreed a settlement that woefully underestimated the numbers of people affected by the gas at the time of the leak, as well as the numbers of children that would be subsequently affected. The state government of Madhya Pradesh also botched the way in which it would determine which people were deemed "gas-affected". The Bhopal authorities decided that the wind might have blown the gas across 36 of the city's 56 wards, so all inhabitants within those boundaries were automatically deemed eligible for compensation and health-care treatment. The other 20 wards – comprising around 334,000 people as of December 1984 – were declared safe. Doctors and campaigners say that there could easily be tens of thousands of people that have subsequently been denied free medical treatment purely because their address falls outside those perimeters.

Even those people living within the 36 gas-affected wards have been denied the proper health-care to which they are entitled. The hospital set up by the Carbide settlement – an impressive and modern 350-bed facility called the Bhopal Memorial Hospital and Research Centre (BMHRC) – did not open its doors until July 2000 – 16 years after the disaster. The hospital's first outreach centre only began treating people in 1998. Before that, victims were either treated at the local general hospitals, which had neither the skills nor medication to adequately care for the tens of thousands of seriously sick people, or sufferers paid for private treatment – if they bothered at all.

Worryingly, the hospital set up to offer life-long support to victims could be facing a potential budgeting crisis just four years after its launch. According to its director-general, Professor Indraneel Mitra, it exists on an annual budget of around £3.5 million financed purely on an interest rate of approximately 13 per cent on the capital set aside for the future running of the hospital. But in the past year the interest rate has halved to just over 6 per cent, potentially slashing half of the hospital's spending, and forcing the hospital to dip into its settlement money. Further, says Professor Mitra, the number of gas-affected patients claiming treatment is likely to rise from the 280,000 already registered to more than 500,000 in the wake of the new round of compensation payouts and the Supreme Court's decision that there are nearly 600,000 eligible for gas-affected status and free medical treatment. A suspected black market in patient entitlement cards at the hospital may also result in greater numbers of people being treated than actual victims.

Moreover, the standard of healthcare provision is handicapped by the fact that doctors admit that they have no ability to adequately assess whether the treatments they prescribe help or hinder patients. Although there are over a dozen dispensaries and hospitals set up in the wake of the leak, there has been no effective research for finding a mechanism to counter the long-term health ramifications of the gas consumption. This is because Union Carbide has consistently refused to release any details or health studies associated with MIC on the grounds that the formula is a "trade secret". Hampered by the lack of



THE remains of the chemicals still lie scattered on the factory floor

disclosure, doctors are providing purely symptomatic treatments.

Dr Shyam Agrawal, director of Bhopal's Navodaya Oncology Centre, a private clinic, estimates that around half of the BMHRC's annual budget on medicines and treatments is wasted. He says that patients complaining of respiratory difficulties or headaches are routinely given aspirin and eye and nose drops. His view is supported by what little research has been carried out on the gas-affected people since 1984. In a July 2000 study of 101 prescriptions issued by a clinic of the BMHRC, Dr Atanu Sarkar, a New Delhi-based programme officer of the Catholic Health Association of India, found that 26.3 per cent of the drugs prescribed were harmful, 48.5 per cent useless and 7.6 per cent both harmful and useless.

The Indian Council of Medical Research carried out 24 research projects in the early years after the leak to document victims' health problems, including respiratory, ocular, reproductive, genetic, psychological, and neurological damage, but they were wound up in 1994. None of the reports were ever made public, although the doctors I interviewed agreed that incidences of cancer, pulmonary edemas, tuberculosis, depression, cataracts, genito-urinary complaints, as well as cardio-vascular ailments had risen, quite possibly as a result of MIC exposure. They also agreed that the average life expectancy of Bhopalis, particularly men, is falling.

Nor is the rise in illness limited to adults. Dr Kirti Kumar Shah, professor and head of the eye department at BMHRC, is certain that there has been a significant growth in the number of cases of congenital cataract and retinopathy in premature babies, a condition that can result in blindness if not treated early. Dr Shah believes that the proportion of premature babies requiring corrective laser treatment is substantially higher in Bhopal than anywhere else in India.

Birth and congenital defects are likely to continue. This is because the site has still not been cleaned up. Sacks of chemical compounds labelled "poison" lie opened and rotting in an open shed, just a few hundred yards from the nearest shanty town. The contaminated site continues to pollute the groundwater, the sole source of water for those around the plant, with toxins. Carbide, Dow and the state government have done nothing to remediate the site to a safe level in 20 years.

In May, June and July 1989 UCC conducted "preliminary" tests on solid and liquid samples drawn

from "land-fill areas and effluent treatment pits inside the plant". Both liquid and solid samples were toxic to fish. The solid samples contained naphthol or naphthalene in substantial quantities, the liquid samples contained "naphthol and/or Sevin in quantities far more than permitted by the Indian Standards Institution (ISI) standards for onland disposal."

In November 1999, Greenpeace released a report on Bhopal which concluded that the site and immediate surroundings were contaminated with chemicals arising from routine processes, spillages and accidents at the plant, or from dumped and stored materials on the site. Greenpeace found areas of severe contamination with heavy metals and chemicals. All are toxic, most probably carcinogenic.

In May 2004, based on a report by the state government's Waste Monitoring Committee, the Supreme Court of India observed that "due to indiscriminate dumping of hazardous waste due to non-existent or negligent practices together with lack of enforcement by the authorities, the groundwater, and, therefore, drinking water supplies" have been damaged.

The Supreme Court passed an order instructing the Madhya Pradesh government to supply fresh drinking water through tankers to people whose potable water supplies were contaminated by pollutants from the plant. But the local people are still waiting: it's something they are used to.



PROTESTERS outside the Union Carbide factory on the 20th anniversary of the disaster