The Bhopal Disaster and Medical Research

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The Supreme Court, in its final order of October 1991, upheld the compensation settlement with Union Carbide which made the Government of India liable for any shortfall in compensation or any new claims from the Bhopal gas victims. Following this order the Indian Council of Medical Research disbanded its medical research on the long-term medical effects of the disaster.

A recent Supreme Court order directs the ICMR to resume that research, but the question that looms is why the ICMR abdicated its ethical mandate and allowed its subordination to a political diktat. Why did the ICMR as an institution allow itself to become an apologist of the Indian state?

The 9th of August 2012 witnessed the culmination of a protracted litigation in the Supreme Court of India (SC) by the survivor groups and their support organisations in the Bhopal gas leak disaster case for appropriate medical relief and rehabilitation. The order passed on the writ petition No 50 of 1998 (Bhopal Gas Peedit Mahila Uzlayog Sanghatan (BGPS) & Ors vs Union of India & Ors3), directed the Government of India (GoI), the Government of Madhya Pradesh and the Indian Council of Medical Research (ICMR), to ensure the continuation of medical research, prepare standardised protocols for diagnosis and treatment of the exposed, as well as provide patient-retained health booklets for recording their medical history and treatment. Though the order can be considered radical given the context, as rightly pointed out in the EPW editorial (2012), it is indeed disturbing that it requires a Supreme Court order to direct ICMR to continue research on what is patently their role as a medical scientific body. Why did the ICMR abdicate its ethical mandate and allow its subordination to a political dictate is the story that needs to be told.

The industrial disaster in Bhopal on the night of 2/3 December 1984 exposed more than two-thirds of the nearly 9,00,000 population to a mixture of toxic gases4 that escaped from the pesticide factory owned by Union Carbide India Limited (UCIL), a subsidiary of Union Carbide Corporation (UCC), a US multinational company currently owned by another US multinational, Dow Chemicals. As was to be expected, the UCC denied any wrongdoing on their side but would not part with the toxicological information on methyl isocyanate (MIC), the chemical which had been stored in liquid form in the factory premises and whose runaway exothermic reaction was responsible for the disaster. In the absence of this critical toxicological information, the scientific bodies had to generate their own data for understanding the nature of the chemical injury and develop possible antidote and therapies.

Suppression of the Health Impact

In the period immediately following the disaster, both the central and state governments appeared to be serious about mapping its health impact. The first systematic survey on the exposed population was carried out by the Tata Institute of Social Sciences (TISS), which had been approached by the Commissioner of Relief and Rehabilitation for the gas victims (Singh 2010). Funded by Sir Dorabji Tata Trust (since the Madhya Pradesh (MP) government had refused to finance it), the house-to-house survey was conducted from 1 January 1985 to the second week of February 1985, by “...[a] total of 478 students, 41 faculty members and 13 staff members covering 25,259 households” (Singh 2010).

Alongside, the ICMR began the process of providing the gas-exposed families with a unique identifying number as a first step towards developing a sampling frame for long-term epidemiological studies. Based on post-mortem studies on the dead which indicated a “cyanide-like” poisoning,5 ICMR conducted a double-blind clinical study to assess the efficacy of Sodium Thiosulphate (nats), as an antidote to the poisoning and concluded,

...the rationale for the use of sodium thiosulphate as an antidote has been established to ameliorate the lingering sickness of gas affected victims of Bhopal (ICMR 1985).

Yet, the ICMR did not follow through with this recommendation both because of opposition from the powerful medical lobby in Bhopal which was heavily influenced by Union Carbide and because of the Indian government’s wavering stand. The MP government on its part decided to suppress the data collected by TISS which had been handed over to it in good faith.

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In early 1985, the Indian Parliament passed the Bhopal Gas Leak Disaster (Processing of Claims) Act (deemed to have come into effect from 20 February 1985), purported to prevent the exploitation of the victims by the ambulance-chasing American lawyers. However, with this Act, the Indian state assumed the role of parens patriae vis-à-vis the victims thereby appropriating their rights under its umbrella of care. The Bhopal Act gave the Indian government, ...exclusive right to, represent, and act in place of (whether within or outside India) every person who has made, or is entitled to make, a claim for all purposes connected with such claims in the same manner and to the same effect as such person (goi 1994, emphasis added).

Under this Act the victims had no rights to represent themselves and, though it was challenged in the scI as early as 1986, it was upheld as being constitutionally valid.7 The logical consequence of this legal appropriation of a citizen’s right to litigate meant that the state had the right to medical appropriation as well (Jaising and Sathyamala 1992). Hence, it became the government’s exclusive right to determine whether they would study the health effects of the toxic gases, which aspects they would research on, whether they would share the findings with the claimants and whether they would submit the research findings in their litigation against uCC.

With the passing of the Act the changing stance of the Indian government could be discerned, and the victim groups were forced to approach the courts for medical relief. The petition filed on behalf of the victims in August 1985 brought to the notice of the scI the refusal of the medical community in Bhopal to administer n-nts as well as the lack of adequate healthcare facilities for the gas exposed.8

The Supreme Court then set up a committee of seven experts with three representatives from the icmr, two from goi and two representatives of the gas victims. The committee was to examine the detoxification of the gas victims by nats therapy; suggest appropriate design for an epidemiological survey for the purpose of documentation, and for determining compensation payable to the victims; and to recommend guidelines for the provision of medical relief, and monitoring of the exposed population. The scI, convinced of the need for long-term medical monitoring, stated in their order of 4 November 1985:

It is desirable that some independent machinery must be set up which would...carry out a proper epidemiological survey and also a house-to-house survey of the gas affected victims both of which will also be necessary for the purpose of determining the compensation payable to the gas affected victims and their families. It would be necessary for the purpose of ensuring proper medical facilities to the gas affected victims.

Inadequate Epidemiological Study

However, the members of the committee, representing divergent interests, could not come to a consensus. In 1987-88, the two representatives of the gas victims in the committee9 submitted a separate minority report entitled “Final Report on Medical Relief and Rehabilitation of Bhopal Gas Victims”. This pointed out the inadequacies in the studies initiated by the icmr, specifically the long-term epidemiological study, and outlined a set of well-considered recommendations on how they could be improved.
upon. Though this was submitted to the Court on 30 August 1988, it was not taken cognisance of.10

Seemingly in response to this petition, the goi on its own set up the “Scientific Commission for Continuing Studies on Effects of Bhopal Gas Leakage on Life Systems” headed by C R Krishna Murti (former director, Indian Institute of Toxicology Research). The commission’s report submitted to the goi in July 1987 (publicly accessible only a decade later) was also not submitted to the courts. The 1,000+ page report, entitled “The Bhopal Gas Disaster: Effects on Life Systems” commented on the icmr studies that

...[the progress of the epidemiological programme mounted in Bhopal has been tardy and suffers from many inadequacies in the design and in the infrastructure for implementation (Krishna Murti 1987: 11-12).

The report highlighted certain important areas for research:

What is the prognosis of the continuing suffering of the thousands of gas exposes [sic] including a large number of children? How many of the gas exposes [sic] are likely to be condemned to life-long disability? Will there be an imprint of the disaster on the progeny of the gas-victims? (Krishna Murti 1987: 3).

It recommended that

...the Ministry of Health with the assistance of icmr and other agencies creates the requisite mechanism for high level coordination and monitoring of the long-term health studies of the Bhopal Gas Victims (Krishna Murti 1987: 26).

State Complicity

On 14/15 February 1989, empowered by the Bhopal Act, when the goi settled all claims of the present and the future arising out of the disaster, it was clear that it was not based on any scientific understanding of the nature of injuries or the numbers of injured as none of the data collected by the several scientific bodies was placed before the Court. Due to countrywide protests that followed the unjust arbitrary settlement, the sci, forced to come out with some justification, in their 4 May 1989 clarificatory order, used arbitrary numbers to provide a mathematical rationale for the amount of money settled for. It was during the hearing of the review petitions challenging the settlement that the victim groups became aware for the first time of the real numbers involved. The numbers provided by the mp government showed that, as of 31 January 1989, i.e., 15 days prior to the settlement of the approximately 6,00,000 claimants, only 29,320 persons had been categorised for injury, and of these less than 100 persons had been found to be permanently disabled (partial or full).11

It was left to the victim groups to demonstrate that the process of Personal Injury Evaluation (poe), adopted by the Directorate of Claims for categorisation of injuries, was designed to underestimate the nature of injuries and that by inadequate examination of the claimants (clinically and through investigations) and by evaluating the injuries and categorising them with the use of faulty tools biased against the gas victims, the Directorate of Claims, Bhopal, had ‘defined’ away the injuries of more than 90% of the victims as ‘no injury’ or ‘temporary injury’ (Sathyamala et al 1986).12

With the settlement of 13/14 February 1989, and the sci’s clarificatory order of 4 May 1989, the complicity of the Indian state became apparent and it was from this period onwards that the victim groups realised that they could no longer depend on the goi and would need to enter into litigation on their own to represent their interests from their point of view.

Through an order from the sci, the victims were allowed access to their phe assessment and the newly elected government (the National Front government) made available the icmr studies on the gas exposed which had till then been held under the Official Secrets Act. The icmr studies showed the effects of exposure to be multi-systemic, irreversible and progressive; the exposure had affected the immune system, previously asymptomatic persons were becoming symptomatic and there was a grave possibility of carcinogenic and mutagenic changes in the exposed population.

Unfortunately, the victim groups were not able to put up an effective challenge against the civil settlement particularly against the faulty medical categorisation based on the faulty personal injury evaluation process. The National Front government too failed to raise this issue before the Court. However, it was when the counsel for ucc argued on the basis of the numbers provided by the mp government13 and showed, mathematically, using the same rationale provided in the sci’s clarificatory order of 4 May 1989, that ucc had in fact paid up more than what was warranted,14 that the central importance played by the injury assessment in compensation became clear.

Why Stop Research?

After 3 October 1991, when the final order on the review petitions, upholding the civil part (compensation) of the settlement, was pronounced by the sci, the goi decided to disband its medical studies. This was in contravention to the court ruling that,

...for at least a period of eight years from now the population of Bhopal exposed to the hazards of MIC toxicity should have provision for medical surveillance by periodic medical check-up for gas related afflictions.15

There was a compelling reason for the goi’s decision to disband the medical studies. The settlement had quashed all future litigations against ucc and in the event of shortfall in the compensation payable to the victims and in case of newer claims (new manifestation of injuries both in the directly exposed and in their progeny, i.e., new generation of claimants), it was the goi that was liable. It was now not in the interest of the goi to document the long-term medical effects of the disaster as they were now legally liable to compensate the new claims, if any, and therefore in the same year all icmr studies were brought to an end. This was also the reason why the victims, even after repeated demands and many legal directions, were never provided with health booklets to record their medical history; for doing so would turn such booklets into a legal document on the basis of which they could claim compensation for long-term effects.

Since the goi showed no signs of re-initiating medical research, the victim groups and their supporters approached the sci in 1998 for legal remedy. Though the sci gave several orders16 directing the icmr to restart the medical research
and the health directorate of MP to issue health booklets to record patient history of the gas exposed, they have been largely ignored.

As though to justify the unjustifiable, in a recent report, ICMR is stated to have withdrawn from conducting medical research because,

[In 1994, after review/recommendations of the projects by the Project Advisory Committee (PAC) and Scientific Advisory Committee (SAC), it was observed that the projects had achieved the objectives and were thus completed… (ICMR 2012).]

With this statement, the ICMR has cut at its root of scientific integrity, because all evidence points to the contrary. In fact, ICMR’s recent publication based on data from 1985-94, the period after which the studies were discontinued, confirms that in Bhopal, cancer of all sites in both males and females showed a significant increasing trend in incidence rates over the years in Area 1 … while in Area 2 no linear trend was observed (ICMR undated: 174).10

While there have been and there continue to be individual scientists within the ICMR who have done work that has been in keeping with their scientific-ethical mandate, ICMR as an institution has allowed itself to become an apostle of the Indian state. The Bhopal experience does not infuse confidence among people who live near potential disaster sites about the seriousness and commitment on the part of the government, both central and state, to protect its citizens. With such a track record, the people who are currently protesting the nuclear power plant in Koodankulam are right to distrust the state which has demonised its interests lie elsewhere.

was a mixture of vapourised MIC, carbon monoxide, phosgene, hydrocyanic acid gas and other unknown decomposition products of MIC.

5 The late Heeresh Chandra, the then Head, Forensic Department, Gandhi Medical College, Bhopal, conducted the post-mortem studies and the late S S Srimachari (then additional director general of ICMR), developed the theory of chronic cyanide poisoning.

6 The only solitary petition was filed in early 1986 (Writ Petition No 164 of 1986) by Rakesh Shroti, an advocate, a resident of Bhopal and a victim of the tragedy. After the Bhopal settlement in 1989, three more petitions challenging the constitutionality of the Bhopal Act were filed.

7 This judgment was on 22 December 1989 and is reported in 1990(1) SCC 613.

8 Writ petition No 11708 of 1985, filed by Nishith Vohra and Ors.


10 Ironically, the recommendations of the Minority Committee were included in the current SCI order of August 2012, after an elapse of 24 years.

11 From data handed over by Madhya Pradesh government in Court on 31 November 1990.

12 The study was carried out with technical help from the Centre for Community Health and Social Medicine, Jawaharlal Nehru University, New Delhi. Data was collected by more than 40 volunteers including doctors. The report of the study was submitted to the Supreme Court in 1990 during the hearing of the review and writ petitions against the Bhopal settlement in civil appeals Nos 3187-88 of 1988.

13 By 31 October 1990, of the 3,38,712 claimants categorised by the claims directorate, less than 3,000 were said to be permanently injured and/or disabled.

14 Written submission by UCC handed over in court on 6 August 1990.

15 See: Para 203, Order dated 09 October 1991 in Civil Appeals Nos 3187-88 of 1988 at (1991) 4 SCC 683. The time period of 8 years mentioned in the order is without any basis.


17 Area 1 was considered “MIC affected” and Area 2 was “MIC un-affected” areas (ICMR undated: 172). The ICMR at times deliberately does not date their publications on Bhopal. This report was published sometime in November/December 2008.

REFERENCES


Sahyog Samiti (BGPSSS) were the other respondents.


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