

BHOPAL GAS TRAGEDY: WHEN THE SMOKE CLEARS



DISCOVER INDIA PROGRAM
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Bhopal Gas Tragedy: When the Smoke Clears

DISCOVER INDIA PROGRAM

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To the unfaltering voices of Bhopal.

CERTIFICATE

This is to certify that the work incorporated in this report entitled “*Bhopal Gas Tragedy: When the Smoke Clears*” submitted by the undersigned Research Team was carried out under my mentorship. Such material as has been obtained from other sources has been duly acknowledged.

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Abstract

Over the past 5 decades, the world has witnessed a steady increase in the occurrence of manmade disasters, especially those of the industrial kind. This report aims to study the Bhopal Gas Tragedy of 1984 through the conceptual framework of Environmental Justice. The relationship has been established by researching the impact of the event in three domains – Policy, Media, and Culture. The event was studied as a precedent, by using better conceptual tools to articulate the effects and the consequences, and by documenting the changes in the three aforementioned spheres. Qualitative research methods were used to collect primary data. The group used semi-structured interviews and discussions. Convenient and systematic samples were collected to interview journalists, bureaucrats, activists, researchers, survivors and non-survivors. First, this research examined the policies planned and implemented for social and economic rehabilitation and identified the roles of political agents in the rehabilitation process. Then, it analyzed their successes and failures, the attitudes of the survivors towards the stakeholders, and the implications on the the social relationships and identities of the people of Bhopal. Lastly, the influence and perspective of the media in doing so were also investigated. The relation between news presentation and public consumption was brought out by examining the nature of newspaper reportage. It was found that there were discrepancies with the planning of policies by the government and its implementations. The incident also changed the perceptions of the survivors towards the city, and their attitudes towards other stakeholders. These findings indicated that the path of EJ in Bhopal was influenced by the interests of social actors and agents. Using this trajectory, the report finally establishes the how there is still a need for further research on the topic and how the Bhopal Gas Tragedy's effects are still evident today. It aims to establish the event not just as an environmental disaster, but as a social, political, and cultural one.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The impacts of certain incidents extend far beyond their time-frame, percolating into the minutest aspects of life. In such cases, the event becomes an exemplar, and the place becomes a monument to its history. The Bhopal Gas Tragedy (BGT) of 1984 was one such occurrence. This catastrophic industrial disaster brought to light hard-hitting truths about the dangerous downsides of globalisation.

This chapter aims to examine the circumstances that led to the worst industrial disaster in history, and the chain of events it set in motion. In doing so, its enormity can be evaluated and analysed, and its context can be afforded clarity; because the truth is, “Bhopal didn’t start on the night of the tragedy” (Bhopal.com, n.d.).

1.2 Environmental Justice

Over the past five decades, the world has witnessed a steady rise in the occurrence of manmade disasters (Fig.1.1). The Bhopal incident is only one such example, but must be contextualised as an environmental disaster in a newly-industrialised developing economy. With the rise in industrialization and capitalism since the beginning of the 20th century, the frequency and intensity of industrial disasters have increased significantly. Industries have been set up in developing countries where the poverty and need for employment far outweighs environmental sustainability and the value of life. This makes poorest and lowest member of the society the most vulnerable to a potential high-risk man-made disaster due to human error and poor communication.

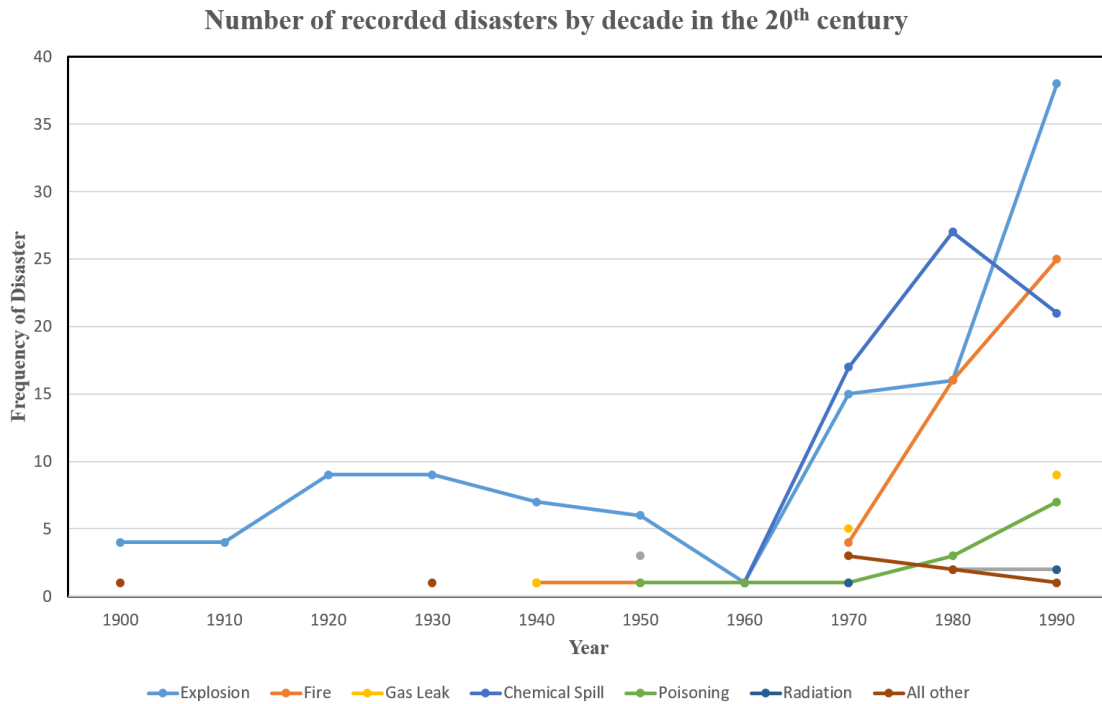


Figure 1.1. Number of recorded disasters by decade during the 20th century

Source: Coleman, 2006

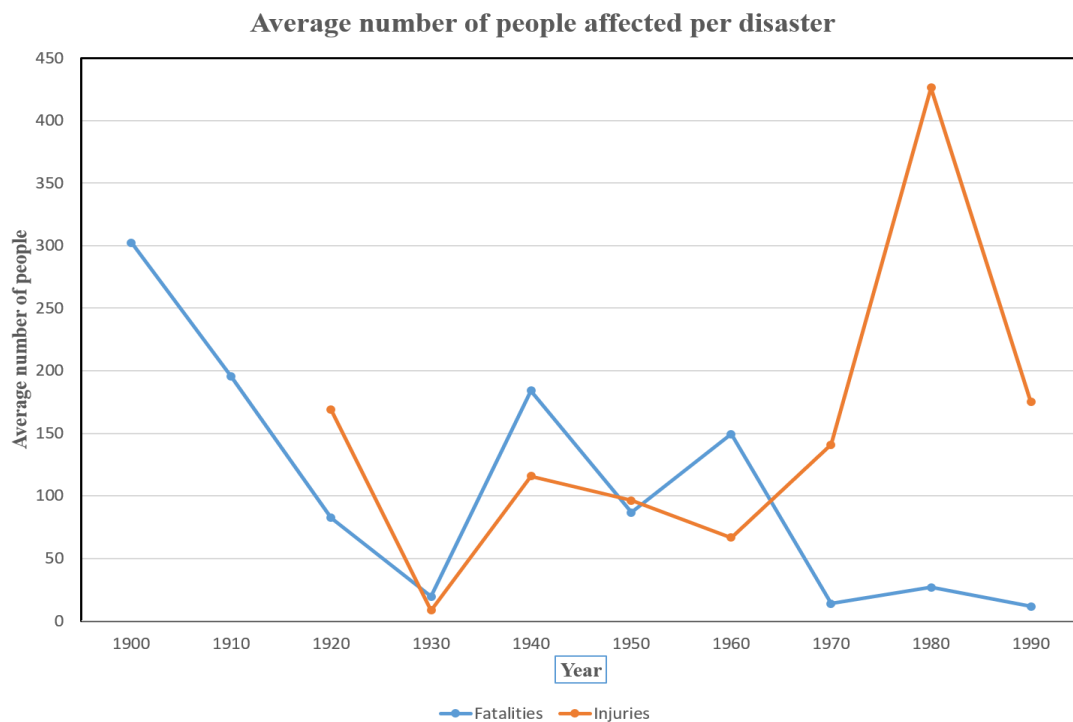


Fig: 1.2. Average number of people affected per disaster

Source: Coleman, 2006

Environmental justice is “a situation where no people, irrespective of race, religion or gender, are forced to shoulder an unequal burden and treated fairly in the enforcement of environmental regulations.” (Heiman, 1996) It is a concept that mentions how ‘people of colour and poor people are the worst affected, not only economically, but environmentally.’ (Heiman, 1996). This imbalance is a common contemporary trend as developing countries face the aftermath of the issues caused by developed nations, all the while aiding the latter’s progress. Environmental provisions, like the access to safe environments, are often inequitably distributed among members of a community. Their rights are encroached on up to a point where they are forced to live with environmental hazards as a normal part of daily life. Such situations additionally come with political consequences as well as economic ones.

These communities’ lack of agency and access to rights makes them a target of environmental injustice, fundamentally indicating that the value of their lives can be easily dictated. Social actors like the media and representatives of the individual like activist collectives play a role in keeping a check on this injustice. They mediate the diffusion of environmental justice, and the distribution of environmental burden, from the State to the individual. The situation in Bhopal mirrors this concept. With newer vocabulary, it is perhaps possible to analyse an event that took place thirty-four years ago through its application of environmental justice.

1.3 Geographical location

Bhopal is the capital city of Madhya Pradesh, located roughly 360 miles south of Delhi, and surrounded by hills. It is known as the “City of Lakes”, (Fig.1.2.) as it has 17 lakes- both natural and artificial (“Bhopal Municipal Corporation”, n.d.).

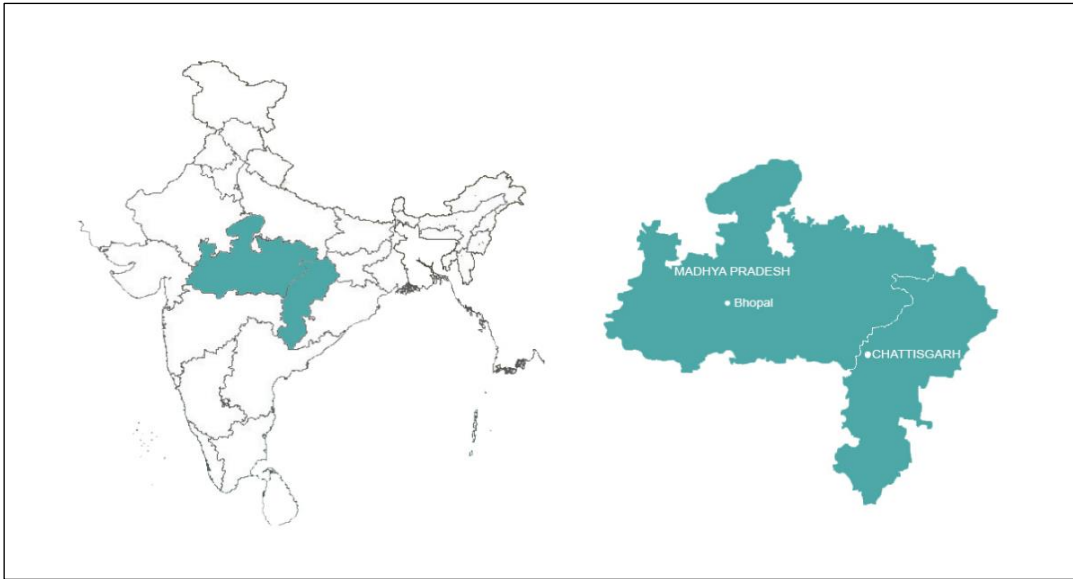


Fig 1.3. Location of Bhopal with respect to India

Source: Census of India, 2010

The city had a population of 60,000 in 1950 (Eckerman, 2005); the number grew close to one million in 1984. The city is topographically and culturally divided into the following 3 parts: “The old city, established during the reign of the Nawabs, forms the northern part; the new city, with government offices and bungalows, lies in the middle; the industrial township surrounds a government-run engineering industry further south” (Sarangi, 1996).

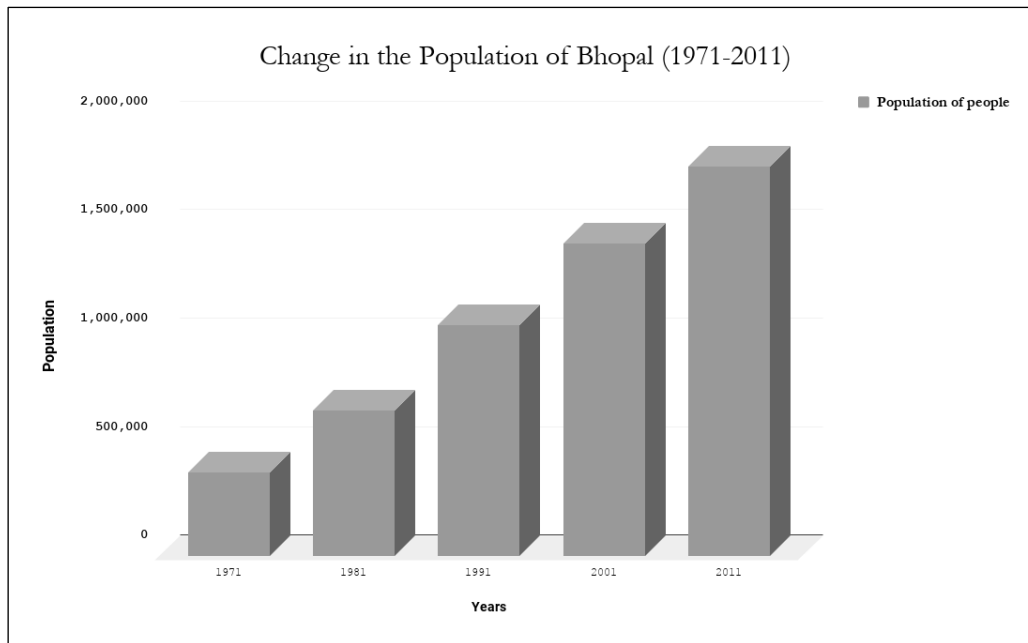


Fig. 1.4 Changes in Population of Bhopal

Source: Census of India, 2011

1.4 Before the Bhopal Gas Tragedy

With the onset of the new era of globalisation, India decided to capitalise on its primary industry: agriculture. Technological developments and new agricultural materials led to a boom in agricultural production. This is known as the ‘Green Revolution’. Additionally, the mid-twentieth century saw a shift in the Indian economy towards liberalisation. The country began to support economic freedom in terms of “limited government, private property, free competition, and voluntary interactions” (Shah, 2002). This caused changes in the laws dealing with foreign companies and birthed a niche for agricultural goods in India, which was coveted by foreign investors (“Economic Liberalisation in India”, n.d.).

1.4.1 A History of Union Carbide Corporation

Once such foreign investor was Union Carbide Corporation, a diverse multinational company that pioneered the petrochemical industry in the US. Originally founded in 1890 by Major James T. Moorhead (“History of Union Carbide India Limited”, n.d.), Union

Carbide Corporation (UCC thereafter) was the result of a merger between leading chemical companies. National Carbon Company (battery manufacturers), Prest-O-Lite Company (calcium carbide manufacturers), and Linde Air Products Company (liquid oxygen manufacturers) amalgamated under this name in 1907.

UCC consequently grew to having 60 major subsidiary plants in over 30 countries (“History of Union Carbide Limited”, n.d.) and had gained a capital stock that stood at USD 6 million (Union Carbide Corporation, 2017) (\approx INR 430 million) by the late 1900s.

1.4.2 The creation of Union Carbide India Limited

As the company continued to search for ways expand in other countries, the 1960s Green Revolution presented the perfect opportunity to diversify. This refocus on agriculture provided UCC with a new market to invest in: pesticides. It consequently became one of the first US based companies to invest in India when it acquired shares of Union Carbide India Limited (UCIL thereafter) in 1934 (Bhopal.com, n.d.). UCIL produced goods in a variety of sectors such as batteries and welding equipment and had 14 plants across the country.

1.4.3 A Union Carbide plant in Bhopal

As Indian farmers increased their use of high-output techniques, market demand for agro-chemicals increased rapidly. This led to the government-approved construction of a UCIL pesticide plant in Bhopal. The plant was built in 1969 and a production facility was later added, in 1979 (Bhopal.com, n.d.).

At the time, Indian law dictated that foreign corporations could only own 40% of their Indian subsidiaries (under the *Foreign Equity Regulation Act (FERA)*). However, UCC was ruled a “high technology” corporation and permitted to own 50.9% of its shares. The rest of the company was divided among Indian shareholders, including the Indian government (Shrivastava, 1986; Trotter, Day & Love, 1989; Varma & Varma, 2003). Furthermore, since UCC was the sole provider of management, information, and planning, it had immense power. However, it did not take the responsibility that came with this progression of events. Hence, as Totaram and Irfan Khan (ex-employees) said, 'the smallest

decision made in UCIL depended on the approval of UCC management in the USA'. This created impacts in a developing country situated on the other side of the world.

The Bhopal plant was originally “designed to combine and package intermediate chemicals thereby producing the end, mildly toxic pesticide- Sevin” (Trotter, Day & Love, 1989). However, in 1978, UCIL was also provided with a licence to manufacture Methyl Isocyanate (MIC hereafter), a chemical required to manufacture Sevin (Shrivastava, 1986). It was greenlit for production because at that time, there was no Indian company that manufactured MIC. However, previous reports had mentioned how MIC testing in Virginia had “failed”. Furthermore, it was recommended that if a new MIC manufacturing plant was to be set up, it would need to use construction materials of better quality- like those used in Virginia (Hazarika, 1987).

1.4.4 Concerns about the Bhopal plant

The UCIL industrial plant was set up 2 kilometres away from the centre of Bhopal, in the area deemed as the ‘old city’ or ‘old Bhopal’. Due to the increasing employment opportunities and urbanisation, numerous shanty towns, consisting predominantly of modest mud and polythene dwellings, developed in this region (Willey, et al., 2007). This quick expansion meant that one such residential area, J.P. Nagar, was located across the road from where the UCIL plant was constructed. Due to its proximity to the site, “J. P. Nagar took the worst hit” the night of the gas leak (Ahmedabad Mirror, n.d.). Other regions in the vicinity of the plant included Nishant Pura, Chola Kenchi, and the Railway Colony- a railway line which cut across the heavily affected regions and ran adjacent to the plant itself (Willey, et al., 2007).



Fig. 1.5. Over Photograph from the Remember Bhopal Museum covering the overview of the factory and the surrounding settlements

After the incident, it became common knowledge that the factory posed threats to its workers and the city of Bhopal for years before the event occurred. In the years leading up to the disaster, the factory workers' union was vocal about accidents that occurred in the plant. One such incident was a leakage of the chemical phosgene, which proved fatal for one employee and severely injured two more. An ex-factory worker testified that 'incidents which raised concerns amongst the factory employees, had been taking place much before the BGT. Even though complaints had been filed, corruption within the bureaucracy prevented any hard measures from being taken'. Moreover, there was a clear lack of information in terms of what safety precautions should have been taken, thus resulting in threatening levels of ignorance at the plant.

Still, UCIL was meticulously cautious in displaying how dangerous MIC was if inhaled and even dedicated a whole chapter in its manual about its side effects (Lapierre & Moro, 2009). However, certain facts that it had found through "secret studies undertaken by the Mellon Institute" in 1963 and 1970, were undisclosed to the public (Lapierre &

Moro, 2009). Interviewee and ex-employee Totaram Chouhan revealed that when heated, MIC breaks down to produce a hydrocyanic acid gas that caused immediate death. He added that this fact, in addition to existence of an antidote (sodium thiosulphate), was undocumented.

UCIL’s production of MIC in 1978 faced a lot of storage and disposal problems (“Bhopal Plant History and Ownership”, n.d.). With time, India started substituting MIC with synthetic pyrethroids (pyrethrum extracted from chrysanthemum flowers). This substance was organic and easier to store. (Bowonder, 1987). This shift of demand in India’s agro-economy, left large amounts of unsold MIC. Thus Union Carbide suffered losses in 1983. (Willey, 2014; Bowonder, 1987).

As a result, UCC implemented strategies such as cost-cutting measures, engineering stipulations, and decrepit maintenance (Mahapatra, 2010). In doing so, the company ensured that it could continue to hold a majority equity stake, and management control of UCIL. It also ensured the continued manufacture of MIC (Sheoin & Pearce, 2014). However, in implementing these strategies, the company laid off several technicians and overlooked many crucial safety measures (Bowonder, 1987). Partially shut down due to maintenance issues, the plant was left under untrained and inexperienced personnel on the night of 2nd December, 1984 (BBC tv & Condie, 2004).

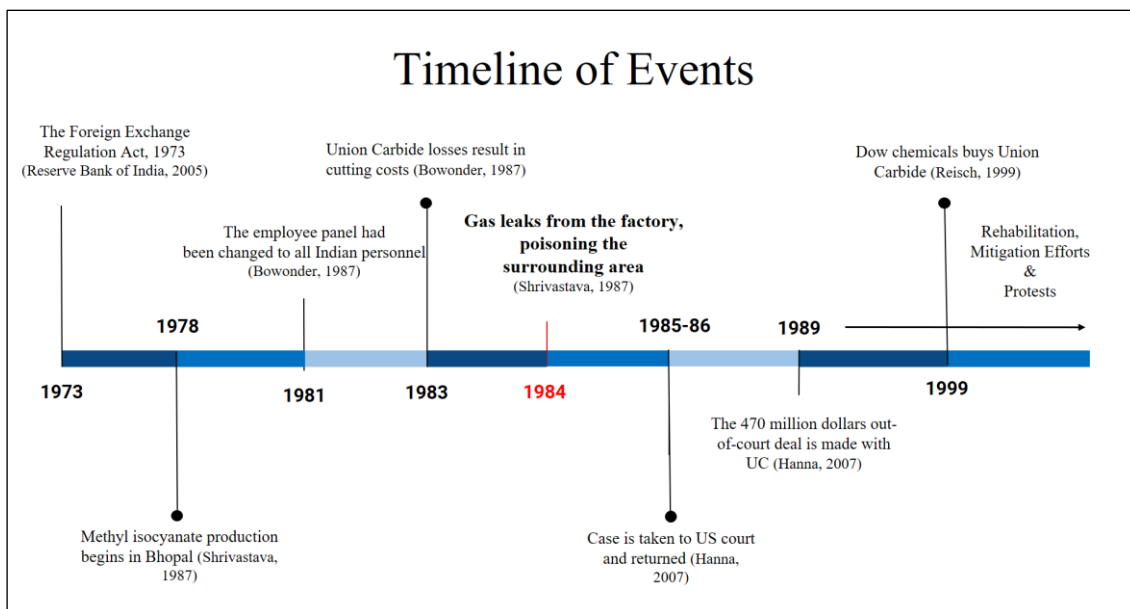


Fig. 1.6 Timeline of major events around the Tragedy (1973 to 1999)

Source: Peterson, 2009

1.5 During the Tragedy

Around midnight on the 3rd of December (1984), poisonous gas leaked from the Union Carbide pesticide plant, and claimed the lives of thousands. Citizens, authorities and medical professionals alike, were caught unawares. This macabre incident would turn into a historical tale of caution for the rest of the world. That night, an estimated 40 tons of Methyl Isocyanate gas and other chemicals impacted the city, killing about 3000 people within the first few hours.

The chemicals produced by the UCIL plant were stored in multiple, impermeable tanks. The Union Carbide management however claimed that water had entered Tank 610 which contained '21 tons of MIC'. Subsequently, the exothermic reaction between the two compounds broke through the tanks safety measures and escaped into the surrounding areas (Trotter, Day & Love, 1989). The escaped gas was carried forward by the wind towards the surrounding residential areas. As the gas seeped into the city, confusion regarding the situation led to stampedes and overall chaos.



Fig. 1.6 Photograph from Remember Bhopal Museum; exposure to the gas caused irritation, swelling and loss of vision

The heavier-than-air gas settled over the shanty town of J.P. Nagar, and its residents assumed that if they laid low, it would pass overhead; an action which proved fatal. Terrified residents ran out of their houses in order to escape the 15 square miles that had become a gas chamber. By that time, many had already passed away in their sleep.

A *New York Times* report released the day following the disaster stated that people were frothing at the mouth and were out of breath (Hazarika, 1984). It also stated that the roads were filled with corpses of both, animals such as cows, dogs, cats, birds and those of Bhopal's civilians ("One Night In Bhopal", 2004). Most of the death toll had been recorded to be the vulnerable population, such as senior citizens and children. Funerals were carried out the next morning and due to the shortage of crematorium grounds, most bodies were thrown into the Narmada river (Krishnan, 2014).

1.6 After the Tragedy

Industries which carried high occupational and environmental risks have seen a characteristic shift from developed to developing countries (Hickel, 2017). In Bhopal's case, it is worth noting that the communities facing the greatest risk were economically and politically marginalised because they could only afford that undesirable land near the factory and they lived in shanty houses which could not offer protection against the gas (Rajan, 2001).

Instead of remediations, UCC set about creating mechanisms to save itself and hired a public relations firm, and resorted to political campaigning. It successfully presented the environment, labour, and consumer movements in support of reparations for Bhopal as a "dangerous consolidation of anti-Western and anti-capitalist forces" (Rajan, 2001). This led to the US administration to put pressure on the Indian government, which succumbed because of its interests in foreign investment. Power dynamics and strategic escapism are the tenets of systemic environmental injustice that make this still relevant today.

The survivors recounted the horrors that they witnessed after the event had passed: bodies, of both humans and animals, piled high on the streets as frantic people searched for the loved ones they had been separated from. People who were in dire need of emergency medical attention had to wait for their turn, due to the sheer number of those who had suffered the same fate. The interviewees mentioned how the morning after the leak left

them feeling as if the worst had passed. However, the ripple effects of the tragedy were merely beginning.

1.6.1. Death Toll

On the morning after the disaster it was estimated that 3,800 people died and almost 1,02,000 endured permanent disabilities (Broughton, 2005). Within the following fortnight, 1,337 infants and children were ushered into nearby local paediatric departments. 108 of these children died within the first four days of exposure (Sutcliffe, 1985). Some early reports, such as BBC World Service estimates, suggest an initial death toll of 30 people on the night itself. This number increased to 2,000 the following morning (Sutcliffe, 1985), which is still a conservative number. Government reports state that almost 5,300 lives were lost on the night of the disaster. More than 15,000 civilians were either partially harmed and/or are still bearing the permanent effects of the toxic gas. Over the years, the numbers have been conflicting, with different entities either reducing or increasing the actual amount of deaths. Yet, one commonality remains: finally, they are all estimates.

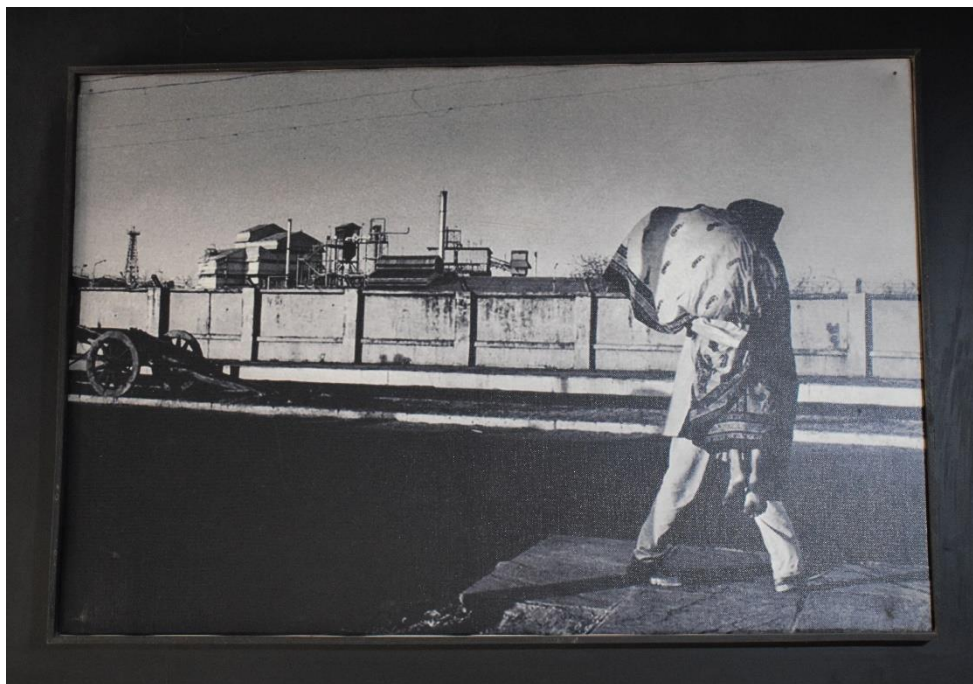


Fig. 1.7. Photograph from Remember Bhopal Museum; Woman carrying her dead mother

By 1994, the ICMR or the Indian Council of Medical Research, ceased all their researches on health effects. As of today, they are yet to publish the findings of 24 research studies conducted on over 80,000 survivors (Dinham & Sarangi, 2002). However, these figures exclude the non-permanent residents of Bhopal like pilgrims, nomadic communities, immigrants and even wedding guests, among many others who were present in Bhopal during the leak (Eckerman, 2004).

1.6.2. Immediate Medical Relief

Due to the disaster's subsequent impact on health, it was only a matter of time before the hospitals were over-burdened. The facilities of Bhopal's hospitals were insufficient to accommodate the affected citizens of Bhopal and the situation became dire as the night stretched on (Sutcliffe, 1985). The first people to inhale the gas were afflicted by respiratory paralysis, and the effects worsened as time passed (Lapierre & Moro, 2009). Time was of the essence in treating these men and women. With patients increasing in number and their symptoms worsening, "there was no time to sterilize needles between patients." (Sutcliffe, 1985). The medical officers realised they were not equipped to handle such large casualties. As a result, they tried desperately to reach Union Carbide headquarters to figure out what protocol to follow, but to no avail (Dinham & Sarangi, 2004).

As that night progressed, the corridors of the hospitals extended to tents outside their entrances. On the 8th of December, Dr. Dauderer declared that the effects of the MIC were mediated through its breakdown into cyanide in the blood-stream. The antidote was then found to be sodium thiosulphate. The efficacy of this drug had not been proved, hence its initial use was vetoed (Sutcliffe, 1985).

1.6.3. Compensation

At the time of the settlement in 1989, the compensation amount of \$470 million (Rs 715 crore) was distributed among the kin of 5,345 deceased persons and 5.74 lakh others who were considered affected. ‘The compensation money was, for a lot of people, more than their annual income and was spent on improving comforts, on repairing dwellings, buying furniture, electronics, beds, two wheelers etc.,’ said economic analyst Rajendra Kothari (Noronha, 2014)

After a long and tedious struggle, the monetary amounts for compensation were decided. Each individual fatality was awarded approximately \$14,500 as recompense. By October 2003, 5, 54,895 people were compensated for their injuries by the Bhopal Gas Tragedy and Rehabilitation Department (Broughton, 2005).

1.7 Research Statement

To update and examine the research on the Bhopal Gas tragedy via the lens of environmental justice by evaluating its impact on the political and economic policies, the people, the environment, and the media.

1.8 Research Objectives:

1. To examine the policies proposed for social and economic rehabilitation after the event and their implementation today
2. To analyse the successes and failures of these policies and explore the limitations in their implementation
3. To study the attitudes of the survivors towards different stakeholders (government, media, activists)
4. To evaluate the cultural divide between old Bhopal and new Bhopal
6. To study the nature of newspaper coverage and different factors influencing it
8. To evaluate the relation between news presentation and public consumption

1.9 Methodology

Due to the intertextuality of the topics being researched, primary research was decided to be qualitative in nature. Data was to be collected through interviews and discussions. As there was limited access to quantitative data, the comparison points lacked depth, and the convolution regarding the event (government involvement, international relations, etc.) made pre-existing government data seem unreliable.

A group of 15 researchers visited old Bhopal to collect data. The entire group was divided into smaller teams of 3 to 4 people, to accelerate the data collection in limited 6 days. Semi-structured interview prompts were used, so participants could expand on a topic at length.

A. Sample

To talk to activists, snowball sampling was used. The group contacted the first participant, Mr Suresh Joseph, a Trustee at Remember Bhopal Museum. He directed us to other activists in his contacts, who he believed would provide important insights for the study. From these individuals, more contacts were gathered and approached. A similar technique of referrals was used for contacting environmental researchers, bureaucrats in the Gas Relief Ministry and journalists.

For interviewing survivors of the gas leak, convenient and systematic sampling were used. Residential areas within an 8 kilometre radius of the Union Carbide plant were selected. These included JP Nagar, Arif Nagar, and Qazi Camp. These areas were anticipated to have been worst affected by the gas leak, since they were some of the oldest residential colonies in the city and had close proximity to the plant.

Systematic sampling was used to approach families and individuals in the Housing Board (Gas Widow Colony.) Based off a list of occupants provided in government reports on the allotment of quarters, every tenth house was approached for interviews. A total of 40 interviews were collected. 22 occupants were interviewed using the prompts for the 'policy' sub-group, whereas the rest of the sample was interviewed using interview prompts for 'culture.' The size of the sample was small because some households approached were

unwilling to participate/did not have available occupants. The demographic details of the samples will be discussed in the next chapters.

Secondary data through a wide variety of archival sources was also used. The material was examined in the Sambhavna Clinic Library and Archives, Bhopal. The material included newspaper articles, government reports and expenditure plans, books and scholarly journals. The establishment was chosen because of the easy access to the material as granted by the trustee, Mr Sarangi.

B. Data Collection

The group split into four sub-groups depending on areas of focus created from the gaps in the literature. Each sub-group, as divided by topic of study- namely ‘policy’, ‘environment’, ‘culture’ and ‘media’, had their own set of detailed questions which were curated to ensure that there was respect for the event and its effects. The interviewees included ministers, researchers, environmentalists, directly and indirectly affected survivors, non-survivors, professors, activists, social workers and journalists.

C. Data Compilation and Analysis

After returning, each of our ninety-eight interviews was categorised and coded and a matrix was formulated, which helped the content writers identify trends and themes. The interview transcripts helped the content team quote the interviewees. Along with their own experiences and perspectives, the interviewees had also recommended literature to read. Hence, another round of research took place because the team had a whole new insight on the topic. The attention given to the audio-video files quickened the review process and made it easier to form new links. Moreover, each piece of information was run through members of other sub-groups, lending a fresh outlook to data analysis. The methodology, although tedious, was focused and enabled the team to comprehend the subliminal aspects of the issue and gain relevant data.

1.10 Rationale

The rise in capitalism and the emphasis on bringing growth to economies has led to a system that is based on profit but tends to ignore the implicit costs. In theory, liberalisation and globalisation seem beneficial, but the benefit is restricted to the ones in power. These systems have consequently resulted in a consumerist attitude and a rapid increase and growth in industries. The labour and resources know no boundaries; materials needed to produce goods are outsourced. Essentially, the developed countries expand and use the capital, and exploit the cheap labour, available in developing countries. In terms of a growing primary sector especially, these countries also provide an abundant market for the manufactured goods.

Proportional to this growth, was a rise in number of industrial disasters. Such events occur in places which have high populations and poor standards of living. In such situations, state-society relations should function in such a way that policies should be stringent enough to protect the citizens and the environment. The media should be a transparent medium to spread information. The state should be held accountable for its functions and actions.

The Bhopal Gas Tragedy did not see this supposition as a reality. Thus, this study is presented as an example as after thirty-four years, the victims are still suffering. It serves as an undeniable reminder that even when the government focuses on development rather than betterment, the problems do not cease to exist. Despite the shift of the media's focus to sensational topics, the human suffering caused by such incidents, persists. Until environmental justice is served, the problem will never cease to exist.

This area of research shows that these disasters are “extreme manifestations of embedded structures of environmental and societal violence” (Rajan, 2001). They are evidence that humans continue to be surrounded by “violent environments”, with some not even having the option to escape them. Thus, the component of environmental justice is inalienable in the study of man-made disasters.

The consequences and aftermath of the tragedy are caused by, and are part of, the systems in place, within a society. The social constructs and structures such as governmentality and power, have served as a catalyst, and must be brought under scrutiny. It is essential that the Bhopal Gas Tragedy be seen as a precedent, rather than just a disaster,

and cause change in rehabilitation methods via policy. Hence, the event is a precedent; that does not need proof. But, it must be studied as one, without the isolationary lens. There needs to be awareness regarding its profundity and preparations for the vicissitudes it may cause.

1.11 Limitations

1.11.1 Research Limitations

1. The gaps initially observed in the literature review were much larger than anticipated. Additionally, a variety of discrepancies were observed on-field. Hence, the secondary research was unable to prepare the team for the actual findings due to reasons elucidated later in this report.
2. Environmentalists and researchers working for the government were also tight lipped, offering the ongoing legal proceedings as a reason. Private researchers study narrow topics and do not have concrete information outside their areas of expertise. The narrow pool of environmental research means that fewer links and hypotheses can be inferred.
3. The ethical issues were vast. It was difficult, while talking to participants, to discern if they were actually survivors. Participants perceived us to be agents that would deliver them relief or compensation.
4. The absence of uniformity in the testimonies of various stakeholders caught us off guard. Opinions of the effect of the BGT on the environment also differ vastly. This required intensive rethinking.
5. Some questions in the initial interviews were found to be leading. Letting participants know that the intention was to study the gas leak caused them to change their behaviour and answers. So, a revised list of prompts was prepared on field, which solved this limitation.
6. General problems associated with health, nutrition and poverty were identified as effects of the tragedy. Thus, establishing causal relationships were difficult. Hence, we had to thoroughly analyse our data to avoid errors.

7. Larger time constraints, language and logistical constraints limited our study to that of newspaper coverage in India; with limited exploration of the coverage in the US and the UK. Language constraints limited us to English and Hindi coverage. Further, limited ability to read the Devnagri script caused us to rely on translations and English papers discussing Hindi language coverage. However, these resources, in addition to the interviews with Hindi language journalists Rajkumar Keswani and N.K. Singh (editor of *Dainik Bhaskar*) gave us significant insight into the nature of Hindi coverage with respect our research objectives.

1.11.2 Practical Limitations

1. There were instances wherein the predetermined plan could not be executed; and we had to improvise or change our modus operandi. For instance, photography was not permitted on factory grounds as it is the scene of an ongoing legal matter.
2. Due to time constraints on field, only 6 media personnel could be interviewed. The journalist interviews lasted between 30 and 120 minutes each. We were also unable to cover a significant portion of Sambhavna Clinic's extensive collection of newspaper clippings.
3. A shortage of male interviewers meant that they had to shuttle between groups in order to help. The perception of genders was one impediment that we could not avoid, putting us in a situation which the female team members could not escape.
4. Language constraints were also a practical limitations in interviews since some members were not fluent in Hindi.
5. The group met with a lack of support from the authorities. Political officials and bureaucrats at the Ministry did not share much about the incident because they had no time and because it is an ongoing legal issue. Officials were tight-lipped and did not want to engage in a discussion about the topic. Some officials were inaccessible because of their positions and did not grant interviews.
6. Government officials were difficult to approach because of bureaucratic behaviour: group members were directed to several places, departments and officials before

receiving answers. The bureaucracy also makes it extremely difficult, even impossible, to access government research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The sheer magnitude of the Bhopal gas tragedy, coupled with its long-lasting socio-cultural and environmental effects, has made it a historically significant event. Further, this tragedy was the impetus for a wave of changes in industrial policies. It also laid the foundation for creating regulation standards around the world. There has been thorough documentation of all the aspects of the disaster, including policy changes, socio-cultural shifts, and environmental impacts. Through extensive research, media coverage, literature and art, various agencies have attempted to examine and communicate the full effect of the disaster, its implications and the lessons to be learnt from it.

This chapter aims to present the existing literature on the impacts of the Bhopal Gas leak in the realms of the local economy, policy-making, environment, and culture. In this research, the media coverage of the tragedy has been studied separately.

The pervasive nature of the disaster coupled with the rippling effect of its long-term impacts makes it necessary to study the disaster in all its intertextuality. This facilitates a holistic understanding of Bhopal's changing landscape over the years. The gas tragedy changed the political, economic and cultural landscape of Bhopal over time; which in turn, influenced tragedy related media coverage.

2.2 Socio-cultural Impacts

As the struggle for justice in Bhopal has persisted till date, it has shifted the social interactions between stakeholders in the city (Kapoor, 1999; Mathur & Morehouse, 2002; Shrivastava, 1987). To fully comprehend the lasting impact of the Bhopal gas tragedy, one has to understand the dynamics of society and the experiences of people. Most studies discuss the social conflicts that arose due to the disaster, which in turn, raised social movements. After the incident, many survivors were compelled to migrate from Bhopal into other cities or exit their original areas of residence to find alternatives. This affected the sociological geography of the city, as people from different social groups were induced into interacting closely. Because of the leak, people from different regions within the city, each predominantly occupied by a specific demographic, became closer. Therefore, migration was also explored, since it shaped the identities and experiences of the survivors. (Kapoor, 1999; Mathur & Moorehouse, 2002).

2.2.1. Social Diversification of Population

Since India is a developing nation in a growing modern world, the effect of the industrial accident was more pronounced. Primarily so because of the high population density. The establishment of an industrial zone in Old Bhopal made the area undesirable for private infrastructure that resulted in the increase of slums and shanty towns. Given the hazardous quotient times the concentrated population density, the disaster scaled up to be more ruinous than its counterparts in developed countries. The mounting death toll and the degraded geography of the area meant that migration and relocation was one of the few relief systems for the affected people. This led to the social diversification of the victims (Kapoor, 1992).

During the disaster, several families fled the Bhopal. While many of the victims were unable to leave the city, the ones who did were unable to obtain knowledge about immediate relief. These included simple measures like splashing water on eyes or using wet clothes that could have proved effective in easing their suffering. In a paper by Mathur and Morehouse (2002), Union Carbide was quoted to have blamed the severity of the disaster on aspects such as the victims' poverty, helplessness and illiteracy. The lack of procedural knowledge mixed with chaotic movements of the victims, who were trying to migrate and get away from the source of the leak, was one of the many ways that Union Carbide attempted to escape legal culpability (Mathur & Morehouse, 2002). Nevertheless, the response of the survivors to this rhetoric of the company has not been explored vastly. It remains to be studied if, and how, the interest-driven actions of powerful entities were received by the individuals they affected. There is extensive research covering the legal battle that ensued and the roles of the government of India and UC in the same. However, there remains a lack of perspective of the survivors regarding the shift of blame.

2.2.2 Social Conflicts

Due to the Bhopal Gas Leak, various social conflicts arose, creating a divide in the society. Paul Shrivastava (1987) discussed the attitudes that emerged among survivors regarding these conflicts. He examined four varying struggles faced in Bhopal. Namely, these conflicts were between the survivors and Union Carbide, between the survivors and the government, between Bhopal and the United States, and the class conflict within Bhopal.

The conflict between the survivors and Union Carbide was due to the company's role in the disaster. It was held responsible for thousands of lives. UC officials were called murderers, who polluted Bhopal for profits (Shrivastava, 1987; Mathur & Morehouse, 2002). The survivors also believed that the government had not taken sufficient action, and was a 'protector' of Union Carbide (Shrivastava, 1987; Lakshmi & Sharma, 2014)). The inability to differentiate between America and Union Carbide led to the third conflict, between Bhopal and the United States. The victims' geographical identities were rooted in Old Bhopal, and the conflict between them and Union Carbide extended to a geographical conflict as it was projected to America. The fourth conflict, between the economic classes, arose as the locals working at the top level of Union Carbide were held responsible for the disaster as well. Further, the victims, belonging to the lowest strata, blamed everybody involved for their condition; including the doctors, government officials, and relief workers. During the peaceful protests of January 3, 1985, people recited slogans accusing the upper class of not providing adequate relief, and 'sitting in their villas' while the lower class suffered (Shrivastava, 1987; Hanna, 2007). The conflict that arose among the various activist groups was not mentioned. Zavestoski (2009), discussed the disagreement among various groups over how best to seek justice. He wrote-

“The NRPC (*Nagarik Rahat Aur Punarvas Committee*) viewed Morcha as doing politics instead of providing help, and the Morcha thought of NRPC as a bunch of reformists with dubious motives. As one example of its strong political orientation, the Morcha patently refused to accept support from organizations in the USA or elsewhere outside India, for fear that the government would portray Bhopal activists as disloyal and unpatriotic and that organizations from the USA could be linked to US intelligence” (Zavestoski, 2009).

2.2.3 Social Movements

The failure of fair and adequate compensation led to the formation of several social groups and networks, all within a larger movement. These groups, led by activists, carried out protests in large numbers, to bring to light the plight of the survivors and demand justice. The citizens led a *Morcha* (demonstration) on January 3, 1985, which involved the participation of more than 10,000 victims and their supporters. A witness mentioned that police officers were running away from women carrying chilli pepper, attacking buses. This

showcased the anger and anguish felt by the public (Shrivastava, 1987; Mukherjee, 2016). The songs that were sung during the march were representative of the public opinion; Shrivastava (1987) dissects the cultural conflicts by analyzing these songs. They portray Union Carbide as a villainous foreign entity and shows that they were held responsible for the loss of all those lives and livelihoods because of sheer carelessness (Shrivastava, 1987; Hanna, 2007).

On January 1st 1989, a spontaneous protest took place in the form of a 700-kilometre walk to Delhi. This protest was by the Bhopal Gas Affected Women Stationery Workers' Organization. Since then, several protests have taken place and have been covered largely by the media (Ani, 2017; "Protests, demands mark 32 years of Bhopal gas tragedy", 2016; Sunderarajan, 2014; "Protests mark Bhopal gas tragedy's 31st anniversary", 2015). Several organizations were established to support the movement and improve the position of the survivors in the society. The Bhopal Gas-Affected Women Workers' Union and the Bhopal Gas Affected Women Stationery Workers' Organization worked towards building a sustainable life for women. Training centers were set up to teach women sewing and making stationery so that they may become economically independent (Hanna, 2007; Shrivastava, 1987).

Through the years, this social movement has been internationalized. Several international alliances such as the ICJB (International Campaign for Justice in Bhopal), Bhopal Group for Information and Action, and International Medical Commission on Bhopal (IMCB) were also created. While the focus of the movement continues to be better health care and compensation, the slogan 'No More Bhopals' has been used for post-Bhopal policies to prevent pollution (Zavetoski, 2009; Sheoin, 2014). In the global anti-toxic movement, Bhopal has been used as an example for regulation of industries. In order to form a global network, the Bhopal Group for Information and Action (BGIA) was formed in 1986. This led to a chain reaction and formation of multiple international networks such as International Network of Victims of Corporate and Government Abuse, White Lung Association, Dalkon Shield Information Network, and a survivor group from Minamata, Japan, and the Asian Victims for a Hazard-Free Environment. Most of them lost momentum and disappeared around 1994. (Hannah, 2007; Zavetoski, 2009).

2.3 Economic Circumstances and Policy Reforms

New policies helped Bhopal rebuild its economy after the Bhopal gas tragedy. To reverse the ecological, medical and psychological damage caused, the country's first Disaster Management Institute was set up in 1987. The incident generated context for legal protocols to deal with industrial disasters in the country. Moreover, it set an example for political and economic developments around the world (Shrivastava, 1992). This section explores the economic ramifications of the gas leak in Bhopal, against a backdrop of nation-wide economic reforms, changes in local policy and practices like social stratification; all of which layered the rehabilitation of survivors.

2.3.1 Inflation of the Economy

The state of Madhya Pradesh is supported chiefly by the agricultural and industrial sector. The state was, even before the incident, characterized by a lack of physical and social infrastructure. In the years leading up to the event, it ranked low in aspects of development like per capita income, consumption of power, irrigated areas and number of banking offices. Between the 1960s to 1980s, Madhya Pradesh's Net State Domestic Product (NSDP) dropped consecutively as ranked against other states. The contribution of the primary (agricultural) sector to the state domestic product decreased from 63.4 per cent to 52.53 per cent from 1960 to 1980. In the same period, the percentage of the NSDP that came from the secondary (industrial) sector increased, from 13.8 per cent to 20.64 per cent. (Government of Madhya Pradesh, Finance Department)

Finance Department, 2011). The 1950s were marked by an increase in agricultural production and surpluses, prompted by the development of new seed varieties. This was the global 'green revolution,' an event that increased requirements for pesticides and chemical fertilisers worldwide. This gave an enhanced momentum to the country's primary sector, and also made it an attractive destination for industries like Union Carbide. The Union Carbide plant came as a productive addition to the city. It generated employment for more than a thousand households (Noronha, 2014) and provided a market for local industries in the supply chain.

The economic stagnation brought by the BGT was measured, chronic, and to some extent, tangible. Bhopal's economy was funnelled into a spiked inflation rate (15-20% per year) fueled by the unemployment and cash inflows that were enough to provoke the price rise, but not enough to sustain it (Shrivastava, 1992). According to Paul Shrivastava (1996)

in his book *The long road to recovery: Community responses to industrial disaster*, the loss of jobs of survivors who were forced to migrate was accentuated by the loss of earning capacities. When the Union Carbide plant- followed by the Union Carbide Research and Development Centre- shut down permanently, the inevitable loss of employment soon followed. The labourers at Union Carbide were displaced from their jobs; 650 permanent jobs were lost (Shrivastava, 1992; Morehouse, Ward & Subramaniam, 1988; Panagariya, 2001). The dependent members faced the worst impact, that is, the vulnerable population that survived- widows, pregnant women, orphaned children and the elderly. However, the deceased were among the earning members of each family. Compensation and rehabilitation costs were also incurred. Government office suspension, the three-week shutdown of government activities, and the mass evacuation programmes in the city disrupted most commercial activities that weren't taken into account. The two mass evacuations had resulting business losses of \$8-65 million. (Shrivastava, 1992; Varma, 2003).

The plummeting of the economy has also been attributed to the lack of foreign investments in the city. Many investors were unwilling to invest their money in Bhopal due to the economic condition and the stigma surrounding the city (“Bhopal’s economy stalled by 1984 gas leak”, 2009; Panagariya, 2001). Rajendra Kothari, former director of PHD Chamber of Commerce and Industry, testified that “since Union Carbide there has been no major investment by foreign companies” in the city of Bhopal (“Bhopal’s economy stalled by 1984 gas leak”, 2009).

2.3.2 Role of Political Agendas

One of the primary areas influenced by political agendas was the classification and definitions of victims who were eligible for compensation. India at the centre, as well as Madhya Pradesh, was ruled by the Congress party when the Bhopal Gas leak happened. The local government tried to control the narrative in ways most favourable for its own ambitions. The early interim government (1985-87) help was not free of political conspiracy. The V.P. Singh government, for the midterm elections, presented a rhetoric that earned it the goodwill of the people, at the same time allegedly thwarting the efforts of Union Carbide to do so (Shrivastava et al., 1996). This rhetoric is based on the subsequent win of the Congress in the state legislative assembly four weeks after the tragedy. However, it fails to provide counterfactual evidence that suggests more accurately and in detail how

efforts by Union Carbide to provide economic relief, were, in fact, dismissed by the government. It is essential to take into account the extent to which local politicians sought to capitalise on the tragedy for their ambitions, especially bearing in mind that they, too, would have to incur great costs to do so.

A major local policy adopted was the certification of certain areas in the city, based on their divisions as constituencies and wards, into “gas-affected areas”. This politicised the definition of a victim, as well as the crisis itself: victims became economically advantaged groups, not anguished and traumatised survivors of a catastrophe. Politicians rallied to turn their constituencies into “gas affected areas,” holding no regard to any medical or legal standards to determine genuine victims (Shrivastava et al., 1996).

Further localised measures taken by the government involved the beautification of the city by infrastructure development. Parks, streetlights and monument redevelopment projects were introduced. Sheoin and Pearce (2014) suggest that by 1991, the State funds allocated by the Centre for disaster relief had peaked to 13.35 lakh rupees. When the need of the hour was basic, life-restoring amenities and socio-medical relief, the local government instead chose to beautify landscapes, and manifest a very apparent, visible, and *tangible* product of their ‘efforts’ (Sheoin and Pearce, 2014). Local officials like Bhopal Gas Relief Minister Babulal Gaur, in 1990, alleged that the victims were “major beneficiaries,” and neither justified nor regretted this expenditure (Mac Sheoin and Pearce, 2014; Basu, 1994).

It has been observed that the relief funds were used to demolish predominantly Muslim-occupied slums in Bhopal when the Bharatiya Janata Party came to power locally. Poor Muslim families were treated as “the dirt to be cleared”. This raised the greater questions of how political ideology interfered with environmental and economic justice for the victims. However, this action is not explored in the paper with more concrete evidence. The end result remains to be speculated while the motive behind this remains unclear (Basu, 1994; Mac Sheoin & Pearce, 2014; Shrivastava et al., 1996).

2.3.3 Economic Position of Victims

Through economic and political reforms, the government aimed to uplift the status of the victims. Discussing the competition victims face with millions of others, equally poor people across the state of Madhya Pradesh, Madslie and Richardson (2009), bring forth a dilemma where emotions and priority fight for dominance. This highlights the

problems that emerged while defining the victims of the gas tragedy. While it has been a result of political agendas, as discussed above, the authors attempt to remain focused on the advantages of the chaos created by this ambiguity for the non-affected. Alongside that, the issue was, victims had not received a solution or compensation package prior to the rehabilitation aid provided for the gas victims (“Bhopal’s economy stalled by 1984 gas leak,” 2009).

Much research has been done regarding the overall damage, the economic and health problems that the victims faced. (Dias, 1986; Hanna, 2007; Shrivastava, n.d.) However, there is not much information on changes that have been adopted by the local authorities and the government to improve the lives of the BGT victims, as well as others that might be suffering from similar economic fate since before the event occurred.

2.4 Environmental impacts

The environmental implications of the BGT are often sidelined because of the scale at which it impacted human beings. The issue is mostly discussed from an anthropocentric point of view, with weightage being given to loss of human life, compensation, destruction of property, and long-term impacts on society. However, the effect on the environment eventually had consequences for human life. In order to completely understand how the city of Bhopal and its ecosystem have suffered since the industrial disaster, all previous literature on the environment should be examined.

2.4.1 Site clean-up

Following the disaster, a civil litigation was filed against Union Carbide Corporation which resulted in the site being marked as evidence. Thus, no remedial actions were allowed to be taken (UCC, n.d.) until a few years prior to the sale of the factory in 1994 (Bhopal.com, n.d.). However, as of 2015, the abandoned factory site still contains about 8,000 tonnes of carcinogenic chemicals which continue to leach and contaminate water supplies used by 30,000 local people (Dixit, 2015).

A. Unclaimed responsibilities

Between 1984 and 1998, the Madhya Pradesh State Government leased the land to Eveready Industries India Limited (EIIL) which undertook a remedial program, to control the pollution (International Campaign for Justice in Bhopal, n.d.). In 1998, UCC claimed that the government had released a statement revoking its lease and assuming the responsibility of the waste disposal (UCC, n.d.). However, International Campaign for Justice in Bhopal (ICJB), claimed that this was an erroneous notice (International Campaign for Justice in Bhopal, n.d.), highlighting that the government had vowed to ensure the disposal of waste with “professional scrutiny”.

B. Difficulties in disposal

In 2004, a public interest litigation was filed after a test revealed that 350 metric tons of waste, located in and around the plant, was polluting the air and water, thus was affecting nearby settlements. The high court of Madhya Pradesh and the Supreme Court tried to dispose of the waste in Pithampur, located approximately 220 kilometres from Bhopal. Additionally, the waste would also be disposed at the Defense Research Development Organization (DRDO), Maharashtra, in Ankleshwar, Gujarat and Germany. However, all decisions faced tremendous resistance from the people of the concerned regions. This led to the formation of a Group of Ministers in 2010 who decided in 2012 that the waste would ultimately be disposed at Pithampur's incinerator and 25-30 metric tons were sent as a trial ("Bhopal gas tragedy: Toxic waste disposal..", 2004).

C. Current effects

The impacts of improper waste disposal on the environment and the citizens of Bhopal still persist. In 2014, the Times of India reported that the toxic waste was still awaiting disposal ("Bhopal gas tragedy: Toxic waste disposal..", 2004). The chemicals left by the improper disposal of waste seeped into the groundwater very quickly. The contamination had percolated into the food chain, affecting the vegetables and meat people consumed. Pregnant women were adversely affected by consuming such food. Their breast milk was also considered toxic (Murthy, 2002). Moreover, a 2015 The Wire article reported that "so far 164 children with mental anomalies have been referred to government and non-government health care centres" (Dixit, 2015).

2.4.2 Groundwater

The groundwater mainly impacted the health of citizens of Bhopal. Research on groundwater has rarely been compiled with other research on Bhopal creating an incomplete understanding of how the city, along with its ecosystem, was affected.

A. *Private Organization studies*

Various organizations that were not affiliated with the state government or Union Carbide, such as the PHE (Public Health England) department conducted studies regarding groundwater contamination. In 1996, this organization found high levels of C¹ COD is a parameter that should be zero in a clean ecosystem. It also detected heavy metals and volatile organic matter. Following that, various other studies from 1999 to 2000 also reported concentrations of heavy metals above the BIS (Bureau of Indian Standards) and WHO (World Health Organization) standards.

B. **Government studies**

Some of the first studies, such as the 1993 study by NEERI (National Environmental Engineering Research Institution) from Nagpur and M/s Arthur D Little Inc from the USA, reported that the groundwater in Bhopal was slightly contaminated, but was well within the regulations. These results were in contrast to many other studies, which found that "groundwater in areas even three km away from the factory contained almost 40 times more pesticides than Indian standards." (Banerjee, 2011). Later in 2010, NEERI and NGRI (National Geophysical Research Institute), examined the groundwater again and reported that they had found only isolated contamination. However, major discrepancies in their methodologies to study soil permeability were soon found (Narain & Bhushan, 2014; Niazi, 2013). Research conducted by unaffiliated organisations discredited government research. Since then, government studies have been careful to show amounts of chemical

¹hemical Oxygen Demand (COD) which is "a measure of the capacity of water to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals."

constituents in groundwater, but there was never a clear link established in any reports with regards to the cause of such contamination (Banerjee, 2011; "Contaminated Areas". n.d.).

2.3.3. Biodiversity

The impact on biodiversity has been largely sidelined in popular media across the world. (Diamond, 1985; Ramesh, 2009; Venkat, 2014; "Bhopal Gas Tragedy", 2016). There is still a lack of research on the continuing effects on the flora and fauna of Bhopal.

A. Flora

According to Mahesh Prasad Singh's book, "Forest Environment and Biodiversity", an "area of 3.5 sq. km" of plant life was affected (Singh, Mohanka, & Sah, 2007). In the matter of a few days, trees in this region had lost all their leaves. ("32 years", 2016; Singh & Ghosh, 1987). Although some lab tests suggest that this damage could have been caused by cyanide, M.P. Singh holds that MIC gas is solely responsible for the plant damage (Singh & Ghosh, 1987).

B. Fauna

On the day after the tragedy, the animal death toll was estimated to have been between 1,087 and 2,000- with cows and buffaloes being the worst affected. (Singh & Ghosh, 1987; "32 years", 2016). Another 7,000 animals were treated with the same drugs as humans (Singh & Ghosh, 1987). The extent of damage and destruction caused to birds, animals, plants and other vegetation remained unaddressed by several authorities (Delhi Science Forum Report, 1985).

The environment experienced substantial destruction and loss of economic, aesthetic, and ecological value. Yet, there has been insubstantial action taken to improve the situation. The lack of response is primarily due to the lack of communicated, up-to-date research on the state of the environment.

2.5 Media Coverage (1982-1986)

Technological disasters such as the BGT lend themselves to sensationalism and dramatic coverage (Wilkins, 1986). The media played an instrumental role in conveying information about what has been one of the most fatal human-made disasters in human history. The Bhopal gas tragedy gave the media the unprecedented opportunity to create awareness about health and safety regulation, environmental health and policy to educate the citizens of the country and possibly better industrial protocol.

A local newspaper, *Rapat Weekly* with the readership of fewer than 3000 people, published articles about the dangers posed by the factory. However, journalist Rajkumar Keswani's articles failed to make an impact. His last article on the subject was written for *Jansatta*, a Hindi paper published by the *Indian Express* group of papers. This article was published six months prior to the tragedy. Despite the wide reach of this paper, the article failed to caution the public and authorities. No other journalists or newspapers picked up the story. However, after the catastrophe, even international newspapers like *The New York Times* reported the story of the journalist who warned of the gas leak. (Scheberle, 2018; Hazarika, 1984; "Ignored warnings, 2010; Sinha, 2009).

The perceived implausibility of an industrial catastrophe, coupled with the fact that India was reeling in political turmoil following the assassination of Prime Minister Indira Gandhi, caught the authorities and the media unaware (Krishnan, 2014). Indian media had never before covered an industrial accident. Coverage post the disaster largely focused on the "impact and post-impact response phases" (Wilkins, 1986) of the incident.

Since the Indian English press was structured and operated similarly to Western Media, it was the norm to seek insight on various affairs from industry experts or scholars. Thus, they relied on Union Carbide and state spokespersons, and local experts in the fields of medicine, law and science. However, there was a state of chaos and rampant rumours about the gas leak in the wake of the disaster, which caused the journalists to depend heavily on statements acquired directly from UC. This allowed the company to have excellent control over its public image, as well as a strategic release of information (such as information about the toxicity of methyl isocyanate gas). (Sharma, 2014). Union Carbide could easily capitalise on this public opinion during negotiations about reparations, medical aid and rehabilitation.

Before satellite television, the only broadcasting networks in India were *Doordarshan* (DD), and All India Radio (AIR). Both were state controlled. They were used mainly to promote the relief activities being carried out by the government. An example is DD's coverage of "Operation Faith", which was the government's initiative to neutralise all the remnants of MIC gas in the factory by dispatching two helicopters to spray the region with water. (Sharma, 2014).

In the western media, reports portrayed institutions as powerful entities in society, rather than individuals; in a majority of reports, Union Carbide with its American officials was portrayed as the single most powerful actor in the event; the Indian government was also seen as a powerful entity. Individuals, particularly the residents of Bhopal were considered unlikely to influence the sequence of events. (Wilkins, 1986). Television coverage was an aggregation of all the media reports, with a similar focus on the event itself rather than its causes and impacts. By February 1985), reportage had reduced significantly. (Wilkins, 1986).

2.6 Gaps in the Literature

Our findings suggest that certain local policies were implemented for the gas victims. However, there is not enough evidence to establish a causal link between the tragedy and these local policy changes. The viewpoint of all stakeholders must be considered in order to explain how, who, and what is affected by such policy framing and by the State's economic decisions. Very little specific research was done on the local strategies enforced for social and economic rehabilitation of the gas survivors, and how this helped in providing actual relief.

Most of the articles related to the sociological impacts of the Bhopal Gas Tragedy focused on the conflicts among the government, Union Carbide and the victims and how various relief groups and protests contributed to the social movement. The lack of biographical research i.e., based on narratives and oral history, leads to an absence of research that incorporates perspectives of various stakeholders. The discussion revolving around social conflicts fails to incorporate the different attitudes that shape them. The views of individuals on how their relationships with, in the context of the Bhopal Gas leak, has changed remains unsearched.

There exists a significant gap where the links between groundwater and the flora and fauna have not been explored. This gap has led to a passive and less pressing sensitization in our society with regards to the importance of the cleanup of the city of Bhopal, whether it be towards the dangers faced by the environment or by its people. The literature on the long-term effects of the gas tragedy on the biodiversity of Bhopal today is very scarce and seems to be a gap of knowledge.

Other than Keswani's articles, there was no media coverage of the workers' grievances in any of the mainstream publications. Significant coverage of the laborers' testimonies could have caused the local authorities and population to take the matter seriously, and initiate positive change- even preventing such a disaster. Most media outlets, international and Indian alike, did not cover the long-term environmental, social, health and legal and medical ramifications of the BGT. Although there have been news reports about the toxicity of the land surrounding the affected area in Bhopal, it is mainly mentioned in relation to the human lives affected rather than an evaluation of the environmental health of the area. The technological, safety and policy changes that would prevent such a disaster in future were not explored; instead the need for such changes was emphasized.

CHAPTER 3: POLICY

3.1 Introduction

“I wrote a letter to the Gas Relief Minister. There was only one sentence in it: ‘Give me employment, or give me death.’”

-Tulsi Yadav, First Generation Survivor

The actions of the Indian government after the Bhopal Gas Tragedy reflect the country's preparedness and proactivity regarding disaster management, rehabilitation, and reparation. The interaction between political actors as forces that facilitate or disrupt the policy mechanism creates the perfect foundation to study Bhopal as a precedent that must never be repeated. The robustness of the country's bureaucratic and executive mechanism is expressed through whether top-tier policy planning translates to observable improvements in the intended population. Today, India's current policies on environmental damage and industrial safety are planned using the context of Bhopal Gas Leak.

As discussed in the literature review, preliminary research was able to narrow down the gaps in the areas studied to three important points — first, the local policies for social and economic rehabilitation undertaken by the government; second, the involvement of political stakeholders in *and beyond* the execution of these policies; and third the responses by the intended beneficiaries (gas survivors). The focus of the fieldwork was restricted to social and economic relief policies since the medical and environmental relief measures undertaken by the state government have already been extensively researched. (Dias, 1986; Hanna, 2007; Shrivastava, n.d.) Although the incident served as a precedent in establishing disaster management regulations and environmental protection norms in the country today, the local policies emerged as significant areas where little existing research was available. Therefore, this was the primary area of focus.

This chapter updates the policies that were planned by the local and central administration for the relief of the gas victims since 1984. It discusses and analyses the implementation of these measures and updates their successes and failures. It takes into account the limitations faced in the implementation process and the responses to the government's actions by activists, gas survivors and other political players. Finally, it examines the role of the government in conducting overall research around the Bhopal Gas Tragedy.

Through these assessments, this study presents the conflicting interests between the stakeholders who exercise power and authority and those who do not. It discusses policy measures for reparation as a manifestation of state-sanctioned environmental justice. It also aims to portray the case of environmental justice in Bhopal through the relationship between the government and other stakeholders (activists, politicians, bureaucrats and the survivors), and the influence of factors like political power, government prerogatives, and policy in the deliverance of the same.

Evidence for this chapter is supported by primary data collected from 30th September to 5th October 2018 through interviews with six journalists, four activists, 43 survivors (in the localities of Qazi Camp and Gas Widow Colony), and seven bureaucrats. Secondary data that supports the analysis includes government records, newspaper clippings and RTI files (Right to Information, granted under the Right to Information Act, 2005). These files were collected from the archives at the Sambhavna clinic in Bhopal- a medical establishment exclusively for the free treatment of gas survivors.

3.2 Policies for Social and Economic Rehabilitation in Bhopal after 1984

“Bhopal is a living example of how not to do economic rehabilitation.”

-Rachna Dhingra, Head of Bhopal Campaign for Information and Action

After the incident took place on December 3, 1984, immediate reparation activities were initiated by the government. The event in Bhopal was an unprecedented one. Since the State was not equipped in terms of disaster management laws to deal with a disaster of this scale, new policy measures were designed after 1984. A crucial and controversial aspect of designing reparation measures for the victims of the disaster was the classification of victims. Here, the geopolitics of Bhopal become significant. The city remains distinctly divided into the affluent, gentrified New Bhopal, and the industrial, underprivileged Old Bhopal. The former is occupied by a majorly Hindu population, whereas a majority of Old Bhopal was occupied by Muslim and lower-caste population. (Islamia, n.d.) The UCIL plant was situated in old Bhopal and surrounded by a residential area- which enclosed the extent of the spread of methyl isocyanate gas. Against this backdrop, the question of *who*

warranted the identity of the “gas victim” posed a very tangible problem after the night of December 1984.

On January 1, 1985, the TATA Institute of Social Sciences (TISS) surveyed households in Bhopal to assess the level of damage and identify the areas impacted by the gas leak. According to Singh (2010), "it was the only comprehensive survey of the extent of damage wrought by the gas leak." This survey was conducted ahead of the compensation claims that would then follow from numerous regions within and outside the city. The Madhya Pradesh government refused to fund this research; nevertheless, then Chief Minister Arjun Singh "persuaded" the researchers to leave all data with the state government to be processed. (Singh, 2010)

Post this survey, the Madhya Pradesh government declared 36 of the 56 wards in Bhopal as "gas-affected areas."

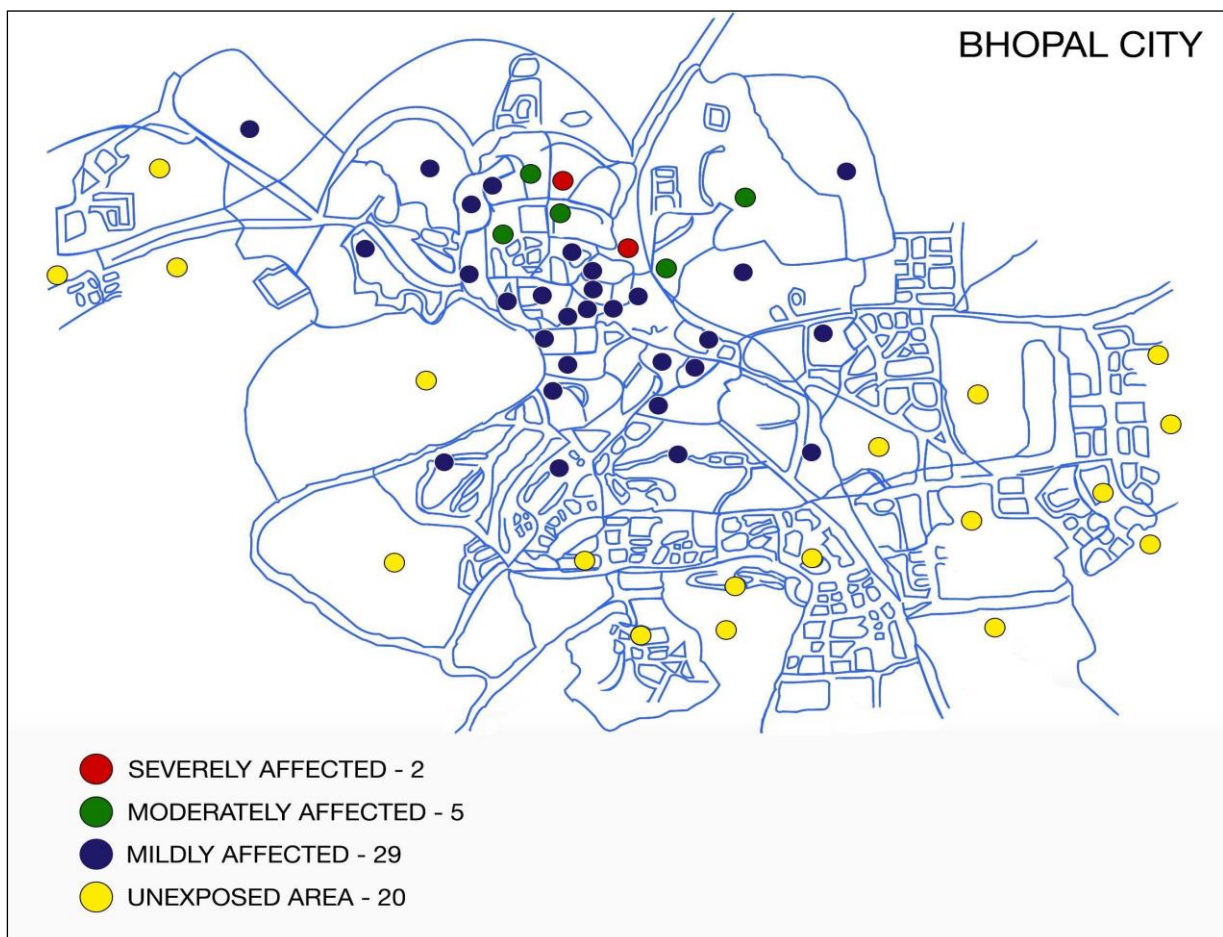


Fig3.1. A map of Bhopal highlighting the affected wards

Source: Smarika, 2007

In 1985, the Gas Relief and Rehabilitation Ministry was established by the Madhya Pradesh government (Bhopal Gas Tragedy Relief and Rehabilitation, 2016). It was responsible for the social and economic reparation of the gas victims. It supervised the expenditure of the funds allocated centrally for relief and execution of repair activities. Later, it was taken over by the Central Government as the Directorate of Gas *Rahat*, Bhopal.

3.3. Social Rehabilitation Measures

Classified as 'policy undertakings directed towards the mobilisation of specific social groups in times of disasters', social rehabilitation measures involve schemes related to the development of infrastructure. (Bhopal Gas Tragedy Relief and Rehabilitation, 2016). , Initially undertaken by the state, they will be categorised as local relief measures hereon.

3.3.1. Gas Widow Colony

Preliminary research made apparent the need for an in-depth investigation into the efforts made by the government immediately after the gas leak to uplift certain high-risk social groups. There was also the lack of updated research on the status of these efforts today. (Mathur & Morehouse, 2002) Archival material in Sambhavna Clinic (these involved government-released papers, plans, and letters that were otherwise inaccessible) and interviews with the activists were used. It was found that the Madhya Pradesh government's social rehabilitation schemes were mainly targeted toward families where the primary breadwinner died or was rendered invalid due to the gas leak in general, and women whose husbands died after the leak in particular. To rehabilitate the survivors, in 1992, a 'Gas Widow' Colony was constructed under the Madhya Pradesh Housing Board in Karond, Bhopal. One-BHK (bedroom-hall-kitchen) quarters in this colony were allotted to women who were widowed because of the gas leak (Krishnan, 2014)

3.3.1. Gas Widow Pensions

In 2010, the Ministry of Gas Relief introduced a five-year pension scheme of rupees 1000/- a month for the women that lost their husbands in the tragedy (Bhopal Gas Tragedy Relief and Rehabilitation, 2017).

This scheme was promised by the current Chief Minister Shivraj Singh Chouhan as a “lifetime scheme” for the gas surviving widows (*The Wire*, 2017). This was a gender-specific policy for social relief. The pension was to be provided irrespective of any other compensation the recipient might have acquired from the government. The compensation claims, family background, and hospital/medical treatment records of applicants were considered to determine the beneficiaries of this scheme. It was intended for families where women needed initial support in the interim before the compensation was provided or the sustainable means of employment were acquired. According to *Smarika* (2017), the official report released by the Directorate of Gas Relief, the pension plan was reintroduced in 2016 for the stipulated period of five years. The amount proposed was the same sum of rupees 1000/- a month (Bhopal Gas Tragedy Relief and Rehabilitation, 2017).

3.3.2 Economic Rehabilitation Measures

The government assessed the impact on the economic activities and livelihoods of those affected directly or indirectly by the leak and its aftermath. Based on this, improving the prospects of employment and economic mobilisation was the priority of these policies. Mr P.K Shrivastava, Assistant Director at the Gas Relief Ministry, was responsible for the planning and ground-level execution of these strategies. According to him, the amount sanctioned for the execution of economic rehabilitation strategies was 104 crore rupees. A three-year window was stipulated for the appropriate utilisation of the expenditure. He also explained that 100 crore rupee was the amount provided for employment of the beneficiaries; 2 crores each were sanctioned for marketing and sales of the businesses or ventures established.

A. STEPUP

According to our interview with Satinath Sarangi, activist and founder of Sambhavna Clinic, the Gas Relief Ministry's efforts for economic rehabilitation consisted of schemes for inexpensive credit. ‘STEPUP,’ a programme whereby the government offered loans to gas victims and their families to set up small-scale businesses, was introduced in 1985. Data on this was unavailable in the literature reviewed before the field work. Information regarding this scheme was found during on-field research in a government report on economic rehabilitation at the Sambhavna Clinic Archives.

According to this report, the schemes were tailored to the physical and mental capacities of the gas-affected. Loans were made accessible to all prospective applicants up to the age of 45, whose annual income did not exceed 6000 rupees.

B. Training Centres and Employment Sheds

Under the ITI (Industrial Training Institute), training centres and workshops were also planned to be established in the 36 gas affected wards identified by the erstwhile Chief Minister Babu Lal Gaur. This included centres for computer training, sewing centres especially for women among others. It was discovered that the government outsourced this enterprise to private vocational training institutes, and required them to provide detailed reports of the number of people trained and employed in these facilities. Placement services in appropriate government institutes were planned to be provided immediately to the candidates trained in the centres. Recruitment certificates would then be issued to these candidates on successfully completing the training.



Fig 3.2. Sewing Centre for women established by activist Abdul Jabbar, Qazi Camp

The objective of these policies was to ensure accessible and available means of improving livelihoods to those households worst affected by the tragedy, in light of their pre-existing economic conditions.

3.4 Implementation

3.4.1 Gas Widow Quarters

The Gas Widow Colony in Karond is a set of multi-storey slums organised in rows of blocks alongside one another. The blocks were organised in neat parallels of apartment buildings- all painted a fading yellow. There were four water tanks in the colony, distributed evenly among the blocks. Every apartment building had four floors with two flats on each floor. The alleys behind the colony were lined with the waste dumped by the occupants and sewage runoff from the houses.

General stores and beauty parlours were a common feature inside the colony. Roads to and from the colony, as well as between parallel blocks, were poorly developed and narrow. There were no clinics, schools, banks or hospitals nearby or within access. The blocks, it was observed, were in a state of deterioration and disrepair.



Fig 3.3 The Gas Widow Colony, Karond

Based on primary data collected from a sample of 22 present-day occupants of the Gas Widow Colony, the quarters were allotted by the Housing Board as planned by the ministry. When the blocks were built, sewage and drainage were not functionally designed. All of the households interviewed expressed a structural problem with sewage. This was improved only recently by the Gas Relief Minister (in 2018), when a proper drainage system with pipelines was constructed in the colony ahead of the Madhya Pradesh General Assembly elections held in November 2018.

Contrarily, Mr Shrivastava expressed that “sewage treatment in the Widow Colony was completed in 1991” and that there was never a sewage problem in the colony.

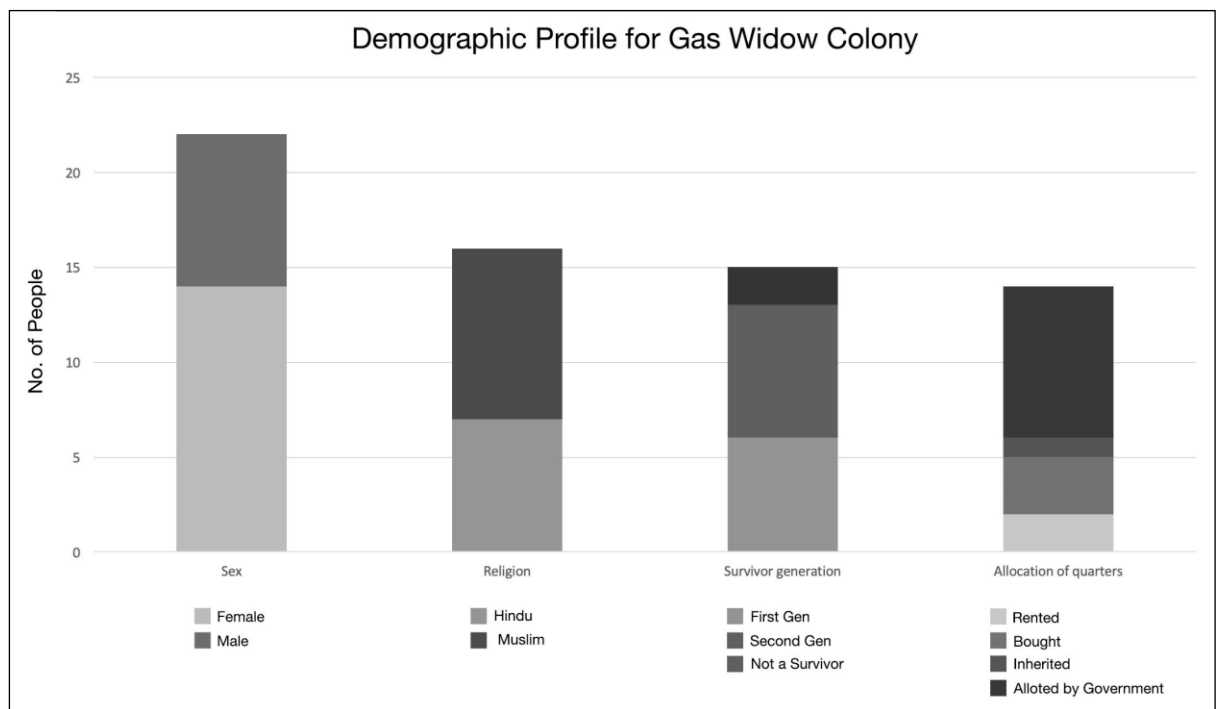


Fig 3.4. Demographic Profile of interviewees in Gas Widow Colony

Source: Primary Data

3.4.2 Gas Widow Pensions

To obtain information about the gas widow pensions and its effective and timely implementation occupants were interviewed on the access, amount and duration of the pensions. Although it was analysed that the monthly pension scheme of 1000 rupees per

widow was successfully implemented to the sample at least, the scheme was stopped after a span of five years, even though lifetime pensions were promised. All participants in the sample that had received pensions under the Chief Minister's lifetime scheme, had only received them between 2010 and 2016 after which the scheme was abruptly stopped.

Ahead of the elections, the scheme was reportedly started again by the Gas Relief Minister and Member of Legislative Assembly Mr Vishwas Sarang, but not enough participants could attest to this. It was evident through our interviews that many occupants in the colony, or their families, never had access to the gas widow pensions despite the necessary documents and identification papers being in place.

For a brief period of five years, an economic relief fund of 200 rupees per month was also provided to every gas affected household; participants in Qazi Camp and the Gas Widow Colony attested to its implementation unprompted.

“The only government that helped gas victims so far has been the one that gave us 200 rupees per month,” expressed Qazi Camp resident and former employee of Union Carbide Irfan Khan.

Additionally, Mr Shahid opined, "When Mr V.P. Singh from the Janata Dal was sworn in, he surveyed the cases of the victims and provided us 200 rupees a month. Nobody else. Janata Dal's VP Singh was the only one who helped us. No other politician gave us anything. He was a good man, he died. After that, no benefit, no good work was done."

Amidst government-initiated policy undertakings, measures were being taken by local bodies, political agents, and individual parties as well — these involved visits to the gas widow colony during election campaigning and distribution of sarees and umbrellas to the occupants by the Gas Relief Minister. The question, however, was to what extent these "soft" and symbolic acts actually impacted the satisfaction of survivors with both the government or the politician, and with policy. Direct or indirect interactions with political leaders were a signifier of how much weightage the incident holds concerning stakes in elections. The changing governments and the interactions of the survivors with them shaped the latter's attitudes toward policy framework. However, they did not make up for the lack of policy implementation in the areas where it was most needed.

3.4.3 Credit Schemes

No participant in the target sample had received loans through or was familiar with the STEPUP credit scheme. In the Gas Widow Colony, a participant explained that the area had been blacklisted from the provision of loans under gas relief schemes, because of which no occupant could avail this scheme. In Qazi Camp, where the second sample of survivors was interviewed, STEPUP loans were completely unheard of. Other loans or employment schemes provided by the government were also absent, as analysed in the primary data.

“Not even a rupee was given to us for any employment,” said Gas Widow Colony resident Abdul Qazir. Added survivor Tulsi Yadav, “You give loans to the poor, you might as well give them alms. Nothing of the sort was ever done.”

Mr Shrivastava said that during the three-year window stipulated by the government for economic rehabilitation, 18 crore rupees out of the sanctioned provision of 104 crores were utilised successfully in employment schemes, while 86 crore rupees had ‘lapsed.’ This meant that in the following financial year, this amount would be sent for approval and reallocation again. Ms Mishra, the Chief Financial Officer at the ministry, explained that this amount would be reimbursed to the ministry by the Centre.

3.4.4 Training and Yoga Centres

Conflicting data was found regarding the existence and operationality of training centres. Estimated expenditure proposals between 1991 and 1998 issued by the Gas Relief Ministry (RTI), detailed the costs for the maintenance of ITI centres and the employment of personnel in these training centres over time. Lists of candidates employed in these centres over the years were also made public by the Ministry. This implied that these centres were considered in the official budget for a long time after the gas leak, meaning that they were represented as functional policy implementations.

“The ITI centres are all in new Bhopal, nothing reaches us,” said a second generation survivor in Qazi Camp. “The community dustbins, everything- they all carry out infrastructural development in New Bhopal, where there are no victims at all.”

All twenty-two occupants of the gas widow colony interviewed asserted that there was never a training centre established in or around the colony, and the ones they knew of

were set up in places inaccessible to them. The group was able to visit a training centre opened by activist Mr Abdul Jabbar in Qazi Camp. It offered skill-based training for women who could learn to stitch there. According to Mr Khan, t training centres under the ITI were only ever established in New Bhopal. It must be reinforced here that the 36 wards identified by the government as “gas-affected” were all located in Old Bhopal. As activists and survivors reported, training centres that existed were either too far away or suddenly closed down within a year of operation. Only one participant identified that a training centre for women was established in the gas widow colony for less than a year.

Mr Shahid said, "There were some training centres, but they were all terminated and shut down. Nothing exists anymore. There were four papad-making schemes for women, they would earn two to three hundred rupees a month, but all of this has ceased now."

With regards to the employment sheds and placement services, activists pointed out the problems with implementation. According to Rachna Dhingra, most candidates have not been issued certificates upon completion of training.

According to reports from activists, journalists and proposals from the Gas Relief Ministry dated 2014, yoga centres were also planned to be constructed in areas around the affected wards. Mr Shrivastava explained that the Directorate saw through the completion of setting up yoga centres in the affected areas through the *Nagar Nigam* (Municipal Corporation), but the supervision was soon outsourced.

He said: “We built the yoga centre. Various kinds of training centres were opened. The Yoga Centre was passed from the Nagar Nigam to private hands, so I have no idea about their functionality. All this is mentioned in our report. Read it, and you will know.”

The Smarika report (official report released annually by the Ministry) detailed the construction of a yoga centre in the Karond Gas Widow Colony, where the sample was interviewed. It did not mention the transfer of the yoga centres to the “private hands;” rather, it expressed that the yoga centre in Karond was soon taken over from the local corporation by the Madhya Pradesh state government. The reason for this transfer was the ineffectiveness of the body in implementing the required strategy successfully. The researchers did not notice an establishment of the sort in Old Bhopal or the gas widow colony. In New Bhopal however, while visiting the Directorate of Gas Relief and

Rehabilitation, a yoga centre was seen near the ministry. Primary data revealed similar findings; no participant was aware of any such centres.

"The yoga centres have been turned into wedding halls today," said Mr Sarangi.

Participants were insistent that all infrastructural undertakings approved by the Gas Relief Ministry- including yoga centres, ITI training centres, parks, community dustbins and schools- were implemented in New Bhopal only.

3.5 Responses, successes and failures of policies

Failures or successes of policy mechanisms were analysed and expressed in terms of both designing and implementing a policy. The successes of policies were assessed by asking participants about their satisfaction with a particular policy measure, and what it failed to do. The response of a particular stakeholder was examined on the levels of satisfaction as well as the actions of these stakeholders once policies were or were not made available to them. The role of research on the environment was proven as an important one in the creation of practical solutions to the problems created by the incident.

The establishment of the gas widow quarters was received ambivalently by different stakeholders. Discrepancies were located even among responses of the same stakeholder (gas survivors) interviewed in different localities. These discrepancies are discussed in this section through examples of on-field interactions with activists, tenants and survivors who were allotted the quarters.

Mr Suresh Joseph, a trustee at the Remember Bhopal Museum, said- "Imagine the insensitivity of the government that the Housing Board builds a set of houses, and calls it the 'Widow Colony.'"

In 2010, the Bharatiya Janata Party (through Chief Minister Shivraj Singh Chouhan) changed the name of the colony to 'Jeevan Jyoti Colony.' The colony remains colloquially referred to as the "Government Quarters" or simply, the "Housing Board," as was observed from interactions with locals as well as occupants. Today, it can be found that very few original recipients of the quarters live in the Gas Widow Colony. It remains majorly occupied by buyers, inheritors or tenants, very few of whom were even affected in the gas leak- directly or indirectly. The residents who were originally allotted the quarters in 1992

sold the houses in large numbers very soon after they were received. Participants expressed the ineffectiveness of the pension amount as a secure allowance, and initially, the research linked this to the sale of the allotted quarters for additional income. Further analysis revealed that the insufficiency of pensions was a secondary factor. In fact, dissatisfaction with the size of the quarters could potentially be a cause for this response to the provision of alternate residences to the survivors, whereby they found it most economically viable to sell the quarters:

“When the women moved into the quarters, their families were very large,” expressed first-generation gas survivor and resident of the colony Tulsi Yadav. “The quarters were too small for these families, and too inconvenient.”

"After the women who got these houses passed, their children gave these houses on rent because they were too small for extended families with four to six children and a single room," explained Mr Shahid.

Present-day occupants varied in their levels of satisfaction with the allocation of quarters. Tenants or buyers who had received the houses from the original residents were found to be satisfied with the colony in general, and the housing in particular.

“Everything is fine. There are families all around, everyone lives together peacefully,” said a resident who chose to stay anonymous.

On the other hand, allottees and first- or second-generation survivors, including households where the residence was inherited from a widow in the family, expressed dissatisfaction for the size, location, infrastructure and amenities in the colony.

“There is sewage runoff everywhere, it stinks very badly,” said Aamna Bi, a first generation gas survivor who lost her husband and four children to the gas leak. “We do not even have access to the *Nagar Nigam* community waste disposal. The garbage-collection vehicle does not come to the colony; everyone just dumps their waste at the back. We have to take care of it among ourselves.”



Fig 3.5. Waste dumped outside the Gas Widow Quarters

In Qazi Camp, the satisfaction with policies and the government, in general, received a spectrum of feedback.

A family in Qazi Camp was interviewed, where the participant said: "We own a grocery shop, we were gas victims. Now everything is done, we got compensation, we got relief, and we're happy. We have no complaints about the government."

However, in four other households, participants like Rashida Bi (not to be confused with Rashida Bee, activist and head of Chingari Trust Clinic) expressed that the government had done nothing for them. "All I want is employment, to be able to work with honour," she said. "I do not care about the money or the compensation."

The failures of the STEPUP schemes in execution were made visible in the primary data. This scheme failed to reach the demographic it was designed for. Loss of jobs and the loss of chief earning members were important aspects of the way lives of the participants were changed by the incident. This grievance was not alleviated; since the loans were neither available nor accessible to the set of survivors interviewed. In terms of planning, it can be analysed that this scheme was gender-blind. Different challenges were created for

the male and female survivors of the incident. Economic rehabilitation should have been designed with the respective needs of these groups in mind.

One of the interviewees, Munifa Bi, a first-generation 'gas widow,' while she was tending to her fruit-stall, said: "I was obliged to work when my husband, son and father died in the tragedy. I had to take care of my daughters. I still do. The Chief Minister asked me to deposit 1500 rupees and buy a hand-cart, and they said I would be helped in setting up my business and receive 5000 rupees. No help was given. Nobody cares about the victims."

Many interviewees on field belonged to families where the female survivor had to assume the role of the sole breadwinner abruptly. The pension given to the gas widows on its own was not enough to secure financial stability given the amount and time-frame, and the family size. In this scenario, women formed a group which was in particular need of economic assistance and mobilisation through gender-specific credit schemes. Since this was not available, women like Aamna Bi, (age 68); and Munifa Bi, 55; who lacked the physical capacity to work for long hours, were compelled to take on employment to be able to afford basic necessities. It also compelled second-generation survivors like Tulsi Yadav, daughter of a gas widow, to discontinue her education. The lack of this kind of strategy caused the financial instability of widowed women to worsen; its impacts also spilt over into the education, employment and standard of living of the next generation.

The success of the policy reforms, it can be observed, was obstructed by two significant forces: flaws in the bureaucratic behaviour, and other stakeholders. It was described that there were measures ideally intended for the gas victims to be enforced in the geographical localities identified as gas affected. These measures were instead implemented ubiquitously- if not exclusively in unaffected areas.

One of the most prominent drawbacks of the policy mechanism was the lack of a collated database of research spanning the full impact of the leak on the people and environment. Problems must be identified through research, which forms the foundation for designing relevant policy solutions.

Environmental researcher Ms Renu Mishra said, "There is no data from before the tragedy so there is no way of comparing the effects or connecting anything directly to the incident."

Mr Asid Patro (Assistant Director, Disaster Management Institute) said that there is a "lack of structured information about what process deviations led to the incident".

Similarly, Alok Saxsena of the Madhya Pradesh Pollution Control Board said that there are "different people, different perspectives that are all working with their own vision and then putting it all together."

However, all the other sources interviewed said no such "putting together" had ever happened. Therefore, without an overview of what the problems were and here they were most felt; effective, valued strategies were hard to create. And since there was no full scientific evidence backing the regulations, enforcement of policies was harder and less focused on. The lack of conclusion in terms of information, therefore, translated into inaction.

3.6 Limitations of Policies

"All policies were implemented wherever necessary, we faced little hindrance or limitations," said Mr Shrivastava.

However, different explanations were made visible throughout the course of the study. Due to the way policy measures were received by the intended beneficiaries, we analysed that the actions and inclinations of different stakeholders proved to be limitations to policy implementation.

Initially, it was hypothesised that citizens of Bhopal who were not affected by the gas leak benefited from policies and reparation measures intended for the actual victims. It was later understood that defining the victim, in fact, was a problem and a controversy which proved to be a limiting obstacle in framing and executing rehabilitation.

"I feel like all wards should be declared as affected wards. Every single ward in Bhopal is affected, and the people from every single ward are still struggling today," asserted survivor and GWC (Gas Widow Colony) resident Mrs Yadav.

The State, in acknowledging and legitimising the victim in Bhopal faced political pressures from many angles. A review of archival documents related to the aforementioned survey conducted by TISS, as well as the compensation claims from each ward in Bhopal, was done in Sambhavna Clinic. Dated 1984, the data revealed that not less than 65 to 75

per cent of the general population from every ward in Bhopal had filed for receiving compensation money after 1984 (Singh, 2010). It must be noted that these claimants had not then been distinctly identified as belonging to the part of Bhopal classified as "affected," nor did they have any preliminary identification to prove that they were, indeed, gas survivors.

"If forms (for compensation money or relief schemes) are distributed, everyone will queue up," said Rachna Dhingra, "nobody in Bhopal wants to miss out."

It could be observed that in areas close to the site where the gas leak certainly caused an impact, participants opined that individuals projected themselves as gas victims in the neighbourhood even when they were not.

"We do not lie; we were not around when the gas leak happened," said Rani Gupta. "There are people who say they were affected when they only just came to live here- we don't do that. We are delighted with the (gas widow) quarters, and the government."

Initially, in December 1984, the government of Madhya Pradesh distributed free rations to the people of Bhopal to make up for the shortage of necessary supplies that followed the gas leak. This measure was meted out to every ward in Bhopal; however, was later restricted to twelve wards only. These were the twelve wards classified as worst affected by the Madhya Pradesh government. Following this restriction, there was severe political uproar and pressure on the Gas Relief Ministry to declare *all* wards of the city as gas affected. A specific political body called Antulay, for example, tried to influence the erstwhile Gas Relief Minister (also former Chief Minister of MP) Babu Lal Gaur to this end. This would, accordingly, allow infrastructural reparation or distribution of relief strategies across all parts of the city broadly, without a special focus on highest need, or on the vulnerable groups. It would also enable, as interviewees discussed, individual political actors to capitalise on the situation and acquire votes by executing policy measures (like training centres) in their wards exclusively.

It was later decided that unless this demand was dropped, the Indian government would not approve any proposed policy expenditure or relief strategies. However, this event held different significance to different stakeholders:

"Babu Lal Gaur wanted to build everything in his own wards, so he wanted them to be gas affected," said Mohammed Shahid.

“The politicians are very inconsistent in their own demands to this day- the same politicians want to declare everyone a gas victim one day, and then only their ward the next,” said Tulsi Yadav, “Why, you ask? Votes!”

The apparent disparity between the needs of the victims, the interests of local actors, and the perceptions of the State; can hence provide a reasonable explanation as to what has limited the reach of policy to where it was most needed, and whom it was intended for.

“It is all for political mileage,” said Mr Dilip Singh, Director at the Disaster Management Institute. “This is a purely political issue. This issue should not be dragged for so long. There is a problem, there is a problem. (The) solution is there.”

This limitation of policymaking, as a political variable, must primarily be regarded in terms of the social, political and economic contexts, standards of living and identities of the stakeholders involved. There has in Bhopal prevailed a historical demarcation between the citizens occupying the affected areas and those outside of them. This demarcation has existed long before the incident; before the existence of the factory itself. Debates around whether everyone must be labelled a gas survivor, and by extension, receive the same policy treatment from the State, must always be viewed in this context. There are structural variables like poverty, or religious identity, which have convoluted implications which, likewise, need structural reform. Otherwise, if the social and economic variables particular to the groups in question are not considered, the executed strategies will be effectively blindsided from achieving their target.

3.7 Discussion: Policy, Political Agents, and Environmental Justice

“The government is ill-intentioned.”

-Mohammed Shahid, first-generation survivor

“Politics- who gets what, when and how,” defines Harold Lasswell- a true actualisation of this can be explored with reference to Bhopal.

Why was the Union Carbide plant situated where it was? Why were the residents that occupied the areas around the plant, living under such conditions as they had been?

Who was the gas victim and who was not? What were the implications of classifying a specific, exclusive geographical demographic of the population as “gas affected”?

On the discursive and material spectrum of environmental justice, political and socioeconomic identities played a major role in Bhopal. The fact that Union Carbide set up a hazardous chemical plant, despite the presence of state zonal laws, in a residential area occupied primarily by the city's poor (who continued to live in the vicinity after the incident) must be seen as contingent on other forces. Another contingent fact was that the people who occupied these areas, inevitably were the most affected victims of the leak, and happened to belong to a particular class and religious demographics reflected in the sample as well: they were majorly low-income Muslims. These two facts translated into the effectiveness and success rates of policy mechanisms intended for these sections, which very observably failed to reach them. On the other hand, political agents continued to exploit the vulnerabilities of these sections in different ways by profiting off the inaction of the State. The manner of exploitation involved turning them towards an activist cause under the illusion of redressal when there was actually none, or for other stakeholders, promising reparation and mobilisation in exchange for political power and votes.

An important finding of the study was the association between reparation promised to survivors by politicians and their effect on how a particular party or leader was perceived. As mentioned in the literature review, the promise of rehabilitation five years after the incident was discussed in terms of vote-bank politics. It was suggested (Shrivastava et al., 1996) that interim help from the State was a strategy to earn electoral power for the National Front coalition in the 1989 general election. Primary data (see section 3.2) illustrated the fact that all survivors either expressed dissatisfaction with all ruling parties until now or expressed support for V.P. Singh for his interim relief policy. V. P. Singh was the leader of the National Front during the 1989 election and was sworn in as Prime Minister consequently. Policies implemented for the survivors of the incident, therefore, had a direct and lasting impact on the attitudes towards the government. This impact was strengthened by the interactions between the representatives of the government and the survivors undertaken in the form of campaigning visits. All these findings demonstrate that the presence of the Bhopal Gas Tragedy as a stake in elections in Bhopal today continues to be powerful, relevant and formidable.

The successful framing of effective policy, especially one aimed at repair after an unprecedented disaster of this scale, is reliant on successful research. Following the gas leak from Union Carbide in 1984, there has been no conclusive body of scientific research on the environment or the economy brought to light. This has, inevitably, led to a void whereby inaction follows. Admittedly, this is the opinion of the researchers and bureaucrats placed in ministries of environmental research in the city.

Through these analyses, the concept of environmental justice must be recalled, for which Bhopal becomes a case in point. In the wake of an environmental disaster, the burden of the challenges must be shared equitably by all stakeholders- irrespective of who they are. Similarly, rehabilitation must be provided in a non-discriminatory manner. "Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."- (Turner and Wu, 2002) this definition can be recalled here.

Based on the findings of fieldwork, it is apparent that the trajectory of environmental justice whereby it should have been delivered from the State, through policy mechanisms, to the most vulnerable individuals, faltered. Much is to be deconstructed in this inference. Firstly, the Bhopal Gas Tragedy tested the reach of environmental justice because of the challenges it created for the State and the individuals. The new label of 'gas survivor' or 'gas widow' was introduced to the already complex identities of these vulnerable groups, whom policy measures should have ideally reached on a priority basis. Then, the successes, failures and implementation (or lack thereof) of policies like the gas widow pensions, gas widow quarters, loans, and training centres, gave the overview that rehabilitation in Bhopal did not follow the ideal path of environmental justice. The gas widow colony, for instance, was a form of alternative housing. However, the conditions were not habitable, and the environment was not optimal.

Although on the bureaucratic level these policies were equally and reasonably implemented, interacting with survivors indicated that policy measures did not reach satisfactory levels of providing relief. Employment or mobilisation, the ideals of rehabilitation policy, did not reach the beneficiaries. The unequal burden was still being shouldered, and the survivors were the main bearers. It became evident, through practices like vote-bank politics, that stakeholders could capitalise on this tragedy and use or hinder

policy in doing so. This meant that as long as political leaders, the State itself, activists, and even 'survivors' continued to use Bhopal as a stake, no actor could ever be able to move on. As long as the incident remained something to profit off, it would be unlikely that the survivor of Bhopal could be rehabilitated.

The incident was situated in the intersecting realm of State-initiated policy action and the involvement of political power. Rehabilitation became entangled with the desires of stakeholders to capitalise on the incident, and caught in the crossfire was the most marginalised, aggrieved gas survivors, whom policies were meant for in the first place. The distribution of rehabilitation not only had a limited reach in the realm of implementation but also disparities in whom it reached. Besides, this distribution was, to the core of the definition, purely political- a question of who gets what, how and when: Who gets reparation, who gets relief, who gets power and who gets to move on.

CHAPTER 4: CULTURE AND ATTITUDES

4.0 Culture and Attitudes

“Bhopal has changed so much after the tragedy. We cannot even identify that it’s the same Bhopal we grew in. Now people have no employment, no labour, and life feels hazy.”

-Rashida Bi, activist and survivor

4.1 Introduction

On the night of December 3rd, 1984, the people of Bhopal earned a new identity as the timeline of the history of Bhopal was redefined by the Bhopal gas leak. They became the subjects of an industrial disaster; members of a group that had lived through a historical and cultural disruption. Everything expressed about the city, its culture, and the interactions between its residents was through the category of “before the leak” or “after the leak.” New relationships were built around the event based on individual experiences and struggles with the situation. However, the Bhopal gas tragedy did not become what defined the Bhopali, and it is important not to define the survivor as simply that. For in doing so, one erases the complex fabric of lived experiences that frame and define that individual as a cultural, historical and political being. That being said, it is necessary to examine the cultural transitions this event brought, and the way the event was integrated into the identity of the Bhopali citizen. It is important to acknowledge that Bhopal is not simply the site of a disaster but is also a city of stories. Every narrative is different, every cultural dialogue is important.

This chapter analyses the impact of the gas leak on the lives of the people of Bhopal. It discusses the narratives of survivors and non-survivors as they have been shaped by the event. In doing so, the way that Bhopal, as a city, has changed in the eyes of survivors can be observed. The chapter also examines their experiences of the night and their attitudes towards the government, politicians, activists and the media. Finally, it identifies these narratives and attitudes against the backdrop of environmental justice.

The manner of collecting data for assessing attitudes was qualitative. Interviews were used to confer with survivors of the gas leak, activists, and present-day occupants of Bhopal from unaffected areas. The sample of survivors was selected from residential areas

like Qazi Camp, J. P Nagar, Arif Nagar, and the Gas Widow Colony. These interviewees included first, second and third generation survivors and was evenly split in terms of gender. The group also took interviews with children in order to understand the long-lasting impact of the incident on successive generations. With regards to the religious profile of the interviewees, most Qazi Camp residents were Muslims, whereas J.P Nagar and Arif Nagar consisted majorly of Hindus. The Gas Widow Colony respondents on the other hand, were evenly split between both faiths. The interviewed survivors all held a below poverty line (BPL) ration card and a majority was uneducated. Some of the second and third generation survivors had attended school, but they had dropped out by the eighth standard and only a few completed a 12 year education. The most common occupations identified from the sample were that of manual labour, tailoring, making *beedis* (hand-rolled tobacco cigarettes), and owning shops. The first generation interviewees were roughly above the age of 49. Apart from the survivors, the team also interviewed people from a new Bhopal mall to get a sample of the perspective from the unaffected population. These respondents were either from Bhopal, or had been residing there for over 3 years. They belonged to a higher socio-economic strata than the victims and were mostly university-going students or working professionals.

4.2 Perceptions of Bhopal preceding the gas leak

Emerging trends about Bhopal can be observed from the views of long-time citizens of the city. Based on these descriptions of the culture, social fabric and lifestyles before December 3 1984, one may identify patterns on whether, and how, the incident changed these aspects of the city. Consequently, connections can be made with regards to how the incident affected social relationships and attitudes.

“Bhopal is a very culturally rich place. Like many other cities, Bhopal too, was a simple city,” said survivor-turned-activist Mr. Abdul Jabbar, when asked about Bhopal before the gas leak.

In 1947, the city had Nawab rulers who, unlike Mysore and other progressive Indian princely states, had shown little interest in attracting industrial investors. The culture of Bhopal was a quaint mixture of a Hindu and Muslim population that lived in peace. As a result, the language spoken was Hindi, generously laced with Urdu, and the architecture and social customs featured the best of each community (Shrivastava, 1987).

In 1956, Bhopal, whose population was roughly 1,25,000, became the capital of Madhya Pradesh. Its level of education was not very high – there were few colleges and the locals went to Delhi, Pune or Indore for higher education. “People residing in Bhopal were generally very simple and naïve” says Rashida Bi, an activist and founder of the Chingari Trust, Bhopal. They therefore had little knowledge of the industries (originally consisting of several small-scale industries like flour and paper mills) that came up in the city. Bharat Heavy Electronic Ltd. (BHEL) was one of the first major public sector companies in Bhopal, followed by the Union Carbide India Limited (UCIL) plant in 1969. As industrial activities developed, migrant labour flowed into the city even as its residents continued to drive *tongas* and auto rickshaws and earned a living by working low-paying jobs. In general, Bhopal “was not a hi-fi city. The people living here were so simple that they did not know or understand how to manage a disaster of such a huge magnitude.” said Jabbar, a survivor.

4.3 During the Bhopal Gas Tragedy

The variety of accounts the team received made it possible to discuss the initial and long-term presence of the incident in the experiences of the survivors in a dialectic with one another. The group engaged with detailed narratives from the night of the tragedy and considered them keeping in mind the emotional trauma that still sustained, and the gravity of the incident in question. The contrasts between the memories of survivors who experienced the incident as children, and those who did so as adults were also noted for further comparison.

4.3.1 Survivor Memories

Most of the victims of the gas leak, being migrant labourers, lived around the Union Carbide factory in *kuccha* houses or roughly constructed non-brick huts. The lack of proper enclosed housing made them even more vulnerable and their unfamiliarity with the city precluded informed decision making or a unanimous response. As Hizra Bi said, "the Union Carbide factory is located where it is because we are the most replaceable members to society."

Since they lived in close proximity to a junkyard, some survivors said that they initially mistook the smell of the MIC gas for the smoke of burning tyres. Soon, however,

smoke clouds could be seen rising up from the UCC plant, following which the association between the smell and the smoke was made. “At around 1 a.m. that night, we started coughing and our eyes started stinging. We thought it was chilli powder. When I got up and looked outside, all I could see was smoke,” recounted a survivor at Qazi Camp when asked about her memories of the night of the incident.

This realisation was quickly followed by panic as people did not know which way was safe to run. The roads quickly piled up with dead bodies and several survivors recounted watching people die right in front of them. Activist and survivor Rashida Bi described how they saw “some liquid coming out of [their cousin’s son’s] eyes and nose. He looked in pain.” Another survivor from the Gas Widow Colony explained how the family had to bury their infant in the ashes of the *choola* (gas stove) to prevent the gas from reaching the child. Around 4 a.m the same night, it was announced that the release of toxic gas from the factory had stopped and people could go back home.

4.3.2 The Treatment of the Gas-Affected

The sequence of events of that night was pieced together much later, leading to the conclusion that there had been a poisonous gas leak. It was days before the nature of the gas could be identified, and even hospitals were unable to come up with an antidote. Doctors therefore, gave victims symptomatic treatment, leading to innumerable deaths due to the lack of accurate diagnosis. Six days later, however, an antidote - sodium thiosulphate - was identified. The ICMR (Indian Centre for Medical Research) confirmed that the drug was extremely effective and suggested it for mass usage. However, as a German toxicologist, Dr. Max Dauderer, brought 50,000 doses to Bhopal, he was repatriated and the vials of antidote were confiscated by the police. Satinath Sarangi, Trustee of Sambhavna Clini, claimed that one possible reason for this puzzling cover-up was that Union Carbide did not want the general public to know the toxicity of the gas that had been manufactured. In other words, if the antidote was effective, components of the gas could have been easily identified and repercussions would have been faced about producing it in residential areas. Sathinath "50% of the gas affected victims were Muslims and the other half were lower-caste Hindus, it's no wonder that the government didn't care enough for them to bring them justice." Thus, the only form of treatment was taken away before it was even put to use.

4. 4 Interactions between stakeholders

4.4.1 Attitudes of the survivors towards the government

The attitudes of the survivors towards the government after the gas leak express the cultural shift in the relationship between the State and the individual. This relationship became especially important after the gas leak. It helped understand the prominence and urgency that state action acquires in times of environmental and manmade disasters.

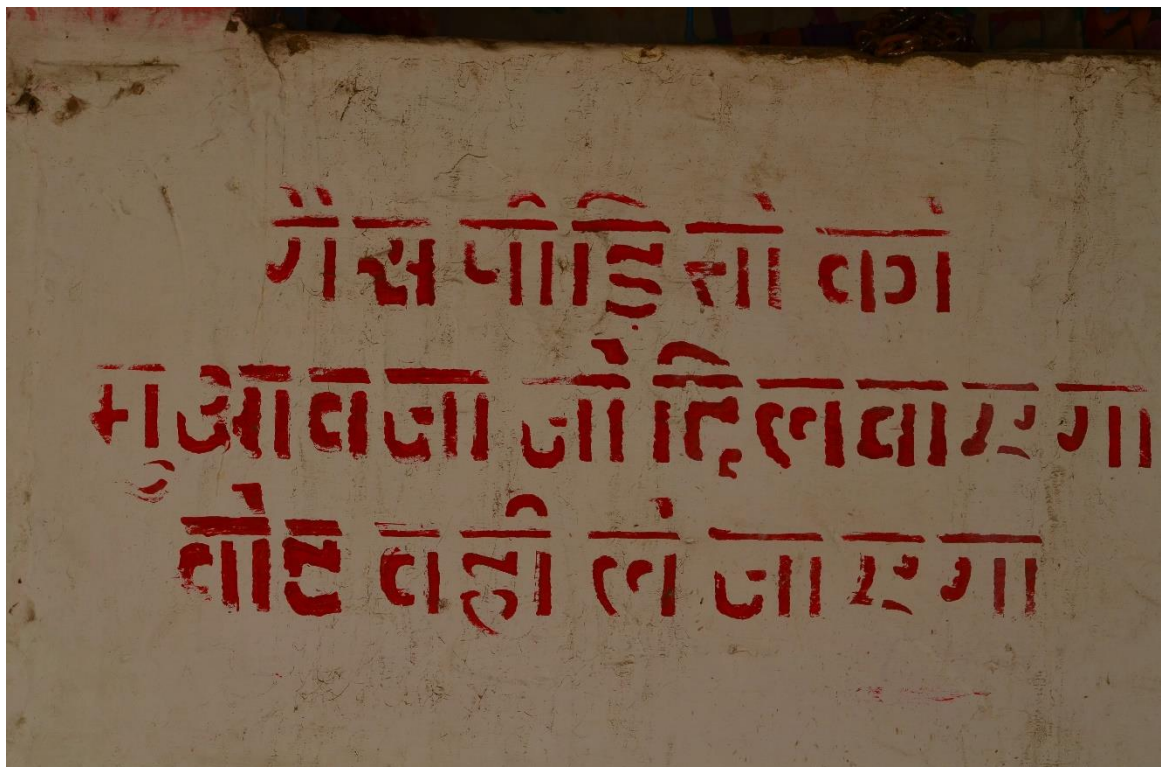
Immediately after the tragedy, there were relief camps that were set up for the survivors. The government had announced a policy where women were given employment opportunities. Under Step-Up Program, there were roughly around 40 centres that were opened and women were trained in knitting, book-binding, carpentry, sewing, and other skills. They were paid Rs. 5 per day. This was a good initiative, but not much is possible with the salary. It was later shut down and the reasons for it remain unknown.

The government built the Gas Widow Colony (also known as the housing board colony) for the survivors who were widowed. Only a few of them currently live in this colony. Many of the homes are occupied by the relatives of the gas widows. Living in poverty-stricken conditions, the gas widows receive a pension of Rs. 1,000 per month from the government. It is surprising to note that the gas widows are not included in the general pension of Rs. 300 per month. Apart from the housing, there were no other facilities provided to them. Many of them stitch clothes and make *beedis* for a living as they have no other means for employment. Most of the compensation money was divided between the children of the gas widows and they were left with nothing. Many of them passed away due to this poverty.

The survivors who continue to reside in the Gas Widow Colony mentioned how other survivors had sold their houses to help them out of their abject poverty. Another possible reason as to why survivors may have sold the houses they got for free could be because of the pathetic condition of the Gas Widow Colony. The lanes were untarred and traffic contributed greatly to the noise pollution. The lanes and gutters, as well as the plots behind the residential quarters were filled with garbage and waste. One of the victims from this area laughed off a question about the government training program, “what training? To

whom did they give training? The keep saying that they are going to make India clean, why don't you come with me? I'll show you all the garbage in this layout." The anger and frustration towards the government regarding the waste in the Gas Widow Colony could be identified and understood with ease. In a group discussion with women from the area, the topic of garbage and waste disposal was prompted by the other women several times until it was actually brought up.

The direct interactions between survivors and representatives of the government were primarily visits made by local leaders, visits which Sumit Roy, a practicing clinic psychologist, believes were politically motivated. "MLAs and politicians used to visit us 20-25 years back," recounted a survivor in JP Nagar, JP1. "Generally, they just make promises, saying they will fight for us and our rights. However, once the elections get over, no promises are kept." In this sense, politicians only visited during periods of electoral campaigning. The constant promise of compensation money, or the provision of clean water, or better facilities, were continually made to the survivors.



4.1 Slogan in Gas Widow Colony reading 'those who provide the gas victims with compensation, they are the ones who will take our votes.'

There were government hospitals like the Hamidia Hospital that provided free medical aid to the survivors and also made them profile cards. The Bhopal Memorial Hospital was built especially to provide medical facilities to the gas survivors and their descendants. However, Tulsi Ram, a resident of J.P Nagar, claimed that these medical facilities were beneficial for some and not for others. Several survivors mentioned that the doctors never physically examined them and prescribed the same medicines irrespective of the illness such as a cough, common cold, or tuberculosis. Survivors also mentioned that the hospitals were inadequately staffed as many doctors had left to practice privately or in other hospitals. “The management is also very careless. They keep losing all our profile cards that identify us as a gas victim. There are protests held in front of these hospitals demanding good medicines. People keep falling ill and there is no one to cure us,” said another survivor.

Consequently, an example of the influence on cultural identities can be observed in the unjust malpractice in relief hospitals. Operationality of the hospitals aside, it was reported that behaviours of doctors were discriminatory and detached. Rashida Bi said that they were treated like “untouchables” by doctors in government hospitals and were not provided with adequate healthcare facilities. They were also told to stand at a considerable distance away from the doctors as though they had a contagious disease.

Survivors were of the opinion that the hospitals gave first preference to people who could pay and those who could not afford it waited in long queues and sometimes even perished in the process. Survivors were promised free healthcare and but they never received it. They were always told to come after two days and they would keep coming, but to no avail. A survivor inquired, “Will a poor person do their work and raise their children or just be loitering around waiting to get called? If you go to hospitals for treatment they will make you chase around ten different places until they help.”

Women felt particularly discriminated against in the infrastructural mechanism for medical relief after the incident. “Many of the relief centres and hospitals had no gynaecology department” according to Rachna Dhingra, Head of Bhopal Campaign for Information and Action. One survivor also said: “We are told, ‘you are pregnant, so we will help deliver.’ But that’s obstetrics, not gynaecology.” Additionally, women expressed that doctors in government hospitals did not advise them about the possible long-term effects

of the gas leak on the health of pregnant women. Such actions deeply angered survivors and sparked the first protest against the discriminatory nature of the hospital personnel.

Some accounts were received on how the government did provide amenities, like clean water pipelines to the people. All respondents in the Gas Widow Colony expressed awareness of a new pipeline being fitted by the government that supplied water from the Narmada river to the households. However, this did not improve the satisfaction of the people towards the government in any way.

Qazi Camp survivor QC6, who chose to stay anonymous, said: “We have not received water supply from the new pipeline yet, because we did not get the taps fitted. They asked us for a bribe of 1000 rupees, which we could not afford.” Later, however it was discovered, in an interview with environmental scientist Vassanda Coumar that “the 1000 rupees were not a bribe. It was the cost of getting the taps fixed, because the government is not obligated to supply water specifically from the Narmada pipeline. Even I had to pay this cost.”

This exchange made it indicative that survivors mistook actions of the government and interpreted them in a negative light because of the neglected role the government had consistently played. Their previous interactions with the government and their attitudes towards it, hence, influenced their current attitudes towards any government action. This reaction could also be because the government was assimilated alongside Union Carbide as the rival ‘other’ for survivors. As Mr Jabbar said: “All the death that occurred on the first two nights, the Union Carbide factory is directly responsible for it. However, the death that continued to occur for several days and weeks after the accident, well, the government was responsible because it was the duty of the government to do a detailed study and analysis of products when such factories were set up and also specify the safety measures and antidotes applicable.” The blame and responsibility in the eyes of the survivors, therefore, continued to be shared by the two entities equally.

Rachna Dhingra’s comment on the change of governments and whether it improved the situation for the survivors conformed to this shared responsibility. She said, “Things have worsened since the BJP came to power. They are even closer to the corporations now, they came to power with obscene amounts of electoral funding.” This comment added to

the close similarity in the view that the government had the same interests as the industry which caused the leak in Bhopal.

In this sense, the attitude towards the government was mainly characterised by holding it synonymous to the 'corporation' Union Carbide and industries in general and thus both were antagonized.

4.5 Attitude towards the activists

At a time of such tragedy and misfortune, some individuals stepped up to become torchbearers to guide and lead the victims of the Bhopal Gas Tragedy. Some of these activists like Abdul Jabbar, Rashida Bi, and Champa Devi Shukla had been victims of the gas leak and had decided to spend the rest of their lives committed to working for those who were not as fortunate as them. Abdul Jabbar set up the Bhopal Gas *Peedit Mahila Udyog Sangathan* (BGPMUS) for gas affected women; Rashida Bi and Champa Devi Shukla set up the Chingari Rehabilitation Centre which provided educational facilities for the affected children of the gas victims. Rachna Dhingra of the Bhopal Group of Information and Action also played a key role in fighting for the rights of the victims.

Another activist, Satinath Sarangi, came to Bhopal upon hearing of the disaster on the radio. He was instrumental in setting up the Sambhavna Clinic which aimed to provide medical aid and rehabilitation facilities free of cost to the survivors and successive affected generations. The clinic also had a vast library which held journals, articles, books, court proceedings, and other information pertaining to the Bhopal gas leak. Due to the dissatisfaction with government facilities, the Sambhavna Clinic was established to provide alternative treatment to the gas survivors. Some survivors seemed satisfied with the treatment. Some complained, "I used to go to Sambhavna Clinic. They used to give some oil to be massaged all over our body and that's about it. However, there was no benefit from doing it and it made no difference to our health." Moreover, some victims did not know of its existence and said, "it may be there, but I have my card at Bhopal Medical Hospital." The effectiveness of such activist ventures therefore, is uncertain.

Suresh Joseph was also another name that has been associated with the Bhopal Gas Tragedy. With the aim of keeping the memory of the tragedy alive and making sure that there are "no more Bhopals", Joseph founded the Remember Bhopal Museum. This

building contained the accounts of the survivors about what happened that night as well as certain memorabilia of those who passed away because of the disaster. Just like the rhetoric of some survivors, the rhetoric in the museum tried to hold the survivors and activists as the same interest group. It presented this common interest group as a common entity, a common voice. The caricatures and posters in the museum conformed to the idea of the State being synonymous with Union Carbide in particular, and corporations in general. The anti-globalisation posters that were displayed inside the museum were a contrast to the deeply personal items (like sewing machines) of families who had died in the gas leak. In this way, the space incorporated two identities simultaneously: the individual and the collective. It seemed to the observer as though the struggles of the survivor were being appropriated by the activist establishment by creating a dichotomy between interest groups. This was the same dichotomy which presented the activist and the survivor, or the perished gas victim, as one entity while the corporation and the State was the rival collective.



Fig 4.2 Cartoon poster from the Remember Bhopal Museum

Survivors actively participated in the movements initiated by activists. Many women marched alongside Rashida Bi and Champa Devi Shukla to Delhi to protest for the arrest of Warren Andersson. They also participated in hunger strikes to demand health-care facilities and economic support for the survivors. Sumit Roy, a psychologist who studied organic brain damage caused by the MIC gas, said that activists such as Sarangi who were part of protests and *dharnas*, helped to keep the memory alive and still provided hope to the survivors. A survivor from the housing board colony, Usha Dube, further claimed that activists prevented hospitals from being shut down by the government.

However, many of the survivors that the team interviewed fostered feelings of resentment and disappointment towards the activists, especially towards Abdul Jabbar with whom many were more acquainted. One victim from the Gas Widow Colony (GWC24) mentioned that she had hopes for Jabbar *bhai* and still believed that he could have helped the victims get the complete compensation money from the government. However, he realised that by putting an end to the fight, he was able to earn lakhs of rupees, after which he stopped fighting for the compensation money and “left the other survivors hanging on an empty stomach while he filled his.”

Zamiruddin, another survivor in the colony, exclaimed, “Jabbar and these other people you speak of (sic. Dhingra and Satyu) just give lectures and get ahead in life and all the money and benefits are shared among them, nothing reaches us. How will they understand the people’s problems when they sit in their palaces?”

This participant explained that it was unjust that the activists were the mouthpieces and carriers of the information regarding the sufferings of the victims. He thought it was unfair that it was only their voices that had a platform for expression. Here, it might be helpful to recall the narrative of the museum. The activists, through movements like protests, demonstrations and establishments, were self-nominated representatives of the survivors. In consolidating this identity, they had established an opposing identity that could be rallied against: the government and corporation. However, although there were varying amounts of support from activists for survivors, ranks did not close in a joint identity encompassing the two. In other words, not all survivors accepted these activist-dictated distinctions as there was still a sense of otherness separating survivors from all other stakeholders. Therefore, a divided and wary attitude was established between survivors and activists.

4.6 Attitudes towards the media

An important social institution that survivors recurrently interacted with was the media. It was anticipated that the media would be received by the survivors as an important tool for bringing their experiences to the foreground. However, several survivors affirmed that many specific areas that they lived in had hardly been visited. While activists like Jabbar, Champa Devi Shukla, and Rashida Bi were interviewed by national and international media, the media overlooked a large part of the tragedy by ignoring the narratives of the actual victims. Rashida Bi claimed that since media houses are owned and controlled by the government and large companies, they “just care about their goodwill and not the people of Bhopal.” Devi Shukla corroborated that, “whatever news is shown, it is first shown to the government and whatever the government approves is what is showed. Whatever the media has to say has been censored by the government and if the media had been fair and proper, Bhopal would have got its justice.”

Rachna Dhingra supported the positions of Rashida Bi and Devi Shukla: “The media has been supportive, but it’s not doing in-depth stories. Every anniversary, something coming out, they just copy and paste what has been done earlier with some recent things. Mainstream media is just corporate media that is not interested in doing in-depth stories. The news should be, ‘Why are cancer rates so much higher?’, ‘Why are people still drinking contaminated water?’”

The survivors that had interacted with journalists, photographers, or videographers, stated that the visits gradually reduced as the discourse around the Bhopal gas tragedy reduced. Many agreed on the fact that the media had done nothing to help them apart from taking their information.

“When the gas leak initially happened, many of them used to come here with their big vans and cameras and interview us. But whatever they did, had no impact on us. Even they have stopped coming,” recalled a victim from JP Nagar. Another victim from the Gas Widow Colony complained, “there has been no change. They (representatives of the press) all came, talked and went away. They say they will do something, talk about it, help make decisions about it, but nothing happens.”

4.7 Perceptions of Bhopal Today

The attitudes of survivors towards the city and how it changed after the incident were expressed with reference to aspects like their awareness of, exposure to, and interaction with the event. The survivors' contemporary actions towards other social actors or towards their surroundings also identified the way lived experiences in the city changed after the gas leak.

The gas leak in Bhopal brought a change to the lives of women affected by it. This effect was linked to the emotions it stirred, the action it provoked, and the mobilisation it stimulated. According to Champa Devi Shukla:

“Families are dependent on the lady of the house, children are completely dependent on their mothers during infancy and childhood. Women in that age and time used to be tied to their homes and shy of leaving them, as it was the man of the family who used to go out to work and to earn. However, a major change took place in Bhopal after the Gas Tragedy: women got over their diffidence, left their homes and joined the crusade for justice. It is clear that they will continue doing this till justice is handed out to the survivors of the Bhopal Gas Tragedy.”

According to Mr. Jabbar, “There is a clear sense of responsibility in women and it is much higher than in men. This has led to a large number of women taking part in protests and rallies.”

Many of the second and third generation survivors came to know about the tragedy mostly through anecdotal versions of it from their families. Another part of the sample said that their children did not even study in school about the Bhopal Gas Tragedy. In an interaction with Champa Devi, she mentioned that when she visited France, England and Israel and expressed the struggles of the people of Bhopal, schools and colleges began to incorporate resources to educate the children. She said that close to forty international schools had joined her in this movement.

Some interviewees also mentioned that the population of Bhopal increased massively after the gas leak. There were a lot of people migrating to Bhopal especially from Bihar and Uttar Pradesh and they settled in New Bhopal. In group discussion, survivors

also felt that a lot of new developments like roads were undertaken only in New Bhopal. Some aspects of development in New Bhopal were viewed with scrutiny, however. These involved the establishment of new factories. These new entrants to the landscape of the city were seen by survivors as potential threats to their safety.

A group of survivors also said, “earlier people used to live happily and life flowed along peacefully”. “This is not the city that we grew up in – unemployed people stand in queues for ration, the mentally and physically ill cannot work and their place has been taken over by migrant labour and machines. We are unwanted strangers in our own home-town.”

Some contemporary perceptions of the stakeholders of Bhopal were also analysed in the way they responded to policies enforced for relief. As discussed previously, the Gas Widow Colony was built by the government in 1992 but was mostly occupied by tenants today. Why would beneficiaries sell houses they received for free? When a visit was paid to the colony, not only did survivors express their frustration with the abject conditions of living inside the colony, these conditions were seen by the group. They have been discussed earlier with regards to the implementation of policies. Here, however, an additional communal angle was explored by survivor and resident Tulsi Yadav. She said:

“Everyone had been allotted houses here just like my mother had. But there are many Muslim families living here. They have the tendency to extend hospitality and give shelter to whoever in their community needs it, and this scared a few Hindu families. Not everyone is brave now, are they? Muslims have a tendency to take any Muslim (be it their relatives, friends or even a stranger) who is in need, and provide them shelter. Whereas, Hindus don’t do this. So they sold away their houses.”

This communal angle was received in another context by other survivors. The group interviewed Abdul and Meena, a couple who believed that the predominance of Muslims in the part of population that was affected was the reason justice remains undelivered. When asked what they felt about the process of rehabilitation, Abdul replied:

“I’ll tell you honestly – it was religious... it was done as per their caste and religion... caste and religion. *Arrey*, this is a Muslim area. So, no help needs to be given, right?”

Similarly, Mr. Sarangi said, “There were a few government agents, politicians, mind you- who said, *Musalman hai... muaahfza milega toh dusri shaadi kar denge.*” (“They are Muslims, if you give them compensation they will just get married again.”)

Alternatively, a long-time resident of the city and survivor, a 'lower-caste' Hindu, said: "Surprisingly this city has had a very good culture of having good relations between Hindu and Muslims. Except the 1992 riots, I don't think there was ever anything, you know, communal that was happening here in 1984. But things changed soon after. Muslim politicians sought compensation and benefits for Muslim victims. We always felt their voice was heard first and that they received aid first. Placating of minorities is also done for the vote bank. If anything, Hindus got a raw deal. Maybe most of us were Dalits, so nobody cared about us, I guess."

4.8 Discussion: Environmental Justice and Cultural attitudes

The attitudes of people reflect the burden they bear and the quality of life they live. In the context of Bhopal, the difference between the narratives shows the fairness of treatment that was given to survivors. The difference between the policies planned by the government, the rhetoric of support provided by activists, and the narrative of different individuals indicates that the poor man's voice was not heard. The people of Bhopal, through their experiences, express their perception of the situation as unfair. Their attitudes toward different stakeholders like the government, the activists, the media and each other indicate how Bhopal has changed social relationships. Despite the time that has passed since the event, the survivors' experiences showcase that they have not been able to move on, if even if they want to. Mouthpieces of the survivors promise compensation, visit them in exchange for votes; agents of the media cover their lives for engaging content. Social actors and stakeholders, including research groups us, continue making them relive their experiences of agony. As one survivor in Qazi Camp expressed, "We are tired of describing the events, of showing them the Union Carbide factory gate and everything else."

However, conversations with the people make one understand that despite these ongoing interactions with social actors who are meant to be working for the aggrieved, what the survivor wants has not been addressed. Against this backdrop, it is not surprising that even in the team's own interactions with survivors, the participants initially anticipated and hoped for help in getting relief at last.

Environmental justice through the lens of cultural relationships and attitudes is a valid area of inquiry for two reasons. First, it generates an idea about the proportion of the

burden of environmental challenges each stakeholder has to face. This finding can provide a foundation to analyse whether this distribution has, hence, been equitable or just. Secondly, by looking at how new patterns in relationships and attitudes emerged, it offers an explanation at the role different cultural identities played in the delivery of this justice. This dimension was explored through the perceptions of the people about these identities- the ones brandished by themselves, or those that others belonged to.

Through the team's findings, it was analysed that survivors of Bhopal think their identities were why the impact of Bhopal is so differently felt by different people today. A negative attitude towards stakeholder groups by the survivors was noticed. Visible differences between old and new Bhopal, heightened by the Bhopal gas tragedy which rendered the former as the "gas-affected part of Bhopal", were also observed. There was also an emotional shift from sorrow and grief to anger and resentment regarding the Bhopal Gas Tragedy marked in the responses. Their identities have been used by their social representatives to rally for justice, but their attitudes towards these representatives express that the desired justice has not been delivered after all.

The pathway of environmental justice intersects the existence of different social institutions. The ones the team investigated were the State and its representative agents like politicians, the media through its actors like journalists, and the components of culture and identity like survivors and non-survivors, Hindus and Muslims, and so on. The affected people were almost, without exception, from the working classes and uneducated or under-educated. It would have been very different if the affected were literate and middle- or upper-class groups, suggested activists like Satinath Sarangi and survivors like Abdul and Meena Rao. To some of the gas-affected, the way the public dealt with the incident, especially stakeholders that exercised power, had communal overtones.

An important point to note is that prior to the Bhopal gas leak, this was not a homogeneous community. It had individuals and groups of intersecting identities sharing one environment. The effect of the incident on this intersectional culture, however, was one of othering. Dichotomies were established between different versions of the self and the other. The survivors saw the government as the opposing and rival 'other,' Muslim survivors' attitudes toward the residents of Old Bhopal and towards the government were also associated with this dichotomy. Anyone who shared the former identity belonged to one group with common interests. The latter, with all its associated agents, was the opposite

‘other,’ and its treatment of the former group was characterised by lack of justice. Meanwhile, Hindu survivors associated their Muslim counterparts as the ‘other’ despite the shared identity of the survivor. Therefore, the idea of the “unequal burden” and who was treated fairly was very different among different identity groups and indicated very different perspectives on how environmental justice was carried out in Bhopal.

CHAPTER 5: NEWSPAPER COVERAGE

5.1. Introduction



Fig. 5.1 Sambhavna Archives

The media serves as the bridge between the government and the people of a democratic society; playing a pivotal role in politics, economics and culture. It reflects the environment in which it operates. Thus, it is the key source of topical as well as historical information, in addition to serving as a cross-cultural form of communication. People depend on print and electronic media to learn of, and to understand, phenomena from across the globe. Bringing knowledge and information into the public domain, the media is critical in shaping public opinion. Furthermore, it is a tool of accountability that scrutinizes institutional power. Thus, it is vital to the structure and functioning of modern society — the print media coverage of the Bhopal gas tragedy over the 34 years since the disaster exemplifies these characteristics.

Being the first major industrial disaster in world history, the gas leak in Bhopal is unprecedented in its nature and magnitude. It is of political, legal, environmental and historical significance. It is of international interest due to the involvement of a multinational company in the new age of liberalization. Thus, the Bhopal gas tragedy gave the press the immense responsibility

of rationalizing the disaster; conveying its full impact, causes and subsequent legalities to the masses.

Newspapers communicated the actions of the government and the Union Carbide Company to its readers. They lent a voice to the victims; bringing forth the human and the cultural aspects of the tragedy's impact with personal interviews, photographs and coverage of local movements, art, and literature. Crucial facts of the case were brought to light by journalists. Technical information related to the practices of the pesticide plant and the legal case was made accessible to the general public by the media. (Broughton, 2005; Taylor. 2011).

The media illustrates the historical significance of the tragedy because articles about industrial disasters regularly mention the Bhopal gas tragedy, drawing comparisons and treating it as a precedent. Its anniversary event still receives coverage. The persistent quandary of the survivors and subsequent generations is also covered. Today, Bhopal's print media continues to be the mouthpiece for various stakeholders, including the government and the activists. Simultaneously, it applies checks on the words and actions of these stakeholders, thus attempting to provide holistic coverage.

Through the changes in Bhopal's political and cultural landscape, newspapers have been instrumental in shaping and maintaining the conversation on the Bhopal gas tragedy.

This chapter studies the nature of print media coverage of the Bhopal gas tragedy, as influenced by the passage of time, language of coverage, and the internal dynamics of print media in India. Additionally, this chapter will evaluate the relation between news presentation and public consumption.

The content presented in the chapter is supported by primary data in the form of interviews with five journalists and one photographer. Secondary archival data has been gathered for nationally circulated newspapers such as *Times of India* (TOI), *Hindustan Times* (HT), and *The Hindu*. International papers considered include the *New York Times*, *The Guardian*, and *The Washington Post*, among others.

5.2. Coverage: India

This section of the chapter will explore in detail the type of coverage the Bhopal Gas Tragedy over the years, in India.

5.2.1 Longitudinal Overview

A. Before the Tragedy: 1982-1984

Years before the tragedy occurred, a small publication, the *Rapat Weekly*, reported the workers' complaints of frequent accidents and cases of maladministration at Union Carbide's Bhopal factory (Sharma, 2014). Local journalist Rajkumar Keswani wrote a series of articles between 1982 and 1984, hoping to raise awareness about these safety hazards and the egregious working conditions. His first article about the factory was titled "Save, Please Save This City" (Evan & Manion, 2002; Hazarika, 1984). In one of his prophetic pieces, he wrote that Bhopal was "sitting at the edge of a volcano" (Scheberle, 2018) that threatened to kill the population with the gas it might spew. He also reported that in 1975, bureaucrat M.N. Buch had asked the company to relocate its plant because of the growing residential areas around the site. Keswani even wrote a letter detailing the safety hazards of the plant, such as lack of safety equipment for employees, improper storage and long hours of exposure to the chemicals of the plant, to Chief Minister Arjun Singh (Evan & Manion, 2002; Hazarika, 1984; Adrian, 2002).

Keswani pursued the story after a phosgene accident in the factory proved fatal for his friend, who was an employee. He set out to investigate the safety hazards within the factory that led to this accident when he discovered the larger public threat that the factory posed. As someone with no scientific background, he had to learn about the dangerous chemicals used in the factory. However, his findings were disregarded by experts and his colleagues.

"When I consulted a professor of chemistry at a local science college, he would say, 'No no, it (MIC) won't, because the wind will take it away and, it will not settle down'."

- Rajkumar Keswani

In his interview, Keswani said that he was not surprised that nobody took his claims about a possible tragedy seriously because,

"It is very difficult for anyone to imagine because there was no precedence available that it happened earlier so it would happen now".

- Rajkumar Keswani

The city's population had no awareness about the harmful chemicals used in the manufacturing process of Union Carbide's pesticide products. This was a multinational company with a good reputation in Bhopal.

"Carbide was a big name, that it [sic.] had a lot of respect. Nobody ever suspected that it would...it could cost such a disaster", said Keswani.

Thus, the prospect of an industrial accident was unfathomable, which is the primary reason that other journalists did not pursue the story.

B. Initial Coverage: 1984-2004

The first week of newspaper coverage indicates that the media did not have an immediate grasp on the sheer magnitude of the disaster. A case in point is the immediate coverage by *The Hindu*. The initial reports convey all the data related to the incident- the treatment of the victims at various hospitals, appointment of an investigation team, and early estimates of the death toll (Viswanathan, 2010, Khanna, 2014; Reddy, 1984; "Bhopal gas leak toll rises to over a 1000", 1984; "Poisonous gas kills 350 in Bhopal", 1984). However, it failed to communicate the immensity of what had happened. It was covered similarly to any other accident. It focused on detailing the effects without delving into the causes.

"...things were not very clear, and Union Carbide never let out the truth [sic.] what exactly had happened and why people died."

- Ashutosh Shukla

It was only in the subsequent articles, published several days after the initial event, that the newspaper began to question the underlying causes and potentially inadequate policies that may have had a role in the incident. (Viswanathan, 2010).

The first week of coverage also shows a disparity in the facts conveyed by the press. One significant disparity is the death toll. Across newspapers, the reported death toll ranged from 350 (“Poisonous gas kills 350 in Bhopal”, 1984) to 500 and above (Shukla, 2018; Diamond, 1985; Dubey & Khandekar, 1984). Over the next few days, this death toll disparity only increased; where *The Hindustan Times* reported 1500 death, *The Times* concluded that the death toll was at a stunning 2000 and rising (Diamond, 1985; Dubey & Khandekar, 1984).

“Media coverage to a large extent after the incident was focused on what is happening in Hamidiya hospital. Moreover, lots and lots of dead bodies in the streets and all that.”

- Ashutosh Shukla

Within a year of the disaster, the news coverage of the BGT began to diminish. Important details regarding the legal proceedings would be reported in short articles, in the back pages of the papers, without much analysis. An example of this is the 1985 coverage by TOI (Sharma, 2014).

In subsequent years, the media covered the more politically charged events. A chronology of the major events covered by the media has been collated. There was a claim of rupees 20 crores filed by India in 1985 against UC. The litigation was transferred to India in the following year. In 1987, the CBI charged Warren Anderson with culpable homicide. The Dow Chemical Company acquired UC in 1991. In the following year, Anderson neglected to attend court when summoned. (Viswanathan, 2010; "Bhopal gas tragedy: 30 years later", 2014). Inaccessibility of extensive secondary data on these developments posed a challenge to the analysis of noticeable trends and disparities in coverage during this period.

Journalist N.K. Singh has had a long career working for several different publications. His account on the coverage by Indian Express (the paper he reported for at the time of the incident), India Today and Dainik Bhaskar provides an insight into the nature of coverage by various Indian publications over the years. All papers provided ground reports and day to day coverage. Indian Express articles included in-depth research and pacified the public's ‘hunger for news’. The paper published investigative stories about the reasons behind the disaster, the status of the victims, and the action taken by the government and politicians. As the case progressed, Dainik Bhaskar ‘bombed the government’ with the needs of the victims. After the out-of-court settlement, the paper published stories questioning where the money was going.

C. Spikes in Coverage: 2005-2014

Spikes in coverage of the Bhopal Gas Tragedy coincided with the 2010 criminal verdict, Warren Anderson's death and 30th anniversary in 2014, and other important anniversary events ("Bhopal gas tragedy: Timeline", 2010; Sharma, 2010; Biswas, 2010; "Seven convicted over 1984 Bhopal gas disaster", 2010).

An evident spike in coverage occurred in 2010 when 8 UCIL officials were granted bail upon submission of a surety of rupees 25,000, even after they were convicted of *death due to negligence*. TOI's coverage in June 2010 primarily focuses on the constant exchange of blame between BJP and Congress as an aftermath of the court hearing. Though the newspaper initially followed the public uproar caused due to the court's verdict, it soon shifted its focus to the government's petition for Anderson's extradition.

The Hindu, on the other hand, published articles focusing on the challenges faced by the Supreme Court due to the verdict, such as the uproar of protests by the survivors. A revival of the demand in pension also came about as the survivors were reported to have sought rupees 5,786 crores. A significant incident covered by *The Hindu*, TOI and HT, was U.S. President Barack Obama's visit. His motivation to help the gas victims was perceived as a passing promise and an inadequacy. The newspapers did not cover the kind of help he wished to provide.

Just as the coverage was gradually dying down, it peaked again in 2014, due to the death of Warren Anderson which coincided with the 30 year anniversary since the disaster (Narian & Bhushan, 2015; Venkat, 2014; Das, 2014; Taylor, 2014; Sharma, 2014; Dutta, 2014). That year, there was a myriad of articles criticising the fact that he was not brought to justice in his lifetime (Martin, 2014; Pandey, 2015; "Warren Anderson died unpunished, survivors of Bhopal gas tragedy say", 2014). *Times of India*, that had once labelled his arrest as a case of "inexcusable bungling", called him "Bhopal's tormentor" in death (Krishnan, 2014).

"...the 30th anniversary (2014) was the peak (of media coverage) in some respect."

- Jamal Ayub

There were articles about the details and politics surrounding Anderson's arrest, subsequent leaving of the country, being labelled a fugitive, and the failure to bring him to justice (Martin, 2014; Pandey, 2015; "Warren Anderson died unpunished, survivors of

Bhopal gas tragedy say”, 2014). *Hindustan Times* released only one article related to the BGT in 2014 regarding a possible phone call made to release Warren Anderson from the Union Carbide guest house in Bhopal, where he was held captive (“Bhopal gas tragedy: How Warren Anderson got away from our grasp”, 2014; Dougal, 2010; Ranjan & Shukla, 2014). No other newspaper reported this incident.

Also in 2014, *TOI* covered the inauguration of the commemorative museum opened in Bhopal for the 30th anniversary. *The Mint* chose to look back at the kind of media coverage that took place across several articles immediately after the tragedy (Krishnan, 2014).

Furthermore, *The Mint* claims that, “[t]hirty years on, what is clear is that the media failed the Bhopal victims just as much as the judiciary and the government.” (Krishnan, 2014).

Newspapers have carried many such retrospective pieces in recent years. (Rajagopal, 2017; Gopalakrishnan, 2017; "Gas-emanating waste dumps could spark ‘Bhopal tragedy’: Karnataka High Court", 2018)

The line graph (Fig. 5.2) shows the peaks in media coverage in India from 2005 to 2014. Noticeable spikes in coverage compliment crucial developments affecting the lives of all the stakeholders- the survivors, the government and the activists. It should be noted that the data on the graph is inclusive of both digital and traditional media.

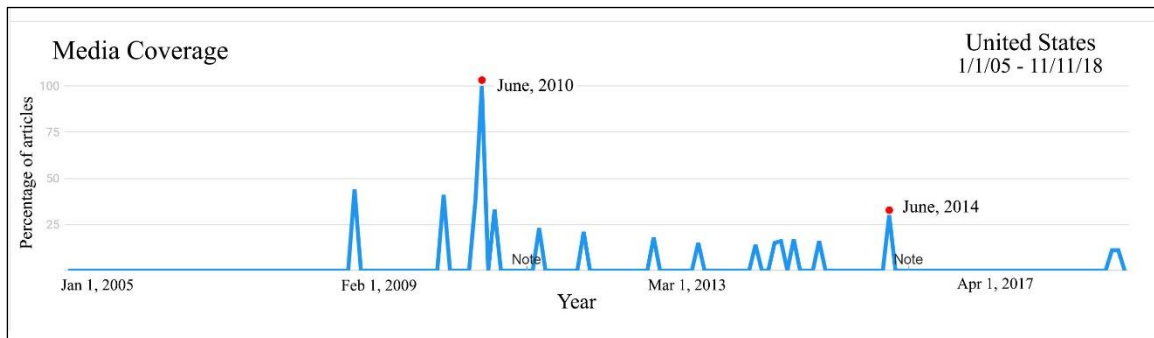


Fig. 5.2 Line Graph of the amount of media coverage in India from 2005 to 2018 (Google Trends)

"We get media spots every five years, twenty, twenty-five, thirty. We plan accordingly, whatever important thing you have, your say during those times or you put in special stories."

-Rachna Dhingra (activist)

Across the media, 2017 anniversary coverage mainly focused on the annual march (3rd December) held to commemorate the tragedy. On non-jubilee anniversaries, TOI has consistently reported stories of the immediate aftermath of the event, the annual march, and an update on the survivors' grievances and compensation status ("Bhopal gas tragedy: Govt. moves.", 2010; "Protests mark 2nd..", 2017; Varma, 2015; Varma, 2016).

D. Recent Coverage: 2015 - 2018

Even though it has been almost 34 years since the disaster, it continues to be in the news; however, the volume of coverage has drastically reduced in the last three years. *The Hindu* has covered cultural topics such as rapper Sofia Ashraf's track on Bhopal vs Union Carbide in June 2016 and Karanrix's '1000 Bhopals' performance (Poorvaja, 2016; Aswin, 2016). TOI has published reports on the medical care provided to gas affected people and on the inefficiencies of the Madhya Pradesh High Court (Sirothia, 2018).

In recent times, the media has portrayed the BGT as a point of comparison in stories dealing with industrial and environmental issues; establishing it as an important precedent to emphasise the need for safety and environmental measures in the industrial sector. For instance, an article in *The Hindu* about *Mullaiperiyar* dam flood in Kerala reported that demands for setting up a compensation tribunal modelled after the aftermath of the BGT ("Open reiterates demand for judicial probe", 2018).

MLA Ramesh Chennithala was quoted as saying "People live in fear. Do we require the Bhopal gas disaster or an Ochki to understand what a disaster is? Kindly have ready an emergency plan".

Referencing the gas emanating garbage dumps in Bengaluru, a TOI article stated that 'Bengaluru and its neighbourhood may see a repeat of the Bhopal' ("Gas-emanating waste dumps could speak 'Bhopal tragedy': Karnataka High Court", 2018).

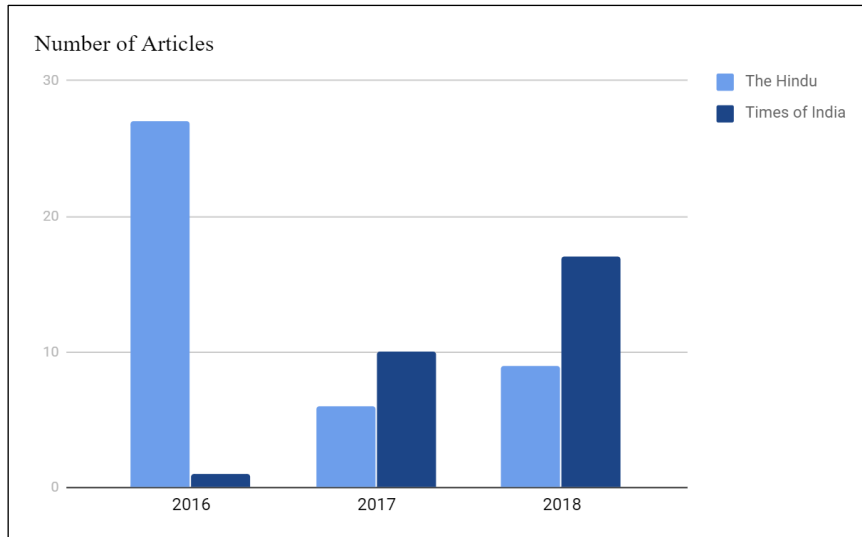


Fig. 5.3 Bar Graph showing the number of newspaper articles from 2016 to 2018.

Between 2016 and 2018, the phrase “Bhopal gas tragedy” was mentioned in 42 articles in *The Hindu* (Fig. 5.3). However, only 10 of these articles primarily talk about the tragedy and have dedicated an entire section for it. Interestingly, *TOI* has shown a gradual rise in coverage from 2016 to 2018. In reviewing of 30 *TOI* articles from 2016-2018, it was found that 21 were from the paper’s Bhopal Edition. This indicates that in recent years, most of the articles related to the disaster have been published by the Bhopal Edition.

5.2.2 Union Carbide and the Press

Immediately after the disaster, English papers relayed the company’s rhetoric which portrayed the incident as an unfortunate accident, the tragic cost of progress and a disastrous result of well-intended technology. The company maintained that there were no compromises on safety standards, as reported by *Hindustan Times*. On December 5th, *The Hindu* reported: "human failure" was the primary cause of the disaster. (Krishnan, 2014).

Journalist N.K. Singh, who has covered the tragedy since 1984, said that initially, Bhopal’s journalists did not go to UC officials for information about the tragedy’s effects, instead relying on local doctors and the ICMR. In their respective interviews, Ashutosh Shukla and Rajkumar Keswani added that UC officials kept tight-lipped and did not give out much information.

“...things were not very clear, and Union Carbide never let out the truth [sic.] what exactly had happened and why people died.”

- Ashutosh Shukla

Keswani said that UC was not a trusted source of information. UC officials were “cornered and cross-checked at every point” and “interrogated like a criminal” by the media. Singh added that the disaster taught the Indian press not to trust multinational corporations.

For media management and public relations (PR hereafter) during the subsequent court proceedings, UC hired a PR firm: Burston-Martesellor. UC's legal and PR teams heavily utilised the media to promote the "sabotage theory"- stating that a faceless disgruntled plant labourer was to blame for the incident. An example of this is the 1987 documentary, *Unravelling the Tragedy at Bhopal*, produced and promoted by the company. (Sharma, 2014).

5.2.3 Indian Government and the Press

N.K. Singh recalled that the government’s ‘Operation Faith’ was covered heavily by the media in 1984. Jamal Ayub believes that this operation was a PR event.

"Well, nobody knows whether it had an impact on the ground to date. So, two helicopters cannot do much, and if you think of way back in '84, it was a stretch. So, it was more of a PR event."

- Jamal Ayub

During the court proceedings, the Indian government closely monitored the news coverage in India and the United States. Indian print media covered the court case in the United States complete with views of legal experts, but they were compelled to consult state representatives to understand the government’s legal strategy as well as the government’s understanding of UC’s legal course of action. The government helped to shape an “us” versus “them” discourse in the Indian media. (Sharma, 2014).

In recent years, government officials have been in the news for public appearances and events, or for making promises and advancements related to the survivors. One such instance covered across papers such as *India Times* and *TOI*, was the act of C.M. Shivraj Singh Chouhan parading into the Gas Widow Colony, to establish a connection by celebrating *Raksha Bandhan* with the residents and promising to improve their living conditions (Tiwari, 2016). *TOI* journalist, Jamal Ayub also talks about the ‘soft measures’, that were taken by the government to show their efforts for the betterment of the gas affected.

“There is this minister who basically went about and said that ‘if you have good paintings in the hospitals, people will feel better’, more of a psychology thing. So basically, they went up and put up paintings.”

-Jamal Ayub

“Aarif Aqueel would go to gas-affected colonies and get some water from the hand pumps and drink it to show that there is no contamination. So, there are ten reports available that it is contaminated, but you drink it to show that it is not contaminated.”

- Ashutosh Shukla

5.2.4 Activists and the Press

Bhopal's activists have a prominent and clear voice in media. The media approaches the activists to understand the victims' pleas and the advancements made in their favour. The tragedy drew a number of dedicated and articulate activists, who became the voice of the survivors- most of whom were poor and uneducated. These activists unified the survivors and led them in their pursuit of justice and compensation. Recognising the long-term impacts of the tragedy, the activists were vital in creating the movement for clean water supply, and reparations for the 2nd and 3rd generation victims. They have become the de facto spokespersons for the survivors of the BGT.

In recent times, the activists have played the primary role in keeping the BGT in the news. Activists like Rachna Dhingra regularly hold press conferences to update the media about their demands, advancements, and knowledge about the effects presently felt by the BGT survivors. Some activists have even written newspaper articles. For instance, in 2000, the Bhopal edition of *HT* carried stories written by Satinath Sarangi and Abdul Jabbar in

their anniversary coverage. Jamal Ayub and Prakash Hatvalne mentioned the social media savvy of Rachna Dhingra, who uses Facebook and Twitter to communicate her cause to the masses; Ayub went so far as to say that social media beat him to some important stories. Most Bhopal newspapers cover the ongoing activism, and some are even critical of the activists, enabling a dialogue that ensures accountability from the activists. N.K. Singh, who used to be the editor of *Dainik Bhaskar*, corroborated that the paper did not report the details of the activism and political measures concerning the Bhopal gas tragedy in recent times. Instead, it examined stories on merit and only published articles when the activists achieved something they considered as 'substantial'.

A reduction in activism has resulted in reduced coverage of the BGT. To the question raised about the declining coverage, Jamal Ayub responded, “You should ask the activists why they are not protesting”.

“We had this train fiasco wherein they threw stones at the railway crossing and all that at Aishbagh and all that happened. That was nationally covered. Then it just kept dipping from there, and there aren't a lot of activists playing a very activist role. Except for maybe one or two or three.”

-Jamal Ayub

5.2.5. Comparison between Indian English and Hindi Language Press

Journalist N.K. Singh, who has worked for both English and Hindi publications, said that the ethos of the Hindi press differs from that of the English press. He explained that English language journalists tend to be “more professional and restrained” and “go by facts rather than emotion” in their coverage. The reportage is “more verbose”. Hindi newspapers, on the other hand, tend to be “sensational” and emotional in their reportage. The “nature of the language” the culture, and the readership contribute to the difference in tone.

"The Hindi language gives you more options to write about. The headline can be more connective, more emotional, more sensational maybe. English is more, 'We have to show that sophistication' which is all a bloody British Raj thing in our heads... They play with

about 150 words in and around every day and that's the entire vocabulary strength we have. It's a very language-specific thing, we as Indians, as our language, the Hindustani thing, we are more emotionally charged people. "

-Jamal Ayub

Instances of such tonal differences can be observed throughout the 34 years of media coverage of the Bhopal gas tragedy.

A. *Coverage in the First Week of December 1984*

In the immediate aftermath of the leak, there was no clear death-toll; the number of deaths reported by the press varied across the world. In their initial reports, English publications of India put forth conservative estimates of the death toll, between 350 and 400. On the contrary, the Hindi papers, sometimes from the same publishing houses, placed their estimates at 500 deaths and above. The portrayals of the enormity of the event also differed. The Hindi press compared the disaster pralay (an apocalyptic event in Hindu mythology) or historical cataclysms such as the nuclear attack on Hiroshima. English papers, on the other hand, were disinclined to make such comparisons. For instance, The Hindu published reports that tended to be conservative in their approach to the magnitude of devastation (Viswanathan, 2010). The English-language press focused on day-to-day reporting and raising questions about the safety standards and the lapses in industrial policies that enabled an international corporate giant to forego the same. (Krishnan, 2014).

Navbharat Times, the Hindi paper from the same publishing house as TOI, likened the loss and suffering of the Bhopal victims to that of the Vietnam war. Its articles demanded that the government and Union Carbide officials be held accountable; arguing that if a disastrous event like this were to occur in America, the highest officials would be held responsible. Contrastingly, in a TOI editorial published soon after the disaster, a strong disdain for the arrest of Warren Anderson was expressed. The Rashtriya Swayamsevak Sangh's publication, Organiser, was one of the only English papers to question the government and stress on accountability from all parties involved. (Krishnan, 2014).

B. Intermediate Coverage

Over the years, both the English and vernacular media, have come to hold the government and Union Carbide accountable. The tragedy has been established as a result of negligence, cost-cutting and poor regulation. In October 2014, when Warren Anderson died, all newspapers unanimously held him responsible for the disaster; they were disdainful of the fact that he was not brought to justice in his lifetime. (Krishnan, 2014). The Indian press also analysed the Bhopal gas tragedy with respect to the double standard in Union Carbide's operations in developed and developing countries (Sharma, 2014). However, even though the Hindi and English papers have reached consensus on facts and figures, one can still observe stylistic differences and differences in areas of emphasis between the two. With the reduction in coverage over time, national coverage is usually given only to significant advancements or important anniversaries. Today, journalists from outside Bhopal write stories by collaborating with local journalists.

C. Present day coverage in Bhopal

In recent times, Bhopal-based news sources and local editions of national papers publish a majority of tragedy related stories. Journalist Ashutosh Shukla pointed out the difference in Hindi and English coverage in the recent past. He believes that Hindi papers have 'lost interest' in the Bhopal gas tragedy. He compared 'local newspapers' and English newspapers, later clarifying that 'local' referred to the Hindi publications of Bhopal.

"People in Bhopal are somehow indifferent to the whole thing", he said. The local coverage reflects this sentiment.

"People who come from outside seem to be more curious and more concerned... And therefore, TOI, HT or the Hindu, or any other paper that- even if its published in Bhopal, has a national character and readership- they will give more prominence to any story related to gas tragedy than local newspapers."

-Ashutosh Shukla

Per Shukla, English media has 'more concern' about the environment and environmental disasters, as compared to vernacular media. TOI (Bhopal edition) regularly publishes articles on the ongoing activism, the healthcare given to gas victims and the

persistent problem of toxic waste still present at the site of the factory. Hindi newspapers on the other hand, prioritise local issues.

“They will give stories like ‘Tiger Roaming Around Kalyasuth’. They will give stories about infrastructure development, bridges, metro project for Bhopal and Indore. So, priorities are also a little different for English media and Hindi media or vernacular media”.

- Ashutosh Shukla

Dainik Bhaskar, a Hindi newspaper, repeatedly came up among English language journalists and activists. The paper has a Bhopal edition, which was stated as an example of the fact that Hindi publications had ‘moved on’, in a majority of the journalist interviews.

5.3 Coverage (US and UK)

5.3.1 Between 1984-1986

Due to logistical constraints, very few western media outlets sent reporters to the scene in the immediate aftermath of what was an international incident. The *New York Times* (NYT hereafter) and the *Washington Post* sent individual reporters to Bhopal. Research suggests that international events such as this usually disappear out of the Western media after preliminary coverage; however, the BGT proved to be an exception (Wilkins, 1986). This was partially because it took weeks to uncover the several facets and elements of the incident, and partially because the chief party involved was Union Carbide, a multinational corporation of American origin. (Wilkins, 1986).

About 75% of the first year’s reports (in the US and a few UK publications) were published within the first month of the disaster. (Wilkins, 1986). The media focused more on communicating a play-by-play of the tragedy itself (complete with event details, and responses from UC and the government), rather than its long-term implications. The overall question of technological hazards received little emphasis. A few papers spoke of the potential legal implications for UC, as well as the American lawyers that flew to India in pursuit of potential clients. Institutional analyses and the Indian context were examined by very few publications: letters to the editors of *Time* and *The Manchester Guardian*, as well as one *Reuters* article providing context for Indian agriculture, the Green Revolution and

the establishment of the pesticide plant at Bhopal. (Wilkins, 1986). A *New York Times* article in December 1984, questioned the storage of a large amount of lethal gas in a populated area of the city. The same article drew parallels to recent fatal industrial accidents- much smaller in scale. Thus, the magnitude and devastation of the BGT appeared somewhat minimised. Still, the need to set a precedent to better understand and prevent such disasters was conveyed. ("The Tragedy at Bhopal", 1984).

Commonly, UC officials from and in the United States were cited as sources in Western news. Indian news media articles were also cited often. Few Indian medical and legal professionals were consulted, and accounts from the workers at the Bhopal plant were scarce. (Wilkins, 1986). This could be attributed to the fact that the case was handled in India.

However, the primary data gathered via interviews with Indian journalists contradicts the secondary data. Indian journalists hold that Western journalists were a lot more in-depth and research-based in their coverage of the tragedy. This discrepancy will be further discussed later in the chapter.

5.3.2 Recent

Recent events have brought the Bhopal Gas tragedy back into the news. American President Barack Obama’s response to the Gulf of Mexico oil spill and the criminal case verdict in 2010, as well as the death of Warren Anderson and the 30th anniversary of the disaster in 2014, sparked discourse.

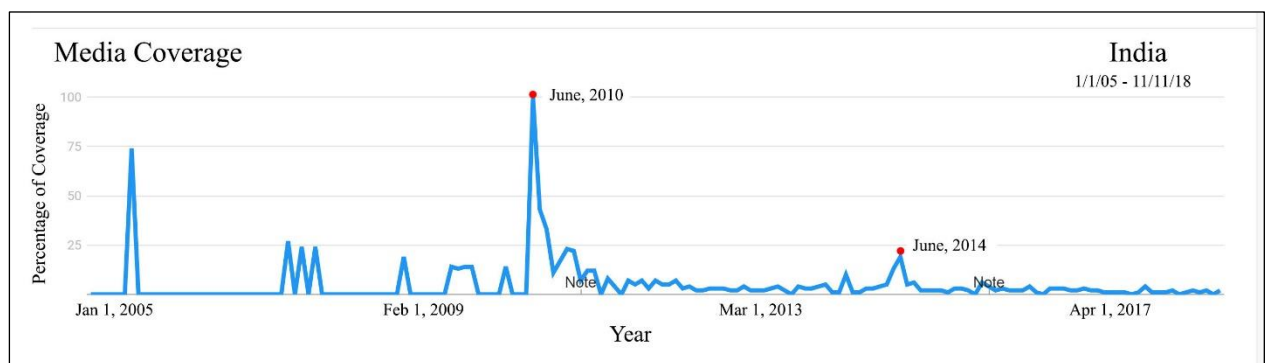


Fig. 5.4. Line Graph of the amount of media coverage in the United States from 2005 to 2018

In 2010, there was an oil spill in the Gulf of Mexico, in response to which, President Obama criticised British Petroleum (BP). However, the media was quick to point out the double standard present in the US government's response to this disaster and the Bhopal gas tragedy ("Bhopal gas tragedy: The US' double standard s", 2010; Lou, 2011; "Bhopal disaster and the BP oil spill", 2010). The media questioned why the two companies (UC and BP) were not held to the same ethical standards simply because one incident occurred in the Third World, while the other one occurred in the West. Comparisons were drawn between the effects and fatalities of both incidents (the Gulf of Mexico incident was much smaller in magnitude), and the question of fair reparations was raised. BP's clean-up fund was 20 Billion dollars, while the Bhopal victims, vastly larger in number, were given a collective sum of 470 million dollars. (Polgreen, 2010), (Bowring, 2010).

The International media also reported extensively about the Bhopal victims, their continuing fight for justice, the accountability and failure of the government, and the ethics of Union Carbide on the 30th anniversary of the tragedy (Primary Data, 2018). Pictures and accounts of the plight of the survivors and present-day victims were circulated throughout the news media. International media outlets like *CBS News* and *The Chicago Tribune* provided coverage of the torch lit procession for justice held in Bhopal on 2nd December 2014.

5.4 Journalist Opinions

5.4.1 Western Journalism

Journalists Rahul Noronha, Jamal Ayub and Ashutosh Shukla, along with photographer Prakash Hatvalne, believe that western journalists did more in-depth and research-based coverage of the tragedy than the Indian press. Keswani said that many journalists from across the world flocked to Bhopal in the wake of the tragedy.

Ashutosh Shukla, having collaborated with journalists from across India and abroad, made comparisons between the two. He stated that foreign journalists travelled to Bhopal, worked with local journalists, conducted interviews with locals and even went to unsavoury locations, whereas outstation Indian journalists preferred to collaborate over the phone unless there was a salient development. However, his colleagues at HT Delhi did not come to Bhopal, instead, collecting the information they needed from him.

“Maybe I have not seen the in-depth stories that have been done by Indian scribes, but I think people from outside are more keen to understand this issue; more than doing stories they are interested in understanding the issue... All the aspects- what the victims, who the victims are, in what conditions they are. They will go to the *bastis* (slums) also, they don’t have any qualms about that.”

-Ashutosh Shukla

N.K. Singh, however, was of a different opinion. He stated that the foreign media outlets are more focused on the news within their own countries. Thus, not many countries sent journalists to India. Many American journalists came to India and covered the tragedy from the American lens. He added that American journalists had a “patronising attitude” and were “as ignorant as anyone else from the first world countries”. He added that after a few years, except for those who were well-informed and curious, foreign journalists stopped coming to India.

5.4.2 Internal dynamics of Indian print media

Before a news story reaches the masses, there are multitudinous factors that affect how the story will get reported. This section delves into some of the internal dynamics of print media affecting BGT coverage, as understood by the journalists themselves.

A. Story Selection

Stories about a particular topic in newspapers are primarily influenced by- what the journalist wants to write, what the editor wants to publish, and what the readership is likely to be interested in reading.

Rahul Noronha opined that newspapers do not cover the Bhopal gas tragedy with vigour anymore because the readers have moved on. Furthermore, he explained how at the end of the day, newspapers are businesses; and cannot publish the kind of stories that will not attract a large number of readers. It is ultimately up to the editors of the publication to decide if a particular article will get published. Ashutosh Shukla attributes the ‘loss of interest’ of Hindi newspapers to the “guidance or directive of the management”.

Jamal Ayub, referring to the newspaper he worked for (TOI), said that the general practice of the journalists was to discuss their story with the editor before venturing into it, which “clears a lot of things”; but they still have complete independence in terms of what they write. He added that he had never had a story shot down by his editor.

In justifying *Dainik Bhaskar's* lack of coverage of Bhopal's activists, N.K. Singh (previously editor of DB) said that repetition of content is not of interest to the reader and that if there were ever any significant changes brought about by the activists, DB would give it due coverage. He said that any paper must select stories on merit, giving greater importance to stories that are newer or of more pressing importance.

Mr Ayub said that every piece on the tragedy must carry some new data or previously unexplored angle. “It has to be new information otherwise it won’t be published”, he said. Further, he pointed out that the format of the story also has some impact on the interest it peaks in the readership. “What I understand is that if you are very specific in a story... I’ll give an example of if someone’s suffering... there is an impact” he said.

The general opinion was that Bhopal’s public is not altogether averse to reading tragedy-related stories as long as new and interesting stories are published. When the question about the business agendas of the newspaper industry was posed, it struck a nerve with most of the journalists, who strongly emphasised that the newspaper's bottom line had never compromised their journalistic integrity.

B. Media Ethics

N.K. Singh spoke about the ethics of the media. "In theory, the media is supposed to be completely neutral", he said. However, in practice, various factors come into play, and true neutrality cannot be achieved. He attributed the lack of neutrality to ‘an inner conflict between the groups that are a part of this system’.

Singh further explained the emotional toll an incident such as the BGT can take on any journalist, which may cloud objectivity. He described the time he sat at his typewriter and wept because of the sites he had seen and the stories he had heard in the wake of the disaster. Speaking on the neutrality of the media, Jamal Ayub explained that journalists could not be completely neutral in covering an incident such as the Bhopal Gas Tragedy. "I don’t see myself being neutral, so, the best part [sic] is be truthful”, he said.

Mr Hatvalne, Mr Shukla and Mr Keswani mentioned the potential influence of powerful entities on the coverage of the incident.

“I should not hide this from you- Arjun Singh. With Arjun Singh (1980) came luxury treatment for journalists. That was the beginning of government bungalows and other freebies for journalists in Bhopal. I think that could also have played some role in deciding how journalists covered gas tragedy.”

- Ashutosh Shukla

“As far as Union Carbide’s stories were concerned in local media, I told you there would be stories that would not be published in the local media because they were friendly with the Carbide. That’s the truth.”

- Rajkumar Keswani

N.K. Singh also described an experience wherein one of his editors in the years past, had withheld publication of a report because the secretary to the Indian Prime Minister refuted the data he found. Here, the editor prioritised information received from those in power over the findings of a man covering the incident from the ground.

C. Functional Changes in the Industry

With the dawn of information technology, came drastic changes in news reporting. Ease in the availability and sharing of information as well as fact-checking, made a journalist's job quicker and his/her stories more accurate. These technological advancements also had an impact on BGT related coverage.

"Listen, before the disaster, to get any kind of information, was a herculean task", said Mr Keswani. He explained that he would have to approach authorities and experts for the smallest pieces of information, and was even denied information on some occasions. It was also hard to verify the data acquired from experts.

Mr Hatvalne and Mr Ayub spoke about the time it took for a story to reach the masses. At the time, articles about the event would have to be delivered to the publishers via trains or telegrams. Stories would reach the masses several hours, sometimes days, after

they were first written. Thus, the spread of BGT related news was also slower. “The media landscape now is much more instant”, said Ayub. Today, stories can reach the masses instantaneously through the internet. Publishing has also become streamlined due to the quickness of sending and receiving of stories via the internet.

Today, stories are churned out a lot faster, and with the rise of more and more newspapers and editions, story volume has also increased significantly. “A story’s lifeline is 24 hours, 48 hours max. Nobody will remember it after that,” said Ayub. This has contributed to the rise in public demand for up-to-date news and the competition within the press to report new stories of great accuracy.

N.K. Singh maintained that the quality of journalism was as good before the growth of information technology, as after.

5.4.3. Successes and Failures of the Media

The journalists each had their own perspective on how successful the media has been in its reportage of the Bhopal Gas Tragedy.

While N.K. Singh firmly believes that the media has been of invaluable service to the stakeholders of the BGT, Ashutosh Shukla believes that the media, like the government and the courts, has failed the people of Bhopal. Rajkumar Keswani and Jamal Ayub recognised the media’s role in providing all the necessary information to the masses, but he believes that the masses have not taken the necessary lessons from what happened in Bhopal.

N.K. Singh said that it was the media that exposed all the details surrounding the case. The media revealed everything from the reasons behind UC's ban in America that led to its shift to India- a country with lax industrial policies, to cost-cutting practices in the factory that resulted in the safety hazards for the public. Singh believes that the media performed its duty adequately concerning the Bhopal Gas Tragedy. Ayub has a concurring opinion.

“If it wasn’t for the media and people like them and individual reporters, the government wouldn’t just let the truth come out. Right? It’s had a very positive impact.”

- Jamal Ayub

"I would think media... may have really missed before the disaster and they did a great disservice to the society... by doing that", said Keswani. However, after the disaster, the media did all that it could but failed to make a lesson out of the BGT for the country. He criticised the system, which "never gets amended".

Describing the positive contributions of the media, he said,

"And...if this became an international issue, and if it is still alive, it is...it is...a part of the credit should go to the media. If a part of...if credit goes to the activist organisations, a part of it goes to the media too because they have kept it alive".

Per Jamal Ayub, the dialogue around the tragedy in India boiled down to "how much money anybody got". He stated that anything related to compensation tends to make headlines, and become the focus of the conversation. Ashutosh Shukla added to this that the media contributed to the Hindu-Muslim divide in Bhopal.

"It is not that there are no Hindus there in the gas affected areas, but ultimately the BGT in itself loses relevance, becomes about who gets what and who doesn't get what, which is really unfortunate. Nobody intervened, nobody interjected."

-Ashutosh Shukla

Shukla was very critical of the media's role and contributions in case of the BGT. He criticised the media for its 'disjointed coverage' of the incident.

"It has been sporadic, you know. It's not that you consistently follow a particular subject and try to take it to a logical conclusion. It has not been like that, and in that sense [sic]...the media coverage of gas tragedy... right from the beginning."

- Ashutosh Shukla

Further explaining this, he said that the media tends to cover the tragedy from major headline to major headline, picking up where it left off every time there is a new

development related to the incident. It does not provide regular updates. He illustrated this point with the instance of the media coverage of the criminal court case.

"One day you get some verdict from the court, and you start crying, and you start shouting, and you start writing with passion.. 'justice buried' and all that. My point is, that if in 1996 the then Chief Justice of India, Ahmedi Saheb, reduced charges on these accused from *culpable homicide* to *criminal negligence*, you did not say anything, and if it all there was any coverage, you said that 'it has been reduced to this'. What implications it can have, what it will lead to, you never said."

- Ashutosh Shukla

"From 1984 till now, it has been a disappointing experience as far as I am concerned; if you're talking about media coverage and how it was, how it has covered gas tragedy and in all its aspects."

- Ashutosh Shukla

The media's tendency to provide significant coverage only to the significant developments was also touched upon by some of the other journalists. Keswani and Ayub even added that Bhopal did not affect the media's coverage of big industries, and the effects of the same.

"Media also [sic] reports when something big happens. I am yet to find there is a series of articles about a particular industrial house, what kind of safety systems they are. It's not very necessary that you have a plant that could kill an entire population and ten thousand, twenty thousand. If it can kill even ten people, why it should be allowed?"

- Rajkumar Keswani

5.5 Discussion: Public Consumption of News, Environmental Justice

The journalists' internal perspective can be used to analyse the news' effect on the public. Understanding the influences on newspaper coverage gives us a better understanding of its interaction with the public. With a knowledge of the internal workings

of the media, as well as the ultimate presentation of facts and areas of emphasis, one can rationalise the public's consumption of BGT related news from a media perspective.

The main criticism of external parties has been that there were disparities in the media's initial coverage. Because the media could not find a collective voice, it failed to unify public opinion and create a strong enough movement for justice (Wilkins, 1986).

This claim can be supplemented by the differences in Hindi and English language press coverage found through primary and secondary research. For instance, those who subscribed to Hindi papers were told that the disaster was comparable to Armageddon, while those who subscribed to English newspapers, would learn that the disaster was “an unfortunate accident” (Krishnan, 2014). Subscribers of the foreign publications that compared the incident to other, much smaller accidents, would not learn the severity of the Bhopal gas tragedy. Further, the Indian English press reported a significantly lower death toll than the Hindi press. People learned varying death tolls based on their subscribed newspapers.

A global picture of the latter example can also be analysed. The press across the world reported varied death tolls of the BGT. To illustrate this, the headlines from 5 different newspapers on the same date (4th December 1985) can be compared. These mention the preliminary death toll. *The TOI* reported 350 deaths, *The New York Times* and *The Statesman* reported 410, Portuguese paper *Diario de Lisboa* placed the number at 500, and Australia's *The Canberra Times* reported 269 deaths. (Krishnan, 2014). Thus, it can be concluded that by presenting disparate facts to the public, the media played a role in confusing public opinion.

The media's disjointed coverage, as explained by the journalists, is the reason that the media failed to stir consistent public resentment towards Bhopal's criminals.

Although a clear overarching narrative has not been identified in the media coverage, it is clear that over the years, differences in opinions have narrowed and now, the media mostly deals the accountability of various stakeholders. The blame is precisely placed, and there is agreement on the facts surrounding the case, including the death toll. To that end, the public opinion on the damages and culpabilities of the case has also become consolidated.

In several instances, newspapers have not uncovered facts in a timely manner, prompting a delayed response from the public- which hampered environmental justice. Ashutosh Shukla and Jamal Ayub described cases of such delayed coverage. One such instance is the lack of effort taken by the media to research the location of Warren

Anderson while he was detained in India. Facts surrounding his arrest and release to the US were published many years later- in 2010. Another instance is the reportage of the shutdown of BMHRC's oncology unit. When all other papers missed the story, TOI carried it- a day late. The story was met with public uproar- causing the government to shift the unit's patients to a different free facility.

This kind of positive effect due to public uproar could also have been inspired had the newspapers explored the full consequences of the reduction of charges in the criminal case when the action was first taken. Instead, papers only sensationalised the news once the verdict had been passed and the criminals were let out on bail. Since the media delves more into the "what" than the "why" of such disasters and sticks to "current events" reportage, it fails to create enough momentum to bring about long-term environmental justice.

As explicitly stated by Rajkumar Keswani and hinted at by other journalists, powerful entities have influenced the media. The heavy use of PR teams by UC promoted the sabotage theory to disregard their blame in the incident. This provides a setback for environmental justice.

However, the media has successfully challenged systematic discrimination and the disregard for the needs of marginalised communities and has given a platform to all the stakeholders. It has ensured that the incident is not forgotten by history.

The changing socio-political landscape of Bhopal simultaneously moulded the media coverage and was influenced by it. Over time, the people of Bhopal moved on and healed from the incident, which led to a reduction in media coverage of the BGT. However, it is the media that continues to keep the public informed of the survivors' present struggles. Through the works of several journalists in several publications, the media put forth all the facts, sentiments and points of view the case bore. This is evident in the divergence of style and matter presented by the Hindi and English media in the immediate years following the tragedy. Newspapers continue to present the tragedy differently. In some instances, it is treated as a shut case, in others, a historical event, and in some, an ongoing tragedy. Its role in furthering environmental justice in Bhopal cannot be dismissed.

CHAPTER 6: CONCLUSION & DISCUSSION

The research updates the effects of the Bhopal Gas Leak on policies society and media, using the conceptual framework of environmental justice. Since it was one of the first industrial disasters to have such colossal repercussions, the group approached the topic concerning its role as a catalyst for change; to study its applicability, and even necessity, as a precedent. Thus, this report aimed to understand the Bhopal Gas Tragedy via the lens of environmental justice by qualitatively evaluating its impact on the political and economic policies and by its consequences for the people, the environment, and the media.

With societal demands for greater transparency and the need for a more significant voice in the state decision making, any conflict that occurs is quickly castigated and distorted. This has given rise to the need to study events, particularly ones with large-scale and long-term consequences, in a more delineated manner. Environmental justice (EJ hereafter) is one such functional and conceptual tool that has been applied to the Bhopal case in past studies and was adopted to analyse the continued presence of the incident in the contemporary times.

Secondary research was abundant and spanned a variety of themes, making the researchers question why the case was still tied up in legal proceedings without any betterment. However, it became apparent from the reviewed literature that though some studies included great detail regarding the problems, there were no evident links established between changes over the years and whether the leak caused them. The study, therefore, was unable to establish a proper narrative, parallel to and post the creation of local policies, the causation of certain environmental effects, and the views of various stakeholders. This lack of transparency created uncertainty about the extent to which environmental justice had, in fact, been addressed in the last 34 years that this case had been under scrutiny. Therefore, in order to determine whether injustice still exists in Bhopal, this study takes a holistic approach by compiling the views of all the stakeholders, including survivors, bureaucrats, environmentalists, and activists. Changes in local policy were taken up to understand the enforcement and successes of regulations. At the same time, the unequal burden faced by survivors was observed by looking at the socio-cultural impacts, and the holistic treatment of the whole event through media coverage. As is the case with environmental injustice, the differences in the narratives ranged from nominal to vast. The gas leak incident comprises of multiple facets, multiple narratives, and multiple political agendas that all intertwine to form a

conversation.

On the political-economic side of the equation, the study found that the relationship between the government and the old Bhopal community lacked communication, thus failing to understand the grievances. This eventually hindered the successful implementation of policies for the welfare of survivors. The wide-scale impact and difficulty in distinguishing victims from non-victims meant that numerous government proposals never reached the intended recipients. Thus schemes like training centres intending to facilitate employment failed and did not help improve the situation of the survivors.

Furthermore, there was a glaring lack of available environmental research relating to the event, which meant that no appropriate policies could be proposed, let alone enforced. This gap in immediate investigations implies that current policies cannot significantly benefit from later studies either since no initial basis for comparison is available. Consequently, with no scientific data to expose the problems, the creation of environmental regulations took on a secondary position. In this sense, the already strained correspondence between government and society was further put in jeopardy by the failure of its policies and its inability to implement environmental regulations. Thus, the state mechanisms for relief were not adequate to improve the quality of life and have continued to plague survivors.

With the failure of rehabilitation efforts, socio-cultural effects were observed through the enduring impact on the attitudes of survivors towards political actors. State-provided habitation like the Gas Widow Colony which was unhygienic and uninhabitable and further gave rise to anger and resentment. Moreover, the monetary compensation and gas widow pensions provided were much lower than what had been petitioned. This continued negligence, along with the age of the event, made people want to leave it behind them and move on. Despite this general view, certain stakeholders such as activists and politicians kept the sentiments regarding the gas leak alive. It became a path of false promises proper compensation and was viewed as a tool to garner political mileage rather than as an urgent situation that needed quick remediation. In this manner, negligent rehabilitation and unfulfilled assurances led to scepticism and resentment in survivors- an attitude fostered because they believed that they were being maltreated.

Media has an important role to play in such industrial disasters by identifying discrimination and bringing it to light, a responsibility which has allowed environmental justice to be partially achieved in Bhopal. Certain publications discussed the ignored needs

of marginalised groups, made legal proceedings accessible, and even criticised certain paths of action. All of these were steps that developed a better understanding of the event in the general public and thus, placed more pressure on the responsible parties to effectively remediate the situation. In addition to emphasising the need for fair treatment of the survivors and other involved parties, the media also portrayed the gas leak as a precedent. Taking this event as an example reinforced the need to ensure that environmental justice would be achieved in similar cases in the future.

However, not all media was helpful in pursuing EJ, as valuable information was often omitted from publications at the time of the incident. This absence of apt and timely coverage failed to incite significant change. This led to only partial pictures being painted and hence, a divergence from the clarity needed to ascertain where the injustice of the situation lay. Additionally, subject to their biases, publications from different countries covered the matter differently. Thus, among the English speaking readers of higher socioeconomic classes, Western-sourced news developed a more holistic view as compared to lower-class people who relied on local news. This meant that there was an unfairness even in the distribution of the information regarding the gas leak. As a result, although the media did call out many instances of inequality, it only partly led to the deliverance of EJ because of its restricted publications

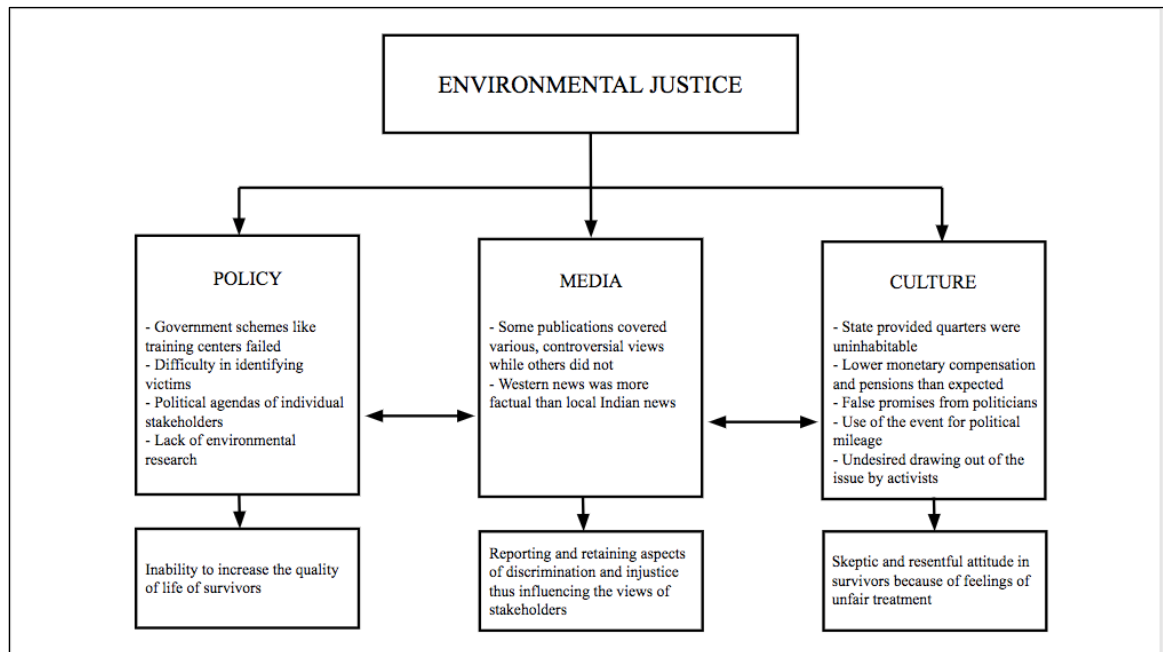


Figure 6.1: Conceptual Framework.

The whole concept of environmental justice is hard to judge because of the multiple components under it, and this is why justice in Bhopal is so hard to obtain. Environmental justice is defined as “a situation where no people regardless of race, national origin, or income, are forced to shoulder an unequal burden and are all treated fairly with regards to the enforcement of environmental regulations” (Heiman, 2006). Therefore, to address the presence of EJ, first, discrimination has to be identified and directly, causally connected to the disaster. At the same time, the presence and enforcement of environmental regulations have to be ascertained. Then, the unequal burden must be discerned as an undertaking that requires a lot of qualitative analysis and subjective mediation. Based on this burden, a conclusion must be made with regards to whether the people are being treated fairly and whether this fairness can be enhanced by stricter reinforcement or improved implementations of the previously ascertained regulations. In this way, all these components come together to defend any community that is exposed to excessive, unhealthy levels of toxicity and who are not compensated accordingly.

The number of such communities is now increasing with the constant growth of capitalism, thus calling for more immediate and effective methods of regulation. In other words, each new industry that is set up presents the possibility of a disaster and therefore, the possibility of unfairness in rehabilitation.

These affected groups are compensated in a negligent manner that has been found to “fail to address the material concerns of low-income communities of colour” worldwide (Foster, 1998). This global discrimination against environmental and human rights has been termed many things from environmental racism to environmental inequity. The general agreement nonetheless, is that there is an injustice that prevails for communities that are of lower economic classes and that are more vulnerable to risks. It is important to note that this injustice is not only manifested in the event of industrial disasters but can also be seen in the factories’ daily disregard for safety in third world countries. The industries outsourced by capitalist economies generally follow low safety standard regulations. Thus, the standards of living in the surrounding areas are reduced, and environmental discrimination infiltrates everyday life.

There is, therefore, a disproportionate amount of influence and decision making ability in the hands of those who are most likely to benefit as opposed to those who are most at risk (Foster, 1998). This power inequity leads to an inability to remediate industrial disasters quickly, effectively and fairly. This in turn then requires researchers to

conduct follow up studies to understand the situation from an objective point of view and thus provide possible solutions. However, much like in the Bhopal Gas Leak situation, such research is rarely consolidated. Hence, despite the abundance of studies, there is a lack of shared knowledge and therefore the absence of a base to propagate remedial action.

Recently, more and more studies have begun raising concerns about environmental justice in the context of multiple human-made disasters worldwide. This has created more widespread public knowledge about these instances of injustice, which has put us on the right trajectory to overcome this discrimination. In the end, environmental injustice is caused because of the use of influence and exploitation by powerful entities. When an entity can capitalise on an event, it becomes a resource- to be exploited and revisited continuously.

This research on the Bhopal Gas Leak was aimed to reiterate general questions about environmental justice in the region. What sort of injustice exists? Is it still ongoing? What sort of justice are the people looking for? Moreover, is this ideal even possible without severe industrial, structural, and bureaucratic reforms? Additionally, it brought up a necessity to step away from legal and economic cases and focus more on the social, political and environmental reparations. In this sense, by providing an updated context, this report seeks to add contemporaneity to an old, yet ongoing disaster and thus, demonstrate the timeless applicability of environmental justice.

“Aim a blowtorch at my eyes
pour acid down my throat
strip the tissue from my lungs
drown me in my blood
choke my baby to death in front of me
make me watch her struggle as she dies
cripple my children
let pain be their daily and only playmate
spare me nothing
wreck my health so I can no longer feed my family
watch us starve
say it is nothing to do with you
don’t ever say sorry/poison our water
cause monsters to be born amongst us
make us curse god
stunt our living children’s growth
for twenty years ignore our cries
teach me that my rage is as useless as my tears
you are a wealthy American corporation and I am a gas victim of Bhopal.”

- Anonymous (2004)

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Appendix

1.1 List of Abbreviations

Sr. No.	Abbreviation	Full form
1	GWC	Gas Widow Colony
2	CM	Chief Minister
3	BJP	Bharatiya Janata Party
4	MLA	Member of Legislative Assembly
5	ITI	Industrial Training Institute
6	UC	Union Carbide
7	BGT	Bhopal Gas Tragedy
8	UCIL	Union Carbide India Limited
9	US	United States
10	TOI	Times of India
11	MLA	Member of Legislative Assembly
12	ICMR	Indian Council of Medical Research
13	PR	Public Relations
14	HT	Hindustan Times
15	NYT	New York Times
16	BP	British Petroleum
17	DB	Dainik Bhaskar
18	BHMRC	Bhopal Memorial Hospital and Research Center

1.2 Stakeholders

Names	Positions
Abdul Jabbar	Founder of Bhopal Gas Peedit Mahila Udyog Sangathan
Alok Saxena	Chief Chemist Pollution Control Board, Madhya Pradesh
Arjun Singh	Chief Minister of Madhya Pradesh (1980-1985)
Ashutosh Shukla	Journalist at Times of India
Babu Lal Gaur	Chief Minister of MP and Gas Relief Minister (2003-2004)
Champa Devi Shukla	Co-founder of Chingari Trust
Deepti Mishra	Chief Accounting Officer, Bhopal Gas Relief Ministry
Dilip Singh	Assistant Director of Disaster Management, Bhopal
Jamal Ayub	Reporter, Times of India
N.K.Singh	Editor of Dainik Bhaskar

P.K.Shrivastava:	Assistant Director of Gas Rahat Directorate
Rachna Dingra	Head of Bhopal Campaign for Information and Action
Rahul Norohna	Journalist at India Today
Rajkumar Keswani	Senior Journalist, Rapat Weekly
Rashida Bi	Co-founder of Chingari Trust, Bhopal
Satinath Sarangi	Trustee of Sambhavna Clinic, Bhopal
Shivraj Singh Chouhan	Current Chief Minister of MP (2005-present)
Sumit Roy	Consultant Psychologist and Director of Digdarshika Institute of Rehabilitaion and Research
Suresh Joseph	Trustee of Remember Bhopal Museum
Vishwas Sarang	MLA and Minister of Bhopal Gas Relief Ministry
V. P Singh	Vishwanath Pratap Singh; Prime Minister of India from 1989 to 1990.

1.3 Prompts

1.3.1 Profile

1. Name- _____
2. Age- _____
3. Gender- Male / Female
4. Religion- _____
5. Caste- _____
6. Literate- Yes / No
7. Education- _____
8. Occupation- P/S/T ; personal business (was it affected)- Yes / No (if yes, how?)
9. Name of Activist Organisation-
10. Position in Organisation-
11. How long have you been part of the organisation-
12. Married / Unmarried
13. Family- Joint / Nuclear
14. Family's Occupation- _____

1.3.2 Activists

1. How long have you lived in Bhopal?
2. What happened that night?
3. Can you please share your experiences?
4. Why did you start this organization?
5. Has the government been supportive? How did they help?
6. Challenges you have faced?
7. Attitude of non-affected people to the survivors?

8. Experiences- demonstrations and rallies
9. How were the survivors treated?
10. Local and national policy changes participant remembers- immediately after December 1984 (depends on participant's first exposure to the tragedy)
11. How was each policy reform implemented within the participant's environment?
12. Effects of these steps on participant's daily life/work/business
13. Responses expressed for major actions and policies:
 - how did the participant, their family respond?
 - How did they feel about some major national policies that happened after 1985?
14. Does participant remember social/activist movements for the action of a political party?
15. How did politicians respond to activism
16. Has the media approached you
- 17.. What is Bhopal known for today?

1.3.3 Survivors

1st/2nd Generation

1. BGT- How old-live in the neighborhood
2. Experiences- family or individual (Nihaarika's norms-wet cloth windows/traditions)
3. Growing up- how did people talk about BGT- emotional
4. Impact/Effects BGT had on your life after 1984 while you were growing up.
5. What does BGT mean to you? (compare across demographics)
6. Have you been approached by the media?
7. How did BGT impact you- physically/emotionally
8. What has the government done for you?
9. Public Acceptance/Emotions
 - a. Formal (Sculpture, Paintings, Theatre, Movies)

b. Informal Art (Graffiti-When/Where/How__Artists)

10. the mother and child sculpture- Public/Artists

11. How often do you visit the facilities

3rd Generation

1. How did you first hear about the BGT (school curriculum?)
2. Experiences- family or individual
3. Growing up- how did people talk about BGT- emotional
4. Impact/Effects BGT had on your life after 1984 while you were growing up.
5. What does BGT mean to you? (compare across demographics)
6. How did BGT impact you- physically/emotionally

1.3.4 Journalists

1. Outline of career
2. Current Publication
3. How many years have you followed the tragedy
4. Do you think your publication's analysis and perception of the actors(governemnt, UCIL, Survivors,politicians) has changed
5. Media's role in ideological divide between old bhopal and new bhopal
6. Impact of structural and functional changes of media on bhopal gas tragedy

1.3.5 Environmental Researchers

1. Why did you choose this particular topic to research?
2. What problems have you faced in conducting the research?
3. What kind of research is usually done around the BGT? Why is this so?
4. Could you share some personal experiences that really stayed with you (either while researching or that happened to them directly) (Own ideas, perception, experiences about BGT)
5. Could you please tell us about the long term impacts on land, water, biodiversity?

6. Were there differences in actual long terms impacts vs predicted ones?
7. How much of the impact is because o the BGT as compared to just the existence of the factory?
8. Do you know how much of the present impact is because of the BGT and how much is because of current industries? How can we distinguish between the two factors?
9. What was the most pressing issue immediately after the BGT?
10. What is the most pressing issue now in your opinion?
11. Is the soil quality different? Is it harder to grow crops?
12. What changes have occured in terms of water? (availability, accessibility, pH and cleanliness)
13. Could you walk us through the mitigation of the environmental effects at every stage - timeline
14. Could you outline the most important mitigations/ management
15. What schemes have been initiated by the government for environment cleanup
16. What has been achieved, what hasn't and why?
17. Has any been specie completely wiped out?
18. Have any species made a resurgence?
19. Genetic effects on plants and animals?

Glossary

Cyanide	A type of poison
Economic rehabilitation	A set of policy measures that seek to provide employment, or improve the livelihood of beneficiaries.
Gas Widow Colony	An alternative housing colony allocated by the government of Madhya Pradesh to the women whose husbands died in the gas leak of 1984.
Gender-blind policy	A policy that ignores the different needs of different genders in planning solutions.
Kutcha	Raw, made of mud and clay.
Methyl isocyanate:	Organic Compound
News Cycle	Reporting a certain media story, from the beginning to the end.
National Front	A coalition party that earned a simple majority in the central legislature in the 1989 general elections.
Social conflict	Struggle for agency or power in the society.
Social rehabilitation:	A set of policy measures that seek to improve the social position of beneficiaries
Step-Up	A credit programme initiated by the government of Madhya Pradesh for employment opportunities to gas survivors.
Symptomatic treatment	Medical therapy of a disease that only affects its symptoms, and not its cause.

**UNION CARBIDE
YOU CAN'T HIDE
WE CHARGE YOU
WITH GENOCIDE**