SOCIAL INFLUENCES ON DISASTER RISK COMMUNICATION

By **Azdren Coma**. Advisors: **Dr. Lee Clarke, Dr. D. Randall Smith**
ac1318@scarletmail.rutgers.edu

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Introduction

A wide range of social phenomena influence disaster risk communication. However, the standard model of risk communication does not consider that communication is often affected by social factors. This study analyzes the 1984 industrial disaster of Bhopal, India, for ways that risk communication was affected by social phenomena. Then other cases were studied to find more examples where those social concepts were influential. The use of concept stories is a tool that was developed to better understand the interactions with the real world. Concept stories were taken from different cases, and different concepts were grouped together where the same phenomenon had occurred in different cases. Based on these findings, and the research conducted, I have arrived to a list of recommendations that future risk communicators can adopts, so that risk communication can be more efficient and effective.

Background

If a disaster strikes, it will be dealt with a system developed in 1968, adapted by many firefighting agencies – called the Incident Comment System (ICS). FEMA adapted ICS to combat all natural disasters. On March 1, 2004, through a Security Presidential Directive 5 – DHS adopted ICS for all federal, state, and local agencies, in a system called National Incident Management System (NIMS) which integrates ICS. NIMS responds to natural disasters, as well as terrorist attacks (Academic Emergency Management and Related Courses (AEMRC) for the Higher Education Program).

Every CIS is a closed-system, with communication going in one direction, where people are told what to do, and are told to stay away. What interests me is how risk is communicated with the people! My research focuses hopes to find out if there is a better way to communicate risk.
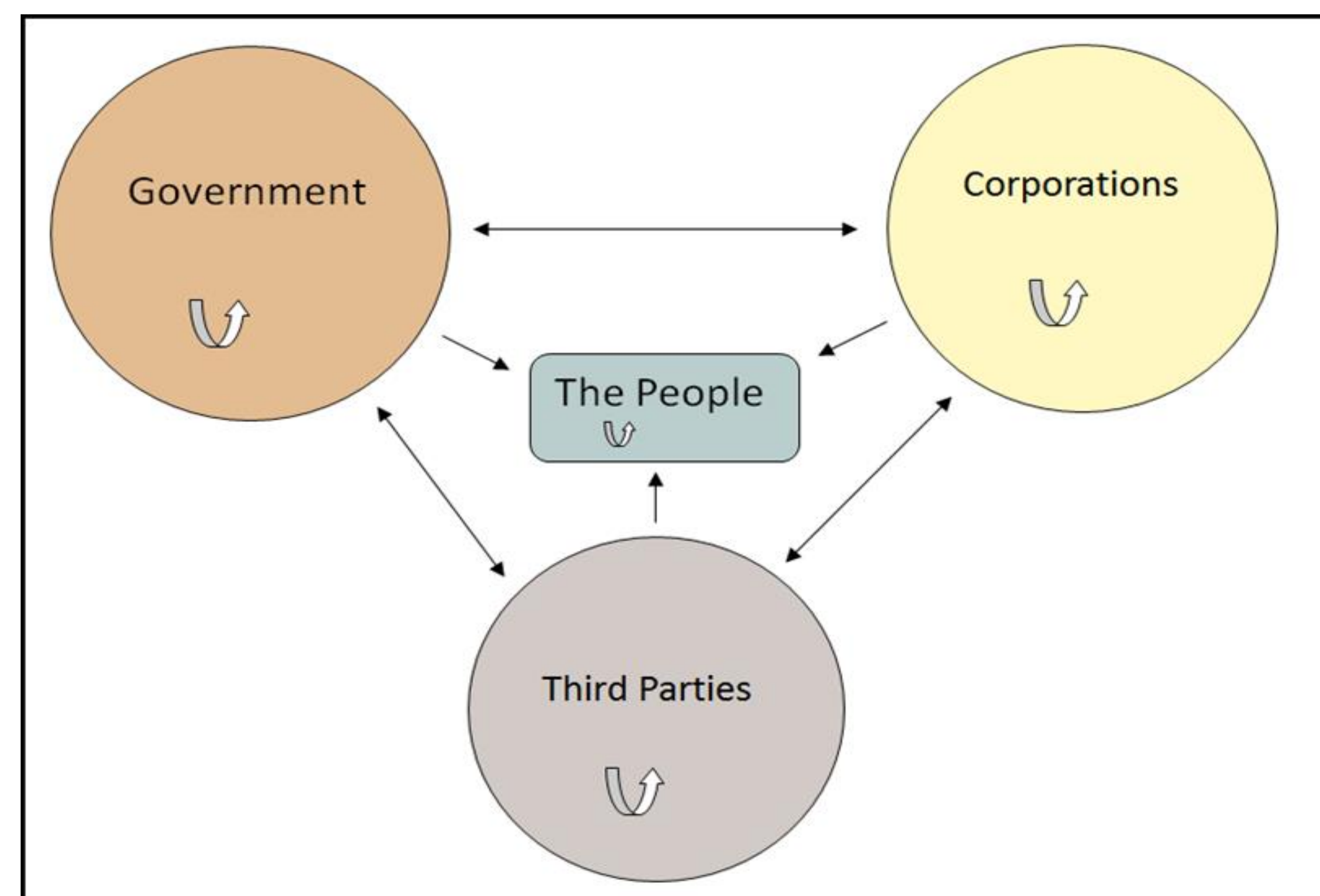
It is important to understand that risk communication does not just involve communication between DHS and the people. As the figure above shows, it involves many components. It involves the government communicating with people and corporation, but also with other agencies and members of the government. Corporations communicate with people and the media. Corporations also communicate risk internally. And third parties, such as the media or NGO's, also play a crucial role in risk communication. Furthermore, people also find information from other people.

Background, continued

The world is complex, and sometimes this system enables failures of risk communication.

Many scientists point out that there are problems with an over-reliance on this system. For example, in an article by William Freudenburg and Lee Clarke, it is shown that when risk communication is risk management, it becomes propaganda. This could lead to the erosion of public trust which could render communication pointless (Clarke and Freudenburg, 1993). Max Weber has shown us that the fact that the modern world is so interdependent means that social ties are more important than ever. Freudenburg also reveals how breakdowns within those ties can impact communication (Freudenburg, 1993). Furthermore, Charles Perrow, in a concept he calls Normal Accidents, demonstrates how sometimes everyone in a system is doing their jobs as expected, and the system can still fail (Perrow, 1984)! These ideas inspired me to delve deeper into the study of how social phenomena can impact risk communication. Besides these concepts, I wanted to see if I could expand my understandings of the impact of other social phenomena.

Methods

I found what many call the worst industrial disaster in history! The 1984 disaster at Bhopal, India. The accident took place when there was a chemical leak at the Union Carbide of India Limited, factory producing pesticides. The chemical was methyl iso-cyanate, with death tolls estimated between 3,787 to over 16,000 (Bogard, 1989). I looked for how risk communication is affected, and I drew up Concept Stories, which are small stories that took place during a disaster that demonstrates the concepts affected risk communication. And then I looked at other cases to try to see if there were instances when these phenomenon repeated.
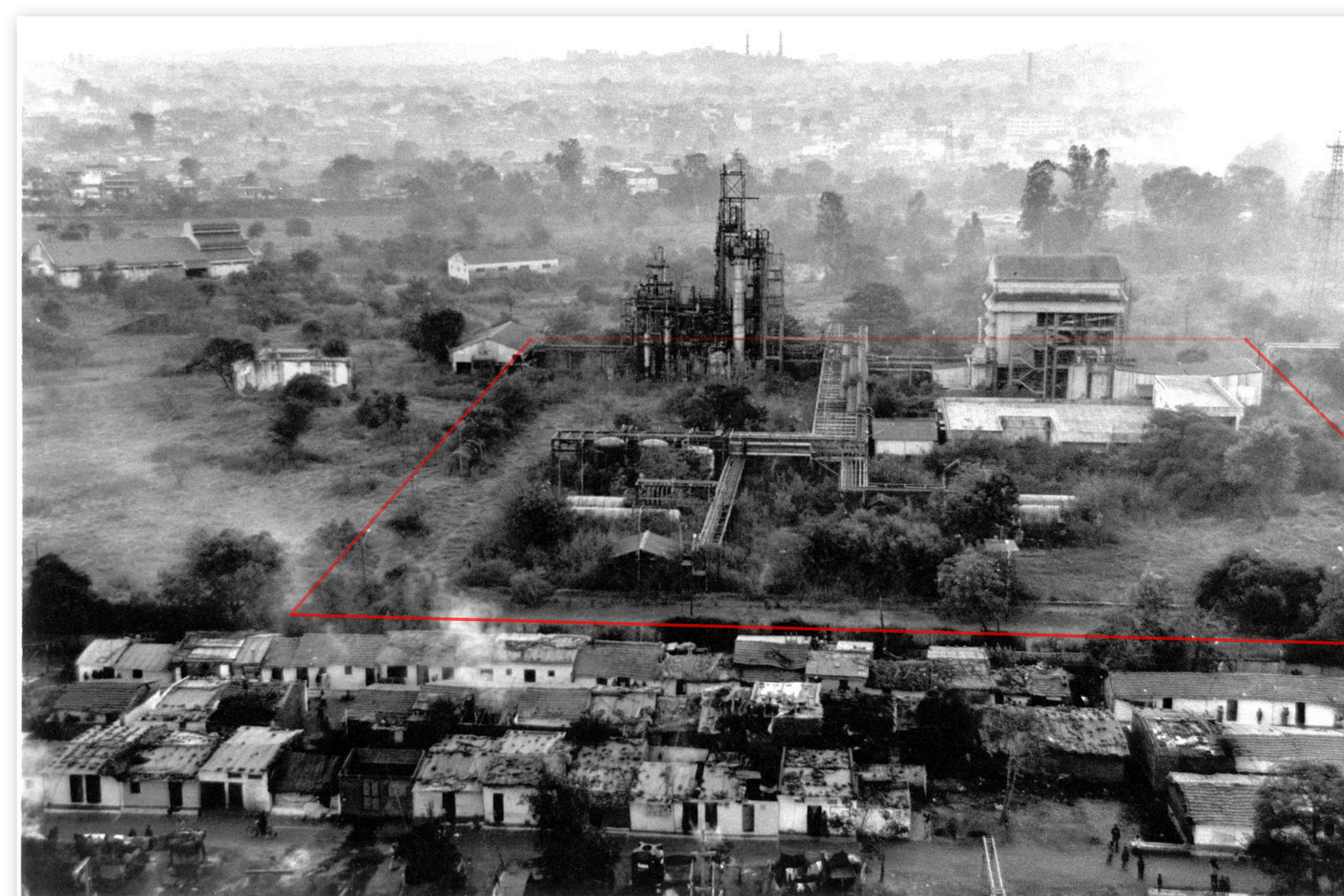
Methodology and Analysis

The first social phenomena I wrote about was recreancy, which is when a node in a system fails to perform their expected duty. This individual failure can result in a failure of the communication of risk.

The story involves the failure of the company to communicate risk associated with the chemical they are producing, and how to handle a potential leak. When the accident happened, no one knew that you could survive this deadly leak by simply placing a wet towel over your face.

What studying recreancy has taught me is that perhaps more effective risk communication could be achieved through making systems more decentralized and socially redundant.

The second social phenomena I am I wrote about was supererogatory, which is when someone goes above and beyond their required duty, usually at a personal sacrifice (either of time, of their own well-being, money, or some other personal resource). This also demonstrates a failure of the command and control model, by providing crucial communication when it was lacking. But hero stories are not uncommon during disasters.

The story involves the conductor, Gopar Parashar (pictured below) who had local knowledge that there was an incoming passenger train in route directly through the reported path of the plume of deadly gas. Had the train conductor followed his orders, it might have resulted in the passengers on the train cars ending up victims of the accident -- but because he decided to risk his own life and disobey his orders from the higher-ups, he was able communicate the danger to the on-coming train.

What studying supererogatory has shown me is that perhaps more effective risk communication could be achieved by entrusting the public to make the right choices with more honest information on risk.

Conclusion

It is important to understand that there are many more ways risk communication could be affected by social phenomenon. Some of the conclusions I have arrived to are that: Effective risk communication: requires systems to be decentralize and socially redundant; requires system to be more tolerant of alternative views and ideas; requires us to entrust the public to make the right choice with more honest information on risk; requires us to Disperse and de-centralized concentrations of power. And hopefully sociologists continue to study this topic, so that we can all be safer in the event of a disaster

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