

A STUDY ON POLICY AND ACTION IN DISASTER RISK REDUCTION IN INDIA

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ABSTRACT

Disaster Risk Reduction has an uphill battle in making the shift from a reactionary mindset to one focused on anticipation and prevention (DRR). Because of this, even though the United Nations Office for Disaster Risk Reduction (UNDRR) has been pushing for a preventive strategy since the 1990s International Decade for Natural Disaster Reduction, many nations have been sluggish to make the switch. With increasing catastrophe frequency, the translation of international policy principles into national and regional disaster risk reduction plans is a complicated political process that many nations are struggling with. In this study, we use the example of landslide risk management to examine the situation in India. The study shows that while the national government appears to have made significant efforts to move in line with the UNDRR approaches, the final result of these efforts at the regional and local level is largely an incremental improvement on the existing DRR app. We conducted the study in two hilly regions: Darjeeling in the Himalayas and the Nilgiris in the Western Ghats. Rather from addressing apparent gaps between policy and action as functional obstacles to be solved with new knowledge from a national level, we suggest that resolving these concerns needs attention to a situated understanding of catastrophes and institutions at the local level.

Keywords:-*DRR Institutional structure, DRR Policy and plans, Landslides LANDSLIP.*

INTRODUCTION

In the mid-1970s, as a result of shifting perspectives on catastrophes from 'acts of God' to societal events, a conceptual movement toward proactive disaster management emerged. International efforts up to this time were mostly reactive, institutionalised via organisations such as the United Nations Disaster Relief Office, which was established in 1971 to encourage the study, prevention and control and prediction of natural disasters' emphasis added) During the 1990s, the International Decade for Natural Disaster Reduction (IDNDR) and the UN International Strategy for Disaster Reduction (UNISDR) rebranded as the UNDRR, this view of catastrophes as 'natural' was gradually replaced by the concept of disasters as man-made. With the introduction of the Hyogo Framework for Action in 2005 and the Sendai Framework for Disaster Risk Reduction in 2015 and its four action priorities related to understanding and strengthening disaster governance to manage disaster risk and 'Building Back Better,' a shift in focus towards disasters being seen as social was further institutionalised.

United Nations language refers to Disaster Risk Reduction as 'the policy aim of disaster risk management', with DRR techniques being used to avoid, minimise, and manage disaster risk.

The implementation of the Disaster Management Act (referred to as 'the Act' from here on) in 2005, like many nations in the mid-2000s, was a fundamental change in India's response to disasters. This is a wake-up call that has been made clear by catastrophic catastrophes like the earthquakes in Uttarkashi (1991), Latur (1993), Chamoli (1999), the Assam floods (1998), and the Orissa Super Cyclone (1999). It was established by the Central Government in 1999 as a High-Powered Committee on Disaster Management to create India's comprehensive response to catastrophes, which eventually expanded to include man-made disasters. As a result of the Indian Ocean Tsunami in 2005, and the committee's report being filed in 2001, the bill was passed into law (2004). Since its inception in 2011, the Act has been followed by the National Disaster Management Policy (the Policy) and the National Disaster Management Plan (the Plan), both of which are based on the Sendai Framework (2005–2015) and the Hyogo Framework (2005–2015).

Beyond the formal pledges made in declarations and high-level meetings, research into the Hyogo and Sendai Frameworks' implementation in poor countries suggests that compliance with commitments is still a concern. Following a series of disastrous floods from 2013 to 2020, similar objections about the Act, Policy, and Plan's effectiveness have been raised in Indian media. Interviews with government officials, non-governmental organisations (NGOs), and first responders engaged in landslide risk management in two Indian mountain districts¹—the Nilgiris and Darjeeling—allow us to examine this apparent lack of "compliance" with the Act. Despite the tsunami's role in the publishing of the Act, we argue that it cannot be considered a "critical juncture" in India's disaster risk reduction (DRR) efforts. There have been few significant changes to DRR "on the ground" as a result of national policy revisions owing to institutional inertia and a failure to comprehend the placed environment in which disaster management institutions work locally. There has to be a transition in India's disaster management paradigm from a top-down, national-level strategy to a bottom-up, localised one.

LITERATURE REVIEW:-

Gupta (2018) shows the development of disaster management in India and claims that "the Indian disaster management strategy is aimed to create a paradigm transition from reaction and disaster relief to catastrophe prevention, planning and mitigation". In the wake of recent disasters, he calls for 'a major audit of institutional setups, laws, and policy implementation tools in the context of the success-failure yardsticks of the major disasters in the recent past', pointing out the need to address issues of 'overlapping authority, lack of adequate staffing, and clarity around fund distribution.'

Pande and Pande (2007) In arguing that states are claiming monies, under catastrophe categories, for things that they should be supporting on their own, they contend that they are not following central government standards effectively. This study, which was released shortly after the Act was passed in 2005, highlights the Act's institutions as a positive development in India's disaster management.

Pal and Tarun (2018) be happy that this law is "signalling the beginning of a paradigm shift in disaster management, from one of post-event reaction to one of pre-event mitigation and preparation," but pay little attention to the institutional changes that may have caused this "paradigm shift" in disaster management.

According to a large portion of this literature, issues identified in their implementation are presented as functional challenges that need to be fixed; that is, issues identified in the implementation of the Act, Policy or Plan that can be overcome with time and minor changes to disaster governance at the local level. To suggest that disaster management in India has accomplished a 'paradigm shift', the continuous existence of institutions at the national, state, and district levels is cited without critical examination of their (dis)functionality and the actual nature of any changes since the Act. As a result of this framing, the circumstances in which the Act was presented tends to be overlooked. This is where certain legal studies literature analyses of the Act shine, questioning the legislation's genuine power in the Indian bureaucratic system.

Thattai et al. (2017)]; say that the reforms brought about by the Act cannot be implemented because there is insufficient coordination among the many agencies involved.

Carter and Pozarny (2016) using the National Disaster Management Authorities in India, Pakistan, and Bangladesh as a comparative case study, the authors propose that national agencies should be linked with local NGOs at all stages of disaster preparation and response, not only during the actual response (that is, before a disaster).

METHODOLOGY:

LANDSLIP (Landslide risk assessment, preparation, and early warning in South Asia: integrating meteorology, landscape, and society) project carried out institutional mapping of disaster management in India for this research. An early warning system for two study sites in India, the Nilgiris District in the Tamil Nadu State of South India and the Darjeeling District (with East Sikkim, not included here) in the West Bengal State of Eastern India, is the goal of LANDSLIP, a UK Natural Environment Research Council (NERC) and Foreign, Commonwealth and Development Office (FCDO) funded project. Figure 1 depicts the locations of the two research sites in India. A landslide may cause significant disruption during the monsoon season, inflicting damage to infrastructure, property, and even the loss of life. Multiple landslide demand-oriented studies have previously been conducted in both study locations. While addressing the danger of landslides, these studies ignore the existing institutional framework for mitigating landslide risk in the two locations.



Fig. 1. LANDSLIP study sites in India. Figure produced by the LANDSLIP consortium and reproduced with permission.

Both study locations are located in hilly regions of states that are mostly comprised of plains and rely heavily on tourism and tea plantations for economic activity. As a Himalayan district in a state characterised by lowlands and inhabited by populations of Nepali descent, Darjeeling District and the surrounding Kalimpong District, which split from Darjeeling in 2017, are distinct in West Bengal. As a result of their cultural differences from the majority Bengali population in West Bengal, Gorkhaland residents have been calling for a separate state for over 30 years. Several times, this demand has been met with violent demonstrations (1986–1988, 2017). The Gorkhaland Territorial Administration (GTA), a semi-autonomous entity responsible for hill community development projects, was established as a consequence of these demonstrations, which permitted a tripartite agreement between central government, state administration, and local political parties. Accordingly, the GTA is a kind of local government that does not report to a district administration, but rather to state officials.

Only a few of Tamil Nadu's districts are located in the foothills, including the Nilgiris. Tribal tribes make up a large portion of the population, however most of the population is fluent in Tamil. As a result, the Nilgiris are more politically stable than Darjeeling. Furthermore, unlike Darjeeling district, the Nilgiris district does not have the same history of in-migration as Darjeeling district. Aside from being older than the Himalayas, the Nilgiris Hills are also shallower and less susceptible to landslides. It's rainy season virtually year round in Nilgiris, thanks to rain falling during both the south-west and north-east monsoons. A comparison of the execution of the Act and its corresponding policies and plans in various political, cultural and geographic situations provides an intriguing background. Most of the fieldwork for this research was done at the district level, with some additional work at the state and national levels as well. Between January 2018 and February 2020, we spent around three months on the ground and conducted 35 interviews. According to Table 1, the two research regions had a fairly even split in terms of interviewees.

Table 1. List of interviewees with disaster management officials and experts in the two study areas.

Respondents	Darjeeling	Nilgiris
NGO members	2	1
Government officials (state/district/sub-district)	7	11
Community members/first responders	6	2

DISASTER GOVERNANCE AT THE NATIONAL LEVEL

Prior to the Act, India's catastrophe institutional structure was fully response-driven, with an emphasis on relief, rescue, and financial aid. The District Collector/District Magistrate coordinated relief and rescue activities largely at the district level, while the State Relief Commissioner (SRC) reported directly to the Chief Secretary. At the national level, the Ministry of Home Affairs was responsible for disaster response (MHA).² During large-scale disasters, financial assistance to the affected state was administered through the National Calamity Contingency Funds (NCCF) and the Calamity Relief Fund (CRF), following a visit to the affected area by a specially commissioned Inter-Ministerial Group and responded to by a Central Relief Commissioner within the MHA, reporting to a National Crises Management Committee (NCMC). While the primary responsibility for rescue, relief, and rehabilitation remained with the concerned state governments – with the federal government providing primarily financial assistance³ – the Act established a number of new institutions at the national, state, and district levels to facilitate this shift. Notably, the Act replaced transitory catastrophe committees with the following permanent institutions:

- a) **At the national level:** National Disaster Management Authority (NDMA), National Executive Committee (NEC), National Institute for Disaster Management, National Disaster Response Force.
- b) **At the state level:** State Disaster Management Authority (SDMA) and State Executive Committee along with State Disaster Response Force (SDRF).
- c) **At the district level:** District Disaster Management Authority (DDMA).

The Act was operationalized with the introduction of the Policy (2009) and Plan (2016, 2019). While the Policy was more focused on mitigation than on readiness, reaction, or recovery, the wording of the Plan – which was originally proposed in 2016 and subsequently changed in 2019 – reflects a preparedness and response-focused strategy. Thus, the law enacted to ease the Act's implementation already indicates that the paradigm change anticipated by the Act has not happened. Additionally, although the Act directed the federal government to establish a National Disaster Response Fund and a National Disaster Mitigation Fund, only the Response Fund has been established, depending on the NCCF and CRF already in existence. The government has not established a National Disaster

Mitigation Fund, claiming that existing programmes cover mitigation measures, obviating the need for a new fund.

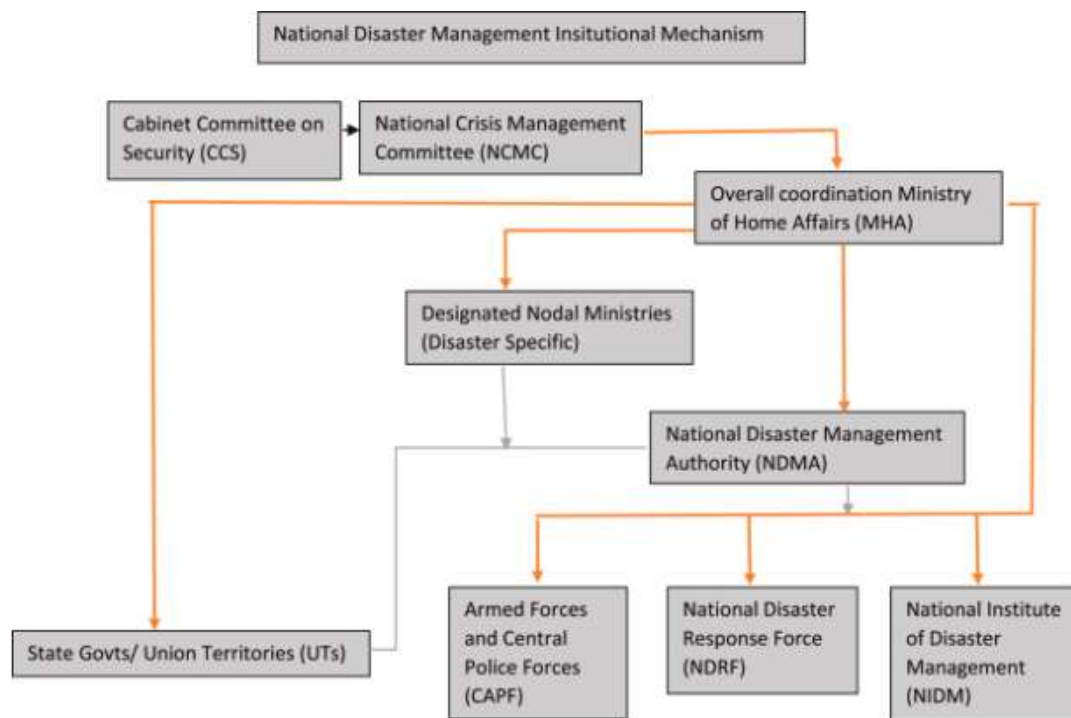


Fig. 2. National level disaster management institutional network

DISASTER GOVERNANCE AT THE LOCAL AND REGIONAL LEVEL

This section discusses developments in disaster management in the Nilgiris and Darjeeling districts since the Act, Policy, and Plan were implemented. This section focuses on-

- a) The institutional structure for DRR in these two study areas, including financial resources available for DRR; and
- b) The state and disaster management plans.

Nilgiris District

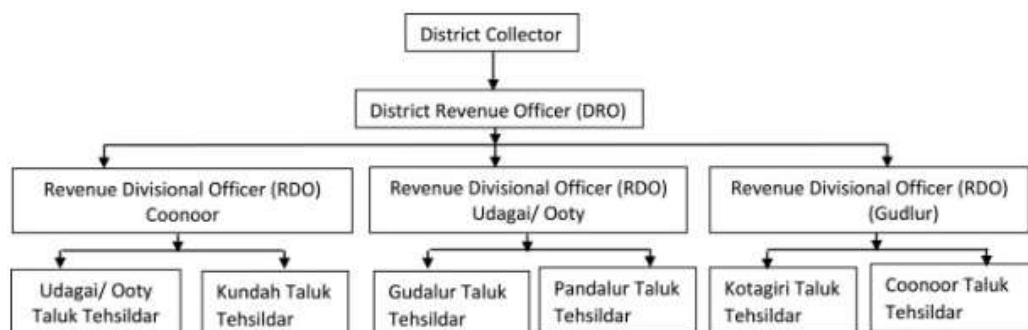
A) Institutional structure for DRR

At the state level

In Tamil Nadu, disaster management is administered by the Revenue Department's Commissionerate of Revenue Administration, Disaster Management, and Mitigation. The Commissioner of this Commissionerate is also the Commissioner of State Relief (SRC). The chain of command has largely remained unchanged since the Act's inception, with the SRC overseeing relief operations throughout the state and District Collectors providing incident information and relief requirements. District Collectors also oversee disaster management operations at the district level. The Tamil Nadu State Disaster Management Plan outlines the following institutional framework for disaster management: the government established the Tamil Nadu State Disaster Management Authority (TN-SDMA), which was recently renamed the Tamil Nadu Disaster Risk Reduction Agency (TN-DRRA). The TN-SDMA/TN-DRRA is chaired by the Chief Minister. Under the command of the SRC, a State Emergency Operation Centre (SEOC) is responsible for disseminating to district administration early warnings and alerts received from the Indian Meteorological Department, Central Water Commission, Indian National Centre for Ocean Information Services, and other agencies. However, the TN-SDMA was formally established in November 2013, over eight years after the Act was enacted.

At the district level

The Plan establishes the DDMA, chaired by the District Collectors, as the district's planning, coordinating, and implementing body. The Nilgiris DDMA is administered by the Revenue Administration, which is comprised of three Revenue Divisions and six Revenue Taluks. The District Collector is the district's administrative kingpin, aided by the District Revenue Officer and the Personal Assistant (General), both of whom are also DDMA members. Each Revenue Division is led by a Revenue Divisional Officer, while each Taluk is led by a Tehsildar. Fig.3 illustrates three Revenue Divisions and their associated Revenue Taluks in the Nilgiris.



Interviewees at the state and district-level identified following significant changes in disaster management since the Act:

- regular meetings with the first responders' team;
- the introduction of an emergency helpline number for people to call;
- greater interdepartmental co-ordination;
- awareness programmes; and
- prepared evacuation centres and information dissemination through the SEOC.

B) State and district disaster management plan

The TN-SDMP and the Nilgiris District Disaster Management Plan demonstrate the mismatch between international policy and local-level disaster management in the Nilgiris (NDDMP). Both of them were mandated by the Act, although they both follow the same style as the national-level Plan, demonstrating the plans' flimsy character. The disjunction with international language is shown by the plans' use of the phrases 'hazard,' 'vulnerability,' and 'risk assessment.' These terminologies have particular meanings and interactions inside the UNDRR (risk as a function of hazard, exposure, and vulnerability). Academic research on catastrophes and vulnerability is heavily influenced by this approach. If, as anticipated, the international discourse percolates lower, this nomenclature should be represented in the plans.

Section 2 of the TN-SDMP is devoted entirely to risk, hazard, and vulnerability assessment. While the word hazard is used in the same way as it is used by the UNDRR – that is, only in connection to physical trigger events such as cyclones and landslides - there is a lack of conceptual clarity about the distinction between susceptibility and risk. For example, the TN-SDMP states that 'the identification, evaluation, and mapping of [disaster] risks is accomplished utilising the state's legacy data and geomorphological characteristics. Additionally, the NDDMP makes use of historical data from catastrophic occurrences to identify sensitive locations, confusing vulnerability with danger.

Darjeeling District

A) Institutional structure

State level

In contrast to Tamil Nadu, West Bengal has its own disaster management and civil defence department, the West Bengal Disaster Management and Civil Defence Department. The department is responsible for all SDMA-related work in the state, without adhering to the name. The department has existed since 1992 and was renamed 'Disaster Management and Civil Defence Department' in 2006 after the passage of the Act (West Bengal State Website), with the department's work staying essentially same. West Bengal also receives financial assistance from the centre via the NCCF and CRF grants, which have been renamed the National Disaster Response Fund and the State Disaster Response Fund, respectively.

District level

The department hires disaster management officials to provide assistance to administrators at all levels (see Fig.4). Sub-Divisional Officers and Block Development Officers (BDOs), according to a

district-level disaster management official, are key administrative posts reporting to the District Magistrate. However, our field observations revealed that the District Disaster Management Officer, Sub-Divisional Disaster Management Officer, and Block Disaster Management Officer positions are primarily administrative in nature, focusing on the compilation of Calamity Assessment Reports, the Darjeeling-District Disaster Management Plan, and the distribution of relief materials. Additionally, our respondents acknowledged a severe labour shortage. For instance, a block-level official remarked on the block disaster management department's staffing shortfall, saying, "I am a one-man army." I am officially given two support employees and a peon, but no one is hired to fill those positions. As a result, I find myself doing everything. We generate Calamity Assessment Reports at the block level. This is an official record of the damage caused by catastrophes. Apart from that, I get requests from colleagues at GTA to investigate various compensation claims for home damage that they are unable to verify due to a lack of skilled engineers.



B) State and District Disaster Management Plans

The latest version of the West Bengal SDMP – which is available on the West Bengal state administration website – follows a similar format to the TN-SDMP, beginning with a profile of West Bengal's hazards, risks, and vulnerabilities and concluding with sections on mitigation, preparedness, and response. Unlike the TN-SDMP, the WB-SDMP clearly defines all three concepts in accordance with the UNDRR. Beyond this, the terminology are used similarly to those in the TN-SDMP, demonstrating that there has been no movement in the way disasters are conceptualised toward social components of vulnerability. For instance, the section 'History of Vulnerability' details a history of disasters in the state, classified according to hazard rather than societal capability. While the newest Darjeeling DDMP makes an attempt to tie settlement distribution with danger, the correlation is still ad hoc and limited to a two-page summary.

Our research in Darjeeling includes the chance to accompany district disaster management authorities on visits to several blocks and participate in discussions regarding the current DDMP's draught. We deduced from this that the D-inventory DDMP's of past catastrophes is derived from Calamity Assessment Reports: official records of loss and damage produced since before the Act's inception to identify and legitimate compensation claims. These reports form the basis of the West Bengal SDMP. Additionally, the D-DDMP includes a list of line departments that are engaged in disaster management/response, the infrastructure that is available to handle a catastrophe event, and the names and contact information for the officers/individuals in command of each block. However, a member of a local non-governmental organisation (NGO) said that the DDMP was 'a glorified telephone directory; a list of people to contact in the event of a danger and fundamentally reaction focused.

ANALYSIS

The following points summarises the changes that have been introduced in disaster management at the state and district level since the introduction of the Act, Policy and Plan:

- a) **Renaming the departments:** In both study districts, previously existing Relief and Rehabilitation Departments have been renamed Disaster Management Departments, but their tasks and responsibilities have essentially stayed the same.
- b) **Disaster Management Plans:** As required by the Act, Disaster Management Plans have been developed at each of the three administrative levels (national, state and district). These plans, at the district level, provide a detailed list of available emergency resources but place a minimal emphasis on preparation or mitigation. Both the definition of specific terminology (for example, vulnerability) and the conceptualization of their evaluation procedure vary from what international policy recommendations imply.
- c) **Co-ordination networks:** Both districts put a premium on an effective response coordination network capable of disseminating early warnings to the community and promptly reporting incidents to the authorities.
- d) **Taking stock:** Pre-monsoon meetings are held in both districts of the Nilgiris District to discuss preparatory measures and assess response resources.
- e) **Conducting mock drills:** Under the direction of the State Disaster Management Department, mock exercises are held to evaluate the effectiveness of response measures. We watched a simulated exercise in Darjeeling that was conducted in the spirit of following instructions to fulfil an assigned job; we are unaware of any evaluation report created to reflect on the district's reaction capabilities as a result of this drill. 24 Similarly, many first responders in the Nilgiris do not attend training owing to the loss of daily earnings.

- f) **Awareness campaigns:** Although awareness efforts are done periodically in schools across the Nilgiris, the district disaster management office in Darjeeling need more financial resources and qualified people resources to execute such activities.

Numerous characteristics, on the other hand, have remained consistent even after the Act, Policy, and Plan were enacted. These include the following:

- a) **Workforce:** Along with compiling Calamity Assessment Reports, these changes have tasked Disaster Management Departments with the additional responsibilities of compiling SDMPs and DDMPs, disseminating early warnings from central government agencies, conducting mock drills, and performing other administrative tasks. The staff inside Disaster Management Departments, on the other hand, stays substantially unchanged.
- b) **Hierarchical structure:** Notably, the major decision makers and chain of command for disaster management at the national, state, and district levels are the same elected and administrative authorities. As was the case prior to the Act, the bureaucratic structure remains key to disaster management, with the District Collector/Magistrate overseeing all aspects of disaster management (save for the distribution of House Building Grant in Darjeeling).
- c) **Engagement with the community:** The district administrations' contact with the community has mostly stayed consistent: it is essentially top-down. Additionally, communities' expectations of the government remain focused on relief, rescue, and restoration. Due to the top-down structure of policy execution, successful citizen-government efforts in other areas of administration in the Nilgiris have not materialised in disaster management. Citizens are seen as either a source of first-hand knowledge about incidents or as a group capable of rapidly reaching the afflicted region to offer first aid before government assistance/rescue comes. To reshape this relationship, DRR must be seen in terms of vulnerability and risk, rather than individual incidents.
- d) **Resources:** While the Act mandates the establishment of National, State, and District Disaster Response Funds, which are funded via the NCCF and CRF, no mitigation funds have been established at any level. Additionally, a recent decree from the Government of India on disaster financial aid refers to SDMF/SDRF as a single entity, implying that no new financial resources have been granted for mitigation efforts distinct from response.

FINDING

Our results indicate that the current paradigm is response-oriented, with catastrophes seen as essentially natural phenomena that disturb normal life and result in the loss of lives and property

(home, agricultural land, and cattle), which must be handled retroactively. This is seen by the absence of efforts to implement community-based governance in the Nilgiris catastrophes, as has been done in other areas (environmental sustainability, for example). Additionally, it is shown by the way the term 'vulnerability' is employed in local-level planning. Vulnerability is characterised in a preventative paradigm as an individual's or group's impaired capability to predict, deal with, resist, and recover from the effect of a hazard. In the response-based paradigm shown here, vulnerability and hazard exposure are synonymous: a region that has previously been exposed to a danger is 'vulnerable.' Furthermore, at the time of writing, the NDMA website continues to categorise disasters as 'natural' or 'man-made'; natural disasters are defined as floods, landslides, storms, and cyclones, while man-made disasters are defined as nuclear, biological, and chemical – despite the fact that mainstream disaster studies have long recognised that disasters are social in nature. Local and state government narratives about catastrophes seem to be strongly established, as demonstrated in the local response-driven strategy that remains.

CONCLUSION

We demonstrated in the opening section of this paper how the shift from disaster management to disaster risk reduction in international policy guidelines occurred gradually, owing to a shift away from viewing disasters as 'acts of God' beyond human control and toward viewing them as social phenomena resulting from the interaction of two major components: hazards and vulnerability. However, this transformation did not occur in India when the new policy guidelines were implemented, either nationally or locally. Rather than that, it was anticipated that the policy transformation would bring about this conceptual shift in our understanding of catastrophes. Due to the need of introducing policies without adequate conceptual grounding in existing institutions, an abstract and decontextualized policy language developed.

Thus, the research demonstrated that framing the gap between policy and action for disaster risk reduction in India in terms of a few functional difficulties is an inadequate and unproductive conception of the challenges confronting India's approach to disaster risk reduction. Rather than that, our results indicate that India's disaster risk reduction policy framework fails to carry out its aims because the policy language has been decontextualized, and advances in conceptualising disasters as being driven by social causes have not happened. To accomplish these goals, an emphasis on a) knowing how catastrophes are seen and experienced at the local level, and b) being cognizant of the institutional inertia associated with introducing a conceptual change in disaster risk reduction, would be preferable. Our results demonstrate that successful adoption of international concepts and norms in disaster risk reduction on the ground is not merely a matter of scale disparity. This concept suggests that functional constraints act as an impediment to achieving the national policy objective. Rather than that, India's inability to achieve a paradigm shift in DRR is a result of differently constituted facts at each decision-making level. By ignoring these distinctions and implementing a rigorously top-down approach, enormous institutional inertia is created, which is both pre-existing and facilitated by a decontextualized approach. Rather than that, interventions need an understanding of how catastrophes are seen, experienced, and treated in the local context.

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