Dynamic Climates of Memory: Environmental Learning, Risk Perception, and Remembering and Forgetting Disasters

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To my parents for believing in me

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List of Abbreviations

ADB	Asian Development Bank
ATDO	Additional Taluka Development Officer
BIS	Bureau of Indian Standards
BMTPC	Building Materials & Technology Promotion Council
CAPAM	Commonwealth Association for Public Administration and Management
CBDRR	Community-based Disaster Risk Reduction
CM	Chief Minister
CWPC	Central Water and Power Commission
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ENHANCE	Environmental Humanities for a Concerned Europe
FGD	Focus Group Discussion
GAD	General Administration Department
GEERP	Gujarat Emergency Earthquake Reconstruction Project
GERP	Gujarat Earthquake Recovery Program
GIDB	Gujarat Infrastructure Development Board
GIDM	Gujarat Institute of Disaster Management
GNS	Gram Navrachna Samiti
GR	Government Resolution
GSDMA	Gujarat State Disaster Management Authority
HFA	Hyogo Framework for Action
HFL	High Flood Level
HPC	High Power Committee
HRVA	Hazard Risk Vulnerability Atlas
IDNDR	International Decade for Natural Disaster Reduction
INGOs	International Non-governmental Organisations
INR	Indian Rupees
ISR	Institute of Seismological Research
ITN	Innovative Training Network
KMVS	Kutch Mahila Vikas Sangathan
LEC	Lukhdhirji Engineering College
LSI	Linguistic Survey of India
MMI	Modified Mercalli Intensity scale
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NGO	Non-governmental Organization

NIDM	National Institute of Disaster Management
NRG	Non-resident Gujarati
ODR	Owner Driven Reconstruction
PDS	Public Distribution System
PIL	Public Interest Litigation
PPP	Public-Private Partnership
PWD	Public Works Department
RSS	Rashtriya Swayamsevak Sangh
SC/ ST	Scheduled Caste/ Scheduled Tribe
SEMM	Smriti Van Earthquake Memorial and Museum
SEZ	Special Economic Zone
SFSP	Standard Fire and Special Perils
SH	State Highway
TDO	Taluka Development Officer
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Organization for Education, Science and Culture
UNISDR	United National International Strategy for Disaster Reduction
VBS	Veer Balak Smarak
VR	Virtual Reality
WB	World Bank

Summary

Aim of the Project

Research in geography has contributed immensely to vulnerability thinking and disaster discourse. However, despite plenty of knowledge and experience in dealing with disasters, institutions often fail to address the deep-rooted vulnerabilities, and people continue to remain at risk. Scholars have developed Disaster Risk Reduction (DRR) frameworks to translate knowledge into actionable strategies, offering systematic approaches to decision-making. Although these frameworks have been refined over the years and are effective, they remain limited in examining the role of memories and narratives in reinstating vulnerabilities, restraining learning, and mediating risk perception. This project aims to understand the making and unmaking of disaster narratives, and processes of remembering and forgetting and their role in influencing risk perceptions and learning. An emphasis on narratives, in context, will reveal the work that they perform in making and un-making policies for DRR.

Approach

In this interdisciplinary project, I utilise the political ecology framework to investigate the Bhuj earthquake (2001) and Machhu flood (1979) in Gujarat, India. These cases motivated differing levels of institutional learning and ways of remembering and forgetting. They offer opportunities to examine - (1) the role of narratives/storylines in understanding risk perceptions and learning, (2) different ways of remembering and forgetting, and (3) memories and narratives in terms of DRR. These cases are not merely "events" but "disasters with biographies." They are collections of narratives and memorials for remembering (and forgetting). So, I treat them as "events in narratives", and my case studies are case studies of narratives assembled around the events.

Methodology

I conducted fieldwork in Kutch and Morbi districts of Gujarat, India. My data comprises personal narratives (collected through in-depth interviews and focus group discussions), publications from governmental and non-governmental organisations (e.g., policy documents, project reports, and census data), and media archives. The core of the data is collected from government officers, disaster management experts, non-governmental organisations, community leaders, disaster-affected people, and beneficiaries of state schemes. I interpreted the data within a framework that relates narratives, memories, risk perception, and learning to disaster experience. It is transcribed, coded, and analysed using MAXQDA 12 software.

Findings and Discussion

Bhuj Earthquake (2001)

In the aftermath of the Bhuj earthquake, the main stakeholders in disaster reconstruction – governmental organisations, non-governmental organisations, village-level committees, and local media – contributed to transmitting disaster memories and narrative construction. The state and media were key actors in constructing powerful narratives. Four narratives were particularly prevalent in disaster's aftermath.

1. *Naturalness of the disaster*
2. *Corruption, exclusion, and demand for a separate State of Kutch*
3. *Narrative of Kutch's resilience against disasters*
4. *Developed, modern, and safer Kutch*

These storylines were influential in mediating perceptions, policies, and decisions. In particular, the notions of Kutch's resilience, development, modernisation, and safety were instrumental in setting the tone for the earthquake's memory. As a result, it is remembered as a case of successful reconstruction, best practices, and learning in India's disaster discourse.

However, such framings overlook the root-causes (socio-economic and political factors) responsible for the unequal distribution of risk and vulnerability in society and prove counter-productive to the principles of Disaster Risk Reduction. Using polymorphy of socio-spatiality – territory, place, scale, and network – I examine people's vulnerabilities and present evidence to contest the dominant storylines. The counter-narratives demonstrate:

1. Dominant narratives of resilience eclipsed the actual vulnerability of marginalised groups.
2. Relocation and reorganisation of living spaces that characterised the notions of developed and safer Kutch added to people's vulnerabilities by reinstating struggle over resources, disrupting social networks, and creating a financial burden.
3. The risk-sharing mechanisms and modern infrastructure added to the perceptions of resilience and safety. However, they were unsustainable and have exposed people to future disaster risks.
4. The industrialisation that showcased economic revival of Kutch has contributed to the vulnerability of marginalised groups by impacting the environment and local livelihoods. Also, the industry has created social vulnerabilities as observed through conflicts between migrants and locals.

Counter-narratives reveal that in the dominant narratives of resilience, development, modernisation, and safer Kutch, experiences of several vulnerable groups were overlooked. The DRR programmes were limited in addressing social vulnerabilities. In addition, the storylines of their success masked these actual vulnerabilities furthering people towards disaster risks.

I have examined these narratives (and counter-narratives) in relation to the disaster's memory. At the community level, there are fewer memorials, and people claim to have forgotten the quake. The example of Kutchi textile printing and embroidery shows people's

attempt to forget the disaster actively. The narratives depicted through textiles present people's disaster experiences, and their imaginations of the place, past, and hope for the future. Despite such attempts, the memories are embedded in daily conversations, songs, habits, and personal stories. They are further manifested through memory sites (e.g., religious shrine and communal graves) that have become part of everyday life. The sites are crucial in sustaining social networks, invoking stories, and learning through their emotional significance, proximity to communities, and embeddedness in routine life. These are essential aspects of addressing disaster risks. The sites show that memories of the earthquake remain contested for some while others embrace the responses to the quake (e.g., new housing). Nevertheless, the narratives reflect the people's personal experiences, and they are mediated at the community level.

The analysis of state memorials – *Smriti Van* and *Baal Veer Bhoomi* – against the backdrop of community mediated memory sites indicates that official memorials attempt to reinstate the narratives of resilience, development, and safer Kutch. An in-depth examination of their components shows the symbolic gestures of "representing and including" Kutchi people in the memorial process and attempts of forgetting the earthquake victims as "victims" but remembering them as "martyrs." The storylines presented by official memorials are difficult to contest, and they offer little space for negotiation.

The findings suggest that glorifying the intervention efforts without addressing the root causes of risk and vulnerabilities adds to a false sense of resilience and prove counter-productive to the efforts of the DRR. In the process of fixing memories and dominant narratives, they silence counter-narratives and further the conditions of vulnerability.

Machhu Flood (1979)

Machhu flood was caused by a dam failure in Morbi (Gujarat, India). Due to its controversial nature, the disaster lacks institutional memory and is a highly under-researched case. A prevalent perception suggests that people do not remember the deluge anymore. People put forward five fundamental causes of fading flood memories – lack of physical memorials, commemorative walk losing popularity, eroding oral traditions, a massive influx of outsiders, and immorality.

The social and cultural landscape of Morbi changed drastically after the flood, and the city transformed from a heritage town to an industrial one. People associate the loss of heritage with the erosion of identity, loss of sense of place, depleting social cohesion, and forgetting the flood. Findings suggest that memories have survived through myths and moral tales linked with the flood. They are used to come to terms with the disaster and risks related to the dam. Furthermore, these memories and attached deep-rooted anxieties re-emerge in different forms such as videos, pictures, and rumours during monsoons.

I present the case of the 2017 flood during which the rumours of dam break started circulating in Morbi. It created widespread panic and chaotic evacuation from the city. The analysis contributes a new outlook towards understanding people's risk perception through

myths, moral tales, and rumours. They provide a rich knowledge source into people's relationship to the place and events in the past. Sustaining them horizontally (between governmental institutions, (social) media, and communities) through two-way communication is critical. In contrast to a widely held opinion in disaster management circles that rumours are agents of chaos, my analysis stresses its utility as a point of intervention.

Building on the premise of sustaining flood memories, rumours can then be used to address misconceptions regarding flood and dam related risks and build trust with the people. Effectiveness of general flood awareness programmes is debatable. Such initiatives often assume that people are passive consumers of information. Research shows that people actively engage with knowledge production through social (media), articles, movies, and several such forms. The governmental institutions need to recognise this engagement and utilise it for improving communication.

Research Contribution

This thesis highlights the contradictory, unintended, contending effects of narratives circulating after disasters as vital to any effort to develop risk reduction. It calls for a sophisticated understanding of remembering and forgetting, the circuits within which they are relayed, and for policy attention to these effects.

1. *Acknowledgement of counter-narratives for examining vulnerability:* Counter-narratives offer a more nuanced understanding of people's vulnerabilities, which are eclipsed by dominant narratives of successful DRR. The analysis of counter-narratives reveals deep-rooted factors contributing to everyday vulnerabilities. How narratives and counter-narratives are constructed and experienced provides insights through which DRR programmes can be strengthened. Overlooking the counter-narratives runs the risk of reinstating the pre-disaster vulnerabilities and creating new vulnerabilities.
2. *Role of memory sites and storylines in remembering and forgetting disasters:* There is a stark difference between the storylines of community mediated memory sites and official memorials. The memory sites provide a glimpse into people's disaster experience and ways of remembering and forgetting disasters. The official memorials offer little space for contested narratives. Fixing memories and narratives through official commemorations further conceal the actual vulnerabilities and prove counter-productive to the principle of DRR.
3. *Recognising rumours as a reflection of people's risk perception*: The research offers a new outlook to acknowledge myths, moral tales, and rumours as a reflection of people's risk perception. They can then be utilised as a point of intervention to address misconceptions regarding flood and dam related risks and build trust between people and governmental institutions.

In conclusion, disaster memories and narratives are continually making and un-making each other. Prominent narratives of disaster risk reduction set the tone for disaster discourse and how disasters are remembered. These narratives can create or expand the conditions of vulnerability furthering disaster risk. The processes of remembering and forgetting through the community's memory sites, official memorials, and storylines can profoundly impact people's risk perception, learning, social cohesion, and resilience. It is imperative to recognise the value of narratives, memories, and investigate them in relations with people's vulnerabilities, risk perceptions, and ways of learning to strengthen DRR frameworks.

Declaration

No portion of the work referred to in the thesis has been submitted to support an application for another degree or qualification of this or any other university or another institute of learning.

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I am deeply grateful to my parents and family in India. My father made me fall in love with stories and inspired me to read, write, and wonder. I am thankful to my loving and caring family for believing in me and letting me explore the world. Their constant love and support encouraged me to keep going. And Jenny, thank you for keeping me sane. I know it was not easy. But your presence helped me go through the darkest times.

Geographical and Historical Background

After India's independence in 1947, present-day Gujarat was divided into three provinces – mainland Gujarat (which was part of Bombay State), the peninsular region of Saurashtra, and the desert region Kutch. In the late 1950s, two separate movements – *Samyukta Maharashtra* (spearheaded by Marathi speaking people) and *Mahagujarat* (by Gujarati speaking community), demanded independent States on linguistic basis. After prolonged agitations by the people, the Union of India passed Bombay Reorganisation Act, 1960, which led to the creation of Maharashtra (for Marathi speaking) and Gujarat (for Gujarati speaking) from the bilingual Bombay State (Ibrahim 2012, 66). Saurashtra and Kutch were united with mainland Gujarat to form a new Gujarat State (Sud 2007, 610).

Gujarat is in the westernmost part of India situated between the International border with Pakistan in the North-west, the Arabian Sea in west and South-west, and the States of Rajasthan, Madhya Pradesh and Maharashtra in North, East, and South, respectively (Figure 1). Among all the coastal States in India, Gujarat has the longest coastline, which runs for 1600 kilometres. Gujarat's geography has deeply influenced its commercial activities. Its proximity to the Arabian Sea gave access to the trade routes to the middle east, Africa, Europe, and East Asian countries (Varadarajan 2011, xiii). As a result, Gujarat has been at the forefront of trade and commerce since olden times (Ibrahim 2007, 3446). Its geographical location and historical connections also played a crucial role in promoting Gujarati diaspora worldwide.

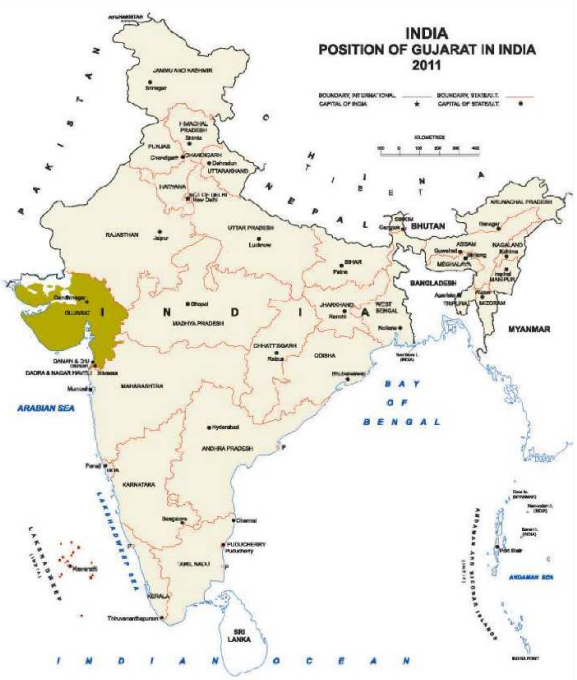

Figure 1: Position of Gujarat in India. Source: Census of India 2011.

Gujarat is one of India's most economically developed States due to its industries, trade, and natural resources. Its industries continue to propel it as one of the leading contributors to India's industrial output (16.82 per cent) and the national GDP (7.7 per cent); accounting for more than 20 per cent in aggregate exports (Government of Gujarat 2019, ix). Its industries and businesses also attract people from all over India for livelihood opportunities. The rapidly changing demographic patterns and urbanisation attest to this fact. As per the 2011 census data, the population of Gujarat is over sixty million. Over thirty-four million is the rural population, and over twenty-five million is the urban population (Census of India 2011). Gujarat is 42.6 per cent urbanised, which grew almost 36 per cent in one decade from 2001 to 2011. In addition to rapid urbanisation and industrialisation, Gujarat's investor-friendly approach has popularised it as the "Gujarat model" of governance.

The administrative capital of Gujarat is Gandhinagar and Ahmedabad is considered the economic centre of the State. Other major urban agglomerations such as Surat, Vadodara, Rajkot, and Jamnagar are regarded as cities of economic, cultural, and political significance. More recently, Bhuj city (Kutch district) has received special recognition from the government and corporate investors as a suitable site for industries and tourism (See GIDB 2005a; GIDB 2005b).

Brief Hazard Profile of Gujarat

Gujarat's geography (long coastline, active fault lines, and riverine systems) make it precarious to several environmental (mostly hydrological and seismic) hazards. An extensive study *Hazard Risk Vulnerability Atlas* (HRVA) commissioned and published by Gujarat government in 2005 enumerates six hazards – earthquake, tsunami, flood, cyclone, drought, and chemical and industrial hazards – affecting Gujarat. Some of the major events in the past two centuries are listed below (Table 1).

Table 1: Major (recorded) "Natural Hazards" in Gujarat since 1819

Hazard	**Years**
Cyclones	1850, 1881, 1893, 1896, 1897, 1903, 1917, 1920, 1933, 1947, 1948, 1961, 1964, 1975, 1976, 1978, 1981, 1982, 1983, 1990, 1993, 1996, 1998, 1999
Drought/ Heat Waves	1985, 1986, 1987, 1998, 1999, 2000, 2001, 2002
Floods	1980, 1989, 1991, 1993, 1994, 1996, 1997, 1998, 2003, 2004, 2005, 2006, **2013**, **2017**
Earthquake	1819, 1845, 1847, 1848, 1864, 1903, 1938, 1956, 2001

Source: Government of Gujarat 2007 cited in Thiruppugazh 2007, 37 (emphasised - added by author)

Although infrequent compared to other hazards, the quakes have threatened the lives, built environment, and economic development in Gujarat (Vatsa 2002). It is commonly accepted

that the earthquake of 1819 was the first officially recorded seismic event in Gujarat. With this earthquake's study, British seismologist Alexander Burns laid the foundation of seismic studies in India (Roy 2012). The quake was a watershed moment as the famous *Allah Bund* elevation emerged, and the course of Indus river changed forever changing the geological and geographical makeup of the Kutch region (Mehta 2001, 2932). Since then, geologists have extensively studied the Allah Bund fault (See Thakkar et al. 2012), and people have kept its memory alive in stories and way of life (e.g., traditional mud houses).

Today, the Bureau of Indian Standards (BIS) categorises the Indian sub-continent under four seismic zones ranging from zone II (low damage risk) to zone V (very high damage risk). The zones I and II were merged in the revision of seismic zones in 2000 (Vatsa 2002, 1504). According to Building Materials & Technology Promotion Council (BMTPC), Ministry of Housing & Urban Affairs, Gujarat falls under seismic zones III (67.3 per cent), IV (13.2 per cent) and V (18.6 per cent) (UNDP 2007, 2) (Figure 2). The Kutch region falls under zone V placing it at exceptionally high risk (seismic intensity IX and above on the Modified Mercalli Intensity (MMI) scale)). The epicentre of the 2001 Bhuj earthquake (one of the two case studies in this project) was in Kutch. Kutch is distinctive in terms of its environmental features and complexity of socio-cultural composition. It calls for a brief note on the region.

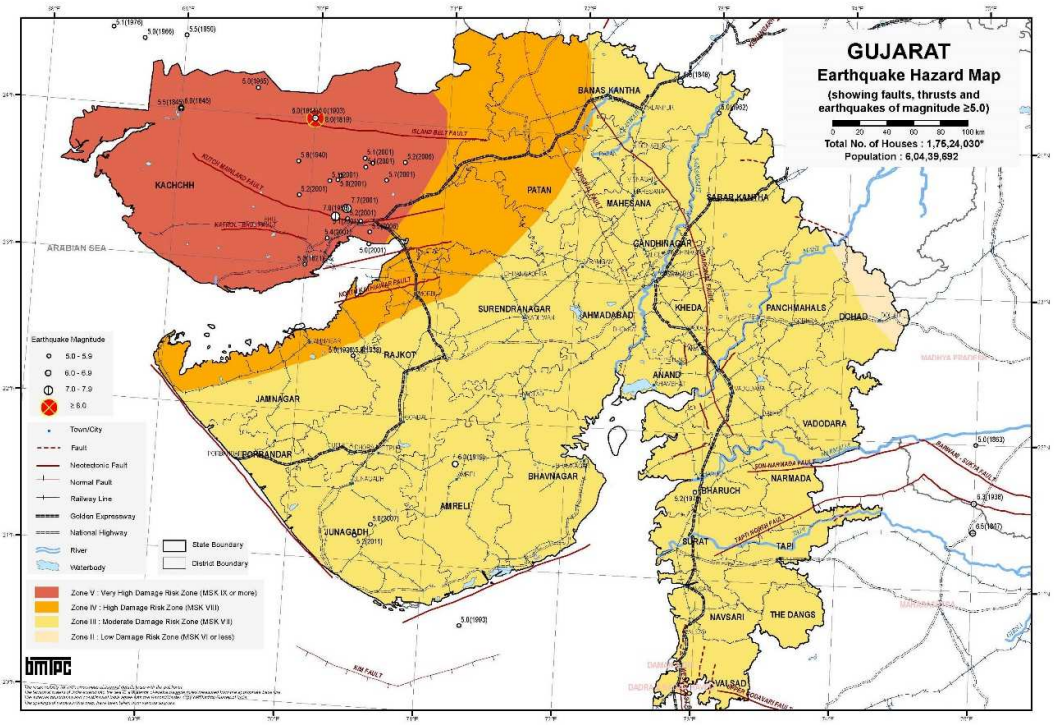

Figure 2: Gujarat Earthquake Hazard Map. Source: BMTPC 2019.

Kutch is in Gujarat's arid tract with tropical monsoon and semi-arid climate, which receives a scanty annual rainfall of 250-350 mm leading to recurrent droughts. Fifty-one per cent of Kutch district is "high saline unproductive desert" known as Great Rann of Kutch and Little

Rann of Kutch (Census of India 2011). The Rann is a salt-encrusted flat wasteland. It rises only a few metres about sea level. As per the Greek records of the Indian trade, the inland terrain of the Great Rann of Kutch had access to the navigable sea. However, continuous movement of the Indian continental plate and the Sind-Baluchistan plate resulted in repeated earthquakes affecting the topography of Kutch (Roy 2012, 117-118).

The extensive low-lying tract in Kutch is known as Banni grassland. The unchecked spread of fuelwood species *Prosopis Juliflora*, which the state introduced to control salinity ingress in Kutch has destroyed Banni grassland (Ramachandran and Saihjee 2003, 4). The Rann and Banni have profoundly influenced the way of life in Kutch. For instance, communities such as “Rabaris” and “Bharwads” (engaged in cattle breeding and animal husbandry) continuously practice nomadism and move cyclically or periodically (Ramachandran and Saihjee 2003, 5; Sengar 2014, 52). Predominantly Muslim “Maaldhari” community of Banni region are cattle-herders (Shrujan n.d). The upper caste “Darbars” are engaged in agriculture and raising cattle, while marginalised “Dalits” are involved in various kinds of textile embroidery, glasswork, printing, and dyeing work (Ramachandran and Saihjee 2003, 5). These references are particularly relevant for chapters three and four in this project.

Returning to Gujarat's hazard profile, the State has enjoyed an abundance of water through four main rivers – Sabarmati, Mahi, Narmada, and Tapi (also called Tapti). However, the distribution of rainfall over Gujarat varies significantly from approximately 300 mm of annual average rainfall in parts of Kutch to over 1500 mm in southern parts of the State. In recent decades, Gujarat has experienced several devastating floods. Although government and academic institutions in the State conduct a substantial amount of research on floods, the administration grapples with flood management challenges almost every year. Moderate to severe flooding in urban as well as rural areas has become a new normal.

At the same time, the regions of Kutch and Saurashtra are mostly arid and dependent on a network of dams. These dams have smaller storage capacity in comparison to the river's large catchment areas. Although this design choice ensures water-filled dams throughout the year, the dams tend to overflow and cause floods in high rainfall season (NDMA 2017, 9). It was observed in 2017 when excessive rainfall and overflowing dams flooded Morbi district in Saurashtra region. It received national media attention and scrutiny. Morbi is of prime importance as it was devastated in the 1979 Machhu flood (my second case study) (Figure 3).

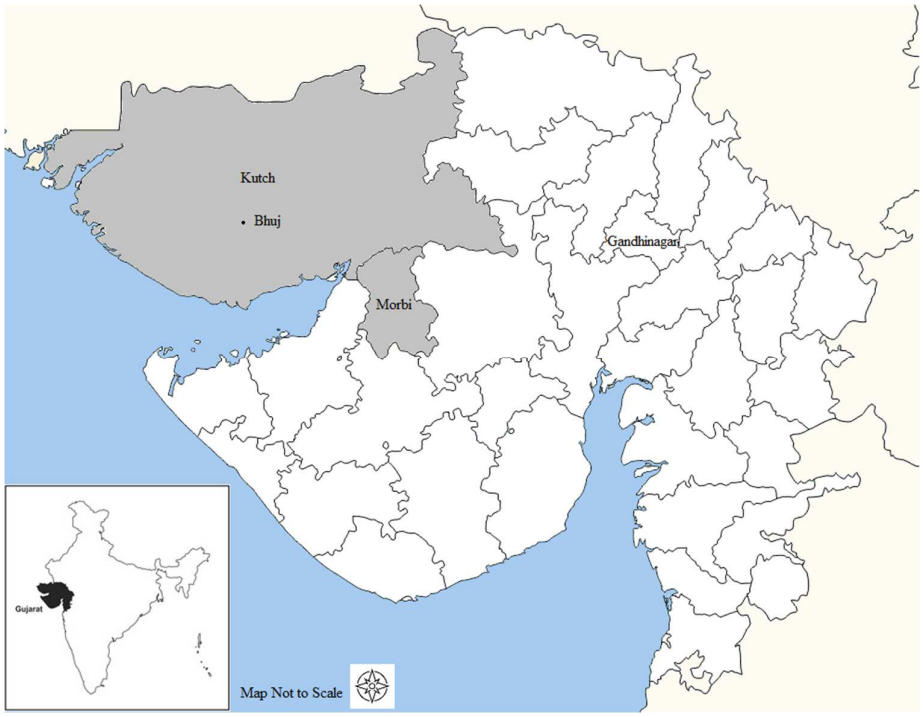

Figure 3: Kutch and Morbi districts in Gujarat, India.

In addition to disasters, several events in Gujarat's history have shaped its social, economic, political, and cultural landscape. The key events vital in this project are listed below (Table 2).

Table 2: Key Events in the History of Gujarat

Dates/ Years	**Important Events**
1819 (16 June)	Allah Bund earthquake in Kutch region
1947 (15 August)	India's Independence; Partition of British ruled India into India and Pakistan
1956 (21 July)	Anjar Earthquake Mw 6.1, 115 people killed, and hundreds injured. 1350 buildings destroyed at Anjar alone
1960 (1 May)	Foundation of Gujarat State. It separated from Maharashtra on linguistic basis.
1979 (11 August)	Machhu dam failure leading to floods in Morbi and downstream villages
1991 (July)	Trade reforms in India. More open economy for foreign competition and foreign direct investment.
1999 (29 October)	Super Cyclone in Orissa prompted institutional reforms for disaster management at the national level

1999-2001	A severe drought in Kutch district
2001 (26 January)	Bhuj earthquake killed 13805 people and destroyed infrastructure worth billions of rupees. It led to institutional reforms for disaster management in Gujarat.
2002 (September)	Formulation of Gujarat State Disaster Management Policy
2003 (13 May)	Formulation of the Gujarat State Disaster Management Act. Gujarat became the first State in India to provide a legal and regulatory framework for disaster management.
2005 (23 December)	Formulation of the National Disaster Management Act. It included envisaged creation of the National Disaster Management Authority (NDMA). The Prime Minister of India chaired the national authority.
2009 (22 October)	Formulation of National Disaster Management Policy
2017 (23-24 July)	Flood in Morbi, rumours of dam failure started circulating on social media

Linguistic Variations and Translation

Several non-English words belonging to Gujarati, Kutchi, and Hindi languages and dialects frequently appear in the text. I have tried to keep them to a minimum but used them if a proper translation was unavailable or misleading. The terms such as *Taluka* and *Panchayat* referring to local governance systems are described in the footnotes. The State government in Gujarat functions in English and on a standardised form of Gujarati. Majority of people in Kutch speak Kutchi, which is officially not considered a language but a dialect of Sindhi language (LSI 1919, 184; Ibrahim 2012, 70). Due to Kutchi speakers' proximity with the Gujarati speakers, Kutchi is mostly mixed with Gujarati.

Kutch is also called Cutch, Kachchh, or Kachchha (in Sanskrit meaning sea-coast land) (LSI 1919, 183) in different literature sources. Many believe that its name is derived from the Hindi word *Kachwa* meaning tortoise due to its shape and topography. As per the current usage in official documents and for consistency, I have used 'Kutch' throughout the text. Some of the words listed below (Table 3) are common in daily usage and appear in the text.

Table 3: Non-English words and their meanings

Non-English Words	**Translation**
aapda, aafat	disaster, calamity
bandhers	Temporary fishing hamlets
bhai	brother

bhoomikamp, bhookamp, dhartikamp	earthquake
bhunga	traditional mud huts in Kutch
hunarat	flood
gram sabha	village assembly or council
maldharis	one who owns livestock
rabaris	a pastoral community in Kutch, primarily camel herders
sahay	help, aid, assistance
samiti	society or committee
sanat, patta	proof of residency, ownership documents
taseer	Influence, impression, effect
vaar	a unit of measurement equivalent to nine square feet

Chapter 1 – Disasters, Memories, and Narratives

1.1 Aim and Research Question

> My neighbour's son died [in 2001 earthquake]. Since that day, he distributes sweets to kids on 26th January every year. His son was in fourth or fifth class when he died. He still calculates that his son would have been twenty-something years old now and ready for marriage. We do not have any memorials in the community, but we close the market on the 26th of January every year. The earthquake also acts as a time-mark. If two guys are talking about their friend's marriage…one would say "he got married two years before the earthquake" not realising that earthquake acts as a time divide in the events of their life. (interview 9)

> The quake completely changed my life's course. My six-year-old son died on the 26th of January. It was his birthday. Then I started assisting NGOs in the reconstruction phase and never stopped. Now I work for an NGO and conduct rural training programmes. The [overall living] conditions are better now but not so great as outsiders think. We struggled a lot to make things better and still struggling. People just know the stories of achievements and think that is all. But that is not entirely true. There is so much beyond those stories. (interview 15)

These excerpts from my interviews in Kutch reveal two critical points. Firstly, people employ different ways of remembering and forgetting disasters. Even in the absence of memorials and commemorations, they follow rituals and habits at a personal level. Disaster memories can be embedded in daily routines and conversations without being apparent to people. Secondly, there is a deep connection between stories and memories, and they profoundly influence our worldview and perceptions. The respondent's remarks "people just know the stories of achievements and think that is all" made me wonder about my perceptions of disaster reconstruction in Gujarat. As a government officer in the Gujarat government before starting my doctoral project, I participated in State and National forums presenting the "successful reconstruction" of Gujarat after the Bhuj earthquake (2001). The narratives that relayed among government departments, NGOs, and experts shaped my perceptions and disaster's institutional memory simultaneously forgetting lesser-known stories of struggle and limitations. I realised that stories play a crucial part in remembering and forgetting disasters and shaping our perceptions and learning.

In view of this, my project aims to understand the making and unmaking of disaster narratives, and processes of remembering and forgetting and their role in influencing risk perceptions and learning. To achieve this aim, I ask:

> *How disaster memories and narratives influence risk perceptions and learning?*

My background in disaster management and experience in Gujarat government significantly shaped the project. Although situated in geography, the project draws from anthropology, history, disaster studies, and memory studies. It looks beyond the immediate aftermath of disasters and media sensationalism. It is a sincere attempt to understand the processes of narrative construction and disaster memorialisation to inform policies and decision-making. A deeper understanding of people's risk perceptions and learning from disasters would help examine their vulnerability and resilience.

1.2 Literature

A large amount of research has been conducted on disaster-related topics in the last few decades (See Cuny 1983; Cutter 2006; Hewitt 1983; Kates 1976; Pelling 2003; Quarantelli 1998; White, Kates and Burton 2001; Wisner et al. 2004). UN promoted frameworks and agendas (e.g., HFA (Hyogo Framework for Action), IDNDR (International Decade of Natural Disaster Reduction)) have generated substantial academic curiosity into the key concepts and their definitions (See Kelman 2018; Manyena 2009; Mayunga 2007). Although we have a better understanding and knowledge of hazards and disasters, scholars have noted that knowledge does not always produce desired results. They ask whether our knowledge and understanding of hazards and disasters are still inadequate or are we unable to effectively apply that knowledge (White, Kates and Burton 2001, 81).

Research shows that despite substantial knowledge of disasters, public institutions and decision-makers often fail to address people's deep-rooted vulnerabilities (Wisner et al. 2004, 55). Lessons learned in disaster's aftermath are often not incorporated in overall governance mechanisms (O'Brien et al. 2010, 499). The programmes and policies remain distant from people's local knowledge, needs, and aspirations. Their narrow focus driven by INGOs and donors neglects everyday experiences of the public (Gibson and Wisner 2016, 666). As a result, the intervention strategies prove ineffective or even counter-productive, and the people continue to remain at risk (Barrios 2017). As evident, the challenge lies in translating knowledge into actionable strategies (Gaillard and Mercer 2012).

Researchers have developed Disaster Risk Reduction (DRR) frameworks to translate knowledge into actionable strategies, which identify widespread obstacles and offer actionable plans (See Gaillard and Mercer 2012; Wisner et al. 2004). The DRR frameworks provide a systematic approach to "development and application of policies, strategies and practices to reduce vulnerabilities and disaster risks throughout society" (Twigg 2015, 6). Wisner, Gaillard and Kelman (2012) refer to it as "the process of understanding, analysing, and managing the causes and origins of disasters and the risks that accumulate and lead to disasters" (2012, 1). Gaillard and Mercer (2012) put forward a systematic approach to achieve DRR by addressing the most pressing and widespread challenges. Their roadmap to DRR recommends integrating – knowledge (local and scientific) for risk assessment, stakeholders (outside and inside) for dialogue, and actions (top-down and bottom-up) (Gaillard and Mercer 2012, 3).

These frameworks have been challenged and refined over the years, and undoubtedly, they offer practical priority-based action points. However, DRR frameworks often assume that if all the conditions are met, they will lead to desired results. In this project, I challenge this assumption and suggest that DRR outcomes are experienced differently by different groups of people, and the perceptions (caused by narratives) of successful DRR add to people's vulnerabilities. To develop more effective risk reduction mechanisms, I argue for an approach to look at disasters through memories and narratives. It is not explored how the memory of disasters influence narratives and vice versa. There is a need to examine memories and narratives, and their role in influencing vulnerabilities, risk perceptions, and learning. An emphasis on narratives, in context, will reveal the work that they perform in making and un-making policies for DRR.

Narratives

Narratives are systematic representations of events and experiences connected temporally, which offer meaning and interpretations (Bendix 1990, 339; Cronon 1992; Kramp 2004; Ullberg 2013; Wiles, Rosenberg, and Kearns 2005, 90). In their ability to connect with the past, present, and vision of the future, they are deeply linked with memories (Kramp 2004, 107), and help make sense of the world (Chappell and Chappell 2015; Wilson 2007, 27). It is essential to know who constructs, promotes, and circulates a narrative and opposes that narrative. A narrative of triumph and advancement for some can be a story of victimisation and marginalisation for others (Said 2000, 177). That is why my research focusses on narratives in relation to the actors who constructed, shaped, and mediated them. Narratives are popularly used in research as a rich source of data and interpretations in support of structured assessments (e.g., the case study of Metro Manila cited in Gibson and Wisner 2016, 671). They add value to the collected data and provide essential details of people's experiences.

In this project, I refer to narratives as dominant storylines, which relayed in the aftermath of disasters and were mediated through media, state, and people's experiences. Scholars refer to such stories as "master narratives" (Andersson and Cocq 2016; Bamberg 2005). They provide a broader outlook on how disasters are remembered and represented. On the other hand, counter-narratives offer an alternative view from the perspective of marginalised groups, which are often suppressed in inequitable power dynamics (Chappell and Chappell 2015, 1). The complex interplay of narratives and counter-narratives provides an opportunity to examine their role in people's vulnerabilities, risk perceptions, and learning.

Vulnerability Thinking

There are three distinct themes in vulnerability research. The "hazard paradigm" or "risk/ hazard exposure" (Kates 1976; Kates 1971) dominated in the 1970s. It primarily focuses on the origin and conditions of biophysical and technological hazards (Cutter 1996). The "vulnerability approach" (Blaikie et al. 1994; Comfort et al. 1999; Hewitt 1983, 1997;

Wisner et al. 2004) changed focus from biophysical and physical aspects of hazards to underlying and deep-rooted social, economic, historical, and political factors and processes, which give rise to disaster risk. It is based in political ecology framework and focusses on risks in everyday life, lack of access to resources, and power structures (Hewitt 1983; Wisner et al. 2004). The "hazard of place" approach is centred in geography and combines the first two orientations of vulnerability research (Cutter 1996, 530-33). It analyses the interaction of biophysical and social vulnerability in context to a place (Cutter, Mitchell, and Scott 2000; Cutter, Boruff, and Shirley 2003, 243).

The "hazard of place" approach is effective but confines vulnerability to a 'place' and does not acknowledge the origin and distribution of factors leading to vulnerability (Etzold and Sakdapolrak 2016). Also, the adaptive capacity or resilience of communities may originate or situate outside the spatial confines of the zone (ibid). In this context, Etzold and Sakdapolrak (2016) advocated utilising polymorphy of socio-spatiality – place, scale, network, and territory (Jessop, Brenner, and Jones 2008) for vulnerability analysis.

In this project, I examine people's vulnerability using the polymorphy of socio-spatiality. That is, I analyse the factors such as urbanisation, environmental degradation, inequality, inappropriate governance structures, socio-economic disparities etc. (Adger and Brooks 2003; Pelling 2003, 7; Wisner et al. 2004) contributing to vulnerability in terms of place, scale, network, and territory. I am interested in examining the role of narratives in contributing to vulnerability conditions, which would help strengthen DRR frameworks.

Memories

Memory was considered a domain of psychology dominated by psychoanalysts. Maurice Halbwachs showed that it is a function of social interactions and communication at collective level calling it "collective memory" (Halbwachs 1941, 1980 cited in Olick and Robbins 1998) although the term "collective memory" was coined by Hugo Van Hofmannsthal in 1902 (Olick and Robbins 1998). Over the years, memory has been studied in geography, history, sociology, and literature, among others (Roediger and Wertsch 2008). Consequently, scholars have developed and opted for different terms – social memory (Colten and Sumpter 2009; Fentress and Wickham 1992), cultural and communicative memory (Assmann 2008, 2011), official, vernacular, public, family memory (Olick and Robbins 1998), travelling memory (Erll 2011) and many others to emphasise different aspects of memory.

In this project, I draw upon many of these concepts and refer to memory in terms of social interactions, communication, transmission, and official commemorations. Pierre Nora's (1989, 1996) concept of *Lieux de Memoire* is particularly relevant as it explains "sites of memory" not necessarily as geographic places. They may be material (represented through art, architecture, music, or any other form) or non-material (such as celebrations and rituals) and loaded with symbolic and emotional connotations (Hoelscher and Alderman 2004, 349; Nora 1989; Nora 1996, xvii).

The attention to memories is critical because it plays a vital role in learning. Colten and Sumpter (2009) suggest that "hazard management plans must not only be future-oriented, but also they must deliberately and systematically incorporate lessons from the past" (2009, 362). They argue that underestimating the value of past experiences leads to erosion of memory and lessons learned. Others have also advocated sustaining memories for learning (Garde-Hansen et al. 2017; McEwen et al. 2016). In the interplay of remembering and forgetting (Connerton 2008), the project sheds light on the significance of sustaining memories for learning and DRR policy intervention.

Approach

I utilise the political ecology framework because it is historically situated, place-based, and multi-scaler in approach (Mostafanezhad et al. 2016, 2). It is useful in understanding relationships between political, economic, social, and environmental factors. This branch of enquiry politicises environmental issues by integrating ecology, social sciences, and political economy (Peet and Watts 1996, 6). It contributes to "deconstructing and challenging the dominant discourses that frame prevailing understandings of environmental risk" (Pelling 2003, 10). For instance, scholars drawing on political ecological perspectives have challenged the assumption that disasters are extraordinary events disrupting well-functioning society. In fact, the "normal" conditions of everyday life contribute to vulnerability and disaster risk (Hewitt 1983; Wisner et al. 2004; Ullberg 2013). Since I analyse everyday life challenges that give rise to counter-narratives, the framework is particularly relevant in this project. Also, it helps in analysing relationships across different stakeholders – a significant aspect discussed in chapter two. I must reiterate that I focus on the narratives rather than first and foremost on the measure of environmental justice or inequality.

Through this approach, the thesis contributes to a deeper understanding of post-disaster narratives and their role in disaster risk reduction. It shows that an interplay of narratives and memories can profoundly influence our perceptions and impact learning from disasters. It also sheds light on how memories are materialised in different forms and how they can be utilised for intervention. This knowledge would contribute to decision-making processes and strengthening DRR frameworks.

1.3 Case Study Approach

The three research designs—qualitative, quantitative, and mixed methods—representing different ends on a continuum (Newman and Benz 1998 cited in Creswell 2009) offer different but overlapping tools of conducting research. I employed the qualitative research design due to flexibility in its approach. It is most relevant in addressing a social or human problem, involving emerging questions and procedures, and building themes (Creswell 2009).

I employed a case study approach to investigate two disaster cases. The approach is suitable in answering "how" and "why" research questions (Yin 2003, 1&7), and focus on "contemporary (as opposed to entirely historical) phenomenon" (Yin 2018, 2). The strength of case study approach lies in analysing data from multiple sources of information such as documents, archives, interviews, direct and participant observation, and physical artefacts (Yin 2003, 8; Yin 2018, 12). It is instrumental in explaining a contemporary phenomenon within a real-world context when the boundaries between phenomenon and the context are blurred (Yin 2018, 15). The approach is also favoured as it demonstrates different perspectives on an issue by selecting multiple cases (Creswell 2007, 74). Although case study approach is criticised for diluting the analysis of a particular subject by selecting numerous cases (Creswell 2007, 76), it can be avoided by establishing a strong rationale for each case (ibid).

In my research, I have selected two cases because they offer opportunities to investigate - (1) role of narratives/storylines in understanding risk perceptions and learning, (2) different ways of remembering and forgetting, and (3) memories and narratives in terms of DRR. These cases – Bhuj earthquake (Kutch) and Machhu flood (Morbi) in Gujarat – are not merely "events" but "disasters with biographies." They are collections of narratives and memorials for remembering (and forgetting). So, I treat them as "events in narratives", and my case studies are case studies of narratives assembled around the events.

Bhuj Earthquake (2001)[1]

On 26 January 2001, an earthquake of magnitude 6.9 on the Richter scale (7.7 Mw as per the USGS) hit Gujarat, and the epicentre was at Lodai village in Bhuj (Rawal and Nair 2001). The massive earthquake was one of the worst seismic events in the last 180 years. It affected about 7600 villages and 14 towns (Thiruppugazh 2014). The quake damaged around 1.2 million houses out of which over 220,000 completely collapsed (GSDMA 2008). It reportedly killed 13,805 people, and Kutch suffered the highest death toll of 12,221 (Government of Gujarat 2007; Hausler 2004). The quake severely devastated four major towns of Kutch – Anjar, Bhuj, Bhachau and Rapar (Mishra 2004). The earthquake also affected public infrastructures such as 1500 hospitals (including health clinics) and schools (50,000 school rooms); and economic and livelihood activities (10,000 small and medium scale industries and more than 50,000 artisans) (Thiruppugazh 2014, 24). More than 70 multi-storey buildings in megacity Ahmedabad collapsed (ibid). Given the scale and intensity of the disaster and widespread destruction it caused, it attracted international media's attention, which eventually helped generate funds for rebuilding Kutch.

It is inevitable to refer to Bhuj earthquake when explaining the disaster management policy frameworks in India. The disaster inspired institutional reforms at the State and national level (I return to this point in chapter two and discuss it in detail), leading to establishing the Institute of Seismological Research (ISR) in Gandhinagar. The earthquake also encouraged an enormous amount of scientific literature on Gujarat's seismicity. The State

[1] also known as the Kutch earthquake and Gujarat earthquake

government proactively commissioned hazard and risk studies such as HRVA, Hazard Early Warning and Emergency Communication, Seismic Microzonation, Flood and Seismic Vulnerability, Multi-Hazard Risk Assessment, and Flood Mitigation.[2] These projects intended to contribute to better spatial planning and public policy. In contemporary disaster discourse, the quake is exceedingly celebrated and researched case, which is considered a benchmark that changed the field of disaster management in India (Thiruppugazh 2007, 26; Thiruppugazh 2014; UNDP 2007, 2).

However, a few scholars have looked beyond the technocentric approach of state-run projects and scientific studies and criticised them for overlooking graver issues (Rawal and Nair 2001; Pelling 2003; Sanderson, Sharma, and Anderson 2012). They have explored housing reconstruction approaches (Barenstein 2006), planning and policy (Rawal and Nair 2001), urban and industrial growth (Simpson 2007), and overall development (Mehta 2011) after the earthquake, and pointed out limitations of Gujarat's reconstruction programme. Anthropologist Edward Simpson in his book *The Political Biography of an Earthquake* (2014) has explored the reconstruction of Kutch against the backdrop of political aspirations, religious fundamentalism, industrial capitalism, and with the instruments of remembering and forgetting well to the fore in his analysis. His work has been critiqued by Ibrahim (2014) as occasionally lacking critical depth because he attempts to capture too wide a range of topics and presents anecdotes as evidence. To resolve this problem, I have adopted a more systematic and rigorous approach, as discussed in this chapter's methodology section.

In this project, I explore the Bhuj earthquake through dominant narratives circulated in media, governmental and non-governmental publications, and eventually seeped into everyday discourse. These narratives (and counter-narratives) and entangled memories offer a more in-depth understanding of people's mediation of disaster risks, perceptions, and learning.

Machhu Flood (1979)[3]

After heavy rainfall for days, Machhu-II dam collapsed on 11 August 1979, and the resulting flood engulfed the historic city of Morbi and nearby villages. The flood wave reached a height of 8-10 m (Dhar et al. 1981, 71) completely submerging the low-lying areas. The flood was of such cataclysmic proportions that there is no proper account of fatalities. The figure ranges between 1800 and 25000 (Noorani 1984, 668; Sandesara and Wooten 2011) indicating the limited investigation conducted on this case. The Guinness Book of Records listed the event as the worst dam disaster (Sandesara and Wooten 2011). Huber et al. (2016) list Machhu-II dam failure as one of the three most catastrophic dam related disasters in terms of casualties. The flash flood caused irreparable damage to Morbi's infrastructure and livestock (Dhar et al. 1981, 72). The government sources attribute the flood to "meteorological conditions of exceptional rarity" (Government of

[2] Summary of these projects is available on http://gsdma.org/
[3] also called Morbi flood

Gujarat 1980, 6), but Sandesara and Wooten (2011) have debunked the theory of deluge as an "act of God."

The Machhu flood (1979) is a highly under-researched disaster. Although media widely reported it in the aftermath, it has not been an area of focus for academic research. Its controversial nature due to dam break prompted the State government to abandon the disaster's inquiry commission (Noorani 1984). The information related to it is not available in the public domain. As a result, it appears that the Machhu flood has been systematically forgotten from the institutional and collective memory of the people of Morbi. Utpal Sandesara and Tom Wooten's book *No One Had a Tongue to Speak* (2011) is the only detailed account of the disaster. Although the book illustrates Morbi's history and how the river Machhu is intertwined with people's lives, it falls short in connecting disaster memories and their impact on risk perception and learning.

In this project, I examine the Machhu flood's memory against the backdrop of Morbi's economic growth, changing demographic patterns, and rumours associated with recurring floods in recent years. Through a refined understanding of myths, moral tales, and rumours related to the flood, I reflect on people's risk perception, learning, and opportunities for DRR policy interventions.

1.4 Methodology

Driven by the idea of capturing everyday life experiences, I opted to conduct an intensive fieldwork spread to multiple locales and among a diversity of respondents. I began with a short pilot visit in 2016 to establish contacts, identify fieldwork sites, and test my theoretical assumptions. Sampson (2004) rightly points out that pilot work is highly under-discussed and under-utilised in qualitative research. I found it particularly useful because it helped me in identifying villages for data collection in Kutch. Since the 'field' was away, I conducted my fieldwork through multiple visits strategically positioned after a gap of a few months. I travelled to the 'field' five times and spent over eight months in Gujarat. During this time, I conducted forty-five in-depth interviews and five focus group discussions (FGDs). In addition to face-to-face interactions with the respondents, I stayed in touch with them through telephone calls, emails, and social media.

My data comprises of personal stories (collected through interviews and FGDs and includes personal communication, poems, and photographs), publications from governmental and non-governmental organisations (e.g., policy documents, project reports, project proposals, and census documents) and media archives (print and online editions of national daily newspapers, local Gujarati newspapers, local Gujarati news channels, and social media).

The data collection was guided by the idea to capture disaster memories and narratives mediated in everyday experience. For in-depth interviews, I utilised the qualitative interviewing strategy developed by the *Memories of Disasters* group based in Essen (See Rohland et al., 2014). The strategy, guided by broad themes (Table 1.1), attempts to generate a life story of participants focussing on an event. The themes are kept wide-

ranging so the researcher can utilise this framework in different contexts, but it runs the risk of imprecise and going off the topic. In that case, it is essential to define research interests and keywords for interview questions. After the pilot visit, I added and modified several keywords focussing on memories, narratives, vulnerabilities, risk perceptions, and learning. Based on these research interests, I developed key guiding questions for respondents in the villages and specific questions for NGO members and government officers (Annex I).

Table 1.1 Key Themes for Data Collection

Themes	**Research Interest/ Keywords**
Disaster Experience	Personal stories, course of events, emotional experience, strongest memory, estimation of losses
Networks	Social capital, institutional support, social cohesion, community resilience, political programmes
Consequences	Personal change, collective change, change in the geography of the place
Prevention	Fear of repetition, general measures, individual measures, learning process, local knowledge, adaptation, learning, risk transfer
Causation	Responsibility, blame (personal causation and cosmological concepts), blame, dependency, myths, morality, vulnerability
Actuality	Influence on everyday life, collective and institutionalised memory, emotional affection, collective memory
Quintessence	Life in Kutch/ Morbi, comfort of the place, remembering and forgetting, risk perception, tourism

(adapted from Interview guidelines developed by Memories of Disasters group, Rohland et al. 2014)

I collected data through in-depth interviews, focus group discussions, and participant observation based on these extensive themes. I utilised the purposeful sampling strategy to select respondents for data collection because it helps identify "information-rich cases" that offer a wealth of knowledge on the research question (Baxter and Eyles 1997, 513).

The semi-structured and unstructured interviews form the core of my data. The semi-structured interviews provide a framework and flexibility to the research process and help capture people's experiences (Patton 2002). Due to theme-based structure, the data collected through such interviews is manageable for coding and analysis. I conducted interviews with forty-five respondents (Annex II). Many of the respondents were interviewed multiple times over four years. Each interview lasted thirty to sixty minutes, but the conversations often continued after the interviews to understand the deep-rooted

challenges of everyday life. Eighteen interviews were audio-recorded after respondent's consent.

Focus and content of the questions varied depending on the participant and their experience of the disaster. For instance, the questions to government officers were focused on the institutional response, prevention and preparedness strategies, policy decisions, reconstruction and long-term recovery, and memory and learning of public institutions. They were also asked to reflect on the implementation of government schemes, conceptualisation, and construction of public memorials, and the role of different government agencies in the reconstruction process. Whereas the questions to the members of women's organisation explored women's role in decision-making after the disaster and the overall impact on their livelihood. The data's richness must be attributed to unstructured interviews and conversations that helped identify underlying power relationships.

Focus Group Discussion is effective in qualitative research when participants are hesitant to provide information (Creswell 2007, 133). It is often criticised because not all group members participate equally, and a few members dominate the discussion. To overcome this problem, I moderated the discussion and ensured participation by all group members. I conducted five focus group discussions — four in Kutch and one in Morbi—to obtain differing views on the topic of inquiry (Annex III).

According to Amit (2004, 2), participant observation is the only form of scholarly inquiry in which "relationships of intimacy and familiarity between research and subject are envisioned as a fundamental medium of investigation." The researcher can observe "lived experiences," which may not be communicated through language (ibid). Over eight months, I developed cordial relationships with respondents and could participate in their daily activities. I participated in several community gatherings, village-level meetings, religious processions, family gatherings, and awareness campaigns.

The data collected through interviews and discussions are substantiated with photographs. They are not presented as objective evidence of my arguments because photography ignores the "processes of both image making and interpretation" (Schwartz 1989, 120). Instead, the photographs are presented as a source of multiple meanings that can be derived from them. They serve to substantiate data analysis with visual representations especially to present certain places and artefacts that are difficult to imagine due to their indigeneity, such as *Bhunga* houses, Kutchi textile printing and embroidery, Rann of Kutch (salt desert), and flood watermarks. The photographs show rural landscapes, disaster-affected sites, reconstructed houses, memorials, and other essential features, which were highlighted in the narration of everyday life.

Selection of Fieldwork Sites in Kutch and Morbi

Initially, I envisioned to conduct the fieldwork in the cities of Morbi and Bhuj (Kutch) to access district government offices, NGO headquarters, and archival resources. However,

there were many sites in Kutch that were relevant to the project. That is why the fieldwork expanded to cover several villages of Bhuj, Bhachau and Anjar in Kutch district (Figure 1.1).

During the initial phase of my fieldwork, I visited villages suggested by local NGOs and government officers. Most of these villages are located along the state highway SH-42 and easily accessible. My first point of contact was in Bhachau, a town situated around eighty kilometres from Bhuj. The quake had flattened it entirely in 2001. With the assistance of an NGO working in Bhachau, I met community leaders in nearby villages – Dhamdka, Baniyari, Morgar and Kabrau. These villages were severely affected by the earthquake. The quake destroyed the vernacular housing structures and impacted the income and livelihood of the people in these villages.

I visited Dhamdka to learn about Ajrakh block-printing technique for textiles and changes in livelihood patterns after the earthquake. Baniyari is predominantly a Muslim community living on the edge of the salt desert in traditional mud houses called *Bhungas*. It was crucial to include Baniyari to understand the politics of exclusion in the reconstruction project. I became interested in Morgar because of community memorial sites in the village. The local NGO also had an excellent rapport with the villagers, which gave me access to their village committee meetings. The prior connections also helped because villagers were willing to share their stories and participate in my research. Kabrau offered a unique opportunity to learn about *in-situ* reconstruction and relocation of the village. Many villagers in Kabrau decided to relocate to a new site after the quake, while many others chose to stay put and reconstruct their houses in the old village. It helped in learning people's perspective on post-disaster relocation and community cohesion.

I selected these sites based on my personal experiences, the relevance of the sites for the project and accessibility through respondents. Initially, I avoided the city of Anjar because it was a centre of attention for responding agencies, political actors, and researchers due to the tragedy of children dying in the Republic Day parade. I was concerned that people of Anjar might experience "research fatigue." However, I selected Anjar primarily because of the state memorial *Baal Veer Bhoomi*, which has been a topic of controversy. Not yet constructed, I observed that the memorial's location became a subject of debate, which has not yet captured researchers' attention (see chapter five).

During my third field visit in early 2017, I decided to expand my project to Hodka (also called Hodko) village, which is at the core of the government's tourism initiative. It is close to the Rann of Kutch and boasts of establishing Bhunga resorts. Many of them are owned and run by the village committees. During my fourth and fifth field visits in late 2017 and middle 2018, I revisited Anjar and Hodka. I also included Adhoi and Vondh, which were relocated to new sites after the earthquake. Adhoi, on the one hand, is now divided into an old and new village, while relocated village of Vondh stands wholly abandoned. Both villages offered unique opportunities to learn about the adoption of villages for relocation, community participation in decision-making, and emerging vulnerabilities due to villages' spatial planning.

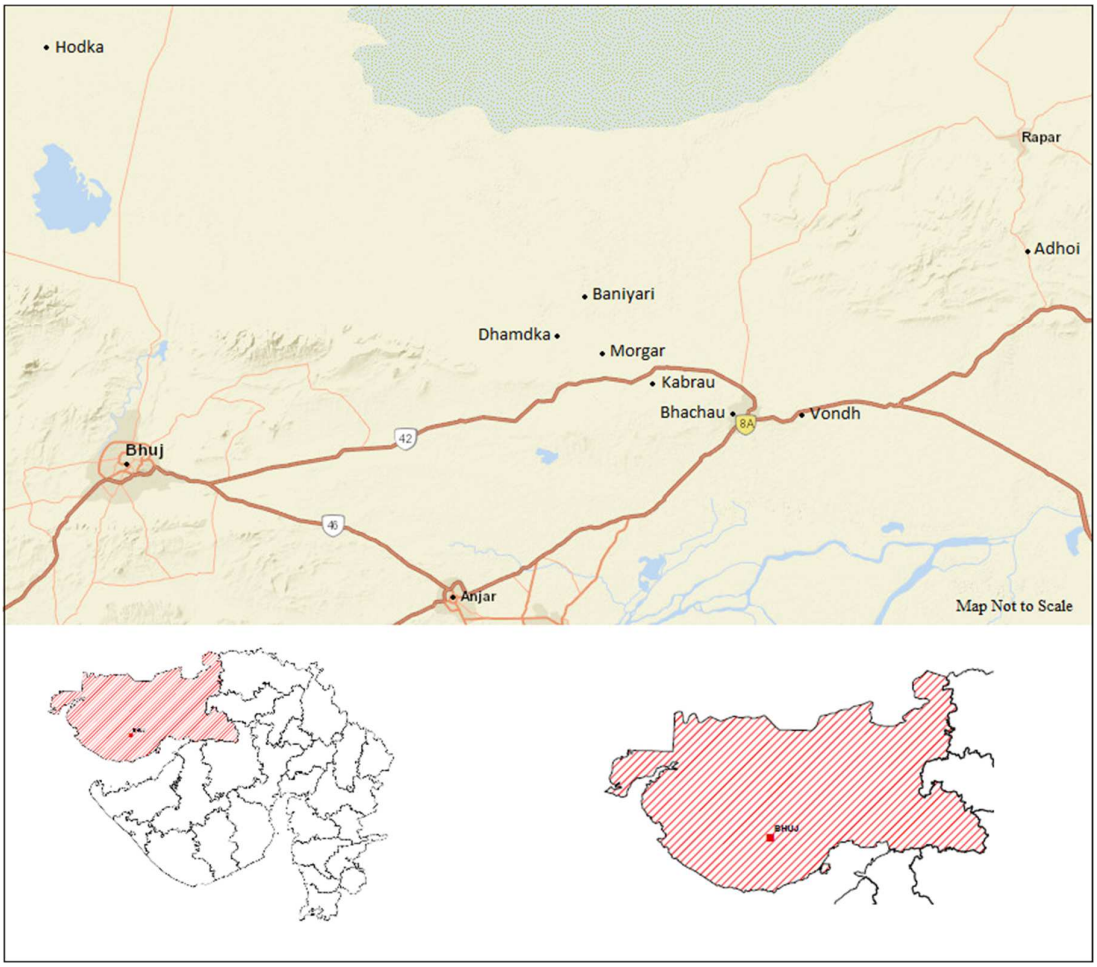

Figure 1.1: Fieldwork sites in Kutch

Unlike Kutch, Morbi is geographically smaller, and that is why considered as a single site for data collection. Although I visited nearby villages in Morbi but focussed on specific areas in Morbi town that were affected in the 1979 flood. These locations included Lukdhirji Engineering College, old and low-lying parts of the city, heritage buildings, and industrial zone near Machhu dam. These sites were useful in identifying watermarks, memorials, risk-prone areas, old heritage buildings, and understanding the town's growth since the flood.

Data Sources

During my tenure with the Gujarat government, I had developed cordial, professional relationships with government officers, academics, and NGO members. Out of these, I identified the relevant contacts based on three criteria – (1) expertise on the subject matter (2) knowledge of the field sites (in a professional capacity or continuous engagement with people) (3) rapport with the community members. The respondents included government officers (in State and District level departments), disaster management experts, non-governmental organisations, community leaders, disaster-affected people, members of

unofficial organisations, and beneficiaries of state schemes. Five NGOs that are active in the Kutch region were particularly helpful in providing vital insights.

1. *Kutch Mahila Vikas Sangathan* (KMVS), founded in 1989, works to empower women by fostering their leadership in economic, political, social, and cultural arenas. In the years since 1989, the KMVS has grown substantially. It has several offshoot organisations such as *Qasab*, promoting rural women artisans, Kutchi handicraft and textiles. My interactions with the members of KMVS in Bhuj were helpful mainly because they offered a holistic picture of women's issues in Kutch, which was difficult for me to obtain from a fewer number of female respondents. The experiences of KMVS members assisted in examining the relationship of women with their traditional dwellings *Bhunga*. The interaction also provided a clear understanding of how disasters become memorialised in handicraft and textile printing (See chapter four, section 4.2.1).
2. *Unnati - Organisation for Development Education* is a voluntary non-profit organisation registered under the Societies Registration Act (1860) since 1990. It aims to empower vulnerable sections of society and to include them in mainstream development and decision-making processes by promoting social inclusion and democratic governance. *Unnati* (meaning progress or growth in Hindi) has worked in the most backward and excluded regions of Gujarat and Rajasthan and has developed capacities in dealing with disasters due to its response in calamities such as the Kosi floods (2008). Based in Ahmedabad, Unnati also has a rural training centre in Bhachau, Kutch. During my fieldwork, I visited Unnati office in Ahmedabad and Bhachau multiple times – interacting with its members and accompanying them during their rural training activities in Bhachau. Due to the exchange of knowledge with Unnati members on numerous occasions, I learnt about housing insurance, advocacy efforts, disaster reconstruction and rehabilitation, awareness programmes and training activities.
3. *Kutch Navnirman Abhiyan*, popularly known as *Abhiyan*, is a coalition of grassroot local NGOs founded to coordinate the response after the cyclone in Kutch in 1998. *Abhiyan* was founded to synergise knowledge and physical and financial resources to work towards the development of local communities. It played a critical role in coordinating the relief and rehabilitation efforts after the earthquake of 2001 (Mehta 2001, 2932), being lauded for preparing maps, maintaining information networks, coordinating volunteers and training people in the reconstruction efforts (Khera 2002, 1023). I visited *Abhiyan* office in Bhuj in the early phases of my research, which helped me identify key respondents and organisations for my research.
4. *Hunnarshala* emerged from the collaborations and associations formed in the reconstruction phase after the earthquake. *Hunnarshala* was registered in 2003 as an organisation under section 25 of the Companies Act. Initially involved in the reconstruction of houses, it promotes traditional artisans and building techniques for sustainable development in the region. It endorses people-centric, environment-friendly, and locally relevant approaches and technologies. For instance, it helped villagers establish a community-run *Bhunga* resort for promotion of tourism in Hodko

village. One of the senior members of *Hunnarshala* helped me learn about conventional housing traditions in Kutch, state-run and people-run tourism initiatives, and the role of state memorials in everyday life of Kutchi people.

5. *SETU Abhiyan* also emerged immediately after the 2001 earthquake to coordinate relief and information needs. *Setu* meaning "a bridge" in Gujarati summarises its aim to bridge the gap between people and government departments. It was an initiative of *Abhiyan*, but, since March 2014, it is now registered under the Trust and Society Act and has created its niche to facilitate local governance. I interacted with *Setu* members in Kabrau village and Bhuj city on multiple occasions. They helped understand reconstruction and rehabilitation efforts immediately after the quake, people's perspectives on relocation, social inclusion, and governance mechanisms.

The data collected from respondents was substantiated with published literature from various sources – Gujarati newspaper archives (e.g., Kutch Mitra), tourism advertisements (e.g., Gujarat tourism, Rann Utsav), media booklets (e.g., Kutch Mitra), brochures (e.g., heritage walk Morbi), and government pamphlets (e.g., insurance packages). In addition, two main facilitators - Ghanshyam Padhiyar in Morbi and Bhikha bhai in Kutch – helped identify respondents, access to archives, and understand nuances of language and gestures.

Data Analysis

I translated the interviews from different languages (Hindi, Gujarati, and Kutchi) to English with the assistance of fieldwork facilitators to ensure correct translation and interpretation. The recorded interviews were transcribed 'word-by-word' to give qualitative data a structured form for coding and analysis using MAXQDA 12 software programme. The transcription process adds to data analysis by becoming a form of interpretations (Riessman 2008, cited in Schorch 2014, 27). Many new keywords emerged from the data during analysis, which became central in the analysis chapters.

Ethical and Methodological Issues

I took verbal consent from my respondents before starting the interview, audio recording, and taking pictures. I refrained from taking written consents because it tends to formalise the research process. The respondents tend to be careful in their responses, eliminating anecdotes that they would otherwise include. The village communities in Kutch have also witnessed several "official tours" of government officers and international NGOs. In such a scenario, participants tend to stick with politically correct answers avoiding local power dynamics and village politics.

I encountered two main issues during my fieldwork. Firstly, the respondents used a mix of Hindi, Gujarati, Kutchi, and English languages. The translation and transcription of the interviews became a challenge. The benefit of knowing the local languages and gestures equipped me in understanding and interpreting the meanings. However, I must note that I am not a native Gujarati speaker and my knowledge of Gujarati and Kutchi is limited. To

understand the intricacies of local expressions, words, and phrases, I employed the services of fieldwork facilitators.

Lastly, I acknowledge the underrepresentation of women respondents in my research. Since the beginning of my project, I made a conscious effort to capture views from different sections of society. However, it was difficult to approach female respondents in the villages due to social norms. For instance, in villages like Adhoi, where men are away for work during the day, women were reluctant to talk to an 'outsider'. To maintain a balance of perspectives from men and women, I interacted with the students of the masters' program at the Lukdhirji college of Engineering (mostly young women). Also, I interviewed members of a women-centric NGO that works extensively with women in Kutch. They helped provide a holistic understanding of post-earthquake challenges of women in everyday life.

1.5 Organisation of the Chapters

The research approach and methodology will provide a nuanced understanding of narratives and disaster memories regarding people's vulnerabilities, risk perceptions, and learning. The analysis chapters (2,3, and 4) present the earthquake case study, and chapter 5 discusses the Machhu flood.

Chapters two and three are connected. In chapter two, I identify the role of main stakeholders in earthquake reconstruction, memory transmission, and narrative construction. The analysis presents the dominant narratives and processes of their construction. Also, it shows the power relationships of different actors and their influence on the stories of disaster risk reduction. In contrast, chapter three presents counter-narratives challenging the dominant narratives of disaster risk reduction. Using the socio-spatial categories (Etzold and Sakdapolrak 2016), I present evidence of increased vulnerability in the villages of Kutch. The chapter shows how popular narratives of disaster risk reduction masked people's actual vulnerabilities and pushed them towards disaster risk.

Chapter four deals with unofficial memory sites and official memorials. It demonstrates the role of memory sites in remembering, forgetting, community resilience, learning, and social cohesion. It also shows the contestation of storylines between official and unofficial memories. The analysis indicates that memories and narratives represented through official memorials offer little space for negotiation. The process of disregarding people's experiences by fixing the memories and narratives in memorials exposes people to existing and emerging vulnerabilities.

Chapter five shifts focus from earthquake to Machhu flood case study. This chapter reflects on people's risk perception by analysing myths and moral tales associated with the flood and materialisation of disaster memories. The analysis shows how memories materialise in different forms and argue to observe rumours as a reflection of people's risk perception. I advocate sustaining flood memories and utilising rumour as a point of intervention for disaster risk reduction.

In the concluding chapter six, I highlight the need to understand contradictory, unintended, and contending effects of narratives spreading after disasters for risk reduction efforts. It calls for attention to the processes of remembering and forgetting for decision-making by acknowledging counter-narratives, understanding the role of memory sites and storylines, and recognising rumours as a reflection of people's risk perception.

Chapter 2: Transmission of Memories and Processes of Narrative Construction

2.1 Introduction

This chapter aims to discuss the key stakeholders of the earthquake reconstruction programme and examine their role in memory transmission and narrative construction. By analysing stakeholders' interactions, I will show how and why certain memories were transmitted and contribute to the construction of dominant narratives.

I have divided this chapter into two parts. The first part discusses the major stakeholders (governmental organisations, non-governmental organisations, and local-level committees) in disaster reconstruction programme and transmission of memories. The purpose of reviewing the government's role is to chart the trajectory of disaster management in India and show the significance of the Gujarat earthquake in policy formulation and institution building. Through these mechanisms, the lessons and memories of the quake transmitted to regulations and safe practices. Further, I will discuss the role of non-governmental organisations to examine their direct and indirect involvement in reconstruction programme, advocacy, and sustaining disaster memories through the creation of learning centres and training activities. The aim is to show that NGOs have played an instrumental role in sustaining risk consciousness among people and transmitting memories through their continuous engagement with communities despite limitations. Lastly, discussing local-level committees aims to demonstrate their purpose in the reconstruction programme and constraints in their functioning. The research will show that they barely achieved their aim and had little to contribute to learning and transmitting memories. But it is critical to examine their role to understand notions of exclusion and social vulnerabilities of everyday life. In addition to these key stakeholders, I will introduce local media as the fourth actor, which was critical in influencing public perceptions and constructing narratives. The part I of the chapter will build a base for the discussions on narratives and counter-narratives.

In the second part of the chapter, I will discuss dominant narratives, processes of their construction, and different stakeholders' role. The narrative of disaster's naturalness will reflect personal stories and the meanings people attach to the event. It will also show the role of media and the state in transferring accountability to Nature or God. Due to the government's apparent inadequacy after the quake, people in Kutch felt excluded and marginalised. The narrative of exclusion, corruption, separate State will explore these notions and discuss the state's attempts to appease the people by remembering and forgetting certain aspects of the disaster. Through the narrative of Kutch's resilience, I will explore Gujarat's tourism initiatives and reflect how the storyline shifted from exclusion and alienation to the celebration of people's resilience. Lastly, the narrative of development and safer Kutch will introduce the reconstruction programme's vital schemes, which offered a vision of a 'new' Kutch. These narratives influenced people's perceptions and impelled actions and decisions by state agencies in the direction of DRR.

Part I

2.2 Stakeholders in Transmission of Memory and Narrative Construction

Why is it important to recognise the stakeholders in the memory transmission and narrative construction, and what is their role?

At times, systematic eradication of memories may lead to higher vulnerabilities of the local community. The city of Palermo provides an instructive example. At the time of the 1968 earthquake in Italy, Palermo was not on the seismic maps. The tremors created panic among the city's inhabitants, and they fled the city. The state decided to include Palermo on the seismic maps but found itself at loggerheads with the local municipal authorities. Local authorities opposed the decision, fearing a negative impact on the local construction industry. In the end, the city's administration managed to keep the city off seismic maps. This decision put the city at risk by not transmitting the memories into regulations (Parrinello 2018, 72). A vital role in this vulnerability was played by stakeholders, the municipality and building industry in this instance. Stakeholders can profoundly influence the decisions and policies of reconstruction and subsequent transmission of disaster memories. Recognising key stakeholders helps in understanding their motivations, roles, and limitations in responding to a disaster. Furthermore, identifying stakeholders helps to assign accountability to the actors responsible.

In the aftermath of the Gujarat earthquake, hundreds of organisations, institutions, and volunteers responded within a few days. They were crucial because they contributed to preventing epidemics and hunger, and many people benefitted from their assistance (Mehta 2001, 2934). For managing the reconstruction and rehabilitation programme, the state adopted a tripartite partnership of the government, private sector (including NGOs), and beneficiaries (GSDMA 2002, 7-9). Village-level committees represented the beneficiaries. For my analysis here, I have considered these three key stakeholders— *Sarkar* (governmental organisations), *Sanstha* (non-governmental organisations), and *Samiti* (village-level committees)—which became pillars of disaster reconstruction and rehabilitation.

The accounts of respondents show that the Gujarat government was quick to respond to the 2001 earthquake. Many senior officers and staff members of the government were immediately deployed to the affected areas to evaluate the situation and report back for necessary assistance. As the relief and rescue operations turned into reconstruction and rehabilitation, the coalition of the State and national government, policymakers, implementing agencies, international financial institutions, experts, construction industry, and professionals like engineers and architects represented the state or *Sarkar.* The Sarkar emerged as the champion stakeholder spearheading one of the most extensive reconstructions and rehabilitation projects in India's disaster history.

Twenty-one districts (out of twenty-five) of Gujarat were affected by the quake (Barenstein 2006, 1). The earthquake's impact across multiple sectors showed that the existing systems of the state were overwhelmed (WB and ADB 2001, 3-5). In this context, the international, local, and national NGOs, charity organisations, religious organisations, donors, non-resident Gujarati (NRG) associations, private trusts and foundations, corporate houses and voluntary organisations came together. They were referred to as *Sanstha* and played a crucial role in quake's aftermath by assisting in rescue, relief, reconstruction, and rehabilitation efforts. Seventy-four NGOs worked independently or collaborated with the government to reconstruct housing, schools, and hospitals (Thiruppugazh 2007, 8). These organisations were also instrumental in coordinating rescue and relief operations, advocacy, and documentation. Many of these organisations, however, did not have prior knowledge or understanding of the Kutch region. They also lacked rapport with the affected communities. The state instituted local level committees (*Samiti*) to bridge the gap between communities and new stakeholders. These Samiti were village or local level committees formed to communicate the villagers' concerns and negotiate reconstruction efforts on their behalf.

The *Sarkar*, *Sanstha* and *Samiti* formed the core of reconstruction and rehabilitation efforts. In the following sections, I present their role in the transmission of memories. Also, I will show how local media emerged as a key actor not only in memory transmission but also in narrative construction.

2.2.1 *Sarkar*: State's Institutional Mechanisms for Disaster Management

The 2001 earthquake was the watershed moment that completely changed the disaster management paradigm of Gujarat and subsequently, India. Gujarat was already struggling to cope with the devastating effects of the Kandla cyclone (1998) and drought (1999-2001) when the earthquake struck (Gupta and Sharma 2001). As such, the quake struck at a moment of vulnerability.

Existing Mechanisms for Response, Relief, and Reconstruction

Disaster management in India finds its origin in tackling droughts and famines since creating the Famine Relief Code in the 1880s. The Agriculture Ministry, which dealt with these slow-onset disasters, was the nodal agency for dealing with other disaster-related affairs in India until the turn of the century. Ideas of relief and response rather than mitigation, adaptation, and risk reduction, instilled a reactive approach towards dealing with disasters (Ministry of Home Affairs 2004, 11).

This reactive approach is evident in the institutional mechanisms created for disaster management. State governments have a senior bureaucratic position of Relief Commissioner to handle the logistics of relief and response.[4] Although the Relief Commissioner is also responsible for policy formulation, implementation, decisions,

[4] For the institutional mechanisms in Gujarat, see https://directorateofrelief.gujarat.gov.in/home

emergency rescue and relief, his/her functioning is often restricted to post-disaster response and coordination. As evident from the title of the position, the Relief Commissioner would come into action *after* the disaster. At the same time, the position is a critical link between the State government and district administration officials such as Municipal Commissioners, District Collectors and District Development Officers. The Relief Commissioner's actions are guided by *Relief Manual*, an instruction handbook for disaster management activities. In principle, the Relief Manual of each State identifies every officer's role in managing disasters. Based on disaster management experiences, the manual is reviewed and updated with the latest information (Ministry of Home Affairs 2004, 7). Scholars, however, have observed the inadequacies of Gujarat's Relief Manual. Thiruppugazh (2007, 2-3) notes that while the Relief Manual contained information and guidelines to deal with post-disaster situations for repeating disasters such as drought, floods, and cyclones, it did not deal with potential but infrequent disasters such as earthquakes, chemical and industrial accidents, and tsunamis.

Changing Landscape of Disaster Management in India

At the turn of the century, two major disasters—Orissa super cyclone (1999) and Gujarat earthquake (2001), brought a radical shift in the understanding of disaster management in India (Surjan et al. 2016, 72). They dramatically changed the institutional landscape of disaster management in the country.

After the Orissa cyclone in 1999, India's central government constituted a High-Power Committee (HPC). The committee submitted its recommendations in October 2001 and identified thirty-one hazards that put India at risk. The committee's constitution was the first significant step at the national level that attracted much-needed attention towards disaster management and pushed the establishment of institutional mechanisms in Gujarat. In the aftermath of the quake in January 2001, the Gujarat State government grappled with a massive reconstruction project. It acknowledged the need for a specialised institutional body to coordinate the efforts. Acting efficiently, the government set bureaucratic systems in place, passing the GAD resolution on 8 February 2001 to create the Gujarat State Disaster Management Authority (GSDMA). Its prime objective was to coordinate a comprehensive earthquake recovery programme. Its vision was to "go beyond reconstruction and make Gujarat agriculturally and industrially competitive with improved standards of living and with a capacity to mitigate and manage future disasters" (GSDMA, n.d.). The GSDMA was given the task of rehabilitation and reconstruction, facilitate resettlement, coordinate with multiple agencies, and provide shelter to severely affected populations promptly. Given the urgency of disaster reconstruction, the GSDMA needed to avoid being hampered down in bureaucracy. As a result, the Chief Minister of Gujarat chaired the GSDMA (GSDMA 2002, 8), and the authority enjoyed the powers of the cabinet (Thiruppugazh 2007, 9). Consequently, decisions of GSDMA carried the weight of the cabinet, backed by the highest administrative office in the State. This nodal agency for disaster-related affairs streamlined the decision-making process, coordinated with multiple agencies, and organised post-disaster efforts scattered in small pockets run by various agencies (GSDMA 2002).

Establishment of this institution proved useful, allowing people to direct their queries and challenges. The donor agencies and financial institutions also found it more efficient to work with one responsible department rather than coordinate with many (Thiruppugazh 2007, 9).

It is not unusual for disasters to give birth to new institutions and bureaucratic procedures. For instance, India's meteorological department came into existence after the cyclone of 1864 in Bengal (Roy 2012). In the case of Gujarat, however, the State government went further. It formulated a Disaster Management Policy (2002) and a Disaster Management Act (2003), the first at the State level in India. These steps were useful in transmitting the memories and lessons of disasters into institutional mechanisms and legal provisions. They also influenced the disaster management at the national level as observed in the 10th five-year plan (2002-07) produced by the *Planning Commission*[5] at the national level.

The tenth five-year plan (2002-07) produced by the Planning Commission dedicated an entire chapter to *Disaster Management - The Development Perspective* (pp. 189-202) acknowledging the influence of disasters on the country's economic development. Disaster management finally gained a foothold in the political discourse. The plan recognised the traditional perception of *Calamity Relief.*[6] It used the case of the Gujarat earthquake as one of the examples to show the devastating effects of disasters on the economy not only by direct losses but also by setting back development efforts. Since the plan's approach was to ensure economic prosperity, it urged the development to be sensitive towards disaster prevention and mitigation.

One of the critical suggestions by the Planning Commission, which was backed by the Eleventh Finance Commission and the High-Power Committee on Disaster Management, was the use of *Plan Funds* for disaster management.[7] Up until then, the Calamity Relief was essentially booked under non-plan expenditure. The five-year plan also acknowledged that the subject of disaster management lacks legal provisions in the 7th Schedule[8] of the Indian Constitution. It is quite clear that the Gujarat earthquake heavily influenced the chapter dedicated to disaster management. The lessons (or rather lack of institutional mechanisms) from the Gujarat earthquake are repeatedly discussed in the plan. For instance, the earthquake exposed the lack of training and equipment for urban search and rescue (p. 196). The plan encapsulates its recommendations in the statement *"the need of the hour is to chalk out a multi-pronged strategy for total risk management, comprising prevention, preparedness, response and recovery on the one hand, and initiate development efforts aimed towards risk reduction and mitigation, on the other. Only then can we look forward*

[5] Planning Commission was an institution in the Government of India, which prepared five-year plans for the economic development of the country. In 2014, Narendra Modi led government dissolved the Planning Commission and replaced it with a think-tank *NITI Aayog*.
[6] Calamity Relief Fund met the expenditure for providing immediate relief to disaster victims. The Central government bore the majority share of the expenditure to alleviate the burden on State governments.
[7] Plan fund is set aside for developmental and other productive purposes, while non-plan fund includes salaries, subsidies, loans, and other such expenditures.
[8] The 7th Schedule of the Indian Constitution enumerates the allocation of powers and functions between Central and State Governments

to "sustainable development" (p. 199)." Overall, it urged for disaster preparedness and mitigation to be an integral part of development planning, focussed not only on physical but also prevailing socio-economic vulnerabilities.

The recommendations of the HPC, 10th five-year plan and Eleventh Finance Commission along with the experiences of Orissa cyclone, Gujarat earthquake and Indian Ocean Tsunami (2004), pushed the national government to formulate National Disaster Management Act (2005), National Disaster Management Policy (2009) and establish National Disaster Management Authority (NDMA), National Institute of Disaster Management (NIDM), National Disaster Response Force (NDRF) and several such institutional provisions and mechanisms.[9] Their establishment draws heavily from the experiences of Gujarat's reconstruction and rehabilitation programme.

Gujarat Reconstruction and Rehabilitation Programme

Following the Gujarat earthquake, several external agencies funded the reconstruction, rehabilitation, and recovery programme. The World Bank and Asian Development Bank were among the primary funding sources for the programme. Most of the reconstruction was carried out under the World Bank-funded *Gujarat Emergency Earthquake Reconstruction Project* (GEERP).[10] It was approved in May 2002 and concluded in October 2008. The objectives of the GEERP were to promote sustainable recovery to the earthquake-affected areas and lay the foundation for sustainable disaster management capacity in Gujarat (World Bank 2002). The four project components of the programme were:

1. Financing the implementation of owner-driven housing recovery plans initiated under Phase 1 for the partially damaged and fully collapsed houses in the affected rural and urban areas.
2. Funding the repair, strengthening, rehabilitation, reconstruction, and upgrading of damaged public buildings, roads and bridges, and dams and irrigation infrastructure in the earthquake-affected areas; retrofitting undamaged government administration buildings and critically important public buildings and preparing detailed engineering documents for retrofitting key bridges, and constructing building and control rooms needed to foster State emergency management as well as setting up the Gujarat Institute of Disaster Management (GIDM) and the Institute of Seismic Research.
3. Ensuring the participation of earthquake-affected communities establishing village-level sub-centres to build capacity for earthquake-resistant construction, strengthening local government mechanisms, gender sensitisation, and community-based disaster preparedness programmes.

[9] For institutional mechanisms as national level, see NDMA website https://ndma.gov.in/en/

[10] See for details http://projects.worldbank.org/P074018/gujarat-emergency-earthquake-reconstruction-project?lang=en&tab=overview

4. Financing the establishment of a professional emergency management programme.

The GEERP certainly encouraged the participation of local communities and tried to address the social vulnerabilities through gender sensitisation and governance mechanisms. At the same time, its prime focus was on the development of infrastructure. While the GEERP was considered a successful programme at the time because it achieved its objectives rapidly, this focus on infrastructure also brought drawbacks. For one, the tangible aspects of speedy reconstruction, such as housing, took centre stage in the narratives deeming it successful while overlooking the problems of most vulnerable groups. In Part II of this chapter, I turn to these critiques more fully and expand on them in chapter 3.

Despite these critiques, however, the perception of the GEERP's success was ubiquitous. Internationally, for example, its success was recognised with the UN Sasakawa Certificate Merit award in 2003 and the Commonwealth Association for Public Administration and Management (CAPAM) Gold award in 2004 for innovations in earthquake reconstruction. This recognition was certainly at least partially justified. A significant achievement of GEERP was the transmission of disaster memories into capacity building and institutionalisation. After the completion of GEERP in 2008 when most of the notable players including UNDP were withdrawing from Gujarat, the GSDMA decided to retain the staff members employed in the State-wide Disaster Risk Management (DRM) programme. The GSDMA sustained the staff and institutional channels with the funding of the State government. Soon after, the Gujarat government established the Institute of Seismological Research (ISR) and Gujarat Institute of Disaster Management (GIDM) to promote research and training in seismology and disaster management.

Clearly, the Gujarat government did create institutions and mechanisms that transmitted lessons and memories from the earthquake into policies and safe practices. The government also highlighted its collaborations with NGOs in the reconstruction and rehabilitation efforts to show its efficiency, policies of inclusion and good governance. Despite this ostensible success, however, many people in Kutch criticised the government for being inefficient, corrupt, and excluding people from participating in the rebuilding. Eventually, the dissent became so vocal that the government silenced it with its narrative of development and safer Kutch. In the second part of this chapter, I address the construction of that narrative of development and safer Kutch more fully. Still, it is important here to note already that this narrative of the government conflicted with people's experience on the ground. This disjunction is also clearly visible in the memorialisation of the earthquake via the construction of *state* memorials to silence counter-narratives of exclusion, inefficiency, and corruption – as we will see more extensively in chapter 4.

2.2.2 *Sanstha*: Organisations Bridging the Gap

NGOs play a critical role in identifying the most disadvantaged people and reaching out to them. The state alone cannot succeed completely in such efforts because of the complexity of social problems at the local level (Iyengar 2000, 3234). According to Iyengar (2000), Gujarat has a long tradition of humanitarianism, which, since the 1920s, has been

substantially influenced by the Gandhian ideology of voluntarism for human development. However, post-independent India witnessed a drastic shift in the role and functioning of the NGOs due to new forms of government patronage—set up patronisingly—that made it impossible for NGOs to operate independently. As a result, "most organisations lapsed into routine activity whereby they hardly questioned the designs and suitability of government plans and programmes" (pp. 3230-31). At the same time, however, several organisations emerged that contributed to the development of Gujarat after the 1970s significantly (ibid, 3231). These NGOs, such as *Unnati* and *KMVS*, have contributed through direct action or by supporting state or other organisations, providing training activities, public advocacy, documentation, and research.

At the time of the earthquake in 2001, many such organisations were active in Kutch. They were among the first to respond to the needs of the affected people. While most of these agencies did not work directly in disaster-related activities, many worked in sectors such as education, health and women empowerment that are considered important under the umbrella of DRR (See Twigg 2015; UNISDR 2005). However, in this time of crisis, these organisations shifted their focus, getting involved in the reconstruction and long-term recovery of communities. Through their engagement spanning several decades with communities in the most backward regions, these organisations had developed excellent networks and rapport with the people, allowing them to act as first responders in times of crisis.

When I worked for the government of Gujarat, I collaborated with several of these NGOs.[11] During my PhD research, these previous ties proved helpful in approaching these organisations and learning about their experiences in post-earthquake Kutch. Because of our previously built trust, they were open to sharing the intricacies of the reconstruction efforts and their limitations. Some of these organisations have been working in Kutch for a longer time. Others emerged out of the collaborations and associations after the 2001 earthquake. During my fieldwork, I interacted with the members of these organisations who helped me understand their visions, motivations, and challenges of working in post-quake Kutch.

Contributions of Sanstha in the Post-disaster Phase

These NGOs played a crucial role in the post-disaster reconstruction and rehabilitation of Kutch by contributing to multi-agency coordination and cooperation, knowledge transfer and management of relief distribution. They also assisted in managing the funds for the beneficiaries of the government's scheme. For instance, in some cases, the State government approved a fund of fifty-five thousand rupees to construct houses. It released the first instalment of twenty-two thousand rupees to the beneficiaries. However, it was a common observation that people spent the first instalment on other necessary items instead of house construction. Consequently, the government decided to release the second and third instalment to the organisations, which managed the funds and ensured the construction

[11] List of the NGOs along with their area of focus is discussed in methodology section of chapter 1.

of houses on a priority basis. Nonetheless, it was also challenging for these organisations to make sure that the remaining thirty-three thousand rupees were spent on the construction of houses (interview 15).

The contributions of Sanstha are particularly noteworthy in their advocacy for marginalised communities because outside responding agencies were not familiar with the local conditions. A telling instance is the case of *Ahoi Vistāra*[12] *and Rabari Vistāra* in Bhachau, which were systematically excluded from the reconstruction programme, clearly showing the challenges faced by poor and marginalised communities. A representative of an NGO shared his experiences of complex negotiations between communities and contractors:

> One thousand seven hundred sixty-seven families received *sahāya*[13] on *Ration card*[14], but they did not have any *Sanat Patta* (land ownership documents). People filled out forms claiming that they lived on rent so that they could receive ownership. They did not have land's Sanat. If someone created plots, you might get a hundred *vaar*[15] or whatever, based on the documents, but these families did not have anything. In constructing Bhachau Vikas Vistāra, two areas were not included - Ahoi Vistāra and Rabari Vistāra … People claimed that they lived there, but the construction agency was from outside. What do they know who lives where... they [implementing agency] said, people do not live there…We worked there, did advocacy and invited the World Bank and other stakeholders. Finally, they [Ahoi Vistāra and Rabari Vistāra] were included. We had to buy a satellite map of one-lakh[16] rupees [to show the existence of people in those areas before the earthquake]. Based on that, the contractors created the plan. There were issues in understanding the flow of water as well. The agency was given work, so they make plans but the poor families who remain marginalised, nobody looks after them. So, we were working in areas where such poor families lived. (interview 15)

Clearly, if not for the local NGO, the people living in the informal settlements of Ahoi Vistāra and Rabari Vistāra would have been overlooked in the reconstruction programme. This interview is instructive in three important ways. Firstly, many of the rural communities living in villages and informal settlements do not possess official documents of land ownership or occupancy even though they might have lived there for generations. In such a scenario, the post-disaster reconstruction is challenging if the responding agencies do not have prior knowledge of or even interest in people's history with the land. Secondly, in case of a disaster when existing relationships of people and place dramatically change, the role of NGOs is crucial to voice the concerns of the people. Thirdly, the external agencies did not know the local situation of living arrangements and lacked in their knowledge of local

[12] *Vistāra* means extension, expansion, or area (in this context)
[13] *sahāya* is a generic term meaning help or assistance but, in this context, it means assistance in the form of subsidised food and cooking material
[14] *Ration Card* is a government issued identification for eligible families to receive necessary food grains at subsidised rates.
[15] Vaar as a unit of area measurement. 1 vaar = 9 sq. feet
[16] One lakh = a hundred thousand

water drainage patterns – which is deeply troubling in reconstructing livelihoods and areas. This lack of knowledge regarding water drainage is particularly interesting in the relocation of Vondh village, which will be discussed in detail in chapter 3.

Transmission of Memories

Apart from contributing to rehabilitation programme and advocacy for marginalised communities, NGOs played a vital role in the transmission of disaster memories. Firstly, the organisations working in Kutch institutionalised the knowledge of reconstruction and rehabilitation through the establishment of specialised learning centres such as *Hunnarshala* and *Setu*. These centres promoted safer housing construction and addressed

Figure 2.1: Technology Park on the premises of Unnati's training centre (top & right), Rural campaign for education in Progress (bottom)

the root causes of vulnerabilities by targeting local governance issues. On the premises of *Unnati's* rural training centre in *Nava Gam* (new village in English), Bhachau, for example, they created a technology park to showcase the safer construction techniques using locally available material (Figure 2.1). Over the years, people from many parts of India and even abroad have visited Unnati's campus and admired its contribution to the promotion of safe housing.

Secondly, many of these organisations have sustained their engagement with local communities through continuous campaigns and training activities. During my fieldwork, I got the opportunity to accompany a team of local trainers on their rural campaign for education (Figure 2.1). These organisations conduct training and raise awareness not only

in disaster safety but also on the issues of education, school safety, health, and local governance. They have contributed significantly to the institutionalisation of disaster memories and learning through these participatory rural programmes.

Challenges and Limitations of Sanstha

Of course, NGOs are inherently limited in their means and authority to achieve disaster preparedness and recovery. They often face challenges due to a lack of financial resources and limited human resources, as well as due to a lack of institutional authority. The NGOs in Kutch reported three prime challenges in the aftermath of the earthquake. Firstly, hundreds of organisations (many from outside Gujarat) responded with relief material and intentions of reconstructing Kutch. However, many of them did not anticipate the requirements of local people and the socio-cultural complexity of Kutch. An article published in *The Economic Times* of May 18, 2001, reported that most of the 337 NGOs withdrew from the rehabilitation programme due to lack of cooperation from state government and villagers (Mahadevia 2001, 3670).

Nonetheless, the sudden arrival and departure of NGOs created immense pressure for the organisations already working in Kutch as it disrupted the existing relationships between them and the local communities. As a principle, organisations such as KMVS encouraged local communities to collaborate in the development programmes, so the people take ownership and responsibility for their activities. New organisations arrived with ample financial resources, and due to a sudden influx of money, the communities started expecting the existing NGOs to provide financial assistance (interview 40). This tension disrupted years of rapport between people and the NGOs functioning in Kutch.

Secondly, NGOs often compete with religious organisations who use disasters as an opportunity to strengthen their position by responding with alacrity in the disaster-affected region. In doing so, they sway the affected populace towards certain notions of religion, caste, or political identities by using their well-coordinated efforts of rescue and ability to mobilise resources. Often, this reinforces established exclusionary practices – weakening NGOs focused on inclusivity. In Kutch, several religious and spiritual organisations responded. My respondents noted the efforts of the *Swaminarayan Trust* and the *Rashtriya Swayamsevak Sangh* (RSS) on multiple occasions. Simpson (2014) notes that RSS's presence expanded after the involvement in the relief phase after the Gujarat earthquake. Many respondents remarked that such religious organisations, which often function with a political agenda, deepened the existing divisions of religion, caste, and community. Mehta (2011, 31) notes that many interventions after the quake did not resolve the social vulnerability of marginalised groups, but *deepened* inequality and marginalisation. According to the NGO members working in Bhuj, navigating through religious, caste and community identities can prove as tricky as negotiating with state agencies for resources (FGD 2) – and many religious organisations do not make the process easier.

Thirdly, from the initial phase of the reconstruction, state agencies sought collaboration with local, national, and international agencies to deal with the scope of the reconstruction

challenge. The collaborative approach and the role of NGOs became one of the highlights of the reconstruction programme. It helped the government to construct a narrative of an inclusive and participatory decision-making approach. Still, it also allowed the government to outsource its responsibilities to NGOs, forcing them to become agents implementing government programmes. As Iyengar (2000) pointed out, such collaborations may give authority to NGOs, but they also take away their power to challenge the state's policies.

Despite these challenges, many of these organisations continue to work in Kutch. Over the years, they have established themselves as a critical catalyst in the development of Kutchi people by transmitting disaster memories through regular training and community-building activities.

2.2.3 *Samiti*: Representing the People through Committees

A *Samiti* refers to a committee, society or an association formed to work towards a goal or a common issue such as post-disaster reconstruction. After the Gujarat earthquake, the government created committees at State, district, and village levels. In this section, I focus on the local level committees that the government created to represent the people in the villages and establish a link between external agencies and communities.

A village-level reconstruction committee (also called *Gram Navrachna Samiti (GNS)* or simply *Navrachna Samiti*) had representatives of the village, government, adopter[17] and NGOs or the development organisations working in the village (Mahadevia 2001, 3671). For the reconstruction and rehabilitation policy of Gujarat, these local Samitis also included a *Sarpanch* or Administrator, an Ex-*Sarpanch*, a woman member, an SC/ST[18] member, a member from the minority community, a headmaster of the primary school and an NGO representative. The *Talati*[19] acted as the member-secretary, and the Deputy Collector/ *Mamlatdar*[20]/ Taluka Development Officer (TDO)/ Deputy *Mamlatdar*/ Deputy TDO or ATDO chaired the committee (GSDMA 2002, 27). The GNS was responsible for the overall supervision of the reconstruction programme in the village. On behalf of different groups, its members were to ensure representation of all the sections of the village in the "finalisation of design, building materials and construction technology" (ibid).

Such village-level committees were essential to ensure that minority groups in the villages also get representation in the decision-making processes of reconstruction and rehabilitation. Such committees were even more necessary because research shows that without them, influential people belonging to higher castes often acted as brokers to

[17] Adopter were individuals (including politicians), organisations (including religious), corporate houses, and other such groups that 'adopted' a village or community and took complete responsibility of their rehabilitation.
[18] Scheduled Castes (SC) and Scheduled Tribes (ST) are socially marginalised groups officially recognised in the Constitution of India.
[19] *Talati* is a government position in rural areas mainly looking after administration at the village level
[20] *Mamlatdar* is derived from the Arabic word *Muamla*, which means complicated matter. Mamlatdar is the officer who solves such issues. The Mamlatdar is the head of revenue administration, consisting of fifty or more villages.

negotiate between outsiders and villagers (Mehta 2001, 2934). Mehta further urges that "agencies involved in the process of interim rehabilitation need to use transparent, accountable and participatory modes of operation to conduct needs assessments and earmark beneficiaries via village-level committees" (ibid, 2935). These committees were supposed to function in cooperation with existing administrative systems of the villages.

All villages in India have administrative systems and local self-governing councils known as *Panchayats* and *Gram Sabhas*. As per the policy of reconstruction and rehabilitation, Gram Sabhas were responsible for guiding the GNS. The government envisioned that villagers would decide the strategies of reconstruction and rehabilitation in their Gram Sabha (GSDMA 2002, 27). However, research shows that the local self-governing institutions such as Panchayats and municipalities were missing in the decision-making process (Rawal and Nair 2001, 823). My respondents corroborated the stories that village-level committees were instruments of the government to make the reconstruction programme "look good." The members of the committees, in fact, struggled to convey their problems of everyday life.

Challenges and Limitations of Samiti

The challenges that such Samitis faced can be illustrated through the relocated villages of Adhoi and Vondh, where I spent a considerable amount of time in my fieldwork. Respondents in Adhoi revealed that external agencies selected the village representatives instead of the people of Adhoi. It is a classic example of a top-down decision-making approach. These 'village representatives' were active local leaders belonging to higher castes and an economically prosperous community. As a result, the ostensible purpose of such committees – to represent marginalised communities – was defeated since most marginalised people in the village found themselves struggling to discuss their concerns. In this case, however, the committee included a few people belonging to low castes to represent their community. It reflected the basic idea of these committees, which was to ensure representation from different castes and class communities of the village. However, it seems to have mostly been a public relations exercise. Respondents explained that the lower caste committee members were afraid to share their predicaments with the agencies in front of village leaders of the higher caste because of existing power relations. The members of the low castes were fearful of the violence against their community and social exclusion from the village if village leaders were unhappy with their demands. A respondent explained the role of the committee members in the decision-making process by using an interesting analogy. He pointed towards a cardboard photograph hanging in his house. He said, *"low caste committee members were like that photograph, just swinging in the wind's direction but unable to communicate"* (interview 18).

These Samiti achieved little and disintegrated soon after the reconstruction programme ended (interview 14). Their purpose was restricted to the reconstruction and virtually had nothing to contribute to learning from the quake or transmission of its memories. The idea of village-level committees added to the narrative of decentralisation, community

participation, and inclusion in decision-making processes. But in reality, these committees were often unable to represent lower castes and classes. They also had limited access to power structures in the villages. These are essential points to note as they give rise to counter-narratives of exclusion and social vulnerabilities (discussed in chapter 3).

Before moving on to narratives and processes of their construction, I present local media as the fourth relevant stakeholder. Although it was not directly involved in the decision-making of reconstruction and rehabilitation, examining its role is important because it proved critical in transmitting memories and constructing narratives.

2.2.4 Popular Print Media: An Echo of People's Perception

The Gujarat earthquake was covered extensively in regional, national, and international media. The media coverage and reporting from ground zero were prime reasons for the unprecedented attention from all over the world (Mehta 2001, 2931) and overwhelming response in foreign aid. Kodrich and Laituri (2005) analysed the stories of earthquake published in the online edition of top English-language Indian newspapers—*The Times of India*, *The Hindu*, and *The Hindustan Times*. They show that these Indian dailies were instrumental in reaching out to donors through extensive coverage of the disaster, and expedited fund collection by including online links of humanitarian organisations (2005, 41-47).

Researchers have noted that media is most active in reporting the post-disaster phase (Wenham 1994). The media framing of a disaster may amplify or attenuate people's risk consciousness (Rausch 2014, 276). Entman's work on "framing" is instrumental in understanding the "power of a communicating text" (1993, 51). He illustrates that frames tend to highlight certain aspects of reality and downplay other elements in political news items (ibid, 55). Rausch (2014, 277) adds that "narrative building and agenda-setting" are the processes that emerge in reporting of a disaster. He illustrates that media achieves this pattern by covering "sequential information of the disaster and its aftermath" or through "intentional patterns of coverage." The four critical components of disaster coverage in media are defining the problem (what happened), diagnose causes (who or what is responsible), make moral judgments and suggest remedies (Entman 1993, 52). Thus, media can facilitate consensus building and significantly influence public perception (Schweinsberg, Darcy and Cheng 2017).

For my chapter here, I have primarily analysed regional coverage in a popular newspaper in the Kutch region. It gives an instructive insight into the narratives and the *local* memorialisation of earthquake. The purpose of this analysis is to understand how the media constructed and supported storylines and influenced public risk perception. Additionally, I reflect on the symbolic usage of places of regional importance by the local press to evoke specific memories and construct narratives. The focus on regional coverage of the quake is particularly relevant because it has considerable power to legitimise or de-legitimise public policies. For instance, before the earthquake, the local drought situation in Kutch was overblown by the local media, which was working under the influence of powerful

politicians (Mehta 2001, 2932). Using the narrative of "drought crisis," the press legitimised the controversial *Sardar Sarovar* Dam that would provide water to Kutch.

Similarly, after the Gujarat earthquake, the local Gujarati newspapers, which have a larger readership than any national newspaper in the Kutch region, played an important role in shaping and endorsing specific narratives. The local newspapers reported dreadful as well as heroic stories of the community's resilience. They were full of obituaries and pictures of collapsed hospitals, temples, police stations and other public buildings showing that critical infrastructure was severely affected, and Kutch was at a standstill. Soon, the stories of corruption, mismanagement and erosion of Kutchi identity replaced the stories of destruction and resilience.

To understand this role of the local media, I analysed the articles published by a Gujarati newspaper *Kutch Mitra,* which is the most popular newspaper in the region. In the aftermath of the earthquake, Kutch Mitra shifted its office from Bhuj to Rajkot and continued working. It boasts of its commitment to work (journalism) and resilience (a typical marker of being a *Kutchi*). I followed articles of Kutch Mitra published from 29.01.2001 to 23.02.2001 and then on the anniversaries of the earthquake until 2004. I also analysed articles and cartoon strips published by Kutch Mitra in a special edition book released in 2002. I relied on a careful reading of headlines because "from a newspaper headline one can draw not just news and views about society, but also ascertain the nature of the society and state itself" (Ramagundam 2005, 100). It helped me in identifying the key themes of narrative construction—naturalness (God), Kutchi resilience, corruption and exclusion, and development and safer Kutch in the media reports, which I discuss in Part II of this chapter.

Part II

2.3 Narratives and Processes of their Construction

In the following section, I discuss post-disaster narratives and explore the processes of their construction. The laypeople, along with the stakeholders involved in the reconstruction programme, contributed to these narratives. Bendix (1990, 333) claims that laypeople depend on their memory and knowledge to craft stories of what happened. She adds that personal narratives are:

> primary means at an individual's disposal to regain order out of chaos. While fire trucks, bulldozers, construction crews and money allow for the removal of rubble and rebuilding of physical structures, personal narratives accomplish the same work in our heads and hearts.

Narratives "reflect, communicate and shape the world" we live in and influence our understanding of it (Wiles, Rosenberg, and Kearns 2005, 90). Also, narratives can reveal the social and historical background, spatial relations, norms and values of individuals and groups, and narrative analysis help in interpreting and understanding "embedded meanings and evaluations" in context (ibid, 90-92).

To gain insights into the narrative construction and identify narrative patterns, I adopted a close reading of local media reports, government publications, political speeches, and personal interviews. In the following section, I discuss—the narrative of earthquake's 'naturalness' that placed the blame on God or Nature; the narratives of exclusion and corruption that drove the demand for an independent State of Kutch; the narrative of *Kutchi* identity, which celebrated the resilience of Kutchi people; and the narrative of development and safer Kutch primarily drafted by the state to 'include' Kutch in 'modern' Gujarat. As discussed by Andersson and Cocq (2016, 1), such narratives can also be termed as master narratives, which are "shaped, activated, and put into practice in different ways in different settings and contexts."

The narratives mentioned above circulated widely in national media. For instance, the front-page headline of *The Times of India*, one of India's top national newspapers, on January 27 read *Nature Unleashes Armageddon* (in capital letters). Over the years, the national media reported storylines related to delays and inadequacy of rehabilitation (Bhalla 2011; *The Times of India* 2002), corruption (Hindustan Times 2010), social exclusion and marginalisation (Kumar 2017), the resilience of Kutch (Dundoo 2017; *The Times of India* 2003; *The Times of India* 2016), rising from ashes like a phoenix (Mahurkar 2008), demand for independent Kutch (Dave 2009; Dave 2013; Nair 2009), and astonishing growth and development (Buchanan and Solanki 2011). These narratives have been under-reported in the literature. In addition to popular storylines in the local media, I am also interested in personal narratives, which are occasionally represented in media but are often ignored.

2.3.1 Narrative of Naturalness: Shifting Accountability

Historically, disasters were often associated with divine punishment (Roy 2012), inter-related with morality, materiality, and social relations (Rigby 2015, 3). In my interviews, many respondents talked about the 'naturalness' of the disaster, relating it to a sense of morality, judgement, and *karma*. They framed the earthquake as Nature's fury and God's punishment against the greed and erosion of social values in society. Bhattacharjee (2016, 90) asserts that leaders associated with religious and nationalist organisations facilitated the meaning-making of the earthquake by linking it with Nature and God. She points out that a leader of the RSS, a Hindu nationalist organisation, reinforced *Hindutva* narratives by blaming "western culture" for disrupting the relationship with nature, which led to the natural disaster. These stories played a significant role in people's understanding of who survives and how people suffer. One of my respondents reflected:

> Two people died in our village near the old Swaminarayan temple. There was an old wall of the royal fort, and an older woman was buying vegetables near it. She left everything and ran when the earthquake struck, but then she realised that she left her wallet [on the vegetable cart] …when she went back to pick it, the wall fell on her. That is how she died. The greed for money killed her. (interview 33)

Another respondent provided an analogy about the earthquake striking on 26 January, the Republic Day of India. According to him, the idea of a republic is to treat everyone equally, but India failed to achieve the vision of the constitution. As a result, the earthquake levelled hierarchies of the society, at least for some time.

> If you see our society—there is a caste system. Some are poor, rich, upper, and lower [caste]. To control these inequalities, we created a constitution that came into existence on 26 January 1950. Our people and the parliament accepted it. As I understand, the real purpose of the constitution is that all citizens of the country are the same. There is no caste, no religion, no upper or lower [caste]—all are same. In fifty years from 1950 to 2001, we could not implement the constitution. The caste system, poor, rich, upper, lower—all existed just the same. If you see our village, on 26 January 2001, we all became equal because of the earthquake. The people with big buildings or on the road, all became equal. There was so much brotherhood that people started sharing food, sharing sorrow and joy, but that condition stayed for twenty-four hours only. After twenty-four hours, when people from outside came to help—conflict started, and inequality came back. Everyone forgot about the earthquake and got busy taking stuff. All those who were clever took more while poor people…they still live in the same condition…living in the barren area where there is no water or electricity or road. (interview 18)

These accounts show how the sentiment of disaster's naturalness resonates in everyday life of people in Kutch. Many consider earthquakes as a 'natural' disaster and god's punishment for today's corrupt society, which is devoid of human values. It helped them in ascribing meaning to the disaster. "Nothing can be done in front of god's will" was a common

expression among respondents to accept the losses and move on with their lives. The local media profoundly influenced such perceptions.

Media Framing of the 'Natural' Disaster

In Kutchi idiomatic language, God and Nature are used synonymously (Mehta 2001, 2932). The local media also appealed to disaster's naturalness to construct post-disaster narratives. They were quick to articulate the earthquake as a shocking *natural* disaster. In Kutch, the most popular and circulated newspaper *Kutch Mitra* declared the quake to be nature's fury and god's punishment. Some of the headlines published soon after the earthquake read:

- *Kaaldevta [god of death] why are you so upset with Kutch?* (Kutch Mitra 31.01.2001)
- *Tears have dried in the eyes of the earthquake victims of Kutch: who pacifies whom…survivors are thankful to god: they ask God why he gave such a tragedy?* (Kutch Mitra 31.01.2001)
- *Demand for Rs 2500 crore fund for natural disaster in Gujarat* (Kutch Mitra 6.2.2001)
- *Two sides of nature's fury: drought and earthquake* (Kutch Mitra 7.2.2001)

The newspapers were also full of shocking images of survivors (Figure 2.2) and destroyed buildings, showing the scale of long-term effects that the disaster would leave on Kutch and its people. In particular, the photos of destroyed hospitals, government offices and other critical infrastructure suggested that Kutch has come to a standstill without its essential

Figure 2.2: A young man holding a bottle of glucose for his severely injured father. Source: Kutch Mitra 30.01.2001

Title of the photograph: Hey lord. You took everything, at least spare my father's life.

services. Also, images of ruined temples were used to imply that the quake was so severe that even temples did not survive (Figure 2.3).

These narratives presented the earthquake as a standalone event, as God's anger and Nature's revenge. The advertisements published in the newspaper echoed the same sentiments. For instance, *Vishwa Hindu Parishad* (World Hindu Council), a Hindu nationalist organisation, created an earthquake assistance committee and appealed for financial assistance for the quake-affected people. The title of the advertisement read *Today's religion – Give life to others, Nature's quake: Kutch turned into a graveyard.*

Figure 2.3: Temple destroyed in the quake. (Source: Kutch Mitra archives)

Title of the photograph: Temple of Hateshwar Shiva itself got destroyed in the tremors of Shiva's tandav (dance of destruction).

Natural and Un-natural Disasters

If a disaster is triggered by a geophysical event, or most losses are attributed to geo- or biophysical forces, it seems the planetary environment and natural hazards will

> be held responsible. In conventional views, human and institutional failures appear as the very opposite of the "natural hazards paradigm" (Gilbert 1998) or "Acts of God" (Steinberg 2000). (cited in Hewitt 2013, 9)

Framing disasters as 'natural' events help make sense of the world, assign meaning, and come to terms with the loss. However, scholars have cautioned against labelling disasters as nature's violence or representing them as divine judgement (Smith 2006; Steinberg 2000). Although geographers focusing on the "hazard paradigm" of disasters have established that there are natural processes at work, they have noted that this view places the risk in nature outside the society (Hewitt 1995, 320). Rigby (2015, 10) explains that people are reluctant to connect the dots in today's climate crisis because the anthropogenic component is downplayed. Asking *how 'natural' the disaster is,* Roy (2012) argues that first God, then Nature and now the human agency is connected to disasters.

Increasingly, scholars and the public are experiencing risk and disaster as part of a 'risk society' (Beck 1992), where risks and disaster are at least partially attributable to human systems. At the same time, the media and everyday discourse still represent events such as earthquakes and their effect as 'natural.' Such accounts and stories are essential, as they create storylines that help to make sense of disasters. As Maarten Hajer famously pointed out, such storylines "have the functional role of facilitating the reduction of the discursive complexity of a problem" (Hajer 1997, 63). In doing so, they naturalise and embed certain understandings of *how* and *why* disasters occur – prescribing possible reactions to them in the process.

The disaster literature cautions against the framing of disasters as 'natural' events. It provides a storyline in which the responsibility falls on Nature or God – away from planners, governments and investors. It is particularly damaging if the state presents this narrative. Hurricane Katrina, for example, clearly showed that "naturalness of disasters becomes an ideological camouflage for the social (and therefore preventable) dimensions of such disasters" (Smith 2006). Consequently, the institutions miss the opportunity to identify the root causes of disasters prevalent in society that create risk and vulnerability conditions.

In the case of the Gujarat earthquake, the narrative of naturalness received initial momentum with documents framing it as a 'natural' and extraordinary event, which was beyond anyone's control and comprehension. The state reconstruction policy labelled the earthquake the "worst natural disaster for the country in the last 50 years" that led to 'colossal' loss of life (See GSDMA 2002, 1). The government reports and public speeches also contained anecdotes to frame the earthquake as a 'natural disaster' and reinforce the narrative of 'naturalness.' Such framing often fails to identify the root causes (socio-economic and political factors) responsible for the unequal distribution of risk and vulnerability in society and may prove counter-productive to the principles of Disaster Risk Reduction.

2.3.2 Narrative of Exclusion, Corruption, and a Separate State

Historically, Kutch has often experienced exclusion from the rest of Gujarat. Mehta (2001, 2934) who conducted extensive research on the political ecology of water in Kutch, explains:

> Even though Kutch has intrigued the imagination of outsiders with its Ranns and fascinating arts and crafts, it has largely been viewed as Gujarat's backwater with its low industrial development and poor literacy rates. As a princely state, it remained largely isolated from the grand events shaping the Indian subcontinent. In 1948 it ceased to be a princely state and had to give up its own currency and calendar. Its integration into the Indian union, and, in particular, into Gujarat has not been easy. Kutchis are bitter about the series of failed promises that have been made to them by the state of Gujarat. Many of them are still waiting for water from the major rivers of Gujarat that they hope will solve their drought problems.

Several researchers have noted that the response to the Gujarat earthquake was overwhelming, so much so, that it "ended the traditional isolation of Kutch" (Khera 2002, 1023). However, others have observed the failure of the state government in the distribution of relief and rehabilitation calling it a "double tragedy" (Mehta 2001, 2934) and a "second earthquake" (Simpson and Corbridge 2006, 568; Simpson 2005, 228). The Kutchi people accused the administrative centres of the State of inefficiency in functioning, corruption and unfair distribution of relief materials, which led to protests and police firing to control unruly crowds (Simpson and Corbridge 2006, 573; Simpson 2005, 224). The media echoed these views through articles and comic strips (Figures 2.4 and 2.5). Some of the headlines that made the rounds soon after the quake were:

- *Government system has not reached Bhachau – Rapar yet* (Kutch Mitra 31.1.2001)
- *Lathicharge*[21] *on earthquake victims in Bhuj: Relief is coming from the country and abroad but people are suffering: maladministration even after eight-eight days: people threw stones to get the tents* (Kutch Mitra 4.2.2001)

[21] Lathi=baton, the police sometimes use batons to disperse unruly crowds

"What happened to Budhiya after military personnel rescued him from under the rubble?"
"That poor guy got trashed under the government's paperwork in the desire of aid."

"...drought...cyclone...earthquake...what have you learned from all these natural disasters...?!"

"Sir, because of natural disasters, we learned what governmental disasters are and what are their types."

Figure 2.4: Satirical comic strips reflecting on complicated bureaucracy. Source: Khatri 2002, 32

In an article published soon after the earthquake, Rawal and Nair (2001) point out that lack of coordination in organising rescue and relief operations, and complaints about bureaucratic inefficiency affected the image of the government. In response to such accusations – to counter stories of an inefficient and corrupt government – the government announced ambitious rehabilitation targets and packages. Within a month of the earthquake, *Kutch Mitra* reported that *Earthquake victims would receive constructed houses in four months* (20.2.2001). However, the narrative of exclusion persisted as people felt excluded from the decision-making processes of reconstruction and rehabilitation. Darshini Mahadevia, an architect, who was part of a responding team after the quake, shares intimate details of village adoption, approach of the adopters and contractors and people's attitude towards rehabilitation efforts.

"…well, doesn't he see...? In the name of relief, he is the epicentre of all this corruption...!"

"…Father! Due to your blessings, I too…without hoping for any repayment, selflessly doing corruption…!!"

Figure 2.5: Satirical comic strips reflecting on corruption. Source: Khatri 2002, 32

The adopter approached an architect and got the design of one-room housing unit with a bathroom and latrine. The housing unit designs were ready. The adopter had to meet the state government officials and apply for adopting the village. The rehabilitation scheme was ready without even knowing who the residents would be and of course not seeking the opinion of the expected inhabitants (Mahadevia 2001, 3671).

She further claims that the people were unhappy with the government's approach to privatise the rehabilitation efforts, which included the adoption of villages by outsider organisations and public-private partnerships. They understood the government's attempt to pass on the responsibility of reconstruction and blame of failure. Also, they were wary of unknown adopters and contractors. The adopters and contractors were pressing for village relocation to ease their way despite resolutions passed by ninety per cent of Gram Sabhas opting for in-situ rehabilitation. There was almost no attempt by the adopters to familiarise themselves with the adopted people (Mahadevia 2001, 3670-73). The stories of corruption in the distribution of relief material and exclusion of communities in the decision-making processes further added fuel to the logic that the people of Kutch have been victimised and deceived by the state's administration. Emphasising on the uniqueness of Kutch, its *Kutchiyat*, the discourses of kinship and regionalism re-surfaced and pushed the demand for a separate State of Kutch (Simpson and Corbridge 2006, 566).

An Independent Kutch

The post-independent India witnessed the unification of more than five hundred independent kingdoms into the republic of India. Ever since the unification, many of these regions have demanded separation from each other based on "development, cultural distinctness, administrative convenience, history of separate existence as political entities and economic discrimination" (Kumar 2000, 3078). The *Mahagujarat* movement led to the separation of Gujarat and Maharashtra from Bombay State based on linguistic differences in 1960 (Ibrahim 2012, 66). With this partition, the Kutch came under the administrative control of Gujarat. However, the people of Kutch felt alienated from Gujarat because of its distinct culture, traditions, and environmental conditions.

In an article published less than six months before the earthquake, Kumar (2000) had cautioned that any large-scale reorganisation would motivate regions such as Kutch to demand a separate state (2000, 3081). Although he was pointing towards political restructuring, which had given birth to the State of Uttarakhand in 1996, he noted:

> The sentiment for separate statehood in these regions today emanates from a perception of a centre-periphery relationship with the politically more powerful dominant regions, which have allegedly exploited the rich mineral and other natural resources of their periphery in a colonial mode of development. Ironically most backward regions of some of these states are actually the richest in terms of natural resources. It was the articulation of this strong sentiment of being treated as an 'internal colony' that had earlier led to the setting up of Development Boards in Kutch, Saurashtra, Marathwada and Vidarbha (ibid, 3079).

The district of Kutch, which bore ninety per cent of the total deaths and around eighty-five per cent of losses in assets after the earthquake (Barenstein 2006, 1; Simpson and Corbridge 2006, 571; UNDP 2001, 3), had been demanding to be an independent State for several decades, but the movement had grown weaker before the earthquake. However, stories of exclusion and neglect by the rest of Gujarat continued to foster discontent among the people

of Kutch (Thiruppugazh 2007, 7). This sense of exclusion gained a new impetus from the inadequacies of the disaster response. Since people were not pleased with the response after the quake due to corruption and inefficiency of the government system, voices for an autonomous Kutch State grew stronger (Simpson 2005, 220). As Simpson and Corbridge (2006, 578) note,

> Given the scale of destruction left by the earthquake, the bureaucratic machinery of the government was frequently exposed as inadequate. This led to accusations of nepotism, cowardice, and inefficiency against bureaucrats and elected politicians. Many of these claims contained elements of truth; other claims were inspired by personal ambition, political opportunism, or confounded rage. Significantly, however, in the flurry of transfer, additional deputations, corruption scandals, and policy changes, a number of calls were made for Kachchh to be made independent from Gujarat.

Simpson and Corbridge (2006, 578) identify two dominant narratives supporting an independent Kutch: outsiders are destroying the Kutchi identity by governing and reconstructing the region without understanding the nuances of its culture and traditions, and "Gujarat" has neglected Kutch as it has done in the past – and will continue to do in the future. The second reason has also led to a telling debate on the naming of the disaster. This debate focused naming the disaster as "Gujarat earthquake" or "Bhuj earthquake" or "Kutch earthquake" because Kutchi people accused "Gujarat" of having claimed their earthquake (Simpson 2005, 246) – a debate on how the disaster should be memorialised and remembered.

Silencing the Debate on the Meaning of the Disaster

> "Monuments may not remember events so much as bury them altogether beneath layers of national myths and explanations" (Martin Broszat cited in Young 1992, 272)

On the third anniversary of the earthquake in 2004, the Chief Minister of Gujarat announced the construction of *Purusharth nu Mandir* (meaning Temple of Human Endeavour) with the plantation of over 13000 trees (in memory of each of the victims). It was an attempt to silence the debate on meanings and significance of the earthquake and urge people to forget about it (Simpson and Corbridge 2006, 567-68, 581; Simpson 2005, 246). Remembering and forgetting are inherently linked (Assche et al. 2009, 211; Hoelscher and Alderman 2004, 347). *Fixing* the memory of the quake with a memorial would have silenced the narratives of exclusion and independent State. As Paul Connerton remarked, the "control of a society's memory largely conditions the hierarchy of power" (1989, 1).

As a government employee, I had come across a project of a state-sponsored memorial called *Smriti Van* (meaning Forest of Remembrance). Although I was never directly involved in the project, I learnt from my colleagues that it was a massive project with multiple components involving multiple state and non-state agencies. Interestingly, I never

heard or read about *Purusharth nu Mandir* during my time with the government. But the concept of Smriti Van is the same including a plantation of 13000 trees. I will return to Smriti Van's components and its role in legitimising the state's post-disaster intervention and reinforcing the narratives of development and safer Kutch in chapter 4 more extensively. Here, it is important to note that with the memorial, the state offered an alternate storyline about development and modernisation of Kutch through its long-term intervention strategies – instead of one of corruption and exclusion.

Even after these attempts to forget the quake, the voices of dissent were powerful. The people of Kutch accused the rest of Gujarat of its step-motherly behaviour. It became necessary to appease Kutchi people by appealing to their sense of collective identity, pride, and resilience. In the following section, I present how media stories and the state's tourism campaign underpinned the narrative of Kutchi identity and resilience.

2.3.3 Narrative of Kutchi Identity (*Kutchiyat)*[22] and Resilience

> "a weaving together of multi-layered identities of caste, sub-caste, religion and other forms of identities into a self-esteem, expressed in the Kachchhi word *Khamir* (intrinsic pride) and *Kachchhiyat*, the sense of the larger community…*Kachchhiyat*, the sense of larger community, has its roots in this interlinking of lives and livelihoods in an uncertain environment – earthquake, cyclone, drought prone – with scarce natural resources." (Velayudhan 2016, 218)

Almost every year, the monsoon season in India disrupts the daily life of people in the mega-city Mumbai at least for a few days. The island city of Mumbai has become synonymous with extreme waterlogging, floods and stranded daily commuters. However, the media celebrates the "spirit of Mumbai" for bouncing back on its feet after floods showing that the economic engine of the country jumps back every single time. It is noteworthy that the celebration of Mumbai spirit has become a part of the annual flood narrative, and the 'resilience' of the city and its people overshadow the escalating disaster risk of Mumbai. My own experience of researching five disaster-prone slum communities in Mumbai in 2009-10 revealed extreme risks and people's vulnerabilities due to annual flood events (See Andharia and Lakhani 2010). The flood situation in Mumbai is worsening every year, yet the narrative of the Mumbai spirit takes precedence over essential steps that are necessary to reduce the flood risk. Only after the floods of 2017, the exasperated people of Mumbai warned politicians not to use the cloak of "Mumbai spirit" to hide their failures (Shekhar 2017).

Gujarat is a similar story where the notion of Kutchi spirit and resilience is often evoked. Scholars have noted the extraordinary courage of the people of Kutch in coping with the disaster (Khera 2002, 1023). One commonly comes across the stories of Kutch's resilience

[22] Kutch is called Cutch and Kachchh in different sources of literature. Similarly, *Kutchiyat* or *Kachchhiyat* have same interpretation. For consistency, I have used *Kutchiyat* throughout text.

against prolonged droughts, cyclones, harsh climate and of course, earthquakes. People share these stories with a sense of pride. Many respondents shared stories of rescuing people after the quake, which symbolises their courage and pride in being a Kutchi. In discussions, they pointed out that many were reticent towards sharing their problems and need for aid after the disaster as they considered it below their dignity.

The media actively sensed the pride and uniqueness of Kutch, echoing and amplifying it through stories of people's resilience and symbols of Kutchi identity. The editorial published in Kutch Mitra on 13 February 2001, for example, stated, "multi-storey culture and cement and concrete jungles are not part of our history" (Simpson 2005, 227). A report *Kutch Mitra Vishesh Prakashan* (Kutch Mitra Special Edition) published on the first anniversary of the earthquake reported several heroic efforts of individuals, institutions, and organisations (See Khatri 2002). Some of the articles following this storyline were titled:

- *Glowing lamp of pride in the hurricane of difficulties* (p. 36)
- *Challenges of protecting the disappearing ancient heritage of Kutchi identity* (p. 201)
- *Fiery trial of Kutchiyat (has anyone cast an evil eye on the Kutchiyat that has robustly persisted for centuries)? (p. 291)*

Such articles became an instrument for mobilising the community, constructing storylines that presented and performed an image of a resilient Kutchi identity. Not only Gujarati media but government publications assisted in the construction of this narrative. A report published by the GSDMA was titled *Kutch Rehabilitation After Earthquake – Story of Human Resilience and Endeavour*. While reporting their contributions to the reconstruction programme, several NGOs and funding organisations referred to the symbols of Kutchi resilience and identity. For instance, UNDP included a section on Kutchi traditional arts and crafts, embroidery, and textile printing in its report *From Relief to Recovery: The Gujarat Experience.* The article mentioned the distinctiveness of Kutch calling the Kutchi craft as an "expression of creativity, aesthetics and identity" (UNDP 2001, 21-24).

Azaryahu and Golan (2004) have shown that homeland is central in conjuring a sense belongingness and culturally shared meanings. In a similar context, reminiscing the notion of Kutchiyat was a tool to evoke the idea of an "imagined community," which is resilient and able to forget and move on from the destruction. The state celebrated the uniqueness of Kutch and dedicated a specially designed tourism initiative, *Rann Utsav*, to reinforce the narrative of Kutchi resilience and appease the people of Kutch.

Rann Utsav Tourism: Situating Kutch in the Centre of Gujarat

The commerce-oriented Gujarat is more prosperous and has always enjoyed faster GDP growth, industrialisation, and more employment opportunities than the rest of India. After the earthquake in 2001, the State government vigorously promoted industrialisation and tourism to improve the economic situation of Kutch. The state-initiated *Vibrant Gujarat* summit further showcased the State as a business-friendly destination. Started in 2003 by

Narendra Modi when he was the chief minister of Gujarat, *Vibrant Gujarat* continues to promote a modern vision for the state (*The Economist* 2015). Under the tutelage of Vibrant Gujarat, the state initiated *Rann Utsav* (meaning Festival of Rann), a unique initiative to promote tourism in Kutch.

Kutch was not an attractive tourist destination despite having unique natural and cultural heritage, but it had the potential to grow (GIDB 2005a, vii-viii). Gujarat's earthquake reconstruction and rehabilitation policy identified tourism as an essential source of employment and envisioned to revive it in the aftermath of disaster (See GSDMA 2002, 18). The Gujarat Infrastructure Development Board (GIDB), a statutory organisation of the government of Gujarat, listed several vital points for the action plan such as "aggressive marketing of the Kutch festival through print media" and "Kutch to be developed as a separate brand for Gujarat tourism" (GIDB 2005, xxxvi). The government acted promptly and launched Rann Utsav in 2005. The annual event of Rann Utsav is a crucial aspect of Vibrant Gujarat, which packages the mysterious Rann and colourful Kutch for Indian and overseas tourists (Ibrahim 2012, 68). This tourism initiative also helped in reframing the narrative of exclusion and negligence into the story of strengthening Kutchi identity and celebration of its resilience.

Anthropologist Farhana Ibrahim has analysed the Gujarat tourism advertisements and songs to explain the processes of narrative construction (2012, 66-72). The analysis shows that the state has placed Kutch at the centre of its tourism drive to counter the arguments of its exclusion from Gujarat and construct a "regional consciousness." Ibrahim notes that the poem *Jai Jai Garvi Gujarat* (Glory to Proud Gujarat) written by a Gujarati poet Narmadashankar Lalshankar was used as the state's anthem for Gujarat during the Mahagujarat movement. The original version of the poem written in 1873 stresses the pride of the people who speak Gujarati and are protected by the Hindu deities in four directions of Gujarat. It had no mention of Kutch and its culture. Whereas the altered version of the poem includes:

> *Aa rann mane pyaru che* (This Rann is beloved to me),
> *Vishwa nu dwar che* (It is the gateway to the world),
> *Aahi sidhh karya vyapar me dariyapar Gujarati hu chhu* (I am the Gujarati who traversed the seas for business)
> *Har aafat same ubho bani padkar Gujarati hu chhu* (I am the Gujarati who stands up in the face of every adversity).

The government released the altered version of the poem on the 50th anniversary of the State on 1 May 2010. It focussed on the development and industry, Gujarat's history with international trade and Rann as an integral part of Gujarat. While it does not explicitly mention disasters such as the 2001 earthquake it does indirectly by referring to *aafat* (adversity). The Gujarat tourism advertisements, released in Hindi and English versions, reflect the same sentiments. The English version contains:

> This is the surreal Rann of Kutch, the doorway to India… This stark and austere beauty is colourfully contrasted by the people of Kutch, by the vivid colours of their handicrafts, and the sweet melodies of their folk music

The Hindi version mentions:

> *Kutch ka yeh Rann, Hindustan ka toran hai* (This Rann of Kutch is the doorway to India)
> *Prakriti ki kathinayian dil pe nahin letein Kutch ke log* (The people of Kutch do not take nature's adversities to the heart)

The framing of tourism advertisements and re-appropriation of songs were instrumental in showcasing that Kutch is an integral part of Gujarat and in constructing a modern Gujarati identity for the region. Forming a new identity by discarding memories that no longer serve any purpose (in this case – memories of exclusion, corruption, and alienation), is a form of forgetting (Connerton 2008, 62-63). The state needed people to forget certain aspects of the quake to curb discontent and political upheaval against the government, and the narrative of resilience provided that opportunity. Through it, the people would remember a sense of belongingness to their homeland and recall the notion of collective identity.

However, Ibrahim claims that depicting Kutch as vibrant, colourful, and resilient against disasters depoliticises the concerns of the people (2012, 71). A telling example is the use of *Bhunga* as an icon of Kutch's resilience in the tourism drive. I introduce it in the following section to showcase its role in promoting tourism and return to it in chapter 3 to discuss the problems of Bhunga communities living in villages.

Bhunga: Representation of Kutchi Resilience

The mud houses of Kutch, *Bhunga,* received much attention after the earthquake because their design and materiality helped them survive the quake with minimum damage. The government's intervention in the tourism industry further promoted these humble dwellings, and they became popular tourist resorts. The Vibrant Gujarat initiative used staged authenticity of Bhunga huts to symbolise the "colourful" and "resilient" Kutchi society.

One can find traditional Bhungas in the Banni region, which is considered their place of origin. Traditional Bhunga makers use mud, wood, grass, cow dung and other locally available material for constructing Bhungas. These mud houses neither get too cold in winter nor get too hot in summer. Their low height and circular foundation help them survive cyclones and earthquakes, which are prevalent in the Kutch region. Scholars in engineering, design, architecture, and many other fields have studied Bhunga from different perspectives and applauded their resilience against disasters (Hausler 2004; Jigyasu 2002, 21).

Figure 2.6: Bhunga for tourists. Photo: by author

The tourism campaign identified Bhunga as one of the main attractions of Kutch to showcase its resilience and promote tourism.[23] Thousands of people from all over the world flock to Kutch every year during winter to experience the 'authentic' culture of Kutch. Today, Bhunga Resorts are popular tourist attractions and offer all kinds of modern facilities (Figure 2.6). Again, such storylines have effects. The promotion of Kutchi tourism by showcasing traditional huts reflected that the modern and developed Kutch has retained its values and forged a new forward-looking identity. The Bhunga resorts equipped with modern facilities act as the sites of forgetting and 'moving on'. Analysing these narratives through the lens of political ecology, I will return to this discussion in chapter 3 and present stories of disenfranchised Bhunga dwellers countering the narratives of resilience.

2.3.4 Narrative of Development and Safer Kutch

This tug between narratives of development and safer Kutch on the one hand and corruption and neglect on the other is evident in the case of Kutch. One telling example is the debate on *how* to rebuild Kutch. This debate was dominated by two major groups: *traditionalists* – who favoured a cultural revival of mud houses and wooden structures – and *modernists* – who perceived the quake as an opportunity to modernise Kutch with steel and concrete structures (Khera 2002, 1021). Although many villages retained the mud houses as a symbol of Kutchi identity and pride, the state designed its overall reconstruction and rehabilitation programme to develop and modernise Kutch. In this section, I discuss the government's strategies, which contributed to the narrative of development and modernisation. I argue that neoliberal visions of development burdened the state's post-disaster intervention

[23] For details, see https://www.rannutsav.com/, https://www.gujarattourism.com/

strategies. Although national and international institutions celebrated these strategies as 'best practices' of disaster management, they also created issues of accountability, due to lack of stakeholder participation and corruption, and simultaneously reinforced existing vulnerabilities.

Disasters are considered useful in providing a clean slate so that the state can establish a new and organised settlement, which would eliminate the risky infrastructure (Klein 2007). The saying "never waste a good crisis" certainly applied in the case of this earthquake. The experts and planners entrusted with the reconstruction effort perceived it as an opportunity to "build back better" after the disaster (Thiruppugazh 2007, vii). Such intentions were fuelled by a shared worldview that homogenising and modernising "backward" and "primitive" cultures were a desirable form of social improvement. In this view, the dream of a resilient, prosperous, and developed society runs parallel with highways, shopping malls, industries, and massive investments in infrastructure. In his essay 'Historical geographies of urbanism,' Richard Dennis (2000) discusses the representation of progress such as railways in the late nineteenth and early twentieth centuries. The steam coming out of an engine indicated a "single-minded direction of improvement" (2000, 240). In the late twentieth century, new imaginaries of "improvement" were added and linked to the officially legitimated metaphor of "building back better."

The Gujarat government was determined to show its commitment towards growth and development by rebuilding a 'new' Kutch with re-engineered cities and villages, modernised infrastructure, innovating risk transfer scheme, and industrialisation. The reconstruction programme was framed as an instrument to develop and modernise Kutch and make it an integral part of Gujarat. Some of the headlines in Kutch Mitra resounded the vision of a 'New Kutch.'

- *Let's get together to resettle Kutch* (Kutch Mitra 3.2.2001)
- *Centre will create a 'New Kutch' with modern systems* (Kutch Mitra 8.2.2001)
- *Let's rebuild new Kutch with new vision* (Kutch Mitra 9.2.2001)
- *Scheme for a 'New Bhuj' taking shape* (Kutch Mitra 15.2.2001)

Kutch has remained on the margins in the State of Gujarat (Simpson 2014, 71; Ibrahim 2012, 67). Simpson (2014, 68, 71) remarks that Kutch was hostile to the idea of Gujarat because of different language, different culture and the authority imposed on Kutch by the power centres of "modern Gujarat." As a result, it became necessary for the state to construct a storyline of development, using it to assign meaning to the disaster. Further, such a narrative would coincide with the interests of international aid agencies, donors, and the central government. To develop and modernise Kutch, the Gujarat government adopted several strategies in reconstruction and published a full-page advertisement on the first anniversary of the quake. It read:

> *Transformed from destruction to development, our Gujarat*
> *Producing vanity from ruin, our Gujarat*
> *Converting calamity into regeneration, our Gujarat* (*Kutch Mitra* 26.2.2002)

Urbanisation and Re-engineering of Living Spaces

Part of this narrative of development revolved around the construction of safer housing. The earthquake had affected over 11 lakh[24] houses (GSDMA 2003). As a result, the construction of houses was the priority component of the reconstruction and rehabilitation programme. The government envisioned to construct nearly 215,000 units (ibid). To accomplish such a massive reconstruction project, the state government appealed to national and international governmental, non-governmental and private sector organisations to adopt villages under a specially designed public-private partnership (Barenstein 2006, 2). Many of the external agencies that came forward to adopt the villages favoured relocation of villages. This way, they would not have to deal with the removal of rubble and change plans according to the existing buildings that survived the quake (ibid, 19). The adopters preferred resettlement to a new site to avoid village politics, caste and class hierarchies and vernacular housing traditions. It enabled the adopter and contractor to construct row houses in a grid pattern speedily – along with preconceived notions of development. Although the beneficiaries severely resisted the idea of relocation, some adopters and contractors managed to convince a few villages for resettlement to a new site. The owner-driven, donor-facilitated, and donor-driven approaches helped in achieving relocation and reconstruction of G5 category[25] houses (Hausler 2004). These approaches meant:

a. Owner-driven approach: people could build their houses with cash assistance and expert assistance from the government and non-profit organisations
b. Donor-facilitated approach: people could collaborate with a non-profit organisation and received partial cash assistance
c. Donor-driven approach: people could move into a house built by a non-profit or government organisation

These approaches helped the government achieve the construction targets in record time, and the government announced the reconstruction of 197,091 houses out of 222,035 by December 2005 (Barenstein 2006, 23). It was the first time that a state facilitated and executed an owner-driven approach in India at such a grand scale (ibid, 1), and the state made sure to highlight its successes.

The widespread destruction of four major towns in Kutch prompted the state government to undertake a massive reconstruction of the cities. The state proposed new development plans and town planning schemes for the towns of Anjar, Bhuj, Bhachau, and Rapar (Figure 2.7 and 2.8). Due to proximity to the epicentre, Anjar, Bhuj, and Bhachau were the worst affected towns (Bhattacharjee 2016, 82). The government prided itself in re-engineering these towns in a more organised manner.

[24] One lakh = one hundred thousand
[25] Based on the survey conducted by the government in collaboration with NGOs, the earthquake affected houses were categorised from G-1 (minor damage) to G-5 (completely damaged, require reconstruction).

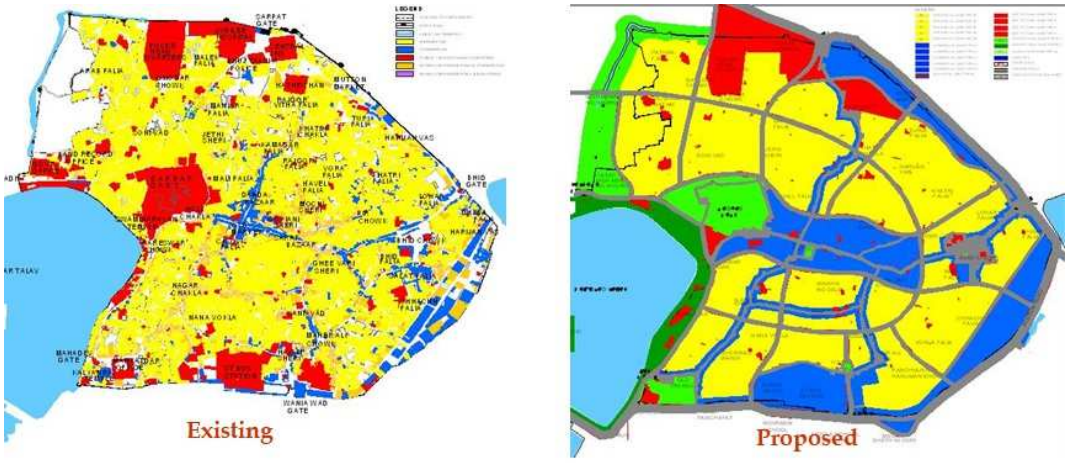

Figure 2.7: Bhuj Development Plan (Kishore 2007)

Inspired by the same logic, the planners designed the relocated villages with wide and parallel roads, identical row houses and demarcated locations for public infrastructures. Clearly, the government focussed on achieving the targets of infrastructure development and used the earthquake as an opportunity to re-engineer the living spaces. However, the aftershocks of village adoption, relocation, and re-engineered spaces are experienced by people in their everyday life. I present their counter-narratives in chapter 3.

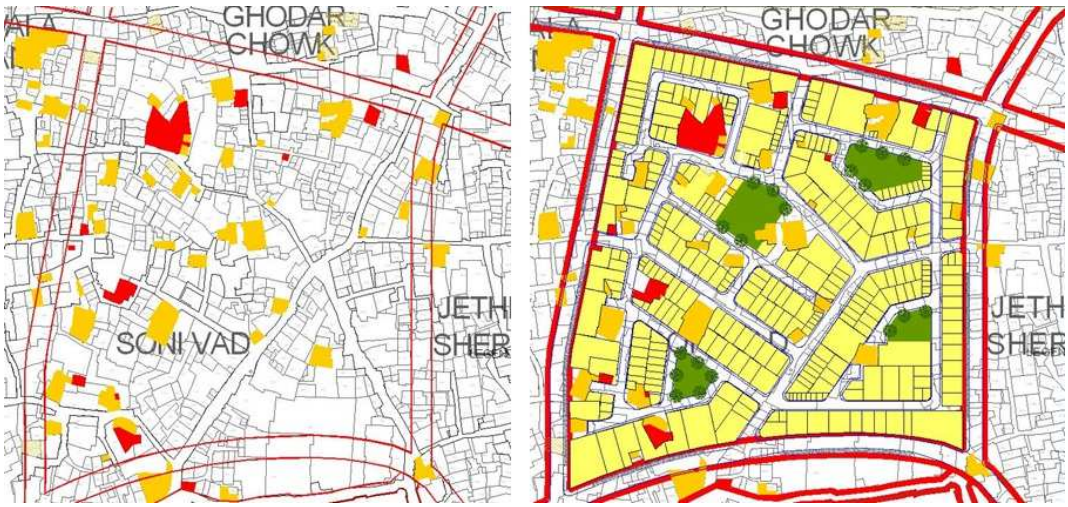

Figure 2.8: Town Planning Scheme (Kishore 2007)

Risk Transfer Mechanism: An Innovative Scheme of Housing Insurance

The reconstructed houses came with a compulsory insurance scheme under the Standard Fire and Special Perils (SFSP) policy. The idea was to transfer the burden of repair and reconstruction to the private sector in case of future calamities. The scheme covered the

houses against fourteen risks for an insurance cover of INR 100,000. The beneficiaries paid the premium of INR 360 (one-time payment) from the third and the last instalment of the funds provided by the government for house reconstruction. The state facilitated the scheme to insure all the reconstructed G-5 category houses for ten years. The project had the provision of the group as well as individual policies (GSDMA 2003). The government received appreciation for its innovative scheme, which helped it in presenting the notion of a safer Kutch. Also, it allowed the government in improving its image as a forward-looking administration.

Although a necessary initiative to protect the beneficiaries from financial burden in future disasters, the scheme was designed with minimum involvement of beneficiaries. The state conceptualised, negotiated and approved the insurance scheme in the offices away from the negotiation reach of the people. After ten years, the beneficiaries barely noticed that they are not covered by the insurance anymore, and the scheme was discontinued upon completion of its ten-year term. On the other hand, the government placed the responsibility of continuing the scheme on the beneficiaries without acknowledging their lack of participation in the first place. In chapter 3, I return to these issues to challenge the idea of safer Kutch.

A landmark of Infrastructure Development: Bhuj Hospital

The 'Sheth G.K. General Hospital' commonly known as Civil Hospital was the largest medical institution in Kutch since Jawaharlal Nehru, the first Prime Minister of India, inaugurated it in 1956. The 281-bed hospital served as the central medical institution for over one million people living in the hinterlands of Kutch (Rai et al. 2002, 265). But on the morning of January 26, 2001, it collapsed during the earthquake, killing 172 people. The city of Bhuj was left with no significant medical institution. The lack of medical services in Bhuj led to far more deaths and suffering than was expected (ibid). Realising the necessity to rebuild a modern and better hospital, Atal Bihari Vajpayee, former Prime Minister of India sanctioned Rupees One Hundred Crore[26] from Prime Minister's Relief Fund (Misra 2017).

The state decided to construct a hospital with base-isolation technology and the latest medical equipment. The construction of a seismically resistant hospital in the high-seismic region of Kutch was a welcome step. It was instrumental in promoting the idea of developed, modern, and safer Kutch. The base-isolation technology of the new hospital received much attention in media. Right before the second anniversary of the quake, Kutch Mitra reported *Bhuj Hospital, A Landmark in the rehabilitation of health services* (24.1.2003) with an image of the newly constructed hospital building on the front page. Prime Minister Atal Bihari Vajpayee inaugurated the new building on March 31, 2003. It was an impressive achievement and certainly helped the state in showcasing that Kutch is not excluded anymore. It is part of a modern Gujarat.

[26] One crore = ten million

However, during my fieldwork, the respondents living in Bhuj shared their disappointment with the new institution and recalled *their* old Civil Hospital with nostalgia. They raised issues of mismanagement, corruption, and inefficiency in the new hospital's functioning, presenting counter-narratives to the stories propagated by the state. I will elaborate on these counter-narratives in the next chapter.

Industrialisation: Vision of a New Kutch

In the second half of the year 2005, the GIDB published a two-volume report *Study on Potential Development of Kutch, Gujarat*. It focussed on the status of development, identification of potentials, infrastructure development and growth management strategies. One of its key findings explained that unlike the rest of Gujarat, Kutch had not attracted industries until 2000. Out of 6656 industrial projects sanctioned from 1991-2000, only 134, i.e. around 2 per cent came to Kutch (GIDB 2005a, v). However, the results have improved significantly after 2001 and primarily because of new incentive schemes.

To promote economic and industrial development of Kutch, the state government had included special incentive schemes in the reconstruction and rehabilitation policy. Under this lucrative scheme, the new industrial units established in Kutch between 31-07-2001 and 31-10-2004 were granted Sales Tax Exemption and deferment (See GSDMA 2002, 19). As a result, Kutch attracted a significant amount of the investments sanctioned in Gujarat after 2001 (Table 2.1).

Table 2.1: Investments sanctioned for Kutch and overall Gujarat

Year	Investments sanctioned in Gujarat (INR)	Investments sanctioned in Kutch (INR)	Share of Kutch (per cent)
1983-1990	98.10 billion	0.13 billion	0.13
1991-2000 (post liberalisation)	2806.26 billion	149.92 billion	5.34
2001-2005	612.61 billion	179.55 billion (till Aug 2004) Crossed 200 billion (January 2005)	29.31
Source: GIDB 2005a, v			

Even after economic liberalisation in India in the 1990s, Kutch received a mere 5.34 per cent of investments out of total sanctions in Gujarat. However, the share subsequently rose to almost 30 per cent of an admittedly smaller total sum of sanctioned investments from 2001 to 2005. The report also mentioned that the industries were spreading towards the newly reconstructed towns of Bhachau and Anjar when previous investments had focused around Bhuj and Gandhidham *talukas* of Bhuj before 2000 (GIDB 2005a, vi).

In its vision of a "New Kutch" as a 21st-century business hub, the GIDB defined key strategic areas for action, including urban development, tourism development, place marketing and branding Kutch (GIDB 2005b, xviii). The "New Kutch" was now at the centre of Gujarat's business activity, which added to the narrative of Kutch's development. The flourishing industries also attracted thousands of migrants from the rest of Gujarat and other parts of the country. Chapter 3 challenges the idea of Kutch's industrial development and presents its long-term consequences on environmental degradation, traditional livelihoods, community cohesion, and increase in social vulnerabilities due to migration.

2.4 Concluding Remarks

In responding to disasters, stakeholders contribute to different ways of memory transmission. It may be through regulations, policies, learning centres, training, and storylines. Their roles and interactions influence the narratives through which these disasters are remembered and forgotten. The analysis reveals that governmental organisations and media were influential actors in transmitting memories and constructing dominant narratives. Although non-governmental organisations made valuable contributions through learning centres and training activities, they faced several challenges in functioning. At the same time, the limitations of village-level committees show that experiences of particular groups were undervalued and as a result, their concerns were lost in dominant narratives.

Through stories of morality, God's revenge and Nature's fury, Kutchi people attached meanings to the disaster. The local media echoed these sentiments and fuelled narratives of disaster's naturalness. The state also utilised this storyline to shift accountability to natural causes. Now the quake was a standalone event, which was beyond anyone's control. In this way, the focus shifted from poor building construction, non-compliance of building codes and regulations, and corrupt practices to God's fury and Nature. It goes against the ideas of risk reduction, which recognise the accountability of responsible actors as a valuable factor in building trust among different stakeholders.

In the midst of this, many people felt alienated and excluded from the government's response to the disaster. As a result, it gave impetus to the notion that Kutch has always been excluded from Gujarat. Kutch's unique history, geography, and culture evolved differently from the rest of Gujarat, and it has not been able to merge with the State even decades after its official integration. The power centres of the state are located far away from Kutch, and their response was not adequate according to many people's estimation. Consequently, the voices of dissent rose and the demand for an independent State of Kutch re-emerged. To appease the people, the government announced ambitious reconstruction and rehabilitation packages and official memorials for remembering the people lost in the earthquake. The state also celebrated the notion of Kutchi resilience, a narrative that is ingrained in Kutchi lifestyle and had received significant attention from local media after the quake. The narrative reaffirmed that Kutchi way of life is difficult due to frequent cyclones, earthquakes, droughts, and harsh climatic conditions. Yet, Kutchi are resilient

and always overcome these challenges. The idea was to revoke the notion of resilience and suggest forgetting the quake and move on. As observed through the shift in media narratives, the celebration of Kutchi identity and resilience soon eclipsed the stories of exclusion and corruption.

The state's tourism campaign furthered these ideas, which celebrated the Kutchi spirit. The tourism drive of Kutch identified Bhunga as a symbol of Kutch's resilience. It reflected that culturally rich Kutch is attached to its roots, but the modern Bhungas show that it is moving towards growth and development. Furthermore, the development narrative chiefly drafted by the state silenced the demand of separate Kutch. The narrative was built on the state's widely celebrated reconstruction programme. The reconstruction programme focussed primarily on infrastructure, and its success was measured by tangible achievements such as housing reconstruction. Along with the programme came housing insurance scheme, construction of an advanced hospital, and industrialisation of Kutch. These strategies reaffirmed that Kutch is developed and safer.

On the one hand, scholars have applauded the alacrity with which public institutions responded after the earthquake calling it "an efficient and welfare-inducing response system" (Roy 2012, 148-149). However, a few others have criticised the haste with which the government prepared and implemented the reconstruction programme (Rawal and Nair 2001). It is undeniable that the Gujarat government introduced novel strategies of disaster risk reduction. But, in its attempt to silence the narratives of exclusion, corruption, and an independent State (Simpson and Corbridge 2006), the dominating narratives of development and modernisation eclipsed the concerns of many sections of the society. Thus "building back better" after the earthquake disaster in Gujarat became embedded in a political ecology of local and regional tensions, as diverse stakeholders, and institutions, including many committed to disaster risk reduction goals, arrived with pre-conceived notions of reconstruction and recovery.

Narratives are powerful tools to remember and forget disasters in distinct ways. But remembering and forgetting disasters through these narratives may affect people in ways that reinforce social vulnerabilities and go against the principles of DRR. That is why these narratives need to be challenged. In the next chapter, I present the counter-narratives that have emerged from people's experiences of living in post-quake Kutch. I submit a critique of tourism initiative, urban development, insurance scheme, infrastructure development, and industrialisation that characterised the narratives of development and safer Kutch. I argue that these narratives have deepened the social and economic vulnerabilities in the everyday lives of people.

Chapter 3: Counter-narratives: Vulnerability Analysis through Polymorphy of Socio-spatiality

"the rich did not want to relocate, and the poor were never asked."

– a respondent on the relocation of Bhuj city

3.1 Introduction

The chapter aims to present counter-narratives against the backdrop of dominant narratives that characterised Gujarat's reconstruction. These counter-narratives will challenge the successful reconstruction programme and policies and showcase the impact of dominant narratives on people's vulnerability.

The Gujarat earthquake brought several positive changes at the state and national level in terms of institutional reforms. Disaster management became recognised as a crucial policy agenda for risk and vulnerability reduction at the national level for society's overall development. While questioning whether the reforms developed sustainability, Mehta (2011) has noted the remarkable and rapid development of infrastructure in Kutch, particularly in and around Bhuj city. As discussed in the previous chapter, the reconstruction primarily focussed on tangible aspects, paying minimal attention to widows, orphans, and caste conflicts (Sud 2001, 3353). As a result, the post-earthquake recovery in Kutch was dominated by a narrative of development and modernisation – in media, national and international institutions, and everyday discussions in Kutch alike.

In reality, however, the story is much more complicated. This chapter reflects on the policies, programmes, and schemes discussed in the previous chapter and present evidence of their limitations and unacknowledged consequences. It mainly focuses on the counter-narratives of enduring vulnerability and marginalisation, refuting the parameters of successful reconstruction by challenging the positivist approach. In focusing on these narratives, I analyse the challenges of affected communities by evaluating socio-economic and political vulnerabilities and disparities in access to resources.

This analysis reveals the narratives of Kutchi resilience, development, modernisation, and safer Kutch overlook systematic issues of exclusion, lack of accountability, loss of social cohesion, and increasing vulnerability. Problematizing these narratives, I present several counter-narratives from the perspectives of community leaders, beneficiaries of the state schemes, vulnerable groups in villages and NGO members involved in the long-term recovery of Kutch. It is crucial to acknowledge these counter-narratives as they offer alternative views to the same scenario – from a wholly different perspective on power (Chappell & Chappell 2015, 1). I discuss the narratives one by one and present evidence that popular narratives of resilience and development have largely overshadowed the concerns of several different groups of people. As a result, their vulnerability to future hazards has increased manifold.

For analysing the production of vulnerability and people's ability to cope with risks, I utilise polymorphy of socio-spatiality. Jessop, Brenner, and Jones (2008) advocated that four distinct spatial "turns" – territory, place, scale, and network – are theoretically and empirically intertwined (2008, 390). They identified methodological limitations of privileging one or two strands of socio-spatial theory and advocated for a need to recognise their polymorphy. Etzold and Sakdapolrak (2016) have successfully shown that production of vulnerability (for instance through relocation, rehabilitation, and industrial pollution) as well as people's ability to cope with risks (for instance through migration and social networks) is linked with socio-spatial strategies. These spatial theory dimensions help understand that vulnerability is not confined to a place or time. It may be linked with power relations, control of spaces and emerge at a different scale. Also, disruptions to networks may hinder people's coping ability. Following their analysis, I examine counter-narratives and vulnerabilities by utilising the polymorphy of socio-spatiality. I have interpreted the socio-spatial categories or "turns" – territory, place, scale, and network – as follows:

> *Territory*: it may or may not be demarcated by borders. The vulnerability may be induced by controlling space through social, political, and legal practices followed by different actors. It may reflect power relations. For instance, lack of legal residence, territorial conflicts, exclusion from access to resources and decision-making processes, segregation from the community due to caste, class, religious or any other groupings may create social vulnerability.
>
> *Place*: it is related and connected to other places through social practices, economic exchanges, and political negotiations; it is unique due to its history, the trajectory of influences, interrelations, connections, and disconnections (Etzold and Sakdapolrak 2016). The vulnerability may or may not emerge from the place due to factors located elsewhere or in the past. As Wisner et al. (2004, 52) put it "the root causes of people's vulnerability can be 'spatially distant' (arising in a distant centre of economic or political power), temporally distant (in past history), and [culturally] distant" (cited in Etzold and Sakdapolrak 2016).
>
> *Scale*: vulnerability may arise due to processes at different levels, such as local, regional, national, and international. For instance, the decisions taken at the regional or national level may be beyond the sphere of influence of the local level. The people may be affected by the decisions but may not have the power to negotiate at a different scale.
>
> *Networks*: it refers to connections between people, places, and support systems. People may utilise them to cope with the impact of disasters and reduce their vulnerability. For instance, migration and sources of income from distant sources help in reducing vulnerability. Disruptions to these networks may be disastrous.

In what follows, I will examine the narratives of Kutch's resilience, urbanisation and spatial reorganisation, safer Kutch, industrial and infrastructure development. The counter-narratives will reveal the limitations of the reconstruction programme and policies, and

demonstrate how dominant narratives have smothered many people's concerns furthering their vulnerabilities.

3.2 Counter-narrative: Kutchi Resilience

After a disaster, one of the state's prime motives should be to strengthen the community's economic resources to self-reliantly withstand the onslaught of disasters in the future. Tourism is often considered an easy-fix solution to stabilise the local economy after a disaster (for example, see Action Plan for Haiti's Recovery and Development (International Crisis Group 2010)). Gujarat's state departments also identified tourism as a crucial factor in rebuilding Kutch (See section 2.3.3).

The Gujarat tourism campaign titled *Khusboo Gujarat ki* (Essence of Gujarat) roped in Amitabh Bachchan, one of the most famous actors of Indian cinema as the campaign's face. Some of the celebrated editions of the campaign have promoted Gir forest's tourism, the only natural habitat for the Asiatic Lion in the world, and Champaner-Pavagadh, a UNESCO world heritage site. The campaign to promote the festival of Kutch popularly known as *Rann Utsav* has substantially motivated the tourists to explore the 'mysterious' land of Kutch. Gujarat government managed to re-make Kutch as a place of consumption, which catered to tourists.

Tourism played an instrumental role in the economic development of Kutch. It is irrefutable that Rann Utsav promoted Kutchi art and craft, and infrastructure development, and generated employment opportunities along with vast sums of capital due to the influx of tourists. Villages such as Bhujodi and Ajrakhpur attract thousands of visitors every year because of their famous handicrafts, textile printing, and embroidery. Once far-flung villages of Hodko and Dhordo now host hundreds of tourists in village resorts and homestays. The campaign managed to capture the fascination and amusement of people not only in India but also abroad. The State government claims to have increased the number of tourists from 12.3 million to 44.8 million from 2006-07 to 2016-17 (Das 2017; Government of Gujarat 2017).

Impressive numbers of hotels, homestays, handicraft shops and other income generation opportunities show that Kutch tourism has been beneficial to many. Building on the narrative of Kutch's resilience, the campaign showcases that people of Kutch have 'moved on' from destruction to prosperity. However, in this process, the campaign emphasises certain aspects of Kutchi life, defines what is authentic, and downplays locals' concerns. In the following section, I will show that the dominant narrative of Kutch's resilience has overshadowed Bhunga community's issues further increasing their vulnerability.

3.2.1 *Bhunga*: On the Fringes of Development Narrative

The mud houses of Kutch known as Bhunga are typical of the Banni region. These traditional houses have a sloping thatched roof, low height, and circular foundation (Figure 3.1). They are easy to build with locally available material, cost-effective and appropriate

for local environmental conditions. Most importantly, the mud houses are safer against cyclones and earthquakes, typical in the region.

Figure 3.1: A typical Bhunga in Kutchi villages. Photo: by author

A typical Bhunga settlement is a group of family members or close-knit community members living in proximity (Figure 3.2). It usually grows as the community's younger members marry and construct their huts. The proximity of mud houses and the layout of settlements reflect the social history of the Kutch region.

The pastoral maldhari community living in these mud houses survived the earthquake of 2001 without much damage (Khera 2002, 1021) as Bhungas performed better than modern-looking but poorly engineered homes (Hausler 2004). As a result, these humble dwellings received much attention, and researchers across disciplines celebrated their unique design and materiality (Hausler 2004; Jigyasu 2002). A few criticised the responding agencies failing to learn from Kutch's traditional housing because the reconstructed houses with flat roofs lacked cross-ventilation and got extremely hot during summer months (Sanderson, Sharma, and Anderson 2012, 238). Overall, Bhungas were said to reflect the resilience of Kutch and its people.

It is critical to note that although Bhungas did not suffer badly, its dwellers were still affected by the quake. The disruption to economic and livelihood opportunities severely affected the people of Kutch, including Bhunga dwellers (interviews 7, 8 and 20). However, since the prime focus of the reconstruction and rehabilitation programme was on *pucca* (permanent), modern, earthquake-resistant, and engineered housing, the Bhunga dwellers remained on the margins of the development narrative. The assessment report of Gujarat Earthquake Recovery Program (GERP) prepared jointly by the World Bank and the Asian Development Bank, which provided a preliminary assessment of the damages, needs and

strategy for the reconstruction and recovery, barely mentioned the traditional mud houses (See WB and ADB 2001). Even the comprehensive reconstruction and rehabilitation policy of Gujarat could not offer much relief to the people living in mud houses. The package 3 of the policy provided financial assistance of rupees 7000 for destroyed huts (GSDMA 2002, 11). The respondents showed discontent on the government's approach towards mud houses as they claimed:

> people who did not lose their Bhunga did not receive the benefits of the government schemes. Those whose Bhunga was damaged or destroyed, received five to ten thousand [rupees] only, which was not enough. (focus group discussion 3)

Figure 3.2: Bhunga settlement of Baniyari. Photo: by author

Many government initiatives aimed towards long-term recovery and vulnerability reduction such as insurance schemes were tied with reconstructed houses. The Bhunga dwellers could not obtain benefits from such programmes (interview 37). Even the GEERP reflected its success through fund utilisation, speedy reconstruction, the number of units built and infrastructure development, leaving Bhungas out of the equation (See GSDMA 2006). In what follows, the case of Baniyari will show that systematic marginalisation of Bhungas from the reconstruction programme has left them struggling for basic civic amenities.

Islanders of Baniyari

I visited Baniyari, a hamlet of Bhungas, with a member of an NGO and a local leader, a former *Sarpanch* (village head) of Dhamdka village. It is situated a few kilometres from the 'main' settlement of Dhamdka at the edge of the Rann of Kutch. I met with the Bhunga community leader who accompanied me for a transect walk through this hamlet of fewer than twenty huts. During our discussion, which took place during the day, children and

young adults roamed around trying to make sense of the situation. Most of them did not go to schools, and few had any fixed employment. The discussion revolved around their basic everyday needs. My questions regarding the earthquake and its memory were met with silence and confusion. The community leader remarked that things have not changed for decades since they still do not have access to water, electricity, education, and health facilities. One of my respondents who works for an NGO and has spent almost two decades working in Kutch remarked:

> In Banni, they have a traditional way of living, which has nothing to do with the mainstream way of life unless they sell their products such as milk and then buy what they need for daily consumption. They were already detached. That is why their way of house construction, food, way of life—you will not find it mainstream. It is called Banni culture. You can see the differences between Bhuj and Banni. Moreover, there are many settlements, which were not part of the villages as per the revenue records; they were more of a Banni grassland. If you consider Banni as grassland, then their houses have no existence. Their existence is not legalised. That is why several of the mainstream services never reached them because of this. They all lived in Banni because they were rearing animals and depended on Banni grassland. Banni is a grassland. Therefore, they lived in the cycle of animal [rearing] and grass [regeneration], and they could not leave it—they say if they leave this, what are they going to do? They do not even know how to dig the soil [implying that they are not skilled]. Therefore, they either drive vehicles, jeeps, trucks, or rear animals. That is why most of the community remains in the grassland. Although they [hamlets] were not regularised after the earthquake, they were linked with *Panchayats* (village councils). So, they [people of Baniyari] now have voter's I.D., PDS[27], *Anganwadi*[28] and education and health services—all those services were expanded. It is the first time that mainstream development services are reaching to these people. But because of the distance, as Baniyari is about 1.5-2 km away from the main village, it seems they are so untouched as if living outside the world. They are in their world. That is why they still have these issues with Anganwadi, PDS and drinking water facilities. It is their first generation of engagement with mainstream development and *Panchayati Raj*. It is like the situation of mainlanders and islanders. (interview 8)

As noted by my respondent, there are government programmes to connect Baniyari with 'mainstream' development, but the process is extremely slow. The illegality of their settlement (*territory*) adds to their vulnerability. It is something Barenstein (2006) noted during the reconstruction phase as well. She observed that households belonging to impoverished and semi-nomadic groups, which Panchayats did not register formally, were not entitled to the compensation schemes after the quake (2006, 7). As a result, the

[27] Public Distribution System (PDS) is a programme run by the government of India to provide food and non-food items to the poor people at subsidised rates.

[28] *Aanganwadi* are the childcare centres run in rural parts of India. They provide several services including health check-up, immunisation, nutritional meals to children and pre-primary education.

comprehensive reconstruction and rehabilitation programme could not include the most vulnerable groups. As observed in Baniyari, which is only a few kilometres away from larger settlements like Dhamdka and Morgar, they still have not received necessary facilities, and their inclusion is extremely slow.

On our way back from Baniyari, I asked the former Sarpanch of Dhamdka about the lack of basic amenities in Baniyari. He responded with a hopeless sigh that the people in Baniyari are illiterate and backward, and whatever they have is what they deserve (interview 11). Such opinions tie into the observations made by Ibrahim (2007, 3447-3448). She noted that villages in northern Kutch remain neglected, their populations illiterate and lacking basic amenities such as water due to "lack of political will" to develop regions inhabited by political and religious minorities. The residents of Baniyari belong to a low-caste Muslim community. Due to local caste-based and religion-based politics, they have insufficient representation in the village affairs and decision-making processes. Also, as their political allegiance is not clear to the local leaders, their views are undervalued and often rejected. Simpson (2008, 12) has noted that minority Muslims are often excluded from village level activities and decisions controlled by majority Hindus.

Baniyari was not my first encounter with caste and religion-based politics in Kutch. During my visit to Morgar village as a team member with an NGO, I met Sarpanch of the village who belonged to a Muslim community. The NGO was organising an awareness campaign for the education of children in the village. The NGO team invited him to attend the meeting because his presence would have helped the cause as a village leader. However, he politely declined. Later, I learned that many of the village meetings were held in a Hindu temple. It is a common gathering place, and Muslims prefer to avoid such meetings to avert any religions tensions in the village. A village education committee member belonging to the Muslim community joined us in the discussion but preferred to sit at the courtyard corner outside the temple. In Kutch, Muslims tend to avoid conflict situations by appearing uninterested in democratic processes (Simpson 2008, 12) or agreeing with the majority. Several informal interactions with my respondents indicated that caste, religion, and community identity are crucial factors in determining life in the villages and access to resources. These identities also influenced the distribution of relief material, village layout and the overall reconstruction and rehabilitation programme.

In conclusion, the case of Baniyari shows that the reconstruction programme could not address the root causes of their vulnerabilities. Bhunga dwellers still lack access to essential services and remain excluded from the decision-making processes of the village. Analysing through the lens of socio-spatiality, the non-legal status of Bhunga settlements, lack of access to resources (*territorial* control by upper-caste and religious majority groups), and insignificant representation in village councils (different *scale*) has contributed to their vulnerability.

These conditions have remained unaddressed because the tourism campaign has glorified Bhungas as the cultural symbols of Kutch and attached meanings (resilient, untouched, colourful, unique, ancient, and exotic). The Bhungas staged for tourism offer an authentic

experience of the region. The problem is that the creators of authenticity exclude the 'undesirable' and remodel the desirable components for tourists' consumption (Wirth and Freeston 2003). The glorification of cultural symbols has attempted to silence the debates of exclusion and offer the narrative of resilience and 'moving on' from disasters. The representation of heritage through movies and videos (such as campaign promotional videos in this case) rarely take local actors in consideration because "it is just assumed that the cinematic glorification of their "heritage" would be enough to stifle any objections" (Tzanelli 2008, 1). As "tourists search for authenticity, significance and purpose" (Scott 2014), one may stay in Bhunga resorts and enjoy cultural programmes in the evenings to 'experience' the life in Kutch. However, this sanitised version of life in Kutch suppresses the 'undesirable' elements such as poverty, caste, and class tensions evident in Baniyari. The Bhunga makers of Baniyari who have kept the tradition of constructing Bhungas from locally available material have virtually nothing to gain from or contribute to the Bhungas staged for tourism. On the one hand, the Bhungas symbolise resilience for tourists. On the other hand, the narratives of resilience have overshadowed the everyday challenges in Bhunga dwellers' lives further making them vulnerable.

In the next section, I turn towards the narrative of urban development that stressed the need for speedy reconstruction and re-engineered spaces in towns and villages. With two village relocation cases, I will show that the decisions added to people's vulnerabilities, and their concerns remain unaddressed in dominant narratives.

3.3 Counter-narrative: Urban Development and Re-engineering Spaces

Around the turn of the century, many scholars cautioned against rapid urbanisation resulting in the increased spatial concentration of vulnerable people in Africa, Asia, and Latin America (Sanderson 2000, 93). In disaster studies, observers drew a link between urbanisation, development, and vulnerability to disasters (See Pelling 2003, Wisner et al. 2004). Rapid urbanisation often leads to increased risk because unplanned and poorly planned growth often ignores the physical hazards (Sanderson 2000, 95).

Similar development also made Kutch particularly vulnerable to environmental hazards. With its long coastline of several hundred kilometres and a history of trade and commerce (Varadarajan 2011), Gujarat was not untouched by the globalising world. Industrial growth and an economic boom in the early 1990s accelerated urbanisation in Gujarat and created a demand for middle-class apartments (Vatsa, 2002, 1503).

In Kutch, the increase in population and expansion of the built environment exacerbated the impact of seismic events since the late 1980s. In particular, the fast-growing cities in Gujarat such as Bhuj observed exponential economic growth resulting in the rapid and unscrutinised construction of multi-storeyed buildings. The non-existent legal liability of structural engineers and building contractors encouraged compromised construction quality (Vatsa 2002, 1504). Of course, such vulnerability was not wholly unprecedented. As Vatsa

(2002) observes, the 1819 Gujarat earthquake was also devastating. In 2001, however, that vulnerability had only grown. In the earthquake of 2001, over 1.2 million housing units collapsed along with massive destruction of public infrastructure (GSDMA 2002), exposing the unsustainable construction practices.

The extensive devastation of infrastructure provided town planners and engineers with an opportunity to turn a new leaf in design and construction practices in towns and villages. Before the earthquake, the villages' messy layout with no clear roads or open spaces were already associated with chaos and disorder. In the vision of several responding agencies (mostly international NGOs and village adopters), a spread-out village with broad crisscross roads, large open areas, and row houses indicated order and arrangement. That was the idea championed to reorganise the cities of Bhuj, Bhachau, Anjar and Rapar after the Gujarat earthquake (as shown in section 2.3.4). The agencies and organisations utilising the donor-driven reconstruction approach used the same logic in the relocated villages where they deliberately carved plots and built straight roads to "build back better." Disaster management professionals argued that planned – and well-designed – spaces would provide better access to large vehicles for evacuation from fire and other disasters. Some homeowners in Kutch also accepted the new housing with a sense of relief that they had found a way to leave the village's oppressive life and congested streets for a free and orderly suburban life (Simpson 2005, 244). In the eyes of other scholars, however, "rebuilding better" is a strategy driven by "neoliberal and modernist assumptions about the natures of people and the common good," eroding "traditional community forms" (Barrios 2017, 9). At the same time, we lack a careful investigation of the effects of the reorganisation of villages on community life, vulnerability, and disasters' memorialisation.

In what follows, I use examples of spatial reorganisation in Adhoi and Vondh villages to understand these effects. My research shows that relocation and reorganisation of villages also restructure access to resources, social relations, sense of place, and overall comfort. It appears that spatial changes may have given a sense of orderliness and arrangement to villages. Still, it has also deepened the existing vulnerabilities and given rise to many new challenges.

3.3.1 Reorganised Spaces: A Case of Adhoi Village

Adhoi, a village of approximately three-thousand households before the quake, was severely affected in the disaster. More than three hundred and fifty of its residents lost their lives, including twenty-five children marching in the Republic Day parade (Sanderson and Sharma 2008, 178). The Maharashtra government adopted the village. It offered to relocate Adhoi to a nearby area and provide free houses to the residents through a donor-driven mass-housing scheme. It also assured active community participation in the reconstruction decision-making processes.

Even at the time, this resettlement was controversial. Soon after the earthquake, Rawal and Nair (2001), for example, cautioned against the relocation of villages using mass housing schemes, "symbolic" community participation and top-down decision-making processes.

To them, the Latur earthquake of 1993 in Maharashtra served as a cautionary tale. They claimed that villages' relocation and contractor-driven reconstruction after an earthquake had not been successful (Rawal and Nair 2001, 821). Challenging the neo-liberal vision of order and spatial arrangement of villages, they further argued:

> A village is more than a cluster of 'strongly built' houses, interspersed with standard amenities that usually come in a neat package. It is an organic entity with its own culture and history and with deeply entrenched human relations built over a period of time…It is a matter of concern that the government is actively promoting corporatisation of housing delivery by bringing in corporate bodies and even foreign companies so that the targets can be met without delay. All its talk about "actively involving local communities in the planning and implementation of the resettlement programme" could well remain on paper, if detailed guidelines are not evolved and made available to the affected people. Moreover, our experience with mass housing schemes for the poor like Indira Awas Yojana, shows that the local politician-contractor lobby is clever and powerful enough to siphon the funds off even when the beneficiary is involved in the construction (ibid, 821).

The authors were particularly critical of people's participation in the reconstruction, claiming that it was at best symbolic. They also raised the issue of the autonomy of local governing bodies such as *Gram Sabhas* (village councils) in such decisions. As the next section reveals, their concerns were not unfounded.

Two Settlements and Exclusion from Access to Resources

During my visit to Kutch in May 2018, I visited Adhoi village to shoot a V.R. video for the ITN exhibition, which was to be held in October 2018 at the Deutsches Museum in Munich. Before arriving in Adhoi, I contacted a local guide, Bhikhabhai, through an acquaintance, asking him to help me understand the village's socio-cultural history and changes in its geography following the quake. A resident of new Adhoi, Bhikhabhai has been a local guide for several research projects and has assisted several organisations working in the region after the earthquake. We started our discussion with a transect walk in the old Adhoi. He explained that the decision to relocate came from the dominant and affluent Jain community. Although a few Jain community members wanted to revive their village at any cost, others who were active in local politics saw the construction of a new village as an opportunity to make a lot of money. According to most of my respondents in Adhoi, including Bhikhabhai, local leaders and contractors exploited loopholes in bureaucratic procedures to drain off funds through fraudulent practices, excluding low-caste and Muslim communities from village-level decisions. There were *Samitis* to keep a check on corrupt practices and ensure equal representation of different groups, but, as we have seen in chapter 2, these Samitis were not set up democratically in the first place. As a result, the representatives of marginalised communities were mere spectators in most decisions.

As the decision of relocation was fuelled by private interests and backed by affluent people in the village, the majority wanted to relocate. However, not everyone was ready to leave

their ancestral village. Approximately one-third of the total population of Adhoi (mostly belonging to low-caste, marginalised communities, and old residents) decided to stay back or settle elsewhere. They accepted cash assistance rather than taking a new free house in the new village. This division had several reasons. Firstly, reports about discrimination in the distribution of relief material – where dominant and powerful castes seized the aid meant for poor and marginalised *Dalits, Kolis, Rabaris* and Muslims – were widespread (Louis 2001, 908). These left-out communities were wary that such oppressive structures would continue in the new village. As such, they decided to stay away from them. Secondly, since many were excluded from the reconstruction programme's decisions from the beginning, they did not trust the external agencies. Bhikhabhai explained that the external agencies and members of the Samiti did not give accurate information and failed to build trust with many families. That is why people were not sure if they would be allotted houses in the new village. Lastly, people had "strong territorial affinity" with their old homes in rural areas – as is common (Khera 2002, 1022; Tafti and Tomlinson 2016, 243). One of the respondents, who lives in Mumbai, was visiting his mother in old Adhoi. He explained that people have a deep emotional connection with their land, old houses, and surroundings, which compels them to "live and die here" (interview 19). His eighty-year-old mother lives alone in old Adhoi and refuses to go to Mumbai with him. The life in old Adhoi is dull and daunting, especially late in the evening because one can experience a ghost village's isolation. Nevertheless, older people (many of whom live alone) prefer to live in old Adhoi instead of elsewhere. The ancestral lands also offer a sense of rootedness and many return to seeking blessings from their ancestors. My respondent himself was in old Adhoi to send off his daughter from his ancestral home. Although his daughter had married in Mumbai a year before, he sent off his daughter with gifts and blessings of the relatives a year later from their ancestors' land (interview 19). Due to these primary reasons, Adhoi got divided into two settlements. It created multiple problems for the people who stayed back in old Adhoi and those who relocated to the new settlement.

Firstly, with the influential people moving to the new settlement, essential amenities such as Panchayat, school and health facilities also moved to new Adhoi. Today, residents of the old Adhoi struggle for everyday necessities such as safe drinking water, electricity, markets, health, and education facilities (Figure 3.3). The village administration now runs from the new village and the residents of the old Adhoi lack representation. Clearly, the problems of some people only increased after the reconstruction.

Figure 3.3: Broken water pipe in old Adhoi used by some households for daily needs. Photo: by author

Secondly, the geography of new Adhoi affected the everyday life of many residents. The contractors designed the relocated villages in grid patterns. Designers of Adhoi followed the logic of open spaces, parallel streets, and elegantly aligned houses. The village appears orderly, and some welcomed the new layout of broader streets and bigger houses, which are ideal for hosting "four or five hundred people during weddings" (interview 9). However, some of the poorer households find it inconvenient to navigate in day-to-day life. The village is spread along the long roads. As a result, going to a market has become a challenge for people who do not have vehicles. It is a matter of daily inconvenience because it costs both time and money (interview 18). Simpson (2007, 933-934) made similar observations that dwellers in suburban housing around Bhuj had to spend much more time and money to travel. The new Adhoi did not grow organically over time but was designed to place everything in specified blocks. The old village had small shops and vegetable vendors running their businesses from their homes, but the new settlement had designated spaces for everything and lacked the "spirit of the original Adhoi" (Sanderson and Sharma 2008, 181). The respondents agreed that although disaster management safety regulations are necessary, there is too much open space in the new village that has created problems for many families.

Thirdly, the house allotment discrepancies led to severed social ties, fragmentation of community, lack of trust, and depletion of social cohesion. The Jain and Patel community have always dominated Adhoi, and caste and community conflicts were nothing new in the village. However, the fragmentation of *networks* (due to random allotment of houses) and competition for compensation schemes and better housing induced "jealousy, rivalry and suspicion" (Simpson 2005, 238-239). A few households occupied more than one house or occupied them without official documents (interview 18). As a result, people filed petitions in the court, and many properties fell into disputes. The lack of trust and perpetual suspicion of neighbours has become 'normal' in daily village life. Bhikhabhai remarked that his neighbours would view him with suspicion and hatred to this day because he accompanied me in the village. They would assume that an outsider has come with assistance, and Bhikhabhai is at the forefront of receiving it. Other respondents also indicated that caste and community conflicts deepened after the quake (interview 9, 11, and 19).

The case of Adhoi shows that relocation and reorganisation of the village have added to the vulnerability of many residents. The residents of old Adhoi lack access to resources due to lack of representation in the village's decision-making processes. Powerful and influential people in the new settlement have established their *territory* over resources and village-level decisions while excluding the residents of old Adhoi. At the same time, everyday mobility (*place*) and severed social *networks* in new Adhoi have added to the conditions of vulnerability for the residents of the new settlement. In the following section, I will present the case of Vondh village, which shows that the decisions taken and implemented at *scales* beyond the negotiation reach of beneficiaries add to their vulnerability in the long run.

3.3.2 Implementation of Pre-chosen Plans: A Case of Vondh Village

The government of Maharasthra also adopted Vondh, a village of around 1700 households at the time of the quake. The old Vondh was located near the highway approximately 85 km from Bhuj city. The government proposed relocating the village to nearby open land across the highway and constructing the houses in a similar standardised format under a mass-housing scheme. Like Adhoi, people in Vondh were also divided about relocation. About half of the residents opted for *in-situ* owner-driven housing while the other half accepted Maharasthra government's relocation and donor-driven construction scheme (Sanderson and Sharma 2008, 179). The design and layout of new Vondh were like that of Adhoi, and the contractors expedited the construction. The final project report for the reconstruction of Adhoi and Vondh published in 2003 stated: "The government of Maharashtra has successfully completed the Rehabilitation Earthquake project for affected families in both the villages…The project handed over…to the people of Adhoi and Vondh Villages" (cited in Sanderson and Sharma 2008, 184). The perception of speedy reconstruction was powerful in furthering the narrative of development and efficiency.

The experience of Maharashtra government in reconstruction of villages came from the failed attempt of rehabilitation after the Latur earthquake (also known as Marathwada earthquake) that jolted rural parts of Maharashtra in 1993. The contractor-driven

reconstruction programme in Latur did not consider local traditions and lifestyle, and the local communities resisted it. Local people rejected the houses offered by the state or used them for purposes such as keeping animals or their feed. The Latur earthquake reconstruction strategy was undeniably unsuccessful (Jigyasu 2002; Thiruppugazh 2014). Maharashtra government's legacy in reconstruction efforts continued in Vondh: villagers abandoned almost all the houses within a few years.

Unaddressed Environmental and Social Issues

During my fieldwork in Bhuj, Bhachau and Ahmedabad, I discussed the case of Vondh with disaster management professionals, NGO members and architects. They unequivocally pointed out that in their ambition to complete the project in time with pre-chosen plans, the responding agency failed to consider local environmental conditions and complex sociological problems.

Firstly, salinity ingress in Kutch is a major environmental problem that has affected hundreds of villages (Barot 1996). It has not only ruined local water resources but also compromised the integrity of buildings. Despite people raising these concerns, adopters and contractors implemented their pre-chosen plans in a salinity affected area. As a result, the buildings deteriorated within a few years, and 847 houses were abandoned (Sanderson, Sharma, and Anderson 2012, 246). Today, skeletons of these houses stand as a testimony to the government’s vision of speedy reconstruction. Most houses do not have windows or doors; their floors, ceilings, and walls are cracked open, and twisted iron rods protrude out (Figure 3.4). Less than twenty years after construction, most houses in relocated Vondh are on the verge of collapse. One of my respondents, who witnessed the construction and deterioration of houses in Vondh, claimed that due to salinity in the Kutch region, the building must be appropriate for local conditions. To him, the houses in new Vondh are the memorials of 2001 quake (interview 10).

Secondly, many upper-caste households did not occupy the reconstructed houses because they were unwilling to accept identically sized houses as lower-caste households in the village (Laskar and Murty 2004). The responding agencies needed to address these social issues before implementing their plans. With limited representation in the decision-making process and upset with the adopter and contractors, many households decided to reconstruct

houses in the old Vondh. The decision had long-term consequences because it exposed them to financial risks.

Figure 3.4: Dilapidated condition of houses in New Vondh. Photo: by author

The beneficiaries who opted to relocate to the new settlement (before they abandoned the houses) were not eligible to receive financial assistance from the government. Since they did not (or could not) occupy the new houses and decided to rebuild on their own in the old village, they had to use their financial resources to reconstruct. It was not uncommon in Kutch after the earthquake. In other villages such as Lakhapar, Moti Charai and Palansva, people either sold or abandoned the donor-constructed houses, reconstructing their homes at the original location with personal financial resources (Sanderson, Sharma, and Anderson 2012, 243). Those who abandoned the houses and used their money for reconstruction lost on both ends of the deal. It pushed many into a vicious cycle of financial risks (interview 7 and 15).

The decisions of relocation and implementation of pre-chosen plans had little scope for negotiation because they were beyond beneficiaries' influence. As Etzold and Sakdapolrak (2016) noted, the *scale* of decision-making may induce vulnerability. In Vondh, not only

the responding agencies failed to provide safe and acceptable housing to beneficiaries but also furthered their vulnerability by pushing them towards financial risks.

In the celebrated narratives of speedy reconstruction, urban development, and organised spaces, beneficiaries' vulnerabilities remain unacknowledged. As a result, they continue to struggle in everyday life and are exposed to various socio-economic risks. As mentioned earlier, the Maharashtra government completed the project and transferred the reconstructed villages (along with its responsibility) to the Gujarat government. The question remains who should be held accountable for this grand scheme of failure – the Maharashtra government for constructing sub-standard houses unacceptable to many for various reasons or the Gujarat government for failing to ensure safe and sustainable dwellings for its residents? Or, perhaps, both?

In the following section, I turn to the notion that Kutch became safer after the quake due to innovating risk-sharing mechanisms and modern infrastructure. With the examples of the housing insurance scheme and Kutch's civil hospital, I will show that people's exclusion from decision-making processes that characterised the notion of "speedy reconstruction and safer Kutch" contributed to enduring vulnerabilities for many residents.

3.4 Counter-narrative: Safer Kutch

3.4.1 Housing Insurance Scheme

Due to low incomes and a lack of property insurance culture, the risk transfer mechanisms are not fully developed in India (Vatsa 2002, 1506). High-cost premiums further discourage earthquake insurance (ibid). Most industrial establishments protect themselves against commonly occurring hazards, yet residential properties are rarely covered (Atmanand 2003, 294). Roy (2012, 19) points out that even when the risk is known, it is complicated to calculate the premium due to the undefined nature of the impact, which makes disaster insurance unpopular. Unsurprisingly, the scenario in Kutch was no different, and the reconstruction programme, although heavily supported by World Bank and Asian Development Bank, burdened the government's financial reserves.

Widespread destruction of more than a million houses in Kutch prompted the Gujarat government to introduce a novel, large-scale housing insurance scheme for all the houses reconstructed under G5 category. The State government initiated the new insurance scheme in cooperation with leading insurance companies to safeguard newly constructed houses (GSDMA 2003, 5). As discussed in section 2.3.4, more than two-hundred-thousand reconstructed houses were insured against fourteen hazards for ten years by paying a one-time premium of rupees 360. This innovative scheme was first of its kind in India that addressed the issue of financial burden in post-disaster situations. It also showed the government's commitment towards safer Kutch and built on its narrative of forward-looking administration. However, after completing its ten years, the scheme discontinued, leaving the beneficiaries exposed to financial risks in future disasters. This discontinuation reflects underlying problems in its genesis and implementation.

Firstly, the perceived need for housing insurance did not originate from the homeowners. The State government imposed it on the beneficiaries of reconstructed houses. While the administration may have had the intention to safeguard homes against disasters, its beneficiaries could not recognise the long-term benefits of the scheme. They considered insurance a subsidy by the government rather than a tool to transfer risk (interview 8).

Secondly, to implement such a grand plan, it was mostly run as a group policy. The reconstructed houses in a village or a locality were 'grouped' together so the documentation can be processed swiftly. It meant that local and district level officers such as *Mamlatdar* and TDOs managed the documentation rather than each beneficiary. It was one of the reasons why many of my respondents did not receive any documents. A government employee who belonged to the State Department and was one of the key people in implementing the scheme recalled that beneficiaries' policy documents were kept in bulk in the government offices at Bhuj. So, most beneficiaries did not receive any copy related to the policy (interview 37). The government officers were also responsible for coordinating with the insurance agencies instead of beneficiaries themselves. Given the scale and number of beneficiaries, it was a practical decision to manage the scheme through administrators. However, it created a dependency of the beneficiaries on the government offices for management, claim-settlement, and continuation of the scheme.[29]

The government recognised that beneficiaries were passive partners in the whole process and made some efforts to promote awareness for the scheme – using poster displays during public functions, pamphlet distribution, public meetings involving NGOs and placing insurance on the agenda of Gram Sabhas at the village level (GSDMA 2003). However, this had limited impact on people's perception towards insurance. Many respondents vaguely remembered the insurance scheme but were neither bothered nor equipped to renew it when it ended.

As a government employee back in 2012-14, I observed that a few senior government officers in the GSDMA tried to persuade the State government to continue the insurance scheme, which was coming to an end. The Finance Department of the State government, however, declined the extension of the scheme. It asserted that the renewal of the insurance scheme is the purview of the beneficiaries, and the government is not responsible for its continuation. The government could not concede the top-down approach of conceptualising and implementing the scheme at a *scale*, which left out the beneficiaries from the beginning.

Although the insurance scheme provided safety cover for a limited time, it mainly served to construct a narrative that Kutch is safer than before. However, the discontinuation of the scheme reveals deeper problems of how such programmes are designed and executed. In

[29] In a few cases, such as Kabrau village, the trust responsible for housing reconstruction ensured that they would take care of the houses in any calamities in the future. My respondents in the village did not receive any policy-related documents. Most of such agencies left soon after the reconstruction programme ended, leaving the beneficiaries in a state of confusion and unawareness.

terms of sharing financial risks, the scheme's beneficiaries are in no better condition than before the earthquake.

3.4.2 Infrastructure Development

The reconstructed G.K civil hospital of Bhuj became a "landmark of infrastructure development," and scholars and media lauded it as "the first major building in India designed with base-isolation" technology (Rai et al. 2002, 265). Soon after its completion, however, the 'modern' hospital with latest medical equipment struggled to employ qualified staff to run it (Simpson 2005, 231) and was "understaffed and under-powered" (Simpson 2007, 933). The hospital, which became a symbol of the state's commitment towards seismically safe construction, development, and modernisation, proved to be an expensive affair to handle. As a result, in 2009, the hospital was given on ninety-nine-year lease to the corporate giant, Adani group, to increase the number of beds and establish a medical college 'Gujarat Adani Institute of Medical Sciences' under a public-private-partnership (PPP) (DNA 2012; Misra 2017). However, the new administration of the hospital faced resistance from the very beginning.

A petitioner filed a Public Interest Litigation (PIL) in 2011 against the government resolution to handover the control and management of the hospital to the Adani group. The petitioner requested to quash the resolution of handover citing it as "…illegal, unconstitutional, in opposed to public policy, lacking transparency, and suffering from procedural irregularities and smacks favouritism" (Adam B Chaki vs Union of India 2012, 2). However, the Gujarat High Court dismissed the PIL (*The Indian Express* 2012). It stated that "with modernisation of the hospital and with introduction of super-speciality teaching hospital equipped with the state-of-the-art medical equipment the quality of medical services will be much - much better" (Adam B Chaki vs Union of India 2012, 73). The PIL petitioner approached the Gujarat High Court again in 2014 alleging that the hospital was not following the directives of the 2012 High Court order (DNA 2014). The High Court dismissed the application with directions to the State government to take necessary steps within a stipulated time (Adam Budha Chaki vs Union of India 2014, 13).

Apart from irregularities in the management, the hospital administration has been in controversy for several other reasons. Responding to a question in the Gujarat legislative assembly in early 2019, the Gujarat government revealed that in the last five years, one thousand and eighteen children have died in the Adani-run Civil Hospital (NDTV 2019). In 2018, one hundred and eleven infants died under mysterious circumstances, and the hospital became a target of public outrage. They alleged that Adani-run hospital had become a moneymaking business rather than an institution of health and service (VTV Gujarati News and Beyond 2018). One of the deceased infant's parents stated: "…staff in Adani hospital do as they please. We do not want this hospital. We had the old G.K. Hospital, and we want that" (ibid). Many of my respondents corroborated these views as they were displeased with the new hospital's functioning. In their opinion, the Adani-run hospital functions as a profit-making business systematically denying services to the needy

and low-income families (FGD 1). One of the NGO members added that "Kutch does not have a civil hospital anymore."

Like the housing insurance scheme, the technologically advanced hospital was associated with the development, modernisation, and safety of Kutch. But the new hospital has experienced backlash from the people of Kutch due to inadequate services, mismanagement, and corporate-style functioning. Again, Gujarat's successful reconstruction storylines eclipse these long-term consequences of decisions leaving marginalised groups in a state of vulnerability.

In the next section, I turn towards the narrative of Kutch's industrial development and growth. By reflecting on the impact of rampant industrialisation on the environment, livelihoods, and social cohesion of communities, the analysis will show that people have become more vulnerable. Yet, their concerns remain smothered in the dominant narratives.

3.5 Counter-narrative: Industrial Development and Growth

The quake 2001 opened doors for various large commercial industries, as the State government promoted the industrialisation of Kutch through incentive schemes included in the reconstruction and rehabilitation policy (See GSDMA 2002). In addition to incentive schemes, the *Vibrant Gujarat* summit, a biennial trade festival to promote industrial development in Gujarat specifically targeted Kutch. It is systematically linked with Rann Utsav (Festival of Rann of Kutch) and *Uttarayan* (a famous kite-flying festival in Gujarat). The summit brings business moguls, heads of states, and kite-flying enthusiasts from all over the world to Kutch. Consequently, the campaign has successfully encouraged domestic and foreign investments (Ibrahim 2007, 3446) for infrastructure and industries in Gujarat. The GIDB report discussed in chapter two (section 2.3.4) shows a remarkable change in the industrial setup of Kutch region after the earthquake (See GIDB 2005a).

The government showcases the summit's success by publishing massive investment commitments made by investors and claiming that Gujarat is *the* favourite destination for foreign investment in India. Critics, however, argue that there is no evidence to support this hype, and in fact, Maharashtra, Delhi, Karnataka, and other States are performing far better than Gujarat (Shariff 2012, 3). Still, the publicity of infrastructure development and foreign investments has helped the Gujarat government represent itself as an economically progressive administration. It furthers the narrative of development and growth. After the earthquake, the industrial invasion in Kutch is an accepted tale, but it has a more far-reaching impact than anyone could have expected.

3.5.1 Environmental Impact and Livelihoods in Kutch

Many Kutchis see the industries in a positive light. For instance, a trader of Kutchi textiles based in Dhamdka village informed me that industries brought business opportunities for his community. His family has been in the textile business for decades, and when he was young, he used to accompany his uncle for trade fairs in Delhi. But now, he does not need

to go anywhere because he sells his products from home (interview 11). The *network* of roads and railways and infrastructure opened avenues for Kutchi textiles in the markets all over India and even abroad. Still, according to many others, rampant industrialisation has left deep scars on their life due to the unaccounted impact of industries on the delicate environment of Kutch. The same *network* of roads and railways brought polluting industries that have disrupted the ecology of Kutch, which has always been under environmental stresses (interview 44).

Soon after the earthquake, Vatsa (2002, 1503) had cautioned that industrialisation might harm rural populations due to the overuse of groundwater resources. Others have corroborated his concerns by showing the problems of displacement, ecological damage, pollution, groundwater exploitation (Simpson 2007, 935), and habitat destruction (Perspectives 2012) due to the sudden wave of industries in Kutch. Ramani's (2010) work on industrial development and consequent displacement of fisherfolk in Mundra-Kutch region shows the gravity of such issues. Ramani describes a violent incident that took place on August 23, 2009, between local fisherfolk and security guards of a power generation company in Bhadreswar hamlet. The company was setting up a coal power plant without environmental clearance, and it would have displaced the fisherfolk hamlet. The local people protested the company due to its impact on the environment and livelihoods and filed legal cases against it. It was one of many instances that show the "breakneck speed" of industrialisation in Kutch had threatened ecologically sensitive regions and local livelihoods.

A group of students and teachers at Delhi University named *Perspectives* recorded similar observations after conducting an extensive study on industrialisation's impact on coastal communities of Kutch and their livelihood. They noted that the post-liberalisation era of the 1990s promoted industrialisation, but the massive wave of industries and infrastructure projects that swept Kutch came after 2001. As a result, Kutch received investments of over Rs 25,000 crore in just eight years after the quake (Pandit 2009 cited in Perspectives 2012). According to Perspectives, Kutch became a preferred destination for industries because large stretches of lands fall under government administration rather than private owners. As a result, it was easier to acquire land without landowners' protests, which is the primary trouble in land acquisition. One must note the so-called "government land" classified as barren or wasteland includes common property resources that support local communities' livelihoods. Locally, large stretches of these lands are termed as *Gaucher*, which means grazing land for cattle. The "reckless and often illegal industrialisation" in Kutch has harmed these ecologically sensitive areas. The pastoral and farming communities, which are dependent on these shrinking commons are severely affected by industrial development in Kutch (Srivastava and Mehta 2017, 19) and are further pushed into the vicious cycle of vulnerability. Perspectives specifically focused on the plunder of common property resources in and around Mundra Port and Special Economic Zone (SEZ) in Mundra taluka of Kutch. They show that several fisherfolk *bandhers* (temporary fishing hamlets) were displaced because of industrialisation in Mundra. Industrial pollution, illegal cutting of mangroves, unchecked industrial activities in the intertidal region, and disappearance of

creeks have led to a severe decline in fish catch and has left fisherfolk workless during monsoons. It forced them to migrate to cities in search of jobs in informal sectors furthering their vulnerabilities.

Many of my respondents criticised the government for favouring industrial giants to set up new industrial complexes in the name of Kutch's development. It is because the focus of the industrial policy was not on the local industry (Simpson 2007, 935). The government has given tax incentives, exemptions from stamp duty and many such benefits for promoting industrialisation while local communities are abandoning their traditional livelihoods. As a result, several local level committees such as *Machimar Adhikar Sangharsh Samiti* (Fisherfolk Rights Struggle Committee) and *Jharpara Gauchar Bachao Samiti* (Jharpara Save Gaucher Committee) have protested industries and the government. These protests rarely make the national news, and media reports selectively highlight the growth and industrialisation of Kutch. The Perspectives claim that media also ignores the poor condition of social indicators such as hunger level, child malnutrition, anaemia in children and the percentage of people living below the poverty line in Gujarat. In their words, "Gujarat may be vibrant in terms of its growth indicators, but its vibrancy as regards the state of its people is at best suspect" (Perspectives 2012, 16).

Clearly, industrialisation brings its fair share of problems. The industrialisation has not only had a massive impact on the local environment, people, and their livelihoods but it has also created new forms of social vulnerabilities by attracting migrants from the hinterlands of Gujarat and the other States of India. There were migrants already working in Kutch before the earthquake. They were severely affected due to loss of jobs, accommodations, and inability to obtain relief material since many were not 'existing' in the official revenue records (Louis 2001, 909; Sud 2001, 3353). But the new era of industries that came with the surge in construction works attracted thousands of contractors and construction workers from all over India (Simpson 2005, 231). The next section shows the rising tensions between locals and migrants that have placed migrants as a vulnerable group with no reliable social networks to fall back on.

3.5.2 Migration and the Sense of Otherness

The rising number of industries and employment opportunities made Kutch a favourable destination for people looking for jobs. Although industries offer some employment to locals, most employees are from outside Kutch (Ibrahim 2007, 3448). These migrants working in industries are often willing to work in hazardous situations for lesser pay, and industries commonly exploit them (Lakhani 2009). The industry also prefers cheap labour of migrants over local people and claims that locals are unskilled and therefore unemployable (Simpson 2007, 936). As a result, local people develop a sense of detestation towards migrants over time (Lakhani 2009). The difference between the 'locals' and 'outsiders' is visible in the houses' spatial arrangement, as migrants' squatter settlements are often on the villages' periphery. It is because migrants remain alienated from the local community (ibid). My respondents noted that migrants are often blamed for 'encroaching'

on their spaces, taking jobs, criminal activities, and destroying Kutch's cultural integrity. Simpson's ethnographic research in Kutch also highlights the emotions of Kutchis against these 'minority communities,' who are condemned for taking away the lands of Kutchi people and are responsible for rising levels of crime (Simpson 2005, 231). During fieldwork, my respondents' tone and attitude indicated their hatred towards migrants as they considered them 'outsiders,' uneducated, culturally inferior, parasitic, and criminal.

In Bhuj city, I spoke to members of Urban SETU; an NGO dedicated to addressing squatter dwellers' issues in urban areas. A focussed group discussion (FGD 2) showed that migrants occupy slums in urban areas cramped together due to lack of proper housing. Their everyday life is mired with brawls over basic amenities such as water and electricity. In many cases, the migrants are not registered in the revenue records (Sud 2001, 3353) due to frequent seasonal migration, logistical constraints, or bureaucratic negligence (Lakhani 2009). Undocumented migration further adds pressure to the squatter settlements, which remain non-existent on the state's developmental plans (Andharia and Lakhani 2010). The FGD with Urban SETU members added that the situation of migrants in rural areas is difficult to assess because they are spatially scattered, and many of them migrate seasonally. Nonetheless, their condition is undoubtedly no better than their urban counterparts. They also occupy houses in risk-prone regions such as Vondh village and are often excluded from village life (Sanderson and Sharma 2008). To sum up, industries may have provided employment opportunities to thousands, but they also dramatically altered the Kutch region's social makeup that positioned migrants as a vulnerable group. A case of rape and riots discussed in the next section will show that migrants are particularly vulnerable due to locals' increasing resentment against them.

Increasing Resentment and Violent Conflict

On September 28, 2018, a fourteen-month-old girl belonging to the influential Thakor community was raped in Sabarkantha district of Gujarat by a nineteen-year-old native of Bihar, a State in the central-eastern part of India. Like the States Uttar Pradesh and Madhya Pradesh, people of Bihar migrate to industrialised towns in India, many of which are in Gujarat, in significant numbers – often to find an unwelcome reception from the local populations. The 2018 rape gave rise to an outburst of anger by the Gujarati locals against non-Gujarati-speaking migrant communities, blaming 'outsiders' for the incident. Mob-attacks and riots spread to several districts of Gujarat such as Himmatnagar, Mehsana, Vadodara, Patan, Panchmahals, Ahmedabad, Anand, including the State capital Gandhinagar (NDTV 2018; *The Times of India* 2018). Within days, thousands of migrant families from Uttar Pradesh, Bihar, and Madhya Pradesh fled to their hometowns, leaving a void in Gujarat's industrial workforce.

The lack of employment opportunities for the locals in the industries, rising tensions between migrants and locals, and the apparent violation of values and morals led to complete chaos. Political leaders were quick to draw the linkages between these factors. The State president of Congress Party, Amit Chavda, stated: "anger was building among

youths owing to rising unemployment" and "the rape of the minor girl provided the trigger for the attacks on migrant workers" (Sharma 2018). Another Congress MLA, Alpesh Thakor, had publicly accused migrants of increasing crime and unemployment in Gujarat (*The Times of India* 2018). Although Kutch was reportedly unaffected by the riots, industries in Gujarat observed production losses of over twenty per cent due to lack of labour force within a few days (ibid).

In early 2019, a fast-track court sentenced the rape accused to rigorous imprisonment of twenty years (News18 2019). However, the violence against hundreds of migrants and their families had already made painfully apparent that although industries in Gujarat are dependent on the migrating labour force, these migrants are estranged from local communities. They lack social, employment and financial security, making them exceedingly vulnerable.

To sum up, the counter-narratives of industrial development and growth show that industries have occupied common-property resources (*territorialisation*) and disrupted local environment and livelihoods, creating vulnerabilities attached to the *place*. It has made several marginalised communities (e.g., fisherfolk) very vulnerable. Furthermore, the massive influx of migrants due to industries without reliable social and financial *networks* has positioned them as a vulnerable group—however, the stories celebrating Gujarat's industrial development eclipse such grave concerns.

3.6 Concluding Remarks

It has become clear that the dominant narratives of resilience, development, modernisation, and safer Kutch systematically stifled the problems of several marginalised groups. The case of Bhunga community in Baniyari showed that although tourism campaign has generously used their exoticism to portray the resilience of Kutch, Bhunga dwellers in villages still lack basic civic amenities and are vulnerable in multiple ways. The reconstruction programme was limited in its approach to addressing their existing vulnerabilities. In addition, the storyline of resilience has painted a different picture for tourists, while Bhunga dwellers continue to remain acutely vulnerable.

The relocation and reorganisation strategies in villages (e.g., Adhoi and Vondh) driven by the notion of urban development and speedy reconstruction only presented a facade of success. These narratives advanced the idea that Kutch is orderly and developed like the rest of Gujarat, but in fact, the strategies failed to address social vulnerabilities. They created newer challenges in people's everyday lives by reinforcing power struggles over resources and exposing them to financial risks. Furthermore, schemes (e.g., housing insurance) and 'modern' infrastructure (e.g., civil hospital) only contributed to the government's image as a forward-looking administration for building safer Kutch. In reality, they were starved of a long-term vision, and many people are in no better position to protect themselves against future hazards than before the earthquake.

Lastly, rampant industrialisation and subsequent industrial pollution and habitat destruction have pushed several marginalised communities towards newer forms of vulnerabilities. The impact of industries on the environment and traditional livelihoods is often downplayed against the narratives of Kutch's growth and development. Also, rapid change in the social makeup of Kutch due to increased migration has intensified the conflicts between locals and migrants. As a result of several compounding factors, the social and economic vulnerability of people in Kutch has increased.

One must recognise the innovative and solution-oriented approach of the reconstruction programme. At the same time, the critical analysis of its components show that several groups were excluded, and experiences of many others were suppressed. Over the years, the pre-existing vulnerabilities have been reinstated, and newer forms of vulnerabilities have emerged. But the dominant narratives persist overshadowing these vulnerabilities. The research offers an outlook to read and analyse narratives (and counter-narratives) in relation to vulnerabilities. It provides a holistic understanding of reconstruction programmes and interventions strategies.

The next chapter will explore different ways of remembering and forgetting the earthquake. I also examine the government's attempt to create epicentres of memories to reinstate dominant narratives and attach meaning to the disaster. These memorials, I argue, would further strengthen dominant unchallenged narratives furthering the vulnerabilities of many groups.

Chapter 4 – Sites of Memories and Memorials

"Record as much as you can, something will remain." (Nora 1989, 14)

4.1 Introduction

The chapter aims to demonstrate that fixing memories and narratives through memorials may disregard people's experiences and expose them to existing and emerging vulnerabilities. I have divided this chapter into two parts. The first part illustrates people's different ways of remembering and forgetting the earthquake. It also shows different meanings that people attach to the disaster. The example of textile embroidery and printing will show different storylines as a reflection of those meanings. The artisans used narratives in their artwork to communicate and forget the trauma of the quake. Yet, disaster memories are embedded in daily conversations, places, habits, and personal stories. They are further manifested into sites – religious shrine and graves – that have emerged from people's everyday interactions and emotional significance.

For the analysis, I rely on the concept of sites of memories. Research shows that collective memories are constructed and transmitted through the multiplicity of social interactions and cultural practices (Alderman and Dwyer 2014). They often take shape in material sites of memories mediated in public spaces (ibid). According to Nora (1989), "memory takes root in the concrete, in spaces, gestures, images, and objects" (1989, 9). In this context, I refer to sites as anything "where memory crystalises and secrets itself" (Nora 1989, 7). Sites of memories can be observed in material, symbolic and functional sense (Montano 2008). In Kutch, these sites have provided space for social practices, negotiations, and learning by facilitating social networks and invoking stories. Overall, they have contributed to community resilience.

In the second part of the chapter, I present official memorials (include museums) in contrast to these memory sites. Museums offer knowledge with authority, which is why the narratives they construct are difficult to challenge (Desforges and Maddern 2004, 438). Their role in excluding certain groups is well documented (ibid, 438-39). Through official commemorations, museums and memorials display certain narratives simultaneously silencing the others. This section discusses state memorials – Smriti Van and Baal Veer Bhoomi – and analyse their components. The analysis shows that the state is attempting to create epicentres of memory, which would act as sites of performance and legitimacy of the state's intervention after the earthquake. These memorials would reaffirm the narratives of resilience, nationalism, sacrifice, growth, and development. These narratives would further obscure the counter-narratives of exclusion and mismanagement and further the conditions of vulnerability. I analyse sites of memories and official memorials through the lens of socio-spatiality – territory, place, scale, and network (Jessop, Brenner, and Jones 2008; Etzold and Sakdapolrak 2016).

4.2 Sites of Memories

Respondents in Kutch began sharing their experiences with an account of where they were at the time of the earthquake. They remembered the quake through the places where they experienced the first tremor. These experiences, such as standing next to a wall or watching a children's parade in the village, were relived multiple times by sharing experiences with friends, family members, responding agencies, and researchers. The *place* became the first point of the reference to the earthquake experience.

Many noted the chaos and feelings of helplessness due to lack of resources and knowledge. The casualties at such a massive scale overwhelmed the primary health centres. People dejectedly recalled the loss of friends, family members and even strangers due to the absence of timely help. "There were bodies everywhere and no wood for the pyre. They were cremated on the pyre made of rice hay and petrol from the vehicles," recalled one respondent (interview 14). People acknowledged the feeling of numbness, and that it took a few days to a few weeks to come to terms with the losses and sudden changes in their lives.

The memory of the war with Pakistan was another recurring theme in the interviews. Since the earthquake occurred on India's Republic Day, many associated the loud noises with a bomb explosion or a terrorist attack. Several such stories were popular in the aftermath of the disaster. For instance, fearing an attack, a teacher in Anjar asked the students to run inside the school building and lie on the floor, when the roof collapsed (Khera 2002, 1022, interview 18). Many reported "noticing aftershocks," which rarely concerned them before. There was more awareness about the seismicity of the region. A few elderly respondents recognised the quake due to experience of the 1956 earthquake, which helped them escape and take shelter.

Most respondents suggested that the people in Kutch do *not* remember the quake. That, they claim, is the reason why there are not many memorials in Kutch. A few argued that people lack awareness about the event, and the necessity to create physical reminders of the quake. One respondent remarked, "…they [people in the village] close their shops and businesses on 26th but do not know its significance" (interview 18). Others argued that there is no need for physical reminders and in fact, people are actively unenthusiastic about such sites because they bring back dreadful lived experiences. The respondents in Morgar asserted that there are multiple memories of the earthquake, and the community is unsure whether it should remember the quake, and if yes, how (FGD 4). On the one hand, a few half-heartedly conceded that memorials would have changed people's understanding of risk and preparedness (interview 10). But on the other hand, a few purposefully tried to forget the earthquake. In the following section, we will see how people tried to forget and move on from the quake by displaying narratives through their artwork of embroidery and textile printing. Despite these efforts, memory sites are scattered in Kutch (Simpson and Alwis

2008, 9) and play a significant role in influencing people's learning, social cohesion, and resilience.

4.2.1 Narratives in Kutchi textiles: Sites of Forgetting

Connerton (2008) shows that remembering is not necessarily a virtue. In fact, in many cases, forgetting is desirable. For instance, *prescriptive forgetting* suggests that at times, it might be in the interest of all to forget certain events of the past. In this way, they can continue to function without fear or disputes. In his analysis, prescriptive forgetting is driven by the state, but in my observation, it can be propelled by a community (e.g., case of artisans discussed in this section). Connerton also demonstrates that *forgetting that is constitutive in the formation of a new identity* helps in "discard[ing] memories that serve no practical purpose in the management of one's current identity and ongoing purposes" (p. 63). It helps in shedding the image of the past and memories associated with it. These ideas are particularly useful in analysing how textile artisans in Kutch attempted to forget the earthquake and forge a new identity.

There are several textile traditions in Kutch. Some of the most famous ones include *Ajarakh* printing (predominantly blue colour) practised by Muslim communities, embroidery (remarkable for the use of mirror discs), *Bandhini* (tying and dyeing for patterns), and weaving (mainly done by low-caste communities). Several of these art traditions, such as Bandhini, present abstract patterns, and the narratives were not a conventional way of art in Kutch.

After the earthquake of 2001, artist and curator, Carole Douglas, conceived an *'Art to 'Art* project along with Kutchi artisans and local NGOs, to help recover the textile community of Kutch from the losses. The Manly Art Gallery and Museum of Australia commissioned the project. It employed artists of different age groups and from diverse communities to communicate the trauma and memories of the disaster on fabrics. They became a part of an exhibition *Resurgence: stories of an earthquake, survival and art*. Resurgence's idea was to create a narrative of the earthquake experience through the traditional techniques of textile printing and embroidery.

> The work depicts stories of survival and dreams for the future and challenges the traditional usage of imagery and realigns it within a narrative style in which what happened to people and place becomes a truly social fabric – woven, printed, dyed and stitched.
>
> Therese Kenyon (Director, Manly Art Gallery and Museum 2003)

It was an innovative way to bring together artists working in different textile traditions. The artists noted that they were using narratives for the first time in their work (Kala Raksha, n.d.). For my analysis, the textile pieces provided a window to peek into the lives of the people who experienced the earthquake and observe their most vivid memories. Most

importantly, they present the storylines that helped people make sense of their past and expectations for the future.

Storylines

Some of the artworks (Figures 4.1) highlight the interconnectedness of human and non-human in the Kutch region. They depict water bodies, traditional mud houses, scorpions and snakes coming out of their burrows, and cows and cattle running around mindlessly due to tremors. The narratives illustrated on the pieces also show death, loss and suffering through damaged buildings and funeral processions. Some of them show aid workers, ambulances, and organisations, which assisted them in the aftermath. The stories also include the efforts of rebuilding lives through masons reconstructing houses and people going about in their everyday routine. It is noteworthy that in the atmosphere of rising Hindu nationalism, many artists especially belonging to low-caste and Muslim communities expressed their sense of patriotism through the stories on textiles. As a result, the narrative of patriotism, nationalism, sacrifice, and courage attached to Republic Day was central to many pieces. It found an exclusive representation through the flag hoisting ceremony and children's parade.

Resurgence recorded that the exercise of creating art pieces to communicate disaster experiences and memories was fruitful as one artist reported: "It is not that we had nothing to say; we just did not know how to say it…" It provided an opportunity to the earthquake-affected people to express their sorrow and hope and gathered stories of fear of retribution as the artist of *The First few days* presented the tale of Vandh village and the events that followed the earthquake. These pieces offered an opportunity to turn a new leaf in their life. One of the artists' remarked "The earthquake book is closed. I begin a new chapter." Another commented "Before I made this piece, my head could not forget the earthquake. Now it is out of my hands, and I can move on with my life." A group of artisans working for the piece produced by KMVS remarked "although buildings were broken, tradition remains," reflecting on the closely-knit community culture in the villages of the Kutch region (Manly Art Gallery and Museum 2003).

Through collective forgetting of pain, death, suffering, and destruction, artists forged a new identity of Kutch, which is urban, modern, resilient, patriotic, and courageous. The transition is apparent through the chronological narrative of life before, during and after the quake. The stories show the past as chaotic and undesired; the present with loss and confusion, while the future was hopeful and desirable with concrete houses and broad streets (Figures 4.2).

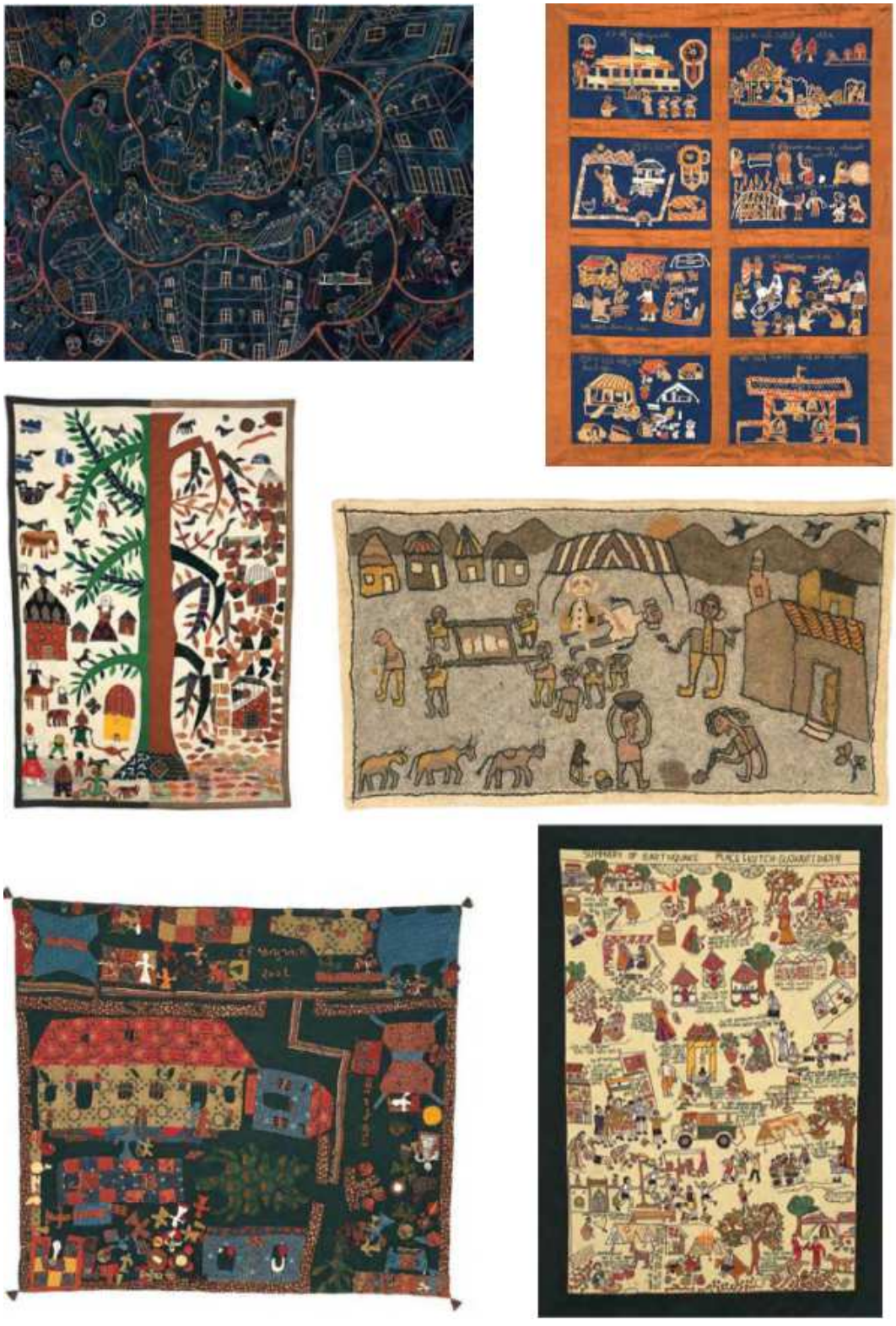

Figure 4.1: Kutchi textile embroidery and printing. Source: Manly Art Gallery and Museum 2003. Photo: Chris Whiting

Two pieces created in Ajarakh printing stand out for their vision of the future (Figure 4.2). A textile print named *Spider* depicts the story of Dhamdka village which had congested streets and mixed vernacular housing. The artist showed the village's relocation and asserted that when a calamity destroys a spider's web, it moves to another place to create a new one. The second panel of the artwork shows destruction around the epicentre, reportedly close to the village. The third panel shows broad streets, trees, and well-constructed houses. The attention-grabbing feature is that all the houses shown in the third panel are identical like in the neo-liberal vision of the state. Another piece of Ajarakh printing named *My Kutch is always beautiful* also shows a chronological narrative of destruction (Figure 4.2). A set of three panels presents a rural community affected by the earthquake, which transforms into

Figure 4.2: Top: Spider; Bottom: My Kutch is always beautiful. Source: Manly Art Gallery and Museum 2003. Photo: Chris Whiting

a progressive urban settlement with better infrastructure (identical concrete houses) and a water tank replacing the old water well. In these prints, the transformation of the *place* from rural and backward to urban and modern is clearly depicted. It is crucial to note that many people started associating strength and safety with identical *pucca* (brick and concrete) houses after the advent of responding agencies.

The stories show that disaster memories are contested and perform various functions as people attach different meanings to them. For some, the value lies in their roots depicted through traditional mud houses, animals, and quotidian lifestyle. On the contrary, others embrace the new identity that comes with modern houses and lifestyle. Despite contradictions, these sites offer valuable learnings.

In terms of socio-spatiality, these sites show how people see the *place*, its connections, and its functions. The artists reflect them through the storylines performed on textiles using techniques unique to their communities. In this process, they had control over the narratives they wanted to present. Also, since the project was envisioned in collaboration with the artists, they were active partners in the decision-making process. Lastly, these sites played a valuable role in bringing communities closer by sharing printing techniques and collaborating on pieces (Manly Art Gallery and Museum 2003). These are important lessons, especially in terms of control over narratives by the people. In the second part of the chapter, I will return to this point and argue that *territorialisation* over narratives performed by the state at official memorials furthers vulnerabilities. In contrast, the memory sites mediated by communities are embedded in people's daily lives and perform essential functions. The examples of memory sites discussed in the following sections show their role in facilitating social networks and encouraging learning by providing places for interactions, negotiations, and stories.

4.2.2 Shrine and the Tea Stall: a *place* for Negotiations and Social *Networks*

After the earthquake, the government offered emergency cash doles to people (Simpson 2005, 225). However, a few people were not willing to accept the government's assistance for the loss of life of a loved one. One of my respondents donated the money to his village to construct a shrine in his daughter's memory (Figure 4.3). He recalled the dreadful day and explained the motivation behind his decision.

> My daughter was eleven years old at the time of the earthquake. She was buried under the rubble and survived for two hours. I had no sense of time and place for almost two days after her death. For nearly eight to ten days, we felt that the world has come to an end. I received compensation from the government for the death of my daughter. I did not want to use it for personal benefits, so I donated it to construct the *namaz* (prayer) place for the community. Now people use it for daily prayers and on special occasions and festivals. (interview 13)

Figure 4.3: Shrine – a place for prayers and social gatherings, Morgar. Photo: by author

Winter (2009, 252) charts the life of a memory site from a historian's perspective. He enumerates the initial, creative phase when the sites are "constructed" or adapted to particular commemorative purposes; followed by "routinisation of their use." Finally, such sites may lose their significance over time with the disintegration of social groups which began the practice. In Kutch, however, the site relates to another place and is embedded in daily routine.

After the earthquake, social *networks* were severely disrupted, and differences among people deepened when external agencies intervened in the post-quake phase. Such stories have been documented in earlier work on the quake (See Mahadevia 2001, Mehta 2001, Khera 2002, Simpson 2005, Barenstein 2006). One of the reasons social networks were unable to recover was that daily social exchanges were tied to certain places, which were

woven in people's daily routines. These places, which offered comfort and a sense of belonging, were either destroyed or became unpleasant due to memories of deceased people. In view of this, the shrine played an essential role in bringing the people together. It offered a 'new' place where people could go and 'forget' the past.

The shrine became a site of memory for the villagers due to its regular use through daily and weekly prayers, its emotional significance and proximity to the community. It is important to note that the shrine is not a grand structure and in fact, is in dilapidated condition. Nevertheless, it has enormous significance for villagers who visit it regularly and gather at a nearby tea stall to discuss the issues of everyday life (FGD 4). As Nicholls (2006, 43) urges, the call for a memorial should come from the affected community. Then it receives acceptance by the people and helps them in recovering from the trauma of the disaster.

The practice of visiting the shrine is connected with a tea stall located nearby where people gather before and after prayers. The tea stall is exceptionally important because it is beyond the realm of religious or caste boundaries. As discussed in chapter 3 (section 3.2.1), religious places such as temples or shrines may limit access to specific communities, or people might avoid them due to social and cultural norms. In such a case, the tea stall draws people from different castes and religions evading community conflicts. Such places are critical due to their role in "social practices, economic exchanges and political negotiations" (Etzold and Sakdapolrak 2016, 237). Through these informal yet regular practices, they enable the "internal side of vulnerability" (Etzold and Sakdapolrak (2016, 242-43). That is, they contribute to community resilience by facilitating trust, collaboration, social networks, and learning (Adger 2003). The case clearly shows that the shrine is not merely a site of memory, but its relation to the tea stall and quotidian life makes it a crucial node in building community resilience.

4.2.3 Graves: Sites of Curiosity, Stories, and Learning

> Before the earthquake, we all lived together – my parents, brothers and their families, our cousins. We had a big joint family. Now we all have independent houses scattered in the village. We live near each other and still meet but not like before 2001. (interview 11)

Many respondents pointed out that large joint families in rural Kutch disintegrated in small family units after the earthquake. The trend of nuclear families is noticeable in other parts of India, but the quake accelerated this change in Kutch. It happened because when responding agencies adopted villages and offered new houses, many families showed that their younger members lived independently before the earthquake. In this way, they could demand several reconstructed houses (interview 17). The trick worked, and several families were able to occupy multiple houses. However, the plan had a downside because younger couples moved to separate houses and "the children are not growing with grandparents' stories any more" (interview 11).

In the era of nuclear families, eroding oral traditions, and missing memorials, respondents complained that younger generation does not have a good source of information on seismic risks reducing their "opportunities for intra- and intergenerational place-based learning" (McEwen et al. 2016, 16). Many schools are running the *School Safety Programme*[30] and conducting mock evacuation drills, but "children do not understand their relevance because they don't know the stories or have any memorial to relate to" (interview 25). Respondents complained that a sudden influx of 'outsiders' after the quake, many of whom are working as teachers in local schools, has affected the transmission of earthquake memories. Since these teachers did not experience the earthquake and seemingly lack local networks, which might have given them an orientation about life in Kutch, they supposedly do not understand the gravity of the seismic risks. They lack the relational understanding of the *place* and its people. In supposition, the younger generation has failed to learn about the earthquakes from their teachers. The inability to learn about the past quakes would add to the conditions of vulnerability.

In such a scenario, the graves near Dhamdka serve as a site of curiosity and storytelling (Figure 4.4). "All the people [belonging to a particular community] from our village who died in the quake are buried here" (interview 11). Unlike national cemeteries that propagate a national narrative of history and stories of leaders and fallen soldiers (Azaryahu 1996a in Foote and Azaryahu 2007, 128), the communal cemeteries are side-lined and often forgotten. However, such graves are critical reference points for those who survived the earthquake and people born long after the event (Winter 2009, 254). Such landscapes

Figure 4.4 Graves near Dhamdka village. Photo: by author

[30] School Safety Programme is running under the Gujarat School Safety Initiative to promote a culture of safety and reduce risk through structural and non-structural measures in schools. For details, see http://www.gsdma.org/Content/gujarat-school-safety-programme-4224

depicting the massive loss of life maintain collective memory of the tragedy (Johnson 2000, 257).

The graves in Dhamdka are also obscured from everyday life in the village but have a vital function to perform. They tell the stories.

> Nobody comes here usually, but people visit these graves on the anniversary. Many people on the same day make you take notice. Children also get curious. They are very observant of such things and ask questions. They understand the importance of evacuation safety drills in schools when they can relate them with stories [of the earthquake]. (interview 11)

Another respondent shared his experience in conducting training programmes in the villages. He corroborated that his team uses stories and places of significance to engage with children (interview 12). "It makes them wonder," he added. In this context, these graves are significant because they help raise questions and thoughtful reflection, acting as "a real site of memory" (Rivera-Orraca 2009, 37). The graves and seemingly unimpressive sites are critical in instigating stories and facilitating learning about disaster risks. Most importantly, these sites are accessible due to their proximity to the village, and people relate to them through personal stories of loss.

Concluding Remarks

These sites confirm the idea that memories are everywhere and perform different functions. The textiles helped people communicate the memories, forget the quake, move on, and forge a new identity. They show that memories of the earthquake remain contested for some while others embrace the responses to the quake (e.g., new housing). Nevertheless, the narratives reflect the personal experiences of the people, and they are mediated at the community level. The shrine, tea stall, and graves are also an exceedingly important part of people's lives. They facilitate social networks and learning, which adds to community resilience in the long-term. One might contest that these sites do not necessarily drive people towards preparedness and learning as the official monuments and knowledge centres claim to do. But their significance lies in the ability to become part of everyday life.

In contrast to sites of memories mediated at the community level, the official memorials present palatable and agenda-driven narratives that are difficult to contest. In the following section, I present cases of two state-sponsored memorials in Kutch. I argue that in the process of fixing memories and narratives, they silence counter-narratives and further the conditions of vulnerability.

Part II

4.3 Epicentres of Memory

"Nothing may be as invisible as a monument." (Robert Musil)

Documenting memories in museums, memorials, and other forms is essential because the "traditional mechanisms for the dissemination of memories (grandparent to child in the field, storytelling, epic poems, etc.) are dying out" (Simpson and Corbridge 2006, 569). A few scholars claim that memorials function as "post-disaster rituals and symbols" (Eyre 1999), while others believe that they "speak meaningfully to those affected and future generations" (Nicholls 2006, 37) and promote healing and recovery (Tumarkin 2005). Apart from this, museums also play a critical role in constructing narratives of nationalism, unity, and harmony (Khalili 2004, 7), and "reinforce a sense of collective identity and social cohesion through common understandings of order, aesthetics, and symbols" (Rivera-Orraca 2009, 32). Research suggests that museums become sites of interpretation, contestation and meaning-making as they influence public views, promote critical reflection, reframe differences, and facilitate discussions at interpersonal levels (Desforges and Maddern 2004; Schorch 2015). It is a good reason for governments to get involved in memory business so as "to communicate their involvement in both the memorial process and in the disaster itself, in a positive light" (Nicholls 2006, 36). In Gujarat, the need for memorials to commemorate the earthquake did not originate from the affected people but came with the government's reconstruction programme (See Ray 2004). As discussed in chapter 2, the government got involved in the memory business to silence the debates of independent State and appease the people of Kutch (Simpson and Corbridge 2006, 567, Simpson 2008, 17). Over the years, these memorials have become vehicles of official memories and narratives of the quake.

With the examples of state-sponsored memorials, *Smriti Van* and *Baal Veer Bhoomi*, I analyse the state's attempt to further 'official' memory of the earthquake and narratives of resilience, development, and safer Kutch. I problematise these attempts by suggesting that these official memories and narratives, which are loaded with the undertones of sacrifice and nationalism, will further silence the problems of many vulnerable groups pushing them towards disaster risks in the future.

4.3.1 Smriti Van Memorial: A Site of Remembering, Forgetting, and Legitimacy

The earthquake destroyed the historical city of Bhuj, which is the administrative centre of Kutch district. Senior bureaucrats in the state government proposed to leave it destroyed as a monument in the memory of disaster victims. Many, including a few NGOs involved in the reconstruction of Bhuj, supported the idea (interview 15). However, Keshubhai Patel, who was considered a weak-willed Chief Minister, rejected the plan (interview 4). The Bhuj

was not to be left alone but transformed into a thriving city. The Bhuj of today is completely changed. The 'new' city has vibrant markets, beautiful temples, street food joints, and shops flooded with colourful Kutchi textiles. The new image overshadows the city's royal past. But some of the majestic structures such as *Aina Mahal* are still standing amid crawling urbanisation and are a testament to the heritage of Bhuj. Parts of the old palaces were destroyed in the earthquake, and one can still notice the abandoned debris of the old structures scattered around. Apart from them, nothing suggests that the quake wrecked this city. Not too far from royal palaces and the city centre, the government is developing a memorial park and has been doing so for several years. It is the state-sponsored memorial called Smriti Van Earthquake Memorial and Museum (SEMM). Many locals (such as my rickshaw driver) do not know it as a memorial but as a recreational park that has taken far too long to develop.

Finding a suitable location for the memorial was not an easy task because of the spatial expanse of Kutch and scattered earthquake-affected sites. After much deliberation with consultants and government departments, the decision-makers selected Bhujiya hill (also called *Bhujiyo Dunger*), a small hill in the outskirts of Bhuj city. The connotation of Kutch's resilience is apparent in the planning of the memorial as one may notice in the concept note developed by the project's consultants. For instance, the selection of hill had special significance because "the Kachchhi attitude of resilience is what the Dungar attempts to advocate" (Vastu Shilpa Consultants n.d., 33). The planners see the memorial as "a visual manifestation of hope and courage" that would offer "an emotion experiential space that explains the phenomena of [an] earthquake with a unique exhibit treatment, reflecting the essence of the land – its kachchhiyat" (Vastu Shilpa Consultants n.d., 7). They presume that "…the memorial and museum would serve as twin anchors of the collective memory of struggle, tragedy, resilience, transience of life, triumph of the human spirit and hope" (ibid, 9). Along with the location, different components of SEMM invoke similar narratives, which are discussed in the following section.

Ideas and components of SEMM

As per the plan of the memorial, it would include a museum, a library, a documentation centre, arts and conference facilities, stepwells, and a sunset point. The government planned to construct it in 406 Acres (1,64302 sq. km)[31] of land at the cost of rupees one hundred and fifty-fifty crores (€23,683,400 in July 2011). The consultants developed a proposal, which evolved over the years, as observed in the presentations given to the government in 2011, 2013, and 2016. The presentations (and interviews with government officers) highlighted two significant components – plantation of 13,805 trees, one in the memory of

[31] 1 Acre = 4046.86 square metres

each victim (Figure 4.5) (although the numbers varied in subsequent proposals) and listing of victims' names.

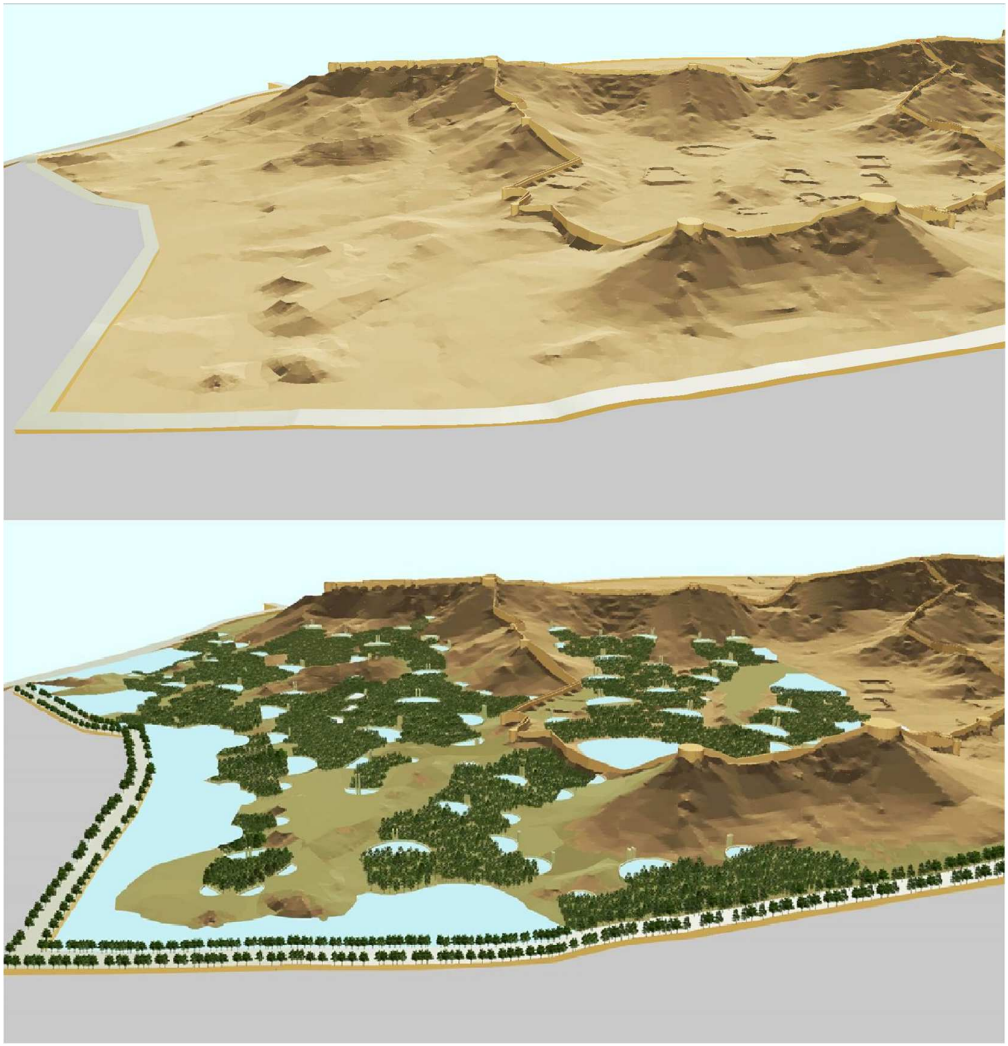

Figure 4.5: SEMM development plan; Source: Vastu Shilpa Consultants n.d

Memorial trees may represent multiple meanings – resilience, recovery, regeneration, regrowth, and passage of time (Heath-Kelly 2018). In the case of SEMM, the significance of tree plantation, which includes eighty-four species of trees, is to show the diversity of Kutch (Smriti Van 2011). In this way, different communities of Kutch would be 'represented' and 'included' in the memorial process. This gesture is somewhat symbolic. An executive in a government department acknowledged that the participation of local communities (and their ability to voice their concerns) is difficult in the bureaucratically complex system of Smriti Van's construction. Although planners consulted with local NGOs and some representative groups (interview 16). Unsurprisingly, many of my respondents had no clue that a memorial is under construction in the memory of their loved ones. A few others showed resentment and disinterest towards SEMM because they had

nothing to offer or gain from the memorial (interview 36). Nicholls (2006) has noted that memorials, which meet the desires of the affected community, are tricky and challenging to get right. That is why the current practices of memorial construction (such as in the case of 9/11 Memorial & Museum) usually include an extensive engagement of people (2006, 39). However, in the case of SEMM, the concept and plan came from consultants, experts, and government departments with the negligible engagement of affected people. In this way, the decision-makers have complete authority (*territory*) over the narratives, and they may be easily constructed, distorted, and propagated without any objection.

Coming to the listing of victims' names, it is a peculiar trend of war memorials mainly seen after World War I and II. Many of the innumerable soldiers who perished in the great wars never received a proper burial or had a known grave (Johnson 2000; Winter 2009, 263). Their names are all that is left with the families. Smriti Van has adopted a similar approach of listing the names of the dead like war heroes with hints of sacrifice and nationalism. Simpson and Corbridge (2006) have made similar observations about another memorial, Tiger Hill, in Kutch that follows a comparable form of remembrance.[32] Similarly, SEMM will also include victims' names and portray them as martyrs. In this manner, the memorial will assist in 'forgetting' them as victims of poor building construction, bad planning, and inefficient response system, but 'remembering' them as individuals who sacrificed their lives transforming Kutch into a safer and economically developed region.

Apart from these key components, the overall planning of SEMM is driven by the commercial and economic activities of Bhuj. These activities would reaffirm that Kutch has re-emerged from the ashes, forgotten the earthquake, and moved on towards growth and development. For instance, the SEMM is envisioned as a centre that would depict the region's cultural diversity and show the growth of artisans as entrepreneurs.

> There are eight galleries in the museum where handicrafts, art, mud work will be displayed. You can also do a live performance there. The idea is to bring traditional artwork from all over Kutch so that people will know about it…The Bhujiya hill was selected for the construction of Smriti Van because it is almost in the middle of Bhuj. It is mainly for the business because Bhuj is at the centre from Mandvi, Mundra, Bhachau, Dhordo, Khavda, Lakhpat, Naliya so everyone can come here. Both ends [of the district] are 150 km from here. If we want to have something similar to the Vibrant Gujarat [business summit], we need bigger halls. The artists will be able to show their businesses. (interview 16)

In this explanation, the concept of SEMM is grand and expensive. It would be another masterstroke in the promotion of tourism and foreign investment in Gujarat. The components of museum galleries and live performance will cater to tourism activities. There is no denying that the exposure to markets has opened several avenues for Kutchi art and

[32] Tiger hill was a peak captured by the Indian Army in the India-Pakistan war (1999) in Kashmir. It became popular in the media, and martyrs of the war were celebrated as national heroes. Naming the memorial after the famous peak associates victims of the earthquake with the sacrifice for the nation.

artisans. The idea behind bringing various textile traditions together seems to be a welcome move to promote the local textile industry. However, as discussed in the critique of tourism (section 3.2.1), it is debatable who would be the beneficiaries of these commercial activities. Many believe that SEMM would only benefit large business enterprises instead of artisans of small-scale industries (interview 40 and 44). Their concerns are not unfounded. We have seen how Bhungas are appropriated for tourism while Bhunga dwellers in villages struggle for basic civic amenities. It would take years before we may be able to examine the benefits of commercial activities at SEMM for the people of Kutch. But it is clear that it would serve to expand the narratives of growth and development.

Despite its commercial orientation, the planners believe in the notion that Smriti Van would comfort quake-affected people. They insist that it would "offer comfort and finality to loss; [as] a place of remembrance that gives the living a means of moving on with life" (Vastu Shilpa Consultants n.d., 17). The decision-makers based the plan of SEMM on the assumption that people from far-off villages would visit the memorial, roam around, and remember their loved ones. Many, however, challenged and refuted this perception.

> How can they expect people to travel from their villages and visit this memorial? How does the government expect paraplegic [affected due to the quake] to come to Smriti Van memorial when they have been forgotten by the state's machinery and can hardly get by in their daily life? Smriti van is a political agenda just to invest and make money. It has been seventeen years…twenty-five to thirty crores [rupees] are added [to its budget] every year. (interview 40)

Other respondents echoed the sentiment by arguing – "…it is more like a picnic place than a memorial" (interview 10), and "…memorials are tricky. They do not add any value. You can observe that in Smriti Van how badly it is kept" (interview 20) (Figure 4.6). The respondents were particularly critical of the government's notion that SEMM would somehow appease the disaster-affected people especially when many of them are still struggling due to quake-related injuries and vulnerabilities (e.g., due to relocation).

Analysing SEMM through the lens of socio-spatiality (Etzold and Sakdapolrak 2016), one would observe that it is developing at a grand *scale* that would attract material flows, capital investment and personal interactions. Its central location (*place)* positions it in the heart of the district's commercial activity. The industries and business ventures in Kutch would have easy access to SEMM due to rapidly expanding commercial *networks*. However, the state's control over SEMM with limited involvement of affected communities marks it as a *territory* that offers little space to the contested narratives.

Figure 4.6: SEMM under construction, Photo: Nizil Shah, 2016. Source: https://commons.wikimedia.org/wiki/File:Smritivan_2001_Gujarat_earthquake_memorial_garden_in_Bhuj,_Gujarat,_India.jpg

In conclusion, the SEMM claims to embody Kutch's cultural diversity and resilience in its location and design. It asserts to contribute to disaster risk reduction by developing knowledge centres and interactive learning features. However, different features attempt to invoke the master narratives of inclusion (represented through trees), sacrifice and nationalism (listing victims' names), growth and development (shown through infrastructure, business summits and entrepreneurship of artisans), and moving on. These narratives would remember the quake in specific ways, simultaneously forgetting the unpleasant memories. These narratives would showcase a false sense of resilience without addressing the root causes of vulnerabilities, which would prove counter-productive to the efforts of disaster risk reduction.

The example of another state-sponsored memorial proves the point that official sites are territorialised by 'official' narratives and offer little to no place of negotiation to the most affected people. As I discuss in the following section, *Baal Veer Bhoomi's* location became a site of contestation between the state and the people.

4.3.2 Baal Veer Bhoomi: A Site of Performance, Conflict, and Negotiation

> *Going to the rally, he said, and never returned*
> *Tricolour in his hands, chanting 'long live the nation'*
> *What did you know, this would be the last rally*
> *Even the slogan would be last, I praise thee, mother! 'I praise thee, mother!'*
> *This town belonged to Kutch, its name was Anjar…*
> *Going to the rally…..*

Waving to their mothers, said goodbye and left.
Within moments, there was chaos, it was the earth-shaking.
Windows of the palaces scattered on the way.
Children were trapped under a cloud of debris
Going to the rally….

It was the Datar crossroads, children were helpless
Breathing had also stopped, the burden on the head was unbearable
In the company of their teachers, went directly to heaven
Mother-father cried aloud, where is my loved one…
Going to the rally…

Unfortunate was the father, who had to call the name…
Children had gone silent, how would have they heard?
With spade and shovel, searching frantically–unearthing
Appearing in the form of bodies, were streams of tears trickling down
Going to the rally…

There were over two hundred people, their void can never be filled…
The soul was trembling looking at the visuals
Who would have consoled, everyone was devastated?
It was a test for everyone, there was not a roof around…
Going to the rally…

O Lord, please give them forms of, heavenly radiance
Even if they get a different form, give them your companionship
What could humans do, just pray with folded hands
The only request we have, please keep safe
For the rest of our lives, please do not give us such a tragedy
Going to the rally…….....

The poem titled '*Jaunchu*…' (translated to 'Going…') was written by one of the respondents in his son's memory. The child lost his life while participating in the Republic Day rally in Anjar. Showing dissatisfaction with the process of memorialisation, the poet remarked that the state's memorial would lack the emotions reflected in the poem.

One of the most cited and recalled memories of the Kutch earthquake has been the sad demise of schoolchildren in Anjar. They were trapped under the falling debris in a congested street while marching in the Republic Day parade. According to the official records, as many as 185 children, 21 teachers and police officers lost their lives.

The parents of the deceased children constructed *Smriti Smarak* (literally 'A Memorial') at the site of the tragedy near *Khatri chowk* (Figure 4.7). The local traders and an informal association of the parents called *Vali Mandal* (literally Guardians'/ Parents' Association) donated the money and built this memorial. The members of Vali Mandal take pride in the fact that they constructed Smriti Smarak without government support.

During my visit to Anjar, I visited Smriti Smarak with a local guide. It is situated in one of the town's busiest parts, and the memorial is easy to miss if you are not informed about it. Enclosed by a boundary wall in a small compound, a few benches surround the memorial. The parents have a deep emotional connect with the *place* and the memorial. They decorate it with flowers and the Indian flag on the anniversary of the earthquake every year. In the interviews with the parents, which often turned emotional, the respondents emphasised the value of Smriti Smarak and the ritual to decorate it on the Republic Day every year. However, the memorial is set to be replaced by a grand and official memorial.

Figure 4.7: Smriti Smarak decorated with flowers and indian flag on earthquake anniversary. Photo: private collection

Soon after the quake, the state proposed to build an 'official' memorial. It would contain a park, a library, and as many pillars as the number of children perished (TNN 2005). The Anjar Urban Development Authority was the chief administrative body to oversee its construction. Years went by, but the memorial did not go beyond the planning stage. The media, usually around the earthquake anniversary, raised the issue of the missing memorial (See TNN 2014), but the tragedy along with its official memorial was forgotten.

> The people of Anjar are not reminded of the tragedy that took place eighteen years ago. The media recalls it on the 26th of January every year and conducts special programmes on the anniversary, but the 'on-air' life of the earthquake's memory is very short. (interview 35)

During my fieldwork in 2018, I learned that the government is committed to its promises of constructing a memorial in Anjar, and the planning of a state memorial, *Baal Veer Bhoomi,* is in progress. Baal Veer Bhoomi, which means 'land of courageous children' reflects the undertones of patriotism, sacrifice, and nationalism (See Simpson 2014 for a detailed discussion on post-earthquake nationalism in Kutch). When I first learned about the memorial, it raised three questions. How is Baal Veer Bhoomi different from Smriti Smarak? Why has it taken almost two decades for the construction of the state memorial? What does the parent's association expect from this memorial? A government officer engaged in its planning explained the idea behind it, which helped answer these questions.

> There will be a place to pray for schoolchildren and parents. There will be some sort of monument. There will be landscaping and a gallery. It will be similar to *Amdavad in Gufa*;[33] you can go inside and roam around. There will be a pond and a column [of a damaged building], which was affected in the earthquake. It started three-four years ago, but it is still on paper. It will not take much time, but the file is in the CM's [Chief Minister's] office.[34] It will start if the administration approves it. The concept has been showed to the Chief Minister, and changes such as audio-visual features have been added. The land acquisition has been done and waiting for approval. It is close to ten crore rupees. (interview 16)

The statement illustrates that the memorial must be impressive and attractive, to act as a site of performance, showing the state's commitment to keeping the memory of the schoolchildren thriving. Baal Veer Bhoomi is much more ambitious than the simple stone structure of Smriti Smarak. It stresses beautification and appropriate presentation of the memories. Regarding the delays in its construction, there are two primary reasons. Firstly, the Anjar Urban Development Authority complained about the limited funds for the project (TNN 2005). Secondly and more importantly, the state authorities and Vali Mandal had a dispute over the location of the memorial. The state authorities had allotted a piece of land not far from Khatri chowk, but Vali Mandal wanted the government to construct Baal Veer Bhoomi at the site of the tragedy. The idea of a grand memorial needed more space, and the congested streets of Khatri Chowk did not fit the bill. On the other hand, the parents insisted on constructing the memorial at the site where children perished even if it is small and unimpressive (interview 35).

I interviewed members of the Vali Mandal to understand their viewpoints and expectation from Baal Veer Bhoomi. The interviews often turned verbally violent, and many people showed their anger and frustration with the government. Others showed their disengagement with the new memorial. As it turns out, several members of the association

[33] It is an underground art gallery in Ahmedabad, which is popular for displaying the works of world-renowned artist Maqbool Fida Husain. It is a famous tourist spot.

[34] 'File in Chief Minister's office' is an expression I learned during my time in the government of Gujarat. It is an ambiguous phrase that usually means that the process is moving forward, and it is in consideration at the highest administrative level in the state. It is often used to justify the delays in state-approved projects.

did not expect the government to construct any memorial, and that is why they built one by themselves. When the government's plan of the memorial started taking shape, the location of the memorial became a site of contestation and negotiation. Since there was no official association of parents, a few members of the Vali Mandal participated in the talks. One of the parents remarked:

> There is no dispute [with the government] as such. The government announced a memorial for children after the earthquake, and that is what they are doing. The Vali Mandal is an informal association of parents who lost their children on the 26th of January 2001. We already constructed a memorial in Khatri Bazaar.[35] The government feels that place is not enough, and they have decided to build another memorial a few kilometres away from Khatri Bazaar. It has been so many years, and we pay respects to the children on the 26th of January every year at the Khatri Bazaar memorial. The government projects take time and let them build what they want. As of now, they have constructed a boundary wall at the site that has been allotted for the memorial. It might take shape in a year or so. (interview 45)

The expression *'let them build what they want'* reflects the dissatisfaction and disengagement from the new memorial. It is counter-productive to create a space for parents and others to pray and pay homage if they feel disconnected from it. Besides, the grandeur of the new memorial is set to replace the modest Smriti Smarak. Nicholls (2006, 40) has called the way that 'official' monuments can overshadow and replace the 'unofficial' spontaneous memorials a "disgraceful interference." The commemorative rituals performed by dominant political groups may destroy or disregard conflicting practices of memorialisation (Simpson and Corbridge 2006, 581). In this case, substituting for Smriti Smarak would make the endeavour of a new memorial irrelevant. Nonetheless, after several years of negotiation, the parents' association could not influence the government's decision and Baal Veer Bhoomi is under construction away from the location of the tragedy.

On 5 August 2020, the government of Gujarat released a tender for the interior work of the museum. In the tender document, the memorial is named as *Veer Balak Smarak*, which means 'Courageous children memorial.' Initially, I learned the name Baal Veer Bhoomi from government officers and members of the parent's association. Other respondents understood the name and responded to it during interviews. It had placed emphasis on *Bhoomi* (land). Now, the official name places 'courage of the children' in the forefront. One must wonder, how and why the name went through a transformation. Is it perhaps a way to appease the unhappy parents? The tender document illustrates what the memorial aims to achieve.

> The Veer Balak Smarak (VBS) will be a memorial consisting of an experiential and interactive space dedicated to the innocent souls who lost their lives in the 2001

[35] Khatri chowk is also referred as Khatri bazaar. The chowk means crossroads while bazaar means market.

> Gujarat Earthquake. The memorial will have open landscape to learn about the incident that affected school going children's and teacher's life, there will be Museum to learn about the past and prepare for the future and a Memorial space to pay homage to the lost souls. The entire Smarak will be an engaging community space for the local community and tourists (GSDMA 2020, 18).

It is ironic that the memorial claims to offer "an engaging community space for the local community" while exercising control over the decision of its location. The *place* of the memorial itself became a matter of conflict and dispute for the people it was supposed to cater. Undoubtedly, the memorial would be glorious in its *scale* to attract attention from several quarters, but the interviews show that it does not satisfy the people who were most affected by the tragedy. Different components of the memorial such as maps, information panels, experiential pathway, museum, auditorium block play area, and café (Design concept India n.d.) would serve tourists more than the local community. Under the influence dominant narratives of resilience and development, the contestation, and negotiations over the location of the memorial would be forgotten.

4.4 Concluding Remarks

People employ different strategies to forget and move on from the disaster. As the textile artwork showed, the artists were successful in forgetting the earthquake and forging a new identity of Kutch at the same. Their storylines showed that memories are contested but mediated by the people. Similar observations were made about sites such as the shrine, tea stall, and graves, which emerged from people's quotidian interactions. These sites play a critical role in social practices, negotiations, and storytelling through their everyday use and emotional significance. They facilitate social networks, learning, and contribute to community resilience. The findings suggest that such sites often remain unacknowledged by formal institutions of knowledge and learning.

On the other hand, the official memorials fix memories in concrete endorsing certain narratives while silencing the disputed ones. The SEMM and Baal Veer Bhoomi have a clear economic and commercial purpose. Unlike community mediated sites of memories, which are in the community's proximity, these official memorials lack personal stories of loss and suffering. They have components to learn about earthquakes, including information panels, interactive games, and models, showing their orientation towards DRR related themes. At the same time, however, they build upon the narratives of resilience, sacrifice, nationalism, growth, and development of Kutch. The research shows that 'remembering' such positive and palatable narratives facilitates 'forgetting' of counter-narratives downplaying the actual vulnerabilities. The official memorials offer little space for contested narratives.

The research shows that official uncontested memories of disasters can reaffirm dominant narratives and reinstate conditions of vulnerabilities. Therefore, it is critical to examine

disaster narratives, remembering and forgetting, and vulnerability together in disaster literature. The DRR frameworks can be strengthened by critically examining the dominant narratives, and analysing the ways disasters are memorialised through official commemorations.

Chapter 5 – Remembering and Forgetting: Myths, Morality, and Risk Perception

"…the only memory we have is that there is no memory left from a time before the flood."

- a respondent on the loss of official documents in Machhu flood

5.1 Introduction

The aim of this chapter is to understand people's risk perception through myths, moral tales, and materialisation of disaster memories. Through this analysis, I propose a new outlook to utilise rumours as a reflection of people's risk perception and a point of intervention for risk reduction.

In contrast to the Bhuj earthquake, which is actively remembered as a case of learning and best practices, the Machhu disaster is forgotten from the collective memory (Sandesara and Wooten 2011). There are several reasons that encourage forgetting of disasters. Scholars have noted that sometimes benefits of living in a hazardous place, such as fertile land, outweigh the memory of destruction (Roy 2012, 21). People systematically forget the dreadful events to continue deriving economic benefits from the risk-prone areas. The desire to remember is further diminished to protect local house values or tourism industry and avoid escalating insurance premiums (McEwen et al. 2016, 22). Several stakeholders may have vested interests in forgetting a dam failure so that it does not influence the planning and construction of similar schemes in the future (Moore, Dore, and Gyawali 2010).

Although forgetting can be an essential and desirable part of people's experience, it "may diminish resilient knowledges and social learning that flood memories help develop" (McEwen et al. 2016, 18). That is why scholars have stressed the need to acknowledge people's past experiences, vernacular knowledge, and social memory to reduce vulnerabilities and promote learning (Huber et al. 2016, 9).

In recent years, scholars have proposed the idea of "sustainable flood memories," an approach that integrates personal and community experiences materialised in the landscape, technology, media, and archives (McEwen et al. 2016, 17). They assert that disaster memories are invoked, visualised, captured, and shared through images, stories, texts, and markers referred to as flood 'materialisation' (ibid). These memories need to be sustained through inter-and intra-generational exchanges on vertical and horizontal planes as they contribute to dealing with flood risk by generating strategies for lay knowledge (Garde-Hansen et al. 2017, 386; McEwen et al. 2016, 17). Furthermore, the institutions need to protect the memories for developing accessible lay knowledge, which can be translated, shared and utilised for social learning, preparedness, and appropriate action.

Building on this premise, I explore the Machhu dam's conception, failure, and reflect on the systematic loss of institutional memory. By analysing personal stories, ways of remembering and forgetting, and the town's heritage, I examine the reasons for forgotten/

vanishing memories. The analysis shows that memories have survived through myths and moral tales, and the memories materialise in the form of photos, videos, and rumours. I argue for a framework, which recognises rumours as a reflection of people's risk perception and a point of intervention for sustaining flood memories. Through this, they can help build trust between people and governing institutions and contribute to risk reduction.

5.2 Machhu River and the Dam

The historical town of Morbi (also called Morvi) derives its name from its founding ruler Mayurdhvaj who named it 'Mayurdhvajpuri' meaning the city of the Peacock Flag. The name later went through transformations and was shortened to Morbi (Sandesara and Wooten 2011, 11). The Machhu river has been a lifeline for the agricultural and economic growth of the town (Dave n.d). The city not only survived but thrived for over two millennia. Irrigated by the Machhu, farming was the primary occupation in Morbi until 1928 when the first ceramic enterprise was established (Sandesara and Wooten 2011, 16-17). By the mid-1930s, Morbi became an industrial town supplying pottery and tiles all over India (ibid).

Despite such growing industry, many villages around Morbi continued to rely on agricultural activities. Since Morbi was heavily dependent on monsoon for farming and daily needs, King Lakhdhirji Jadeja envisioned damming the Machhu river in the 1920s. However, he never went through with it. Logistical constraints and dispute over territorial sovereignty resulted in his decision, although residents believe that famous engineer, Sir M. Visvesvaraya, advised him against the damming of the river (interview 41; Sandesara and Wooten 2011, 44-45). He anticipated that damming the Machhu would threaten the life of Morbi's residents in case of a dam failure. The King shelved the idea, but it was picked up again by the state government formed after India's independence.[36]

Soon after independence, India's first Prime Minister Jawaharlal Nehru drove the post-independent India towards economic revival through his visions of development. He advocated that technological advancement is one-key-solution to India's underdeveloped, rural, and poverty-stricken agrarian communities. Nehru famously claimed that big dams are the temples of modern India. Although many considered it a revolutionary vision at that time, scholars have criticised it for unequally benefitting private commercial and industrial groups, bureaucrats, and elites who were able to influence political leadership (De 2014; Ghosh 2001, 952). Undoubtedly, dams and water schemes are critical for the growth and development of any society. But damming of rivers also stands out as an archetypical instrument of modernity, which is criticised for its long-term consequences on ecosystems and local communities (Huber et al. 2016). Nevertheless, the visions of modernity and

[36] In its initial phase of its conceptualisation, Machhu-II fell under the purview of the State of Saurashtra. The state government submitted a project proposal to CWPC in 1955. In 1956, Saurashtra merged into Bombay state. In 1960, Bombay split along linguistic lines creating Gujarat and Maharashtra. Since Saurashtra came under the government of Gujarat, the new state government of Gujarat adopted all ongoing projects in Saurashtra, including the Machhu dam-II.

development set the stage for the Machhu-II water scheme. Riding high on modernity, the state government ignored the warnings against damning Machhu and pursued the project with enthusiasm.

The state envisaged capturing the water-wealth of Machhu river with a dam, which it claimed was getting lost to the Gulf of Kutch (Sandesara and Wooten 2011, 45-46). Due to technical feasibility and financial considerations, the engineers proposed constructing a hybrid dam with a 206.04m gated masonry spillway in the middle and earthen embankments flanking 2343.61m on its left and 1398.42m on its right (Government of Gujarat 1980, 6-10). The final spillway capacity was determined to be 191,230 cusecs controlled with eighteen adjustable gates and re-revised to 218,330 cusecs during construction (Government of Gujarat 1980, 4). The dam had a shallow but wide reservoir with over three billion cubic feet of storage capacity (Sandesara and Wooten 2011). It was completed in August 1972 and started functioning soon after that (Government of Gujarat 1980, 88).

These ambitious schemes of development often create winner and losers. They disproportionately affected rural populations by displacing them away from their land and livelihoods. Such displacement and relocation of people due to the construction or failure of dams need attention because Indian laws overlook the impact of such schemes on the people downstream (Huber et al. 2016). The rehabilitation of affected people remains one of the biggest challenges even after the legal and judicial provisions (Moti et al. 2012, 4). In Morbi, the construction of Machhu-II submerged Jodhpar, Adepar, Lakhdhirnagar, and Lilapar villages. It resulted in the displacement of nearly two thousand people and loss of fertile farmland, which was the source of their livelihood (Sandesara and Wooten 2011, 54). Although the government compensated the displaced families with a plot of wasteland and two thousand to three thousand rupees, several villagers were not satisfied with it, as their subsistence became a challenge (ibid, 60; interview 22 and 29). The poor farmers living in nearby villages became the involuntary risk bearers and had to face displacement as their first challenge due to the construction of Machhu-II.

Despite displacement, there was no formidable resistance against the dam. Sandesara and Wooten (2011) note that before the construction of Machhu-II, the project's Executive Engineer managed to silence opposition from local people. He invited them to the dam site, explained the dam's benefits for the downstream villages, and appealed to their sense of sacrifice (2011, 54-58). As a result, the villagers silently accepted their fate of displacement and life under risk. It is a critical point because as discussed in previous chapters, narratives of resilience or in this case, sacrifice, may put communities at risk. As we will see later in the chapter, at-risk populations appeal to nature, myths, and morality to justify disaster's inevitability. In the next section, I present the dam disaster, its consequences, and missed opportunity of institutional learning.

5.2.1 Machhu-II Dam: Failure and Consequences

In August 1979, the residents of Morbi were delighted to experience rains after a long dry spell. They were gearing up for the upcoming festival of *Satam,*[37] and the rain was a welcome sign and a relief. However, the excessive rainfall upstream the Machhu-II turned the religious festivities into the worst nightmare the city had ever experienced.

From the beginning of August, the Machhu basin received incessant rain, which became "exceptionally heavy" during 10-12 August 1979 (Dhar et al. 1981, 72; Government of Gujarat 1980, 5). It was evident that the designers of Machhu-II had grossly miscalculated the outflow capacity as dam received an inflow of 400,000 cusecs, which overwhelmed the dam (Bhaduri 2012). The eyewitness accounts claim that despite the efforts of the dam workers and people from nearby villages, all the gates did not open in time because some of them were jammed. On 11 August 1979, at around three in the afternoon, the earthen embankments flanking both sides of the concrete spillway collapsed, sending walls of water to Morbi, neighbouring villages, and downstream villages in Kutch district (Figure 5.1). Within minutes, the water inundated the low-lying areas of Morbi and completely razed many structures to the ground (Figure 5.2). The flood killed several hundred people and is among one of the worst dam related disasters in the world. The death figures vary enormously, between 1800 – 25000 (Gutenberg n.d.; Sandesara and Wooten 2011). The number of casualties is disputed. Some claim an exaggeration, others an underestimation. They assert that the flood completely wiped out some of the downstream villages, but there are no records of the people dying in rural areas (interview 41).

[37] Dedicated to Goddess Shitala, the festival is celebrated as per the Gujarati calendar. Devotees consume cold and stale food cooked from the previous day and seek blessings against diseases.

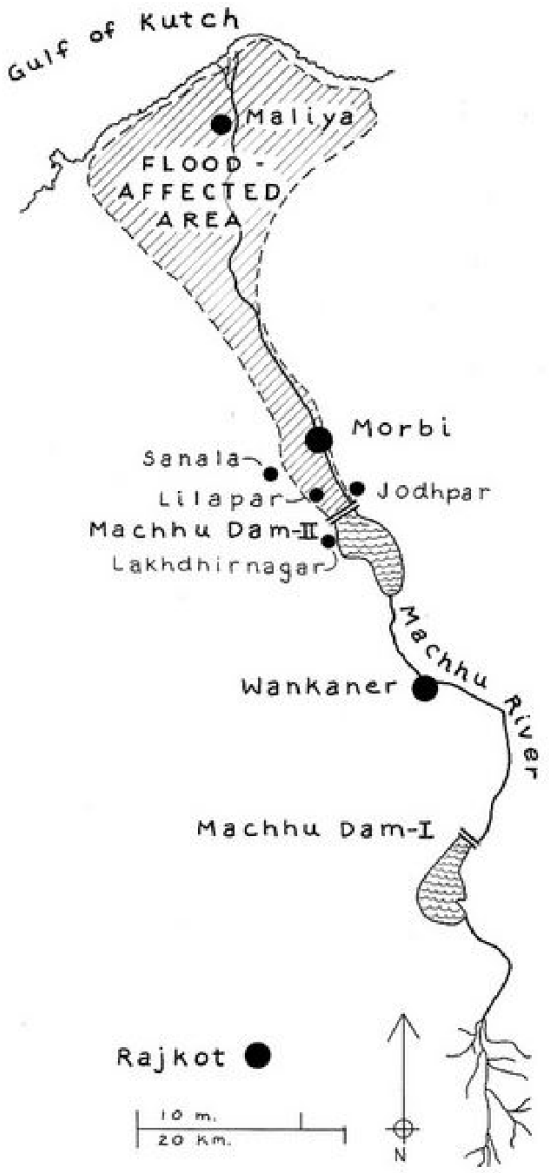

Figure 5.1: Flood affected area after the flood. Source: Image created by Jamie Devol for No One had a Tongue to Speak *by Utpal Sandesara and Tom Wooten*

The concrete spillway survived and saved the lives of six dam workers who sheltered together in a small cabin on the concrete structure (Figure 5.3). During my second visit to Morbi, I met with a dam worker who currently manages the day-to-day activities of the dam's functioning. An unassuming young man, he was napping in his cabin because there was nothing much to do. Due to scanty rainfall and a slightly dry year, there was much less water than the dam's holding capacity. He explained that there is an additional spillway now, and the 'modified' dam is a substantial improvement on the old structure.

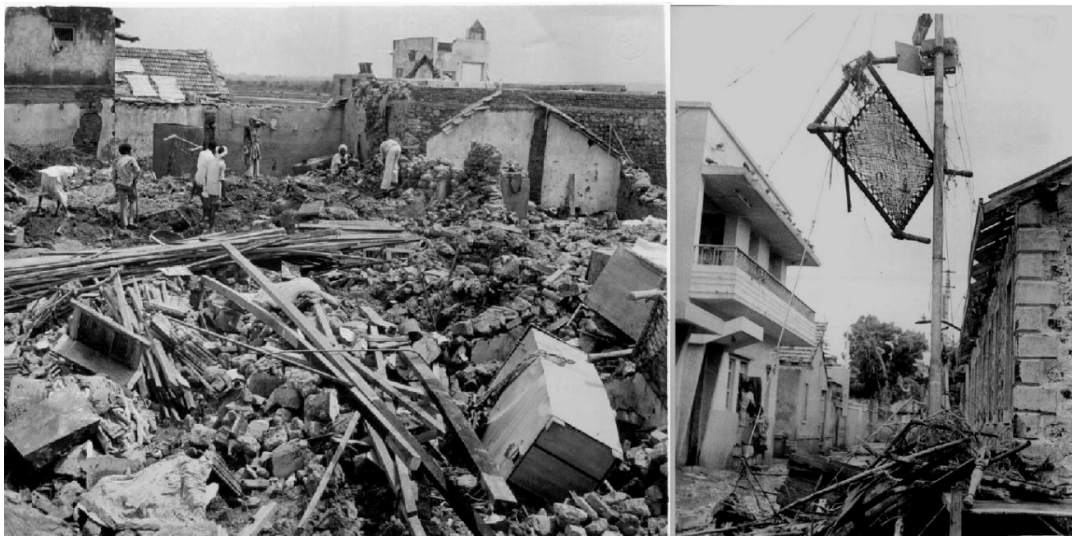

Figure 5.2: Morbi after flood of 1979. Source: http://thefloodbook.com/

> The old spillway survived the flood. It has eighteen gates. Now the new spillway right next to the old one has higher outflow capacity. It is bigger and has twenty gates. These gates have rubber layering on the edges, so it prevents jamming. There is some water leaking from the edges, but at least the gates will not jam [as it happened in 1979]. That is the small cabin [pointing towards a yellow-coloured structure built on the old spillway] where six people survived the flood of 1979. The sight must have been horrible, water flowing from both sides. The old spillway is under renovation. The workers are putting a chemical coating on the iron beams to avoid rusting. We get instructions from the Collector's office to release the water from the dam. Most of the time, it is verbal communication because we need to act in an emergency. The paperwork is done afterwards. (interview 24)

It is common practice in government departments to act according to the instructions of a senior officer or authority, especially in the departments dealing with disasters and other

Figure 5.3: Old cabin (left) and concrete spillway (right) on Machhu-II dam. Photo: by author

emergencies. Although it is regular and accepted practice, it can cause difficulties in assigning accountability in case of catastrophes. It is an important point to note because, after the flood, citizens of Morbi saw poor management by dam workers as one of the major causes of the disaster. The dam's design flaws and communication failure were overlooked at the time of disaster (Bhaduri 2012; Sandesara and Wooten 2011). Many of my respondents pointed out that they do not trust the government officers responsible for the dam's management because despite government forming an Inquiry Commission after the flood of 1979, they never revealed the actual causes of dam failure and placed the blame on Nature and God. People also relied on stories, myths, and morality to accept the fate of the city. I will return to this point later in the chapter. In the next section, I discuss the inquiry commission established by the state to assess the causes of the flood. The analysis shows that it was a symbolic gesture and a missed opportunity for institutional learning.

5.2.2 Inquiry Commission: Re-evaluating the Flood

After the flood, the government of Gujarat appointed a three-member commission of inquiry. The commission was tasked to examine and offer advice on:

1. The causes of the failure and circumstances of the collapse particularly concerning the conception, construction, design, and maintenance of the dam
2. The adequacy of the action taken by various authorities, till the floodwaters from the dam entered the affected areas, to avert the disaster and to mitigate the consequences thereof
3. Recommendations for the future
   (Government of Gujarat 1980; Noorani 1984, 667)

To assist the commission in the evaluation, the Gujarat government submitted a two-volume report stating "facts and opinions" on the collapse of Machhu-II dam. The report unambiguously asserted that the flood was a "natural" calamity, and no one could be held responsible.

> …the failure of the earth dam was caused by the sustained overtopping of the dam for a long period. Earth dams, and rock fill dams with earth cores cannot withstand overtopping for any length of time. The overtopping of the dam was *caused by catastrophic floods due to meteorological conditions of exceptional rarity* and due to catastrophical rainfall spread over a period considerably longer than the time of concentration for the area as well as violent rain of the cloud burst type. *The failure of Machhu dam-II was entirely on account of natural calamity beyond any human control* and not on account of any defect in the conception, design, construction, or maintenance of the dam by the Government or any Governmental or human agency. (Government of Gujarat 1980, 6 [emphasis added])

Consequently, the State government discontinued the inquiry commission in March 1981 declaring that "it has become clear from the reports of the experts so far received that there was no defect whatsoever in the construction and there was no defect whatsoever in the

gate. The dam collapsed because of the water of heavy rainfall passing over the earthen embankment of the dam" (Noorani 1984, 667). With this abrupt suspension of the commission, the state neglected a critical issue of empirical data tampering noted by Sandesara and Wooten (2011, 62). They point out that the engineers had struggled to determine the spillway capacity during the design phase due to the absence of hydrological data and limited rainfall data. Nevertheless, they calculated the spillway capacity based on the estimates and empirical formulas. The Central Water and Power Commission (CWPC) reviewed the project proposal submitted to it in 1955 and criticised this approach. They found that the engineers had drastically underestimated the spillway capacity by not anticipating additional water from upstream dam Machhu-I in case of a rainstorm. The CWPC approved the construction of Machhu-II in 1961 along with a directive to recalculate the flood design estimates using a more accurate "unit hydrograph" method. Still, the Gujarat government did not comply and produced a "tailor-made" unit hydrograph that supported the already existing design specifications (Sandesara and Wooten 2011, 64).

It is clear that there were inadequacies in the dam's design, but the government kept pointing to unprecedented rainfall as the likely cause of the dam failure. This claim has been refuted by Dhar et al. (1981). They have noted three severe rainstorms in the region between the period 1891-1970 (1894, 1927 and 1950) (Dhar et al. 1981, 76). It shows that although the magnitude of rainfall in August 1979 was rare, it was not wholly unknown. With the discontinuation of the inquiry commission, the government curtailed any possibilities of assigning accountability, identifying root-causes, and learning. Also, in the process of denying any wrongdoings on its part by accusing the "natural" disaster, the state employed what Connerton (2008) calls "Repressive Erasure." It is a forgetting used by states, governments, and institutions of knowledge-production to "deny the fact of historical rupture" (Connerton 2008, 60). As a result, there is barely any institutional memory left of the flood.

Unsurprisingly, there is limited literature available on the disaster. Records (or their absence) play a partial but important role in remembering and forgetting at the personal and collective level (Van House and Churchill 2008, 295 cited in Garde-Hansen et al. 2017, 392). Lack of institutional memory and vanishing commemorative practices in Morbi reflect that flood memories are fading at personal and community level. In the following section, I shift my focus from institutional memory to personal stories of the flood. Through these stories, I explore differed ways of remembering and forgetting. Also, I examine the loss of Morbi's heritage as an indication of fading memories.

5.3 Disaster Memories and Forgetting

The stories of Machhu flood followed a common thread of events: heavy rainfall, sudden inundation around three in the afternoon, panic, haphazard fleeing, and unimaginable loss of life and property. My respondents recalled dreadful sounds, muddy colours, painful experiences (e.g., shards of broken glass hurting the feet), and horrific visuals (e.g., the dead body of a child still smiling, bodies clinging on the electric pole, death of a friend with his

nose touching the ceiling). They recollected traumatic experiences of losing friends, family members, and locales that gave them a sense of place and comfort (interviews 22, 25, 27, and 32). Even almost four decades after the flood, people were able to recall vivid and specific disturbing images, sounds, and bodily sensations. They claimed, however, that these memories are fading. One recurring theme that emerged from my analysis was that people are forgetting the flood. My interview with an employee of the Lukdhirji Engineering College (LEC) illustrates this point.

My respondent, a resident of Vajepar, lost *fifteen to twenty* (his quote) family members in flood including his father, mother, grandfather, uncle, aunt, their three kids, and his only sister. He asserted that he recalled the disaster only because I asked him about it. He claimed that nobody talks about the flood anymore, and he has accepted the loss as "will of God" and something that is "beyond human perception and control" (interview 28). Connerton (2008, 64) argues that "a person tends to remember only those links in his or her pedigree that are socially important." Connerton calls it "structural amnesia" (ibid). Since the respondent lost most of his immediate family in the deluge, he also lost the relationships that could have connected him to the flood. But he was not the only one to assert forgetting of the flood. Other respondents put forward five fundamental causes of fading flood memories – lack of physical memorials, commemorative walk losing popularity, eroding oral traditions, a massive influx of outsiders, and immorality.

5.3.1 Fading Flood Memories

The High Flood Line (H.F.L) on the LEC building is a marker of the devastating flood (Figure 5.4). Although it is at a central location on the busy university campus, it is barely noticeable. During an interaction with the engineering class at LEC, I learned that few students are aware of it, and fewer have heard the stories of the deluge. Their professor remarked that most of the students at LEC belong to cities outside Gujarat and have no knowledge of the flood (interview 30). It is an important point to note because many respondents claimed that the influx of outsiders (which includes industry workers) is another crucial reason for the loss of flood memories. I discuss this later in this section.

A commonly known or rather official memorial of the flood is in the premises of *Mani Mandir*. At one point, Mani Mandir was a public place operated by the Gujarat government. Now, it is a private property of Morbi's royal family, and one needs permission to enter it. On the flood anniversary, a few city officers, along with residents, visit the memorial (interview 31).

> Every year on 11 August, people walk from *Nagarpalika* (local Municipality office) office to Mani mandir in a silent memory march for the victims. There is a stone statue [memorial] in front of the Mani Mandir. People of all faiths, beliefs, and religions can go there for paying respects. There is a siren at 3 pm on 11 August every year along with the silent rally. You can only see five–twenty-five[38] people

[38] It is an expression; a way of saying that only a few people were present.

> going there, and the numbers keep decreasing every year. There used to be many more before, not anymore. *People are forgetting* about the 1979 flood. Our kids do not even know about the flood. (interview 27)

The practice of memorial walk is becoming less popular every passing year. There are no other commemorations that bring residents of Morbi together as a community to evoke flood memories. Some of the elderly respondents remarked that the loss of oral traditions is the reason why the commemorative walk is not popular (interview 31 and 32). They were disappointed that the people have failed to inform the younger generation what the town had endured. As a result, they do not acknowledge the value of commemorative practices.

Figure 5.4: High Flood Level marked on the old building of LEC. Photo: by author

Connerton's (2008) interpretation of "prescriptive forgetting" may help us understand why people, intentionally or unintentionally, did not pass on the information to the next generation. He explains prescriptive forgetting as a collective desire to forget in the interest of functioning properly (2008, 61-62). The parents did not share their experiences to forget the disaster themselves. Also, they wanted to protect their children from the trauma of the stories.

At the age of seventy-nine, my oldest respondent had a different take on fading flood memories. He shared his views on how the town has changed before and after the flood. In an emotional recollection of the past, he claimed that the *neeyat* (integrity) of the city had changed. The people who received relief material wanted more than what they needed. Greed has worsened over the years, and "taking everything is a norm now." The new generation is growing in this environment that lacks empathy, integrity, sense of belongingness, and cohesion. The flood memory is getting lost because *nobody cares about it anymore* (interview 32). Lee and Smith (2004) explain that manifestations of moral values such as courage, honesty, and care may vary spatially and temporally, but they are still universal markers of morality (2004, 5). Although it may be understood in differed ways, they define morality as "what people believe and what they do in pursuit of, or merely as a reflection of, their own conceptions of the right and the good" (ibid, 2). In his explanation of the morality of place (Morbi), my respondent linked it with a time before the flood when there were no mobile phones or internet, and people relied on stories, poems, and songs. He asserted that immorality (shown through greed and lack of care) in the town's population is causing forgetting.

Other respondents linked the immorality of 'outsiders' with fading flood memories. As noted earlier, the city has a large proportion of younger people due to Lukdhirji Engineering College. Also, the economic boom in the 1980s and 90s completely changed the commercial landscape of Morbi and attracted thousands of people to the ceramic and clock industries. The workers come not only from the hinterlands of Gujarat but also from the other States of India.

> After the flood, a lot of people left Morbi, but a lot more came here. Today's Morbi has a new population, which exists here from the last fifteen-twenty years. They know about the 2001 earthquake but not about the flood (interview 22).

The rapid industrialisation of Morbi and its overcrowding due to inflow of non-Gujarati workers is a frequent topic of daily conversations. The informal chats often turn towards the differences in the values of 'us' and 'them.' The outsiders are also held responsible for corruption in the industries, loss of kinship, and erosion of Morbi's identity (interview 26 and 43). Since they did not experience the flood, they have no way of relating to its memories. In the interviews, my respondents blamed 'outsiders' for creating a new identity of Morbi, which has induced forgetting. The new town is young, industrial, business-centric, immoral, and forgetful, which is contradictory to Morbi's royal past and its identity as a heritage town.

To assess the shift in Morbi's identity from royal to industrial, I explore the rich cultural and architectural heritage of Morbi. The analysis shows that the loss of the town's heritage is seen as a sign of eroding identity, loss of sense of place, depleting social cohesion, and fading memories. Again, these sentiments are linked with immorality.

5.3.2 Loss of Heritage: Erosion of Identity, Sense of Place, and Memories

The aesthetic beauty of Morbi is not a subject of debate. As soon as one comes out of the railway station, the magnificent Mani Mandir captures the attention (Figure 5.5). It is fondly called the Taj Mahal of Morbi by locals because King Vaghji Jadeja commissioned it in the memory of his beloved wife, Manibai, the way Akbar commissioned Taj Mahal for his beloved Mumtaj. The bustling city, Machhu river, Machhu bridge, and several iconic structures surround this beautifully carved red sandstone structure of Mani Mandir. Standing in front of Mani Mandir, you can observe the 233m long suspension bridge over Machhu river connecting Darbargadh Palace and Lukdhirji Engineering College (Government of Gujarat 2019). The riverfront of Morbi reminds a few of the Victorian London (Gujarat Tourism 2019), and many affectionately call Morbi the Paris of Saurashtra. Other significant places of attraction such as Green Chowk tower, Nehru gate, statues and sculptures of horses and bulls on the Machhu bridge show the influence of European architecture on Morbi.

Figure 5.5: Mani Mandir, an Iconic Heritage Building of Morbi. Photo: by author

During my tenure with the government of Gujarat, I worked on projects related to Disaster Risk Reduction of heritage structures. I developed contacts with several renowned architects, planners, and heritage conservationists. These contacts helped identify suitable respondents for my questions on the history and heritage of Morbi. For the analysis in this section, I rely on two key experts of architecture and heritage and note that others may have different views on the heritage of Morbi.

On a leisurely afternoon of February 2017, a local architect showed me his work on the heritage buildings of Morbi. He had an excellent collection of photographs, maps, and documents. Living in an old house that he restored for his parents, he recounted the memories of the 1979 flood.

> When the flood occurred, I was in the *valley of flowers.*[39] On 16 August 1979, I came back to Dehradun and was waiting to catch a train to Delhi. I was working in Delhi at that time. I was enjoying *pakoras* and tea and reading newspaper when I saw a photograph of a buffalo hanging from an electric pole. The paper mentioned that floods have occurred in Rajkot, so I realised that *it must be Morbi*.[40] (interview 25)

His realisation that "it must be Morbi" reflects the underlying fear of the residents who experienced the dam as a constant threat to Morbi. This sentiment has not changed even after structural improvements in the dam, as many others shared similar notions of persistent risk due lack trust in dam's functioning (and the government officers responsible for its operation). Later in the chapter, I will return to this point and examine the benefits of sustaining flood memories in bridging this gap.

Despite knowing the flood risks, the heritage expert decided to settle in Morbi. He stressed that heritage buildings and memory are inherently linked. To protect the memory of the past and identity of the place, we must preserve the heritage buildings, he added. The respondent's passion for the protection of heritage buildings was evident from his confrontations with the local authorities. He recalled the stories of his encounters with the local authorities, and the frustration of making them understand how losing heritage buildings will lead to erosion of the community's identity and memories. According to his estimate, the local officers knowingly let heritage buildings decay. "The local authorities let the old buildings crumble, they take away the good quality wood and let the building die. Once it is uninhabitable, they get an excuse to dismantle it completely and sell the rest of the parts." He opined that the local officials are corrupt and do not believe in the restoration of heritage buildings. They take out timber, sell it in the black market, and then leave the building to ruin. After a while, it is condemned and demolished. The intervention by the royal family had helped in the protection of Morbi's heritage. Since the family has moved away from Morbi, they have not contributed much to protect Morbi's royal past.

> All the black stone buildings in Morbi are old structures. Saurashtra government gave them to the government of Gujarat when Gujarat state was founded. They are under PWD[41] now. After the 1979 flood and 2001 earthquake, a lot of old black stone buildings were knocked down by the PWD. In old times, the state of Morbi imported timber from Malaysia and Burma. The Burmese teak was imported, which is expensive and excellent for building construction. This has been done for over 400 years. The Mahendra Sinh hospital has been left to ruins by the PWD. They take out all the expensive timber and sell it into the black market. They call local scrap dealers and sell the structures piece by piece. They do not believe in restoration.

[39] National Park in the State of Uttarakhand, India
[40] In 1979, Morbi belonged to the district of Rajkot. It became an independent district on 15 August 2013.
[41] Public Works Department. In Gujarat, the Roads and Buildings (R&B) Department is the designated authority.

Other architects and disaster management experts have corroborated the respondent's views. Rohit Jigyasu, an architect and expert in DRR of cultural heritage, notes that disasters often provide an excuse to decision-makers and planners to replace traditional structures with modern structures as observed in Morbi after the 2001 earthquake (Jigyasu 2020, 172). Another reason for the degradation of Morbi's heritage is sheer negligence of city planners. A few years ago, the ADB funded a project for Morbi, which included laying pipeline along Mahendra road. The contractors dug out a beautiful old railing and discarded it to put the pipe in its place. The respondent intervened but to no avail. Finally, he wrote to the ADB project officers in Delhi and informed them that the project was destroying Morbi's heritage. He won that battle as the project officers forced the contractors to restore the old railing. The respondent proudly shared the copies of the letters and reports he had written over the years to save the town's legacy.

The interview highlighted a key theme of immorality. It is recurring throughout the chapter. In my respondent's views, the government officers are immoral for letting the old buildings ruin and their negligence towards the town's heritage. As a result, people are losing a sense of place and forgetting the past. In response, a few residents of Morbi (including my respondent) are attempting to rejuvenate the city's regal glory.

Heritage Walk: Attempts to Revive Morbi's Identity

Through a common acquaintance working in heritage conservation, I met a resident of the old and historically valuable part of the town, Daftari Sheri. He proudly told me about his family's contributions in the making of Morbi and famous personalities, who have given Morbi its unique identity.

> My great-grandfather was one of the first engineers in Gujarat. He went to Jaipur to study architecture. He was the one behind the construction of the Machhu bridge. Morbi has witnessed many great personalities, such as Shrimad Rajchandra. He was the guru of Mahatma Gandhi. He could remember a hundred things at a time. He could also write with his both hands. A person like him is called *śatāvadhāni*[42] (interview 22).

During the interview, it was apparent that the respondent is a proud resident of Morbi. His family had contributed to the city's heritage, and he wanted to continue its legacy. The reference to Shrimad Rajchandra showed that remembering has positive connotations. One who can remember is celebrated. That is why the respondent has enthusiastically promoted the "heritage walk" of Morbi, a tourism initiative (Figure 5.6). Through these attempts, he wants people to remember the city's identity and their place in it.

The respondent is the governor of Lions club for the Saurashtra and Kutch region and enjoys a position of power and influence. He has been instrumental in identifying the "heritage

[42] A person who could perform a hundred *Avadhāna,* an Indian performative art in which the performer showcases extraordinary mastry of memory, retention, creativity, multi-tasking and other cognitive abilities. Further reading: *Avadhāna: Between Art of Attentiveness and Ritual of Memory* by Hermina Cielas.

points" for the heritage walk of Morbi. The walk includes predetermined spots of historical and cultural importance. The local community representatives, guides, experts, and officers deliberated and decided the heritage points. It is no surprise that the respondent's neighbourhood, Daftari Sheri, is one of the heritage points. The walk usually takes three to three-and-a-half hours. Most of the chosen spots for the walk drowned in the deluge of 1979.

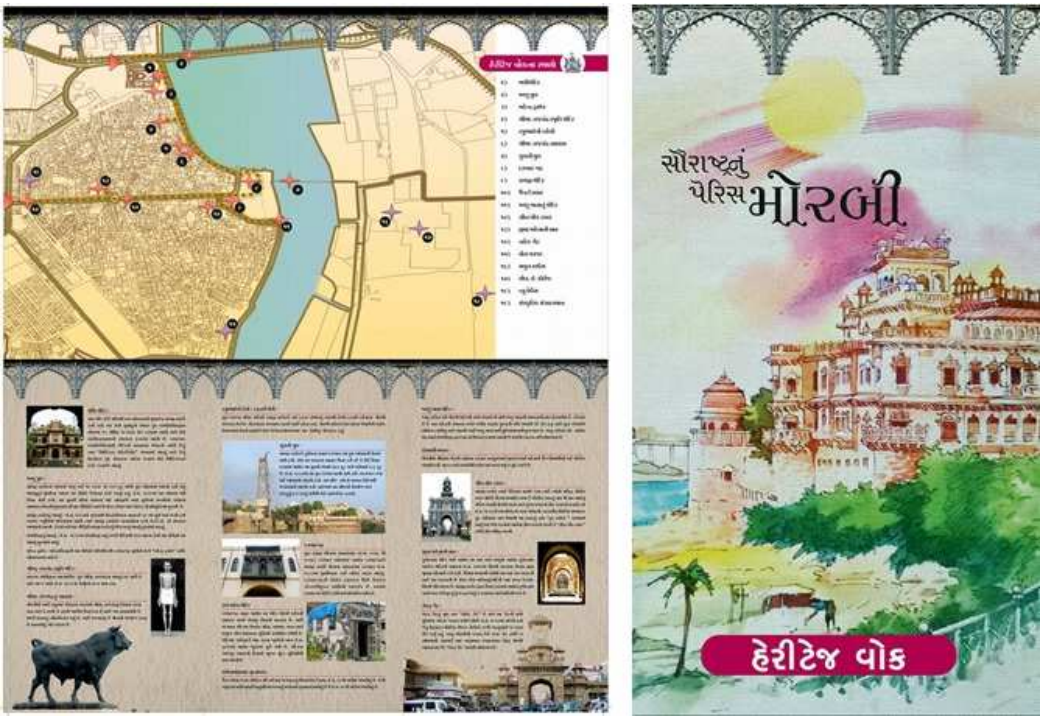

Figure 5.6: Flyer of Morbi's Heritage walk; Right: Cover of the flyer stating "Saurashtra's Paris-Morbi;" Left: (top) Map of Morbi with Machhu flowing in the centre, (down) Points of interest on the heritage walk

Pre-defined tour paths tend to restrict the spatiality of different sites into a "linear sequence" and propagate an official story (Foote and Azaryahu 2007, 128). As the walk's promotional flyer indicates, it has distanced itself from the memory of the deluge. The brochure depicts the importance of Machhu for Morbi and stresses the city's cultural heritage, calling it the Paris of Saurashtra. It also gives a historical record of its rulers, highlighting the ones who contributed to the town's industrialisation. The *Machhu Mata nu Mandir* (Temple of goddess Machhu) is listed as a heritage point indicating the importance of the river and its status of a deity in the imagination of Morbi's inhabitants. Overall, the document shows the glorious past that has defined the town's identity.

With the decay of heritage buildings (as discussed earlier), the town is losing its identity. Once a heritage town, which was glowing with royal past and pre-modern architecture, is an industrial town with fading memories. In the interviews with the heritage experts, it was apparent that they associate this shift with a loss of sense of place and depletion of social cohesion in the new Morbi.

Many respondents supported these sentiments. Due to rapid change in the city's landscape, they lost several places of comfort that were part of the town's social fabric. In such a scenario, people rely on stories, myths, and moral tales to connect with the town's past. In this process, they also justify risks posed by the dam and explain the inevitability of the disaster.

5.4 Risk Perception: Myths and Moral Tales

The people have forgotten the flood of 1979 was a persistent claim in the interviews. But Morbi witnesses recurring floods, and during July and August every year, different media outlets evoke the memory of Morbi's deluge. It is no surprise that many local people upload videos related to the 1979 flood on YouTube, usually around the disaster's anniversary. On the 40th anniversary of the tragedy in 2019, YouTube channels *BBC News Gujarati* and *Gujarati Biography* posted short videos of the dam failure. In the last few years, especially since 2017, the number of such videos and the views they receive has increased immensely.[43] The popularity of flood videos and people's claim regarding forgetting of the flood appear contradictory. In such a scenario, I examine people's risk perceptions associated with the dam, recurring floods, and how they come to terms with them.

I explored these themes by examining the fear of repetition and people's trust in technology and dam governing authorities. Although a few respondents placed their faith in the dam's construction and advanced communication systems, they were apprehensive about government institutions responsible for handling Machhu-II. "They are all government officers you know…just passing the time and doing the minimum required work," remarked one respondent (interview 32). To accept the risks associated with the dam, the people employ two strategies. They evoke the naturalness of the disaster and appeal to Machhu's myth to justify the inevitability of the flood. Despite the claims that people have forgotten the 1979 calamity, the deluge's memories have materialised in rumours, myths, and moral tales, which reflect people's risk perception. These rumours and myths need to be acknowledged, and memories sustained so the governing institutions could learn from them and prepare rather than letting them create panic and chaos.

Naturalness of a Disaster

The makers of *Machchhu*, a Gujarati commercial drama movie, released the trailer in 2019. Inspired by the actual events of the dam failure, the video displays heart-wrenching visuals and admirable cinematography. The most striking aspect of the trailer is its narrative. The silent video begins with flashing text "Paris of Saurashtra" and continues "but no one can change fate," "curse or a fault?" or "act of God." In the closing credits, the name of the movie "Machchhu" is followed by the tagline "Act of God." During my fieldwork, most of

[43] Many of these videos are posted by amateur moviemakers and young youtubers. The language of communication is usually Gujarati, and they can be found under the search titles of 'Morbi pur, Machhu hunarat or Morvi flood.' *Pur* (pronounced pūra or poora) or *honarat* (pronounced hōnārata or honaarata) mean flood or deluge.

the respondents shared similar notions that the flood was a rare act of God. People recalled exceptionally heavy rainfall as the prime reason for the dam breach.

> The dam did not break, but the earthen mounds had broken from the sides [considering the concrete structure as the actual dam]. Now, the dam is bigger and better, but if there is a *kudrati* (natural) calamity, nothing will work. It was a natural disaster because there was so much rain. There was a lot of rain in a very short time. Nobody had seen so much rain. (interview 43)

Unusually severe rainfall in the days before 11 August 1979 is undeniable (Dhar et al. 1981; Rakhecha 2002, 171), but the scholars have debunked the narrative that the Machhu flood was an act of God (Bhaduri 2012; Sandesara and Wooten 2011). It is disconcerting to notice that government publications and commercial media reiterate the narrative of disaster's naturalness so much so that it overshadows any limitations on the part of public institutions and experts. Although scholars have challenged the notion of "natural" disasters (Hewitt 1983; Huber et al., 2016; Steinberg 2000; Wisner et al. 2004), it continues to dominate the disaster discourse hindering learning and preparedness against disasters. In the case of Morbi, many respondents believed that flood was inevitable because it was the destiny of the town.

5.4.1 The Myth of Machhu: Inevitability of the Disaster

For generations, people of Morbi have known the stories of King Jijaji Jadeja. A fierce warrior who ruled Morbi from 1790 to 1827 (Dave n.d), King Jijaji was infamous for his pursuit of beautiful commoner women in his kingdom. According to a legend, Jiyaji once fell for a *Vaniyan* (merchant women) while she was on her way to fetch water from the Machhu river. Even after repeated persistence, the Vaniyan rebuffed the advances of the King, and the exchange between them is beautifully captured in a poem "The Vaniyan rebuffed the King" (Aaspass n.d. cited in Sandesara and Wooten 2011, 2).

> *He says, Vaniyan, what is the price of your water pots?*
> *Forget about it, Thakor Jiyaji; let it be, King of Morbi.*
> *I refuse to set prices!*
> *Your entire harem will be ruined for these water pots!*
> *A Vaniyan of Morbi goes to the Machhu's waters.*
>
> *He says, Vaniyan, what is the price of your bangles?*
> *Forget about it, Thakor Jiyaji.*
> *Your elephants will be ruined for these bangles!*
> *A Vaniyan of Morbi goes to the Machhu's waters.*
>
> *Then speak up, Vaniyan—the price of your hair-bun?*
> *Your kingdom will be ruined for this hair-bun!*
> *A Vaniyan of Morbi goes to the Machhu's waters.*
>
> *Tell me then, Vaniyan—the price of your feet?*

Your head will be ruined for these feet!
A Vaniyan of Morbi goes to the Machhu's waters.

Despite the refusal by the Vaniyan, Jiyaji remained insistent. At last, with no hope for escape, the Vaniyan jumped in Machhu river and cried, "For your indecency, King Jiyaji, you will pay! Seven generations from now, neither your lineage nor your city will remain!" (Sandesara and Wooten 2011, 3). A famous Gujarati movie, *Machhu Tara Vehta Pani,*[44] also revolves around this legend. It begins with the newspaper headline "The curse of *Sati*[45] and the destruction of Morbi." The narrative of the movie reiterates that actions have consequences linking the curse of Morbi with divine punishment and an inevitable disaster. Such stories are evoked to attach meaning with the fate of the city and its inhabitants.

> There was a person who owned a *paan* (betel leaf) shop before the flood. He looted so much gold [from the dead bodies] that he constructed a four-floor guesthouse and a beautiful house. But it was not his money, so he lost everything in the last 37-38 years. He sold his beautiful building. There was someone else from a village near Bhachau [Kutch]. As he saw the opportunity, he looted a lot of jewellery and went back to Kutch. He had four sons and a wife. It was not his money and belonged to someone else. He constructed a house. In the earthquake of 2001, his all four sons died in front of his eyes. His entire family died. It has happened a lot in Kutch that the entire families died. When he saw this, he remembered and realised the *durachar* (misdeed) he did after the flood. He realised that he would have to go through it. He felt bad so much that he donated whatever was left. Some things have happened that people will not be able to tell. (interview 41)

Like Kutch after the earthquake, I came across many stories of "erosion of morality," "increasing greed," and "divine justice," which people related to the disaster. They appeal to the myths associated with Machhu to justify the inescapability from the flood. The memory of the flood has materialised in such stories. They help people in coming to terms with the disaster and risks associated with the dam. Also, they justify punishment (by God), require repentance, and make the morality a matter of individual responsibility. In these terms, there is no room for DRR. There is room for personal salvation. The message of such moral tales is to be moral in the circumstances.

Lule (1987) shows that scholars in various disciplines have debunked that myth is "a false or incredible tale." Based on it, he explains myth "as a cultural narrative in symbolic form that articulates a world view and offers consensus with that view. Thus, myth is not a set of fixed stories or plots. Myth is a form—that is, structure and content—adapted to a function, the representation and confirmation of shared belief" (Lule 1987, 6-7). Assmann's (2008) explanation resonates with Lule's notion of a myth. She adds that myth can be interpreted as "an idea, an event, a person, a narrative that has acquired a symbolic value and is

[44] Meaning "Machhu your flowing water" available at https://www.youtube.com/watch?v=qj20BA2nls8
[45] Sati (pronounced suh-tee, suht-ee) refers to the ancient Hindu practice whereby a widow immolated herself on the funeral pyre of her husband. In this context, *Sati* refers to a priestess who sacrificed her life to protect her honour.

engraved and transmitted in memory" (2008, 68). As seen in the myth of Machhu, the inevitability of destruction involve morality: what the King asked for was not correct; in refusing his request the Vaniyan was right, and her curse had force; in looting flood victim's dead bodies, the shop owner was immoral; only in repentance for his wicked ways could he be saved. The memories of the flood have survived through such stories and myths. In recent years, they have resurfaced in the form of rumours of the dam breach.

5.4.2 Rumours as Sites of Memories

The respondents living in Morbi communicated a shared feeling of progress due to developing infrastructure, growing markets, and rapidly expanding communication channels. However, they also confessed to a degree of uncertainty in terms of the repetition of the flood. They acknowledged the dam as a constant threat as it is a "government enterprise" and "not maintained up to the standards" (interview 32). Here is another example of immorality on the part of government officers that will lead to inevitable disaster. The dam may not be in the foreground of people's consciousness. Nevertheless, they recognise the destructive potential of Machhu-II, and it is reflected through the spread of rumours and information during the monsoon season. The memory of the flood resurfaces every time river crosses the danger mark leading to rumours, chaos, and panic.

In July 2017, Morbi experienced another major flood, which was extensively covered by national media (*The Times of India* 2017). The rumours of dam break started circulating on social media and created complete chaos. One of the top Indian newspapers *The Indian Express* reported:

> Rumours started circulating on social media at around noon warning Machhu-II dam had developed a breach and that downstream Morbi and Maliya towns may be flooded. As the rumour mills started, shops closed down in Morbi and Maliya towns and people started running helter-skelter in search of safer places in the two towns (*The Indian Express* 2017).

On one hand where hundreds of people gathered on Machhu bridge out of curiosity and to take pictures and videos, the elderly in the vegetable market fled, leaving their shops open because that was one of the worst affected areas in the 1979 flood (interview 30). The media outlets and government sources later confirmed that there was no problem with the dam.

> Someone in the village spread the rumour that the flood is coming. The aged, elders, and whoever remembered, whoever had seen…there was so much chaos. I left college for home, there was nothing in college, but when I reached home, I saw that my neighbours from downstairs were hurriedly running. There is a slum in the low-lying areas of the river. They packed their bags and ran on bicycles and carts. They screamed, "Flood is coming, the flood is coming." It was in the memory. They did not realise that the water is not coming, and water was less at that time [in that area]. Then the collector sent a vehicle from *Nagarpalika* (municipality) [to announce on loudspeakers] and published on the news that it is just a rumour. They also urged

> people not to fear. The people were so scared. When I left in the afternoon, the shops were closed everywhere in the village. The older people, who had seen it [the 1979 flood], were frightened. It was shown on the TV that Machhu-II is overflowing, and the rain is continuing. Somebody just spread the rumour, and the WhatsApp messages started circulating that it is overflowing and about to break. It was total chaos. The shop owners left their businesses open and ran. (interview 42)

The 2017 flood revealed the memories and underlying perceptions of Morbi's residents. They acknowledged the looming risk due to Machhu-II calling it *Kumbhakarna* (interview 42). Kumbhakarna is a mythical character from the Hindu epic poem *Ramayana* (Figure 5.7). Kumbhakarna, the younger brother of evil King *Ravana*, was a colossal giant who woke up from his six-month slumber to fight *Rama's* army of warrior monkeys. He swallowed and crushed the monkeys who ran around in a frenzy. The comparison of the Machhu dam with a sleeping giant, which destroys and kills, is an appropriate metaphor to explain the destructive potential of the structure. Referring to the dam as a sleeping monster explains that it might wake up (breach) anytime and nothing can be done about it. Since nothing can be done, its wrath is justified by questioning the morality of Morbi's resident. Respondents explained since people are immoral and unethical (e.g., lazy government officers, corrupt people, people spreading rumours), dam and the flood might take out all the evil. That is how the dam and its dangers are accepted in everyday life. The moral tales and rumours are linked together. The one justifies the other and, at the same time, makes both disaster and ill-preparedness for hazards inevitable. All that counts in the disaster situation is the moral choice. Rumours and myths are in these ways linked to moral tales.

Figure 5.7: Kumbhakaran is surrounded by piles of meat and casks of wine. He took blessing from Ravana to enter the battlefield and created a menace while army of monkeys ran for their life. Source: National Heritage Board 2018

We refer to rumours with panic, lies, chaos, and more recently, fake news. They are, almost always, regarded as instruments of terror, and are considered highly problematic for the disaster management professionals. However, one must question what does the fear, and flight response of the people show about their perceptions of disasters. In the case of the Machhu flood 2017, the flood memories materialised as rumours, videos, and pictures, and the subsequent panic shows the underlying risk perception. Soon after the flood, several videos appeared on YouTube and other social media platforms displaying the destruction of Morbi in 1979.[46] Many of these videos reaffirm the narrative of nature's fury, the curse of Machhu, and the perception that nothing can be done to control floods.

Risk perception and preparedness are linked (Roy 2012, 20) as perception may complicate and undermine the level of readiness necessary to deal with the hazards. The analysis shows that the rumours are not altogether empty, and disaster management professionals and institutions must not disregard them as myths or fabrications. Instead, they need to acknowledge stories and moral tales as an essential part of memorialisation and how people assign meaning to disasters. The rumours can then be utilised to address the root-causes of the risks and vulnerabilities rather than create panic and chaos.

[46] Available at https://www.youtube.com/watch?v=BOXOnJEOLjM, https://www.youtube.com/watch?v=U1vniATvwfQ, https://www.youtube.com/watch?v=itIHss-rakY, https://www.youtube.com/watch?v=nEn5UCTZcPY

5.5 Concluding Remarks

The analysis shows that the conception and construction of the Machhu dam were riddled with irregularities. It affected people due to displacement and placed several towns and villages at constant risk. In less than a decade of its functioning, the dam failed and led to unimaginable destruction and suffering. It was necessary to examine what caused the breach, but the government covered up wrongdoings by dropping the inquiry. It attributed the disaster as an act of God neglecting the loopholes in the dam's design and communication failure. Consequently, people and departments accountable for the disaster were overlooked. The decision of abandoning the inquiry resulted in a missed opportunity for learning and created a dearth in institutional memory.

The people of Morbi resonate this notion and insist that flood memories are either lost or fading. They attribute this forgetting to lack of memorials, unimpressive commemorative walk, loss of oral traditions, the influx of outsiders, and immorality of people. The loss of the town's heritage is seen in the light of vanishing memories. With the decay of heritage infrastructure, the city is losing its identity, and people are forgetting its past and the flood memories.

In these fading memories, people rely on myths and moral tales to relate to the town's past and fate. They justify living with risks through these stories and insist that the flood of 1979 was inevitable. With the erosion of morality in recent times, another flood would level the immoralities of society. Since nothing can be done about it, the individual's choice is to be moral in every situation. These moral tales offer a sense of direction for conducting oneself in daily life.

The flood memories survive in fear of retribution. These suppressed memories resurface in the form of rumours of dam breach during monsoon season when river touches the Machhu bridge. The rumours create panic and haphazard evacuation, while many people flock to Machhu bridge to take pictures and videos. These videos and pictures end up on social media along with images of the 1979 flood. People draw similarities with the past flood and invoke its memories. The memories materialise into rumours, pictures, and videos.

The analysis contributes a new outlook towards understanding people's risk perception through myths, moral tales, and rumours. The flood memories have survived on the vertical plane (over time) through myths and moral tales. They provide a rich knowledge source into people's relationship to the place and events in the past. These memories and attached deep-rooted anxieties re-emerge in different forms such as videos, pictures, and rumours. Sustaining them horizontally (between governmental institutions, (social) media, and communities) through two-way communication is critical. In contrast to a widely held opinion in disaster management circles that rumours are agents of chaos, my analysis stresses its utility as a point of intervention.

Building on the premise of sustaining flood memories (Garde-Hansen et al. 2017; McEwen et al. 2016), rumours can then be used to address misconceptions regarding flood and dam

related risks and build trust with the people. Effectiveness of general flood awareness campaigns is debatable. Such initiatives often assume that people are passive consumers of information. Research shows that people actively engage with knowledge production through social (media), articles, movies, and several such forms. The governmental institutions need to recognise this engagement and utilise it for improving communication.

Chapter 6 – Research Contributions

This thesis highlights the contradictory, unintended, and contending effects of narratives circulating after disasters as vital to any effort to develop risk reduction. It calls for a sophisticated understanding of remembering and forgetting, the circuits within which they are relayed, and for policy attention to these effects.

Acknowledgement of Counter-narratives for Examining Vulnerability

For successful DRR programmes, scholars have suggested frameworks to integrate scientific and local knowledge for risk assessment, provide space for dialogue between 'outside' and 'inside' stakeholders, and assimilate top-down and bottom-up approaches (Gaillard and Mercer 2012, 2). If these conditions are met, it is expected that the DRR programme would be effective.

The Bhuj earthquake case shows that narratives play a significant role in how DRR programmes are perceived in disaster discourse. Gujarat's extensive reconstruction programme met all the necessary requirements for a successful DRR framework, but two sets of narratives emerged in the aftermath. The dominant narratives developed from state-regulated DRR efforts focussed on infrastructure, vulnerability reduction (e.g., risk transfer mechanisms), overall development and safety of the region. Initially, these DRR programmes achieved success, as shown through speedy reconstruction and other tangible accomplishments. Consequently, the dominant narrative emerged based on the assumptions that the effects of DRR programmes and policies trickled down to the most marginalised communities. These narratives were misleading and misplaced, as observed through the long-term impact of DRR programmes on people's vulnerabilities.

Counter-narratives do not disregard claims of DRR programmes' success but offer a more profound and nuanced understanding of people's vulnerabilities. The analysis of counter-narratives that emerged from community experiences and perceptions reveal the deep-rooted factors such as local power dynamics and lack of access to resources, contributing to everyday vulnerabilities. They show:

- It is counterproductive to romanticise people's resilience through icons such as Bhungas and assume that all members of different communities have equal access to resources and power to negotiate.
- Implementation of reconstruction and relocation strategies can create newer forms of vulnerabilities in terms of mobility, access to decision-making bodies and resources, financial resources, and social networks.
- The DRR programmes for vulnerability reduction (e.g., housing insurance and advanced medical facilities) may provide a sense of safety and resilience but can leave people exposed to risks if not appropriately sustained.

- Unchecked development (e.g., industrialisation) tied with notions of DRR (e.g., employment generation, income opportunities) can severely impact the environment and traditional livelihoods and may give risk to social vulnerabilities.

In terms of contribution to DRR frameworks, the results show that the celebration of dominant narratives run the risk of overshadowing actual vulnerabilities. A nuanced understanding of how narratives and counter-narratives are constructed and experienced provides insights through which DRR programmes can be strengthened.

Role of Memory Sites and Storylines in Remembering and Forgetting Disasters

The analysis of memory sites shows people's different ways of remembering and forgetting the disaster. The storylines attached to these sites offer a deeper understanding of what people value and why. The storylines depicted through textile printing and embroidery reflected notions of Kutchi resilience, nationalism, traditional way of life, cultural richness, and hope for the future. The narratives are contested over how people view the place and its transformation from rural to urban. But these sites are mediated by the people. They had a recognisable purpose of forgetting and moving on. The other sites emerged from people's everyday life experiences. The shrine brought the community together and offered a 'new' place of comfort and reflection. Over the years, its connection with the nearby tea stall created a space of social practices, negotiations, and exchanges.

Similarly, communal graves in the village offered a site, which incites curiosity and stories for learning. These sites are vital in the everyday experiences of the people. The proximity, emotional significance, embeddedness in quotidian life, and their stories mediated by the community make these sites relevant for social cohesion, learning, and resilience. Formal institutions and forms of knowledge do not recognise such sites. In fact, official memories discredit such sites and vernacular forms of remembering and forgetting by its representations through official memorials.

The official memorials provide little space for contested narratives. Analysis of Smriti Van's components shows the state's attempts to build on the narratives of resilience, community inclusion, growth, and development. They offer storylines that differ from community-mediated stories. Also, people's experiences are overlooked in these official narratives. The conflict over the location of Baal Veer Bhoomi shows the limited extent to which people can mediate these storylines.

The analysis calls for attention to people mediated memory sites and their contribution to learning and resilience. Also, it highlights the role of official memorials in suppressing discourse on people's vulnerabilities proving counter-productive to the efforts of disaster risk reduction.

Recognising Rumours as a Reflection of People's Risk Perception

The DRR frameworks emphasise the need to integrate local knowledge (based on experience) with scientific knowledge (officially developed and scientifically verified) (Gaillard and Mercer 2012; Mercer 2012). Several community-based disaster risk reduction (CBDRR) programmes are based on this idea. However, the Machhu flood case shows that people's experiences and perceptions reflected through panic and rumours are often dismissed.

A careful analysis of disaster memories embedded in myths, moral tales, and town's heritage indicates that they materialise in pictures, videos, and rumours during flood season. For DRR experts, rumours are challenging and difficult to contain. They must be carefully tackled to avoid largescale panic and evacuation. The research offers a new outlook to acknowledge rumours as a reflection of people's risk perception. They can then be utilised as a point of intervention for sustaining flood memories and building trust between people and governmental institutions. They can be used to address misconceptions regarding flood and dam related risks and build trust with the people.

In conclusion, disaster memories and narratives are constantly making and un-making each other. Prominent narratives of disaster risk reduction set the tone for disaster discourse and how disasters are remembered. These narratives can create or expand the conditions of vulnerability furthering disaster risk. The processes of remembering and forgetting through the community's memory sites, official memorials, and storylines can deeply impact people's risk perception, learning, social cohesion, and resilience. It is imperative to recognise the value of narratives, memories, and investigate them in relations with people's vulnerabilities, risk perceptions, and ways of learning to strengthen DRR frameworks.

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Annex I - Interview Schedule

Opening Questions

- Please introduce yourself and tell me a little bit about your life in the village/ community?
- What are your experiences and memories of the disaster?

Theme-based Guiding Questions[47]

1. Disaster experience
   a) Can you tell me the course of events?
   b) What is your strongest memory of the disaster?
   c) When was it possible to return to your home (old or new construction)?
   d) What was the estimated damage/ loss to life and property?
   e) Did you/ your family experience any losses?
   f) How did you cope with it?
2. Networks
   a) How was the community unity/ cohesion/ solidarity after the disaster?
   b) Has it changed over the years?
   c) What was the impact of the village's changing geography on community networks?
   d) Did you receive monetary or material help?
   e) Did you receive any institutional support from the state or non-state actors?
   f) What was the impact of the disaster on the family structure?
3. Consequences
   a) How did your life change after the earthquake/ flood?
   b) Did you observe any changes in the social environment of the village/ town after the disaster?
   c) Any changes in the geography of the village/ town after the disaster?
   d) Did you relocate? Where did you live before moving here?
   e) Why did/ didn't you relocate?
   f) Can you tell me about the land ownership of the old and relocated village site?
4. Prevention
   a) Do you worry that the disaster might strike again?
   b) What can be done to prevent disaster repetition?
   c) How did the state and non-state actors ensure safety from disasters in the future?
   d) Is relocation a right solution for disaster prevention?
   e) Is your house insured against hazards? Do you have the policy document?
   f) Were there any rumours about the disaster? When are they spread?
   g) What did you/ your community learn from the disaster?
   h) Do you think you are better prepared now?

[47] These questions helped initiating the dialogue. Several new topics and questions emerged from the responses, which were explored further.

i) Is the state more proactive and prepared to handle disasters?

5. Causation
   a) What was the cause of the disaster?
   b) Do you blame anyone/ anything for the disaster?
   c) Can you tell me about the myth of Machhu?
6. Actuality
   a) Do people remember the disaster? How is it commemorated?
   b) Does the younger generation know about the disaster? Why? How?
   c) Did the community build any memorials? Why or why not?
   d) Can you tell me about the plan to convert Adhoi into a museum? (Specific to the residents of Adhoi)
   e) Do people talk about disaster in daily life?
   f) How does media report on the anniversary of the disaster?
   g) Can you tell me about *Smriti Van* or *Baal Veer Bhoomi* memorials?
7. Quintessence
   a) Can you tell me about life in the village? (e.g., community leaders (*Sarpanch*), water sources for farming and everyday use, social and economic hierarchies, occupation etc.)
   b) Do you like living here (old or relocated village)?

Questions specific to the NGOs

1. What is your area of expertise?
2. Why were certain stretches of informal houses in Bhachau not included in the reconstruction programme?
3. How would you evaluate the impact of your training on the memorialisation of disasters?
4. What are your views on state-sponsored memorials?
5. Are there institutional mechanisms to train people in traditional housing techniques?
6. Have the focus and priorities of your organisation changed after the earthquake?
7. How do NGOs engage with government institutions and village-level committees?
8. Could you tell me about the perceptions of women about traditional housing and memorials?
9. What are the challenges/ issues of the women living in Kutch?

Questions specific to the Government officers

1. What are your views on the overall reconstruction programme?
2. Could you tell me about the effectiveness of the housing insurance scheme? What were its benefits/ limitations?
3. What was the role of the Mamlatdar and TDOs in handling the housing insurance scheme?
4. How the people of Bhuj/Anjar and non-state institutions involved in the planning of memorials?
5. What have the institutions learned from the disasters?
6. Is the state better prepared in terms of disaster risk reduction?

Annex II - List of Respondents

No.	Name	Affiliation/ Status	Place and Date
1	M, 50	Expert – Disaster Management, All India Disaster Mitigation Institute	Ahmedabad, 21 July 2016
2	F, 45	Medical practitioner and expert – Psychologist, Trauma, care, Independent consultant	Ahmedabad, 29 June 2016
3	M, 30	Expert – Disaster Management, GSDMA	Gandhinagar, 28 June 2016
4	M, 65	Retired Government Officer (experienced in earthquake response), Gujarat Government	Vadodara, Multiple meetings
5	M, 60	Professor – Expert in research and fieldwork, Indian Institute of Management (IIM)	Ahmedabad, 21 July 2016
6	M, 60	Expert – Disaster Management, Social work, community engagement, advocacy, education, research and documentation, Unnati	Gandhinagar, 29 June 2016
7	M, 55	Expert – Architecture, Disaster Management, reconstruction and housing, consultant to several NGOs	Ahmedabad, 29 June 2016
8	M, 45	Expert and trainer – Disaster Management, Social work, community engagement, advocacy, Unnati	Ahmedabad and Kutch, Multiple meetings
9	M, 28	NGO member – training, advocacy, women empowerment Rural SETU	Kabrau village, Multiple meetings in 2016
10	M, 65	A beneficiary of state schemes	Bhachau, Multiple meetings in 2016
11	M, 35	*Ex-Sarpanch* (Dhamdka village), Beneficiary of state schemes, community leader, textile exporter	Dhamakda and Baniyari, Multiple meetings
12	M, 35	Trainer – Rural campaigns, education, health, women empowerment, advocacy, Unnati	Bhuj and Ahmedabad, Multiple meetings

13	M, 60	*Sarpanch* (Morgar village), a beneficiary of state schemes	Morgar village, 2016
14	M, 70	Member of the village committee, a beneficiary of state schemes, community leader	Bhachau, 18 February 2017
15	M, 30	NGO member – training, capacity building, women empowerment, advocacy, Unnati	Bhachau, 18 February 2017
16	M, 32	Government officer, Roads and Buildings Department, Gujarat Government	Bhuj, 20 February 2017
17	M, 45	Local guide – tourism, memorials, Kutchi textiles	Bhuj, multiple meetings
18	M, 60	A beneficiary of state schemes, Local guide – memorials, tourism, earthquake reconstruction, and relocation	Adhoi and Vondh, 2018
19	M, 50	A resident of old Adhoi now living in Mumbai	Adhoi and Vondh, 2018
20	M, 55	Expert – Disaster Management, Architecture, *Bhungas*, tourism, state memorials, Hunnarshala	Bhuj, 23 November 2017
21	M, 25	District officer – Disaster Management, training, capacity building, response coordination, GSDMA	Bhuj, Multiple meetings
22	M, 60	Expert – Heritage, architecture, the memory of Machhu flood	Morbi, 10 February 2017
23	M, 45	Local journalist – Editor of weekly newspaper *Mayur Bhoomi*	Morbi, 12 February 2017
24	M, 28	Dam worker – Macchu dam	Morbi, 12 February 2017
25	M, 65	Architect – Heritage, architecture, the memory of Machhu flood	Morbi, Multiple meetings
26	M, 50	University Professor, LEC	Morbi, 13 February 2017
27	M, 65	A retired employee, LEC (experienced Machhu flood)	Morbi, 14 February 2017
28	M, 58	LEC employee (experienced flood and lost family members)	Morbi, 14 February 2017

29	M, 55	Morbi resident	Morbi, 18 February 2017
30	M, 55	Engineer and University Professor, LEC	Morbi, 20 February 2017
31	M, 58	LEC employee (experienced flood and lost family members)	Morbi, 2017
32	M, 79	Retired LEC employee (experienced flood and lost friends)	Morbi, 2017
33	M, 25	Government officer, Morbi Collector office	Morbi, Multiple meetings
34	M, 40	LEC employee (experienced flood and lost family members)	Morbi, Multiple meetings
35	M	Member of Vali Mandal	Telephonic calls, 2018
36	F, 60	A beneficiary of state schemes, resident of New Adhoi	Adhoi, 2018
37	M, 38	Government officer, Gujarat government (Ex-employee GSDMA)	Gandhinagar, Multiple meetings
38	M, 50	Local guide – works with several non-governmental organisations	Anjar, 2018
39	F, 45	A resident of New Adhoi, Maldhari community	Adhoi, 2018
40	F, 50	NGO member – an expert on women empowerment, capacity building, Kutchi textiles, KMVS	Bhuj, 20 November 2017
41	M, 62	Ex-member of RSS (responded in Machhu flood)	Morbi, 2017
42	M, 27	LEC employee (experienced 2017 flood)	Morbi, 2017
43	M, 45	LEC employee (experienced 2017 flood)	Morbi, 2017
44	F	Exhibition curator, tour operator in Kutch, an expert in Kutchi textiles and tourism	Telephone Call, 2019
45	M	Member of Vali Mandal member	Telephone Call, 2019

Annex III - Focus Group Discussions

FGD	Place and Year	Details
1	Bhuj 2017	*Participants*: Four (3F, 1M), *Age*: 25-50 KMVS *Languages*: Hindi, English, Gujarati, Kutchi *Topics*: Women empowerment, Bhungas, Kutchi textiles, health facilities, disaster reconstruction, stories and memories of earthquake, women-centric issues
2	Bhuj 2017	*Participants:* Six (4M, 2F), *Age*: 25 to 45 SETU *Languages*: Hindi, Gujarati, and Kutchi *Topics*: Bhunga communities, urban slums, rural migration, and differing social cohesion in villages and cities
3	Hodko village 2017	*Participants:* Nine (7M, 2F), *Age*: 18 to 45 *Languages*: Hindi, Gujarati, and Kutchi *Topics*: Bhunga resorts, tourism, risk perception, learning from disasters, local knowledge, adaptation and mitigation, life in Kutch
4	Morgar village, 2016	*Participants:* Seven (7M, 0F), *Age*: 20 to 65 *Languages*: Gujarati and Kutchi *Topics*: community and state memorials, ways of remembering the earthquake, striking memories of the disaster, and quotidian life in villages. The undertones of religion and caste politics
5	Morbi, 2017	*Participants:* Five (5M, 0F), *Age*: 35 to 60 *Languages*: Hindi and Gujarati *Topics*: memories and stories of the Machhu flood, dam break rumour of 2017, fear of repetition, and the economic expansion of Morbi