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Representing disasters and long-term recovery

Insights from Tamil Nadu

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Recovery with Dignity is a three-year project (2018-2021), which examines the experiences of recovery in post-disaster situations across three states in India – Odisha, Tamil Nadu, and Kerala – and explores how recovery processes represent vulnerable populations. Despite several positive steps towards strengthening disaster management in India, deep structural challenges to sustainable recovery remain. How disaster-affected communities are portrayed following the event shapes recovery and other support processes. Keeping this in mind, the Recovery with Dignity project focusses on how the losses, long-term needs, and voices of affected communities are represented through the media, official reporting and other mechanisms.

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Abbreviations used

ADB	Asian Development Bank
BBB	Build Back Better
BEDROC	Building and Enabling Disaster Resilience of Coastal Communities
BPL	Below Poverty Line
CAG	Comptroller and Auditor General
CASA	Church's Auxiliary for Social Action
CDMP	Chennai Disaster Management Plan
CDRRP	Coastal Disaster Risk Reduction Programme
CIBA	Central Institute of Brackishwater Aquaculture
CMFRI	Central Marine Fisheries Research Institute
CRZ	Coastal Regulation Zone
CSO	Civil Society Organisation
DAP	Disaster Affected Person
DDMP	District Disaster Management Plan
DRM	Disaster Risk Mitigation
DRR	Disaster Risk Reduction
ETRP	Emergency Tsunami Reconstruction Project
FIMSOL	Fisheries Management for Sustainable Livelihoods
GoTN	Government of Tamil Nadu
GRRRP	Gaja Cyclone Reconstruction, Rehabilitation and Rejuvenation Project
HLRN	Housing and Land Rights Network
ICZMP	Integrated Coastal Zone Management Plan
IFAD	International Fund for Agricultural Development
IRCUDC	Information and Resource Centre for the Deprived Urban Communities
JFPR	Japan Fund for Poverty Reduction
MDMS	Midday Meal Scheme

MNREGA	Mahatma Gandhi Employment Guarantee Act
MSSRF	M S Swaminathan Research Foundation
NCRC	NGO Resource Coordination Centre
NDMA	National Disaster Management Authority
NGO	Non-government Organisations
PTSLP	Post Tsunami Sustainable Livelihood Programme
PTSLP	Post Tsunami Sustainable Livelihood Programme
PWD	Public Works Department
RADMMD	Revenue Administration, Disaster Management and Mitigation Department
RGRP	Rajiv Gandhi Rehabilitation Package
SDG	Sustainable Development Goals
SDMA	State Disaster Management Authority
SHG	Self-help Group
SIFFS	South Indian Federation of Fishermen Societies
TAFCOFED	Tamil Nadu State Apex Fisheries Cooperative Federation
TEAP	Tsunami Emergency Assistance (Sector) Project
TN	Tamil Nadu
TNDRRA	Tamil Nadu Disaster Risk Reduction Agency
TNSCB	Tamil Nadu Slum Clearance Board
TNSDMA	Tamil Nadu State Disaster Management Authority
TNTRC	Tamil Nadu Tsunami Resource Centre
TRINet	Tsunami Rehabilitation Information Network
TWAD	Tamil Nadu Water and Drainage Board
UN	United Nations
UNDP	United Nations Development Programme
UNTRS	United Nations Team for Recovery Support

1 Summary

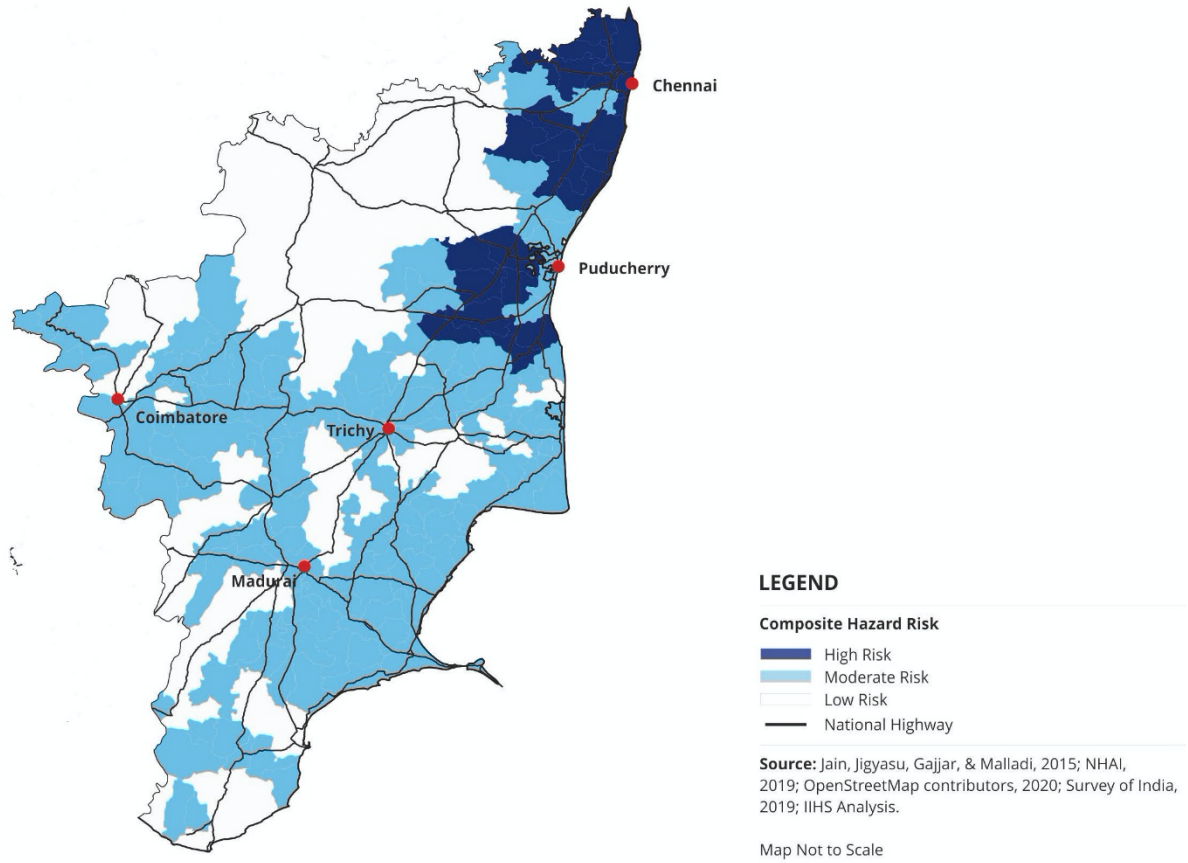
The 2004 Indian Ocean Tsunami claimed nearly eight thousand lives across Tamil Nadu and affected more than eight lakh[1] people indirectly through loss of houses, personal belongings, and livelihoods. The event, commonly described as unprecedented, exposed the state's inadequate preparedness and its limited institutional and financial capacity to prepare for and respond to disasters. While the tsunami galvanised the international humanitarian community and influenced the formation of key national and state disaster management institutions, it has often been described as a 'missed opportunity' (Reddy, 2018). In subsequent disasters in Tamil Nadu, such as the 2015 South India floods which received much attention for its impacts on the state's capital city of Chennai, the state disaster machinery has been portrayed as inadequate and delivering ineffective relief and recovery (Jain et al., 2021, 2017). This is a key concern given Tamil Nadu's history of hazard exposure and projections of increased climate change impacts (GoTN, 2013a; TNSDMA, 2018). The exclusionary and reactive nature of disaster recovery, raised repeatedly by researchers and civil society (IRCDUC and HLRN, 2017; Swamy, 2018) and recognised in multiple reports and acknowledged by government itself, has led to recent reformulation of Tamil Nadu's disaster governance.

Disaster events are moments of socio-economic ruptures that, on one hand, are harbingers of widespread destruction, while on the other hand, are portrayed as "windows of opportunity" (McSweeney and Coomes, 2011) to "build back better" and overcome pre-disaster development deficits (Kennedy et al., 2008; Rogers and Wilmsen, 2020). The narratives employed to speak of disasters, disaster-affected people, and their impacts critically shape what recovery interventions are prioritised and who is included and excluded in developing visions for recovery (Bornstein et al., 2013; Kelman et al., 2015; Kennedy et al., 2008).

In this study, we focus on how representation of disasters and their losses shapes recovery outcomes. We examine three events that affected Tamil Nadu: the 2004 Indian Ocean Tsunami, the 2015 South India flood, and the 2018 Cyclone Gaja. Based on data in Chennai Metropolitan Region and Nagapattinam district, we examine three representational aspects of these disaster events: (1) the framing devices used by different actors to represent *disaster events*; (2) the varied ways in which *disaster impacts and losses* were portrayed; and (3) the multiple conceptualisations of *disaster recovery*. At a higher analytical level, we examine how these representations of disaster events, impacts, and recovery have implications on who recovers and what kind of recovery is prioritised. By doing so, the study deepens the understanding of long-term ramifications of disasters on affected areas and communities.

[1] One lakh equals 100,000 thousand

2 Tamil Nadu as a multi-hazard site



Composite risk across Tamil Nadu, aggregating hazard risk of tsunami, flooding, cyclonic winds, and earthquakes. Source: IIHS Geospatial Lab.

In this chapter, we set the stage by describing Tamil Nadu's relatively high performance on development indicators and its history of a strong welfare state (Section 2.1). This is juxtaposed against its high exposure to multiple hazards and projected exposure to climatic risks (Section 2.2). We then briefly describe three disaster events which are the focus of this study (Section 2.3) followed by a commentary on how the development and hazard profiles have shaped state response to disaster management (Section 2.4).

2.1 Development profile of Tamil Nadu

The delivery of disaster relief and recovery measures in Tamil Nadu is heavily influenced by the socio-economic and development profile of the state. In comparison to most states in India, Tamil Nadu is relatively well-developed, with strong performance on economic and social welfare indicators (Mukherjee and Chakraborty, 2014). As of 2013, the population of Tamil Nadu is 74.32 million, with a 6.49 per cent growth in rural population and a 27.16 per cent growth in urban population between 2001 to 2011 (GoTN, 2017).

The state has the second highest gross state domestic product in the country with a growth rate of 14.64 per cent in 2013-14. By 2023, the state government aims to increase its per capita income to Rs. 4,50,000/year and be categorised as upper middle income (GoTN, 2012). There is however a significant disparity among per capita incomes in different districts within the state. While urban districts such as Chennai (HDI 0.847) fall within the top ten districts based on the composite Human Development Index (HDI), predominantly rural districts such as Nagapattinam (HDI 0.104) fall in the bottom ten (GoTN, 2017).

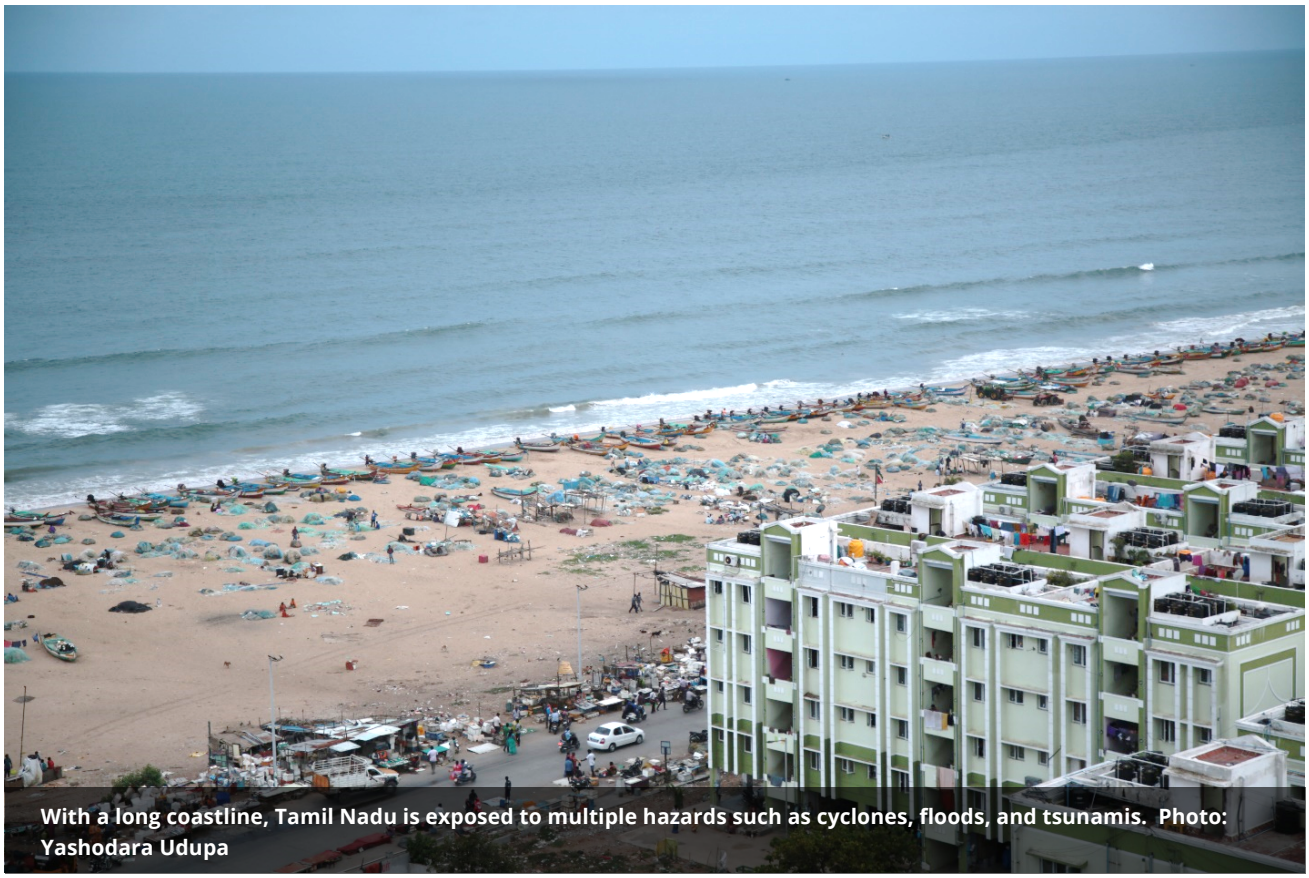
Over 40 per cent of the people in Tamil Nadu are dependent on agriculture for their livelihoods. However, the state reports declining agricultural productivity, increasing conversion of agricultural land to non-agricultural uses, and fewer people employed in agriculture (from 46.4 per cent in 2004-05 to 41.8 per cent in 2009-10) despite increasing total production. This, coupled with regular droughts and groundwater extraction, signals growing agrarian distress and has contributed to increased migration to urban areas (Solomon and Rao, 2018). Tamil Nadu is also well known for its industries, especially in manufacturing and textiles (GoTN, 2017). It is the second most industrialised state in the country, with over 11 per cent of the national industrial output in 2011-12 coming from the state (GoTN, 2012). Along Tamil Nadu's coast, a range of economic activities are present, including fishing, agriculture, tourism, shipping, and industry. Fishing alone provides livelihoods to about 200,000 families.

Tamil Nadu is known for its strong social welfare schemes, a result of its history of social movements aimed at dismantling caste- and class-based social hierarchies. The movements are largely credited for the improved poverty rates and human capital indicators in the 1990s (Dreze and Sen, 2013). However, as of 2011-12 over 15.8 per cent of the rural population and 6.6 per cent of the urban population in Tamil Nadu are still categorised as being Below the Poverty Line (BPL). While Tamil Nadu has been a pioneer in instituting public-funded social safety nets (e.g., the Midday Meal Scheme (MDMS) providing lunch for school children; *Amma* canteens, which provide subsidised food for all), in recent years, political instability has eroded state governance and performance. This was most clearly demonstrated by the 3-year delay to rural and urban local body elections (Ramakrishnan, 2019).

Despite relatively high development indicators, the state still shows noticeable regional and socio-economic disparities. This is often manifested in increased vulnerability of certain sections of the population to disasters (e.g., smallholder farmers, landless labourers, fishers, informal sector wage earners) with implications for disaster impacts and recovery.

2.2 Current and projected hazard exposure

Tamil Nadu is recognised as a state with multi-hazard vulnerability (TNSDMA, 2018), with significant exposure to cyclones, coastal and inland flooding, and drought; and location-specific exposure to sea-level rise and saltwater intrusion. Tamil Nadu lies in the southern part of Indian peninsula and covers an area of 130,0582 km, it has a long east-facing coastline of about 1,076 km which is about 15 per cent of the coastline of India (Byravan et al., 2010). More than 40 per cent of the fishing population lives within 1 km and 50 per cent of them live within 2 km of the coast. The geographical setting of Tamil Nadu makes it vulnerable to disasters such as cyclones (Mishra, 2014), floods, and earthquake-induced tsunamis.



With a long coastline, Tamil Nadu is exposed to multiple hazards such as cyclones, floods, and tsunamis. Photo: Yashodara Udupa

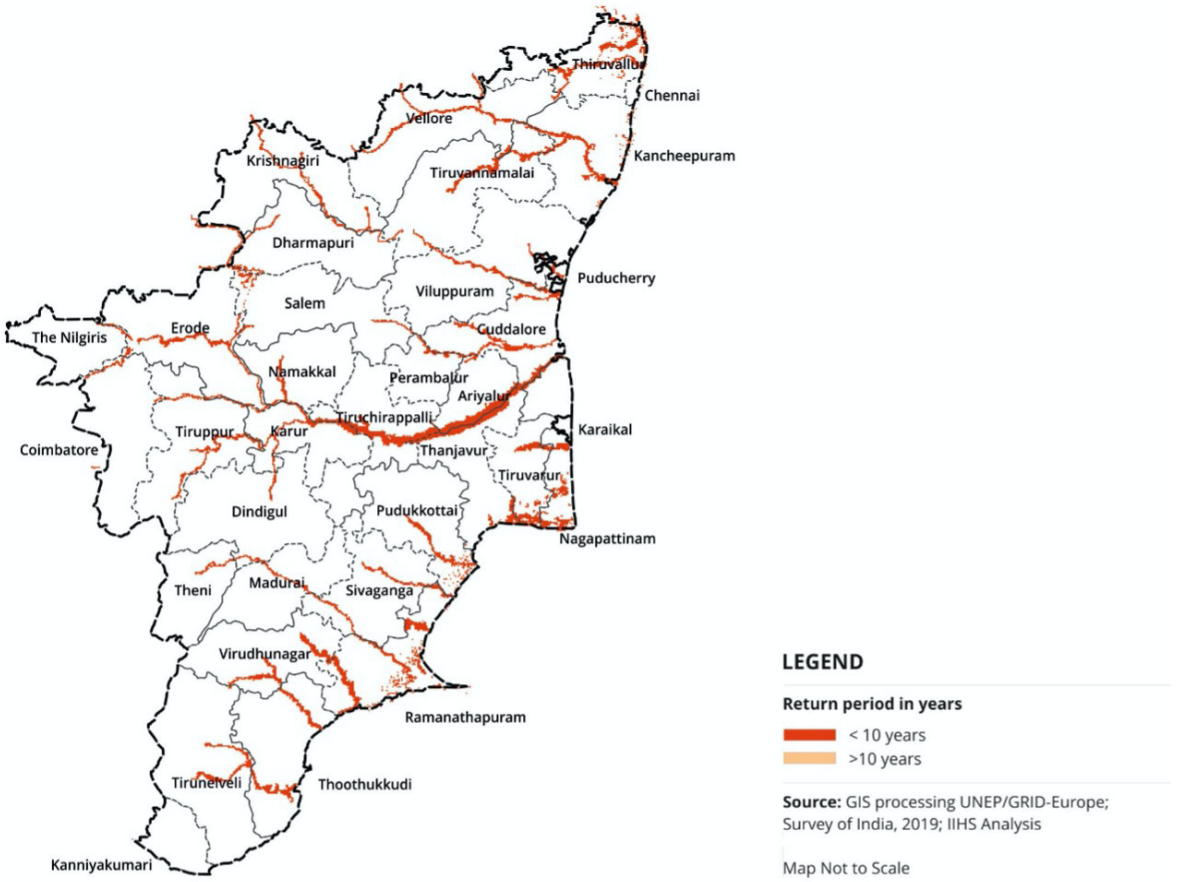
Tropical cyclones: The coastal regions surrounding the Bay of Bengal are frequently affected by coastal and riverine flooding due to tropical cyclones and related storm surges, and heavy rainfall. Cyclonic activities on the east coast (of India) are more severe than on the west coast and occur mainly between April-May and October-December. In the past decade, the state has seen recurrent cyclones including Cyclone Thane (2011), Cyclone Vardah (2016), Cyclone Ockhi (2017), and Cyclone Gaja (2018). The state has approximately 591 coastal villages, which are exposed to seasonal tropical cyclones arising in the Bay of Bengal (Stephen, 2012). About 8 per cent of the state is affected by 5-6 cyclones every year, of which 2.3 are severe. Even in non-cyclonic periods, the state receives sudden and very heavy rains during the formation of low pressure/deep depressions in the Bay of Bengal,

causing localised flooding and inundation (TNSDMA, 2018). Cyclonic storms are typically accompanied by strong winds, heavy rains, and storm surges, causing widespread damage specifically to agricultural crops and fishing infrastructure.

Flooding: Tamil Nadu is also subject to annual flooding (Figure 2.1), including flash floods, cloud burst floods, cyclonic floods, and those due to infrastructure mismanagement (e.g., dam bursts or untimely release of upstream reservoir water). Floods are mainly caused by rainfall anomalies during the North-East monsoon (October-December). Out of the total annual rainfall in the state, 90 per cent is concentrated over this short monsoon season of three months. As a result, heavy discharges from rivers during this period cause widespread floods in delta regions (Ponnuraj, 2006; Stephen, 2012).

Drought: The state also faces recurrent drought and extended periods of water scarcity, typically during the summer months (June to September). Drought incidence has increased significantly in most southern districts of Tamil Nadu, estimated at a 15–20 per cent increase from 1901–2015 (Guhathakurta et al., 2017). Drought frequency and impacts have varied over the decades with significant droughts in 1987 (considered 'worst of the century', affecting 60 per cent crop area and 285 million people) and 2002 (Stephen, 2012).

Figure 2.1: Flood hazard in Tamil Nadu. Source: IIHS Geospatial Lab



Climate change: In addition to current exposure to hazards, Tamil Nadu is also projected to see more frequent and intense climatic risks. For example, regional climate projections indicate sea-level rise of 0.37mm/year (or 0.1 feet in 100 years) (GoTN, 2013b). Cyclone frequency is projected to decrease, although their wind speeds are expected to increase with antecedent exposure to storm surges and flooding (Rao et al., 2020). Increasing temperature and rainfall variability is expected to increase drought incidence and severity across Tamil Nadu.

2.3 Focus on three disasters

In this study, we focus on three disasters that significantly affected Tamil Nadu and has shaped its disaster management policy.

2004 Tsunami: The 2004 Indian Ocean tsunami was one of the most devastating disasters faced by the country and the state of Tamil Nadu. With no recorded history of tsunami events in India in the last century, the 2004 event highlighted the vulnerability of coastal communities (Sheth et al., 2006). The tsunami killed nearly eight thousand people and affected more than eight lakh people. Nagapattinam was the most affected district in the state of Tamil Nadu, reporting 76 per cent of all deaths in the state (District Collectorate of Nagapattinam, 2004; Singh, 2005). The tsunami saw widespread international action and funding and had deep repercussions on India's disaster management approach. Most notably, it led to the formulation of the National Disaster Management Authority (NDMA).

2015 South India flood: From November to December 2015, Tamil Nadu saw extreme rains and flooding. Chennai was one of the worst affected districts in the state and it is estimated that over 400 mm of rainfall fell over Chennai and areas south of the district (Narasimhan et al., 2016). The severity of the rainfall was exacerbated by poor reservoir management (e.g., mistimed release of excess water from the Chembarambakkam Reservoir in 2015) and changes in the natural drainage system of the city, driven by encroachment on wetlands and water bodies. The floods led to over 289 deaths, 23.25 lakh houses being inundated, interruption of transport and communication, and severe public infrastructure damage (CAG, 2017).

Cyclone Gaja: Cyclone Gaja made landfall with a speed of 120-140 mph on 16 November, 2018 at 1.45 AM. Over 45 people were killed and 2.5 lakh people lost their homes with the most severely impacted district being Nagapattinam (MSSRF, 2018). According to government sources, 1.7 lakh coconut and banana trees were uprooted, and about 39,938 electric poles were toppled in Nagapattinam (NDMA, 2019). Unlike the 2004 tsunami, the agriculture sector was more severely affected than the fishing sector. More than three quarters of the agricultural land in Nagapattinam is covered by tree crops such as coconut, mango and cashew and only 20 per cent tree cover survived the cyclone (MSSRF, 2018).

Saltwater intrusion and sand sedimentation were other impacts that led to long-term degradation of agricultural lands.

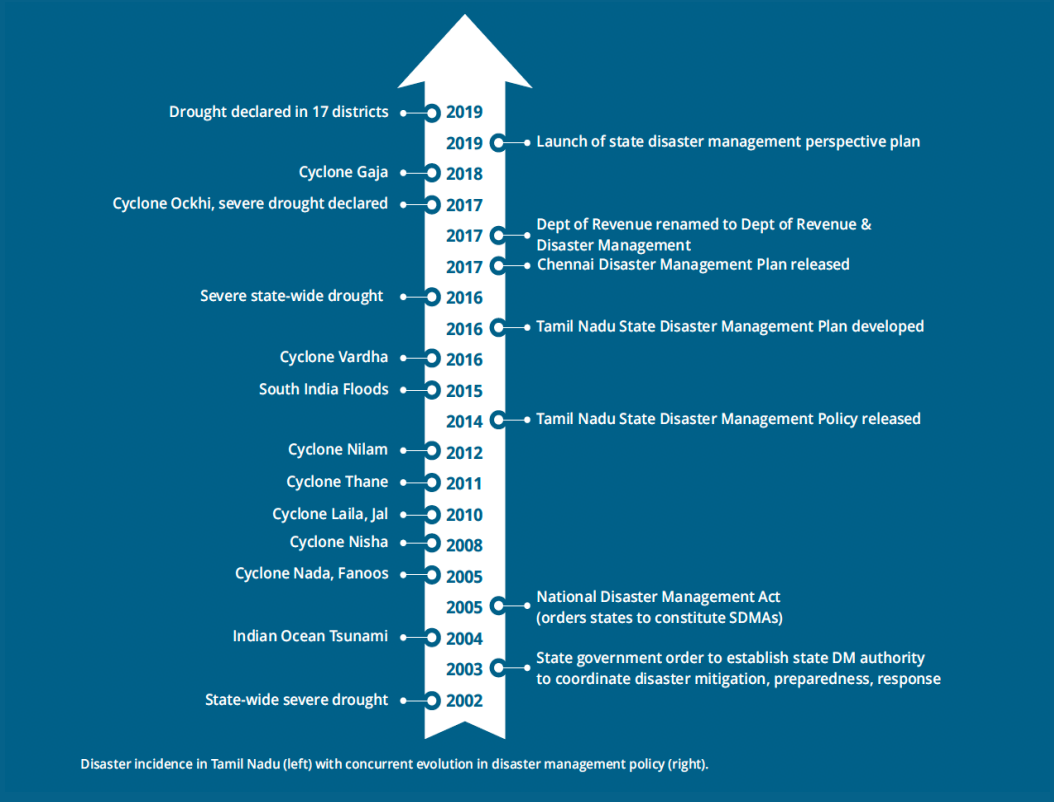
2.4 Disaster management governance in Tamil Nadu

Disaster management policy in Tamil Nadu has evolved significantly over the decades and the way disasters are understood and represented (through language used in reports, the losses and impacts enumerated, and the interventions and partnerships undertaken) has also changed. Focussing on three periods (2005-2015; 2015-2017; and 2018-2020), this section discusses the evolution of disaster management policies and interventions in the state and examines the implications of these policy shifts on recovery interventions undertaken.

2.4.1 The Indian Ocean Tsunami and institutional shifts in disaster management

Tamil Nadu is a hazard-prone state with an evolving approach to disaster management (Figure 2.2). The tsunami in 2004 highlighted the need for coordinated Disaster Risk Mitigation (DRM) at the state level. While the NDMA called for states to develop state-level disaster management authorities in 2005, it was only in September 2008 that Tamil Nadu constituted the Tamil Nadu State Disaster Management Agency (TNSDMA) with the Chief Minister of Tamil Nadu as chairperson.

Figure 2.2: Timeline of Tamil Nadu's key hazard events (left) and disaster management policies (right).



Disaster incidence in Tamil Nadu (left) with concurrent evolution in disaster management policy (right).

The main role of the TNSDMA includes coordinating and approving the state and district disaster management plans (according to NDMA guidelines), facilitating training and awareness building programmes, obtaining funds, and implementing externally-aided projects on disaster management. The Authority also has an executive committee which handles financial matters and a multidisciplinary advisory committee for technical inputs on disaster management. In 2018, the TN government renamed the authority to Tamil Nadu Disaster Risk Reduction Agency (TNDRRA) and launched a new 'State Disaster Management Perspective Plan 2018–2030' which was hailed as 'highly futuristic and based on many successful models across the world' (Daily Thanti, 2018).

The unprecedented damages caused by the Indian Ocean tsunami provided impetus for state action, serving as a significant wake-up call to reorient Tamil Nadu's disaster governance. At the state level, the post-tsunami phase saw the setting up of two main coordination structures, (1) the Tamil Nadu Tsunami Resource Centre (TNTRC), which was a joint venture of seven organisations, including United Nations Development Programme (UNDP) and the state government and aimed to ensure coordination, policy advocacy, and information dissemination; and (2) the United Nations Team for Recovery Support (UNTRS), which coordinated all UN activities in the post-tsunami recovery and functioned out of Chennai.

Given the scale of the tsunami, a range of humanitarian actors and NGOs came together for relief and recovery (Lakshmi et al., 2014). Prominent among these was the NGO coordination centre in Nagapattinam, which later teamed up with the state government and became NGO Resource Coordination Centre (NCRC), finally evolving into an NGO called Building and Enabling Disaster Resilience of Coastal Communities (BEDROC). NCRC was formed a week after the tsunami and became a critical link between the government and disparate NGOs (Nalla et al., 2019; Raju and Becker, 2013), assessing damages and losses, coordinating relief and distribution of work amongst NGOs, and in some ways becoming an interlocutor between the state and disaster-affected people (DAPs). The tsunami also saw the emergence of voluntary networks such as the Tsunami Rehabilitation Information Network (TRINet), which was a source of information and brought together people concerned about long-term recovery.

International funding for tsunami recovery came through multiple channels especially from the World Bank (WB), UNDP, and international humanitarian organisations such as Oxfam and the International Red Cross. In the years after the tsunami, several multi-year, large-scale disaster recovery projects were launched such as the World Bank-funded Emergency Tsunami Reconstruction Project (ETRP), later named Coastal Disaster Risk Reduction Project (CDRRP), budgeted at Rs.14.8 billion. The Asia Development Bank-funded Tsunami Emergency Assistance Project (TEAP) rehabilitation and upgradation of infrastructure and services, and International Fund for Agricultural Development (IFAD) funded an 8-year rural focussed project 'Post Tsunami Sustainable Livelihood Programme

(PTSLP)'. Overall, the projects have been implemented in partnership with the state government and through implementing partners such as local NGOs. While most interventions helped provide infrastructure and resources to build back livelihoods, they have been criticised for introducing new vulnerabilities and under- or misrepresenting the needs of the most marginal (Aldrich, 2020; Chandrasekhar, 2010; Jordan et al., 2015; Raju, 2013; Swamy, 2018).

On the whole, post-tsunami recovery measures focussed on reconstructing public and housing infrastructure, restoring fishing livelihoods and infrastructure, and strengthening capacities on disaster preparedness through community-based interventions (e.g., emergency warnings, evacuation drills). Two aspects however, received less attention– longer-term psychosocial recovery and the farming sector. Post-tsunami agricultural rehabilitation focussed on reclaiming agricultural and horticultural lands (Chandrasekhar, 2010). Typically, agricultural inputs such as seeds, farming implements, and money, were given to farmer groups of five, who were selected through recommendations of the Village Administrative Office and Gram Panchayat. However, the process was 'highly prone to class dynamics and cooptation' (Chandrasekhar, 2010, p. 78) and small and marginal farmers tended to not receive benefits and have to rely on moneylenders for recovery.

Overall, the tsunami is credited with providing impetus to strengthening disaster management policy at national and state levels with a concerted focus on preparedness (Lakshmi et al., 2014; Shaw, 2015).

2.4.2 Recurring events, the 2015 floods, reactive disaster management

Over the past two decades, Tamil Nadu has faced repeated disasters including tropical cyclones such as Thane (2011) and Nilam (2012), and periodic droughts especially in 2016-18 affecting urban and rural areas. In 2015, heavy rainfall and mismanagement of excess river flows resulted in flooding in Cuddalore, Chidambaram, Kanchipuram, and Chennai districts. Disrupting urban life of Chennai significantly, the event was seen as an indicator of poor disaster preparedness and coordination from the state and later, symptomatic of unsustainable urban development (Jain et al., 2021, 2017).

The flood saw tremendous media attention and assistance during relief but less on longer-term recovery. The recovery interventions were aimed at people living in informal settlements, and built on pre-flood processes of evacuation and resettlement (Coehlo, 2016). The flood also highlighted the slow pace at which the government was able to act, which was heavily criticised at the time. Since the flood in December 2015 coincided with preparations for the state assembly elections in May 2016, rehabilitation and compensation was used as a way to promote an image of state proactiveness and effectiveness. These actions however, were inadequate for Chennai and the state tended to work in isolation rather than partner with NGOs (Jain et al., 2017). The post-flood

recovery processes have been heavily criticised by researchers and journalists for being used as an opportunity to achieve pre-existing agendas of removing slum dwellings from the city centre to peripheral areas on the pretext of disaster recovery and reducing vulnerability.

In 2015, Chennai had no city disaster management plan. Since then, the government has released the Chennai Disaster Management Plan (CDMP), which explicitly aims to develop locally relevant disaster management guidelines, map vulnerable areas of the city, assign roles to each administrative department and coordinate their actions, and improve capacities to prevent and recover from disasters (Greater Chennai Corporation, 2017). While the intentions on having a holistic DRM plan are commendable and fill a key gap, the CDMP primarily discusses relief work especially in flood situations. Sec 1.4 on 'objectives of disaster planning', covers early warning systems, better communication between experts and government bodies, timely evacuation, and improved coordination. There is no mention of addressing structural vulnerabilities (e.g., living in low-lying areas, construction over water channels) that exacerbate flood or cyclone impacts. This reactive approach remains a weak link in Chennai city's disaster preparedness.

On the positive side, the CDMP has assessed vulnerability to inundation at a neighbourhood level classifying 306 neighbourhoods from very high vulnerability (water stagnation up to five feet) to very low vulnerability (less than two feet). However, from the CMDP, it is unclear what methodology was used and if different building types are factored into the vulnerability mapping.

On longer-term disaster management, the CDMP notes improving storm water management and drainage through the World Bank funded Tamil Nadu Urban Sustainable Development project (Rs. 1.1 billion, Adyar and Couum basins), KfW-funded flood mitigation programme (Rs. 1.2 billion, Kovalam basin) and JICS-funded project (Rs. 1.8 billion, Kosasathalaiyar basin). In the city, key activities remain relief-oriented and include drain building and cleaning, creation and restoration of water bodies, identification and preparedness for water stagnation locations, and setting up relief centres and kitchens.

2.4.3 Cyclone Gaja, repeated droughts, a new state disaster management plan

Since 2015, Tamil Nadu has seen numerous Very Severe Cyclonic Storms such as Vardah (2016), Ockhi (2017), and Gaja (2018). Simultaneously, the state has been affected by drought and water scarcity with droughts declared in different districts since 2016. The drought in January 2017 has been considered the worst in over 140 years with The National Human Rights Commission noting 106 drought-related suicides in a month. Combined, these hazards have made farming and fishing livelihoods very vulnerable, especially in districts such as Nagapattinam which is highly exposed to cyclones and has been drought-hit since 2016.

In response to Cyclone Gaja, the state government set up the Gaja Cyclone Reconstruction, Rehabilitation and Rejuvenation Project (GRRRP) with officers stationed in three affected districts. Announced by the chief minister in 2019 with an allocated budget of Rs. 0.3 billion, the project focusses on several components to strengthen coastal livelihoods such as solar dryers and drying platforms for fishers, establishing brackish water fish seed banks, and mobile fish kiosks for youth and women; and ecosystem restoration such as through artificial reefs (Jayakumar, 2020). However, until early 2019, the project has undertaken some relief and was considering longer-term recovery after the national elections. Critically, Nagapattinam only developed a District Disaster Management Plan (DDMP) in 2017, which was made mandatory under the National Disaster Management Act (Section 31, 2005).

In 2018, the state government launched its new 'State Disaster Management Perspective Plan 2018 – 2030', positioning it as coherent with global frameworks with a similar time horizon, namely, the Sendai Framework for Disaster Risk Reduction (2015-2030) and the United Nations Sustainable Development Goals (2030) as well as in line with the Prime Minister's 10-point agenda on disaster risk reduction (NDMA, 2016).

The new document aims to 'build a safe and disaster resistant Tamil Nadu through (a) *systems approach*, *inclusive development and mainstreaming* disaster risk concerns into the development ethos of the State' (TNSDMA, 2018, p. 33, emphasis added). The plan discusses using ecosystem-based and community-centric approaches that recognise multiple hazard exposure (e.g., drought and cyclones/floods in Nagapattinam and Chennai) and using ecological boundaries rather than district boundaries as units of analysis. There is a clear focus on social inclusion, multi-stakeholder participation, and infrastructure interventions that 'build back better' (TNSDMA, 2018, p. 8). However, in hazard and vulnerability mapping, the focus remains on physical vulnerability (i.e., exposure to a hazard) but there is no mention of metrics to capture social vulnerability based on livelihoods, assets, gender, and caste. The new plan moves away from a reactive to proactive approach and highlights the importance of an interdisciplinary focus. It remains to be seen how these approaches guide disaster management in the state.

3 Methodology

Participatory group discussions in Chennai where resettled communities discussed what recovery means to them. Photo: Jasmitha Arvind

This chapter outlines the methodological approach employed to generate insights on issues of representation during the recovery phase following disasters. The chapter begins with an explanation of the questions that direct the research (Section 3.1) before describing the research design and methods (a sectoral policy review; an analysis of media articles; and interviews with primary and secondary stakeholders) employed to generate data (Section 3.2). We then briefly outline our analytical approach (Section 3.3) before concluding the chapter with a description of the two case study areas of Chennai and Nagapattinam (Section 3.4).

3.1 Research questions

Critical research on disasters has tended to focus on the periods immediately following hazard events (e.g. Chhotray, 2014; Krüger et al., 2015; Pelling and Dill, 2010). However, there is relatively lesser research attention in the humanities and social sciences to the long-term recovery period following disasters, and particularly on how this recovery is represented by different people (Bender et al., 2015; Tierney and Oliver-Smith, 2012). Yet, recovery is a crucial phase for sustainable human development, with deep implications especially for the poor, marginalised, and most vulnerable (David and Alexander, 2016) as there is a tendency to view the recovery process through technocratic and managerial fixes. This technocratic approach acts to downplay the more human-focussed aspects (e.g., the psychosocial elements) and ignores the individual and socially differentiated ways in which disaster and recovery are experienced.

Tamil Nadu has a long history of disasters (Chapter 2), including the 2004 tsunami, 2015 South India floods, and the more recent Cyclone Gaja in 2018. These events mobilised multiple forms of humanitarian action, through a range of stakeholders from government, civil society, and international aid agencies to the private sector and citizen groups. Despite several positive steps towards strengthening disaster management, deep structural challenges to sustainable recovery remain. Central to effective and inclusive recovery processes is how disaster-affected communities are portrayed following the event and how this shapes the recovery and other support processes that are implemented. Keeping this in mind, in Tamil Nadu, the Recovery with Dignity project focussed on how the losses, long-term needs and voices of affected communities are represented and portrayed by themselves and different actors (such as the media, in government reporting and other mechanisms).

Our core starting point for analysis is the idea that recovery and rebuilding processes that actively seek to support and respect dignity lead to more sustainable responses to disasters and can support survivors' long-term wellbeing and livelihoods. The objective of the project as a whole is to advance understanding on how, by whom, and for what purposes events, processes, and experiences of recovery have been framed in the post-disaster phase. For the purposes of this report we break down the higher-level objective into three sub-objectives:

1. How are disaster events represented by different actors (including DAPs)?
2. How are DAPs and their losses about by themselves and different actors?
3. How and by who, are processes, and experiences of post-disaster recovery framed?

The different ways in which disaster events, DAPs and their losses, and recovery are discursively constructed, influences recovery priorities and actions. Ultimately, these portrayals of disasters and associated losses hold implications for recovery– especially recovery of poorer and more marginalised people.

The three research questions are addressed through the analysis of data drawn from (1) primary sources such as key informant and semi-structured interviews with disaster-affected people (primary stakeholders) and other actors such as government officials, civil society (secondary stakeholders); and (2) secondary sources such as policy and media reviews.

3.2 Research design and methods

A multi-method and multi-scale research approach is used to explore issues of representation and disaster recovery within the state of Tamil Nadu. The main types of data collected and analysed are:

- A sectoral review of policies in Tamil Nadu (2005-2019)
- An analysis of media articles published in selected papers (2004-2019)
- Interviews with primary stakeholders (people that have been directly or indirectly impacted by the events in question) and secondary stakeholders (undertaken in 2019)

In order to bind the research, the time period of 2004–2019 is used which includes the three events of interest. The geographical scope of the research is on the state of Tamil Nadu with a specific focus on Nagapattinam district (affected by the tsunami and Cyclone Gaja) and the Chennai Metropolitan region (affected by the 2004 tsunami and 2015 South India floods). The different sites were selected to explore and discuss differential representation and outcomes of recovery for different hazards at different levels (intra- and inter-household) and to compare rural and urban locations. Within the research, we examine the ways in which more marginalised populations have experienced disasters and recovery and the ways in which their needs have been represented by different actors.

3.2.1 Policy review

The desk-based policy review was conducted over five sectors in Tamil Nadu: disaster management, housing, environment, fisheries, and agriculture. In total, 76 policy documents were reviewed with the majority (just over 75 per cent) focussing on DRM, fisheries, and the environment. The majority of documents included in the analysis were produced by organisations that were active in the recovery phases such as the public sector (n=15), NGOs and CSOs (n=16) and bi- and multilateral programmes (n=21) in addition to academic institutions (n=13) (see Table 3.1). Whilst most actors typically produced written reports, this is weighted more strongly towards state agencies with less information publicly available from NGOs and CSOs and religious and cultural organisations (see Table 10.1 and Table 10.2 in annexures for the main schemes that have been analysed and the actors that were included within each sector).

Table 3.1: Types of actors included in the analysis (details of the actors in Table 1 of annexures)

Type of actor	DRM	Housing	Fish.	Env.	Agri.	Total
Public sector	4	2	4	3	2	15
NGO/CSO	3	3	6	3	1	16
Humanitarian groups	2	1	1	0	0	4
Multi-/bilateral agencies	5	3	6	4	3	21
Religious/cultural groups	1	0	2	1	0	4
Academic institutions	3	1	4	4	1	13
Other	0	0	1	2	0	3
Total	**18**	**10**	**23**	**17**	**7**	**76**

The policy review was undertaken to understand key DRM interventions in Tamil Nadu divided by sectors and how different actors represented disaster events, DAPs, and losses. The review also examined how representation played out during the recovery process (but this was difficult to discern from the documents themselves). The geographic scope of the search was limited to the material that focussed specifically on Tamil Nadu, i.e., documentation that related to the state and the sub-state level. National documents were excluded. The main mechanism for locating information was through a search engine using keyword terms (such as 'Tamil Nadu AND tsunami' or 'Tamil Nadu AND Tsunami AND fish* AND polic*'). Searching was undertaken for different groups of actors (public sector, NGOs and CSOs, humanitarian aid agencies, bi- and multilateral agencies, religious and cultural groups, and academic institutions). Within each search, terms were manipulated to try and ensure there was good coverage. Specific websites of key government departments, local NGOs, and multilateral organisations were searched for further reports related to the three events of interest– Indian Ocean Tsunami, 2015 South India floods, and Cyclone Gaja.

3.2.2 Media analysis

The goal of the media analysis was to identify the different ways in which disasters, DAPs and their losses, and recovery process and interventions were framed by different actors. To ensure that a range of opinions was included, the media analysis drew on a variety of sources spanning Tamil media (Dina Thanthi and Viduthalai), national print media in India (the Times of India and The Hindu), online media sources in India (e.g., The News Minute, The Wire), and select international media outlets (e.g., BBC, CNN, New York Times). A simple search about a disaster yields a multitude of references. Therefore, a stepped protocol for identifying and analysing sources was employed for all media. The purpose of

the protocol was to keep manageable the amount of data identified for analysis whilst ensuring that the depth and breadth of the sample was appropriate.

Sources were identified through a combination of different search engines and databases. For the international media and some of the Indian online media, Google News was used; and for the remainder of the online Indian media the website of the media outlet was used. The Hindu and the Times of India archives were accessed through the Nexis and ProQuest databases. Articles published by the Hindu in print prior to 2014 were accessed through the archives held at the offices of the newspaper in Chennai. For the Tamil press, a combination of online archives and those held in the offices of the papers were used. An initial longlist of potential articles was identified using generic search parameters:

- Search period to start one month after the date of the event was used to reduce quantity of material and because our focus is mainly on the post-disaster period.
- Name of the disaster has to be in the headline or first paragraph (if print media)
- Keywords used to refine search: 'recovery'; 'victim'; 'surviv*'; 'memorialisation' or 'memorialization'; 'commemoration'

The initial longlist of articles generated through the search process was then shortlisted. The shortlisting process entailed skim reading content to identify salience and only items that were germane to the issue of recovery were retained for analysis. The final data used for the analysis are considered as exemplar texts highlighting specific elements of representation. Across all media sources a total of 185 items were analysed (see Table 3.2).

Table 3.2: Media sources used for analysis

Level	Medium	Sources	Language	Number	Longlist
International	Online	Dissent Magazine; Forbes; CNN; Reuters; BBC (UK); New York Times; The Conversation	English	11	11
National	Online	Hindustan Times; Frontline; The Caravan; India Today; First Post; Down to Earth; The Wire; The News Minute	English	46	301
National	Print	The Hindu; Times of India	English	112	1,449
State	Print	Dina Thanthi; Viduthalai	Tamil	19	61
Total				**188**	**1,822**

Having shortlisted texts, each item was then analysed using a simple template (see Table 10.3, Annexure) to maintain consistency in approach and data recording. The analysis helped explore how disaster events (e.g., the causality), the people affected (e.g., their

needs, rights and actions), support activities (e.g., external activities) and any other relevant matters are represented. Once the first stage of the analysis was complete, the data was re-analysed to identify major themes across and between the different media sources and disaster events. Table 3.3 shows the number of articles that were analysed for each event.

Table 3.3: Sources of data disaggregated to show number of items for each disaster

Level	Sources	Tsunami	South India floods	Gaja	Total	Longlist
Inter-national	BBC (UK), Forbes (USA), CNN (USA), New York Times (USA), Dissent Magazine (USA), The Conversation (UK), Reuters (International)	5	5	1	11	11
National	Hindustan Times, Frontline, The Caravan, India Today, First Post, Down to Earth, The News Minute, The Wire	13	28	5	46	301
National	The Hindu	68	9	1	78	675
	Times of India	26	5	3	34	774
State	Dina Thanthi	3	3	2	8	27
	Viduthalai	3	4	4	11	34
Total		**118**	**54**	**16**	**188**	**1,822**

The media analysis presented in Chapter 6, is an overview of the key recovery-related themes identified through the review of 188 media articles. Evidence to support the analysis is given in the form of codes (e.g., DT_G1) which relate to a specific media article or a direct quotation (see Table 3.4).

Table 3.4: Coding system employed in media analysis

Code constituents					Example	
OInt	+	_C _G	+	#	OInt_C3	Article from an international online source on the 2015 South India flood
OInd		_T			OInd_G2	Article from an Indian Online source focussing on Gaja
H					H_C18	Article from the Hindu focussing on 2015 South India flood
Pre2014					Pre2014_T66	An article from the Hindu prior to 2014 focussing on the Tsunami
TOI					TOI_G9	An article from Times of India focussing on Gaja
DT					DT_C5	An article from Dina Thanthi focussing on 2015 South India flood
V					V_G1	An article from Viduthalai focussing on Gaja

3.2.3 Primary data collection

Primary data were collected from April 2019 to December 2019 and engaged with two groups of people: primary stakeholders (people and communities who were directly impacted by the hazard event and offer up personal experiences and insights) and secondary stakeholders (those who have specific knowledge about other people, processes or happenings typically as a result of their profession or position within society). Primary data were collected using different individual and group interview methods and a participatory workshop in the three research sites in Chennai and Nagapattinam respectively (see Table 3.5). In total, the research team interacted with 52 men and 67 women of which 39 men and 57 women were primary stakeholders.

Table 3.5: Details of primary data collection methods

Data collection method	Number of interviews						Details of the method
	Chennai			Nagapattinam			
		M	F		M	F	
Semi-structured interviews	1	0	1	5	8	7	Semi-structured individual or group interviews conducted as part of scoping visits which captured disaster impacts, recovery interventions.
Semi-structured household interviews with disaster-affected people	2	2	1	8	8	7	Focussed on capturing DAP experiences of disaster events, losses and impacts, forms of remembering and memorialisation, and processes of recovery. Care was taken to interview DAPs from different livelihoods and genders.
Semi-structured group discussions	1	1	5	4	5	12	Focussed on capturing DAP experiences of disaster events, losses and impacts, forms of remembering and memorialisation, and processes of recovery. This interview was conducted with only female residents of the resettlement colonies.
Participatory workshop	3	5	12	4	10	12	Gender-differentiated group discussions of 5-7 people divided by livelihood (farmers, fishers). Exercises included drawing DAP representations of disaster recovery, an activity to capture DAP reflections on how their losses and disaster impacts are portrayed in the media.
Secondary stakeholder interviews	12	8	4	11	5	6	Addressed broader narratives of disaster reporting, agendas of recovery interventions, and the inclusivity of recovery processes.

Chapter 6 presents an overview of the key recovery-related themes identified through the primary data analysis. All data has been anonymised to protect the identity of those who participated in the research. Evidence to support the analysis is given in the form of codes (e.g., TN_N_SSI_1) and through direct quotations (with the code to enable identification of the original source) (see

Table 3.6: Coding system employed in primary data analysis

Code constituents		Example	
TN + _C/_N/_O + # +	SSI	TN_C_03_SSI	Interview with individual affected by the flooding in Chennai
	SSGI	TN_N_13_SSGI	Group interview with members of the fishing community in Nagapattinam
	KII	TN_O_02_KII	Interview with secondary stakeholder occurring in a location not in Chennai or Nagapattinam

Interviews with secondary stakeholders focussed on issues associated with longer-term disaster impacts and interventions, typically often over larger geographical scales (such as at state level). Five types of people were engaged through the secondary stakeholder interviews: government officials, non-governmental organisational workers, activists, academics and journalists and those working in media sector (see Table 3.7).

Table 3.7: Number of secondary stakeholder interviews conducted

Actor	Number
Government	6
NGOs	4
Activists	4
Academics/researchers	5
Media/journalists	4
Total	**23**

The main approach to engaging with primary stakeholders was through either individual or group semi-structured discussions. Selection of participants was undertaken by the research team during site visits or with the assistance of local intermediaries who facilitated access to communities. Participants were selected if they or their household was affected by one or more of the hazard events, informed by our wider sampling approach which was to ensure coverage of the main livelihood types (fishing, farming, wage labour) practiced by the poorer sections of society within the research sites (see Table 3.8). These discussions focussed much more strongly on individual experiences of the recovery period, interactions of the participants with other actors engaged in recovery work; and perceptions that they had of hazard event, the way in which they themselves were portrayed and represented, and the extent to which recovery interventions met their expectations and hopes.

Table 3.8: Number of semi-structured interviews undertaken disaggregated by livelihood type and gender

Sector/livelihood	Number of interviews	Male: Female participants
Fishing/fishing ancillary	13	15: 18
Farming	6	8: 9
Others	2	1: 6

3.2.4 Participatory workshops

Participatory workshops (n=7) focussed exclusively on the issue of long-term recovery. This was necessary owing to the difficulty of talking about issues linked to longer-term recovery in more standard individual and group interview approaches. The objectives of the workshops were to better understand primary stakeholders' understandings of recovery, the extent to which primary stakeholders felt they had recovered and the barriers and enablers impacting on the recovery process. The workshops also captured primary stakeholders' views of different media representations of recovery.

Each workshop lasted approximately 2 hours and included three structured activities to engage with the issue of recovery in a number of different ways. The first activity focussed on understanding what recovery was and the different ways in which it was understood by the participants. Through the second activity people envisioned their ideal recovery and described how that would be and what it would look like. The third activity used visual cues and video clips from the media to explore the ways in which recovery was represented by different actors. Experience in the initial phases of primary data collection showed that people often have a superficially narrow view of what recovery entails that is blind to some of the issues the research project is interested in exploring. The exercises were designed to support the research team and the primary stakeholders to think through and discuss recovery in a broader sense and to explore longer-terms hopes for recovery when compared to their current situation.

Each workshop was held with gender disaggregated groups of 4–8 people to increase the potential for more fruitful engagement. Two male and two female group discussions were held in Nagapattinam involving 12 women and 10 men and three workshops in Chennai (two female, one male) with a total of 12 women and 5 men.

Participatory workshops in Nagapattinam with male fishers (top) and female farmers (bottom). Photos: Chandni Singh, Mark Tebboth

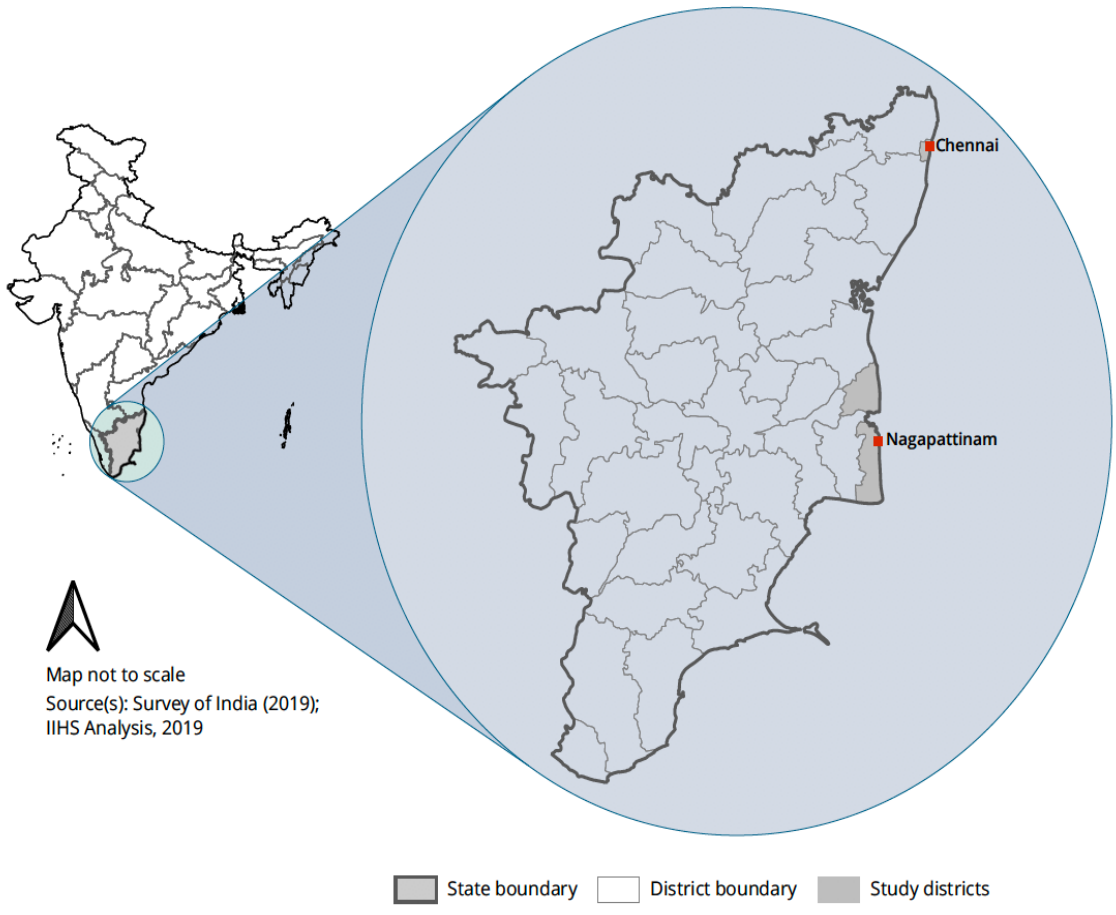
3.3 Analytical approach

The different categories of data were analysed individually to draw out insights related to representations of the event, DAPs and their losses and recovery interventions and processes. Once this phase of analysis was completed, we produced a report detailing the main findings from each category of data (the key findings of which make up the empirical chapters 4, 5, and 6 of this report). The second phase of analysis identified themes or issues which were evident in multiple lines of data or where there were significant divergence between different data. Once the second phase of analysis was complete, the main findings were drafted and form the analytical chapter of this report (Chapter 7). All of the empirical and analytical chapters are structured according to the three questions posed at the beginning of this chapter (section 3.1).

3.4 Case study sites

Two case study areas, Chennai and Nagapattinam, were selected to support an exploration of different forms of representation in relation to recovery from hazard events (Figure 3.1).

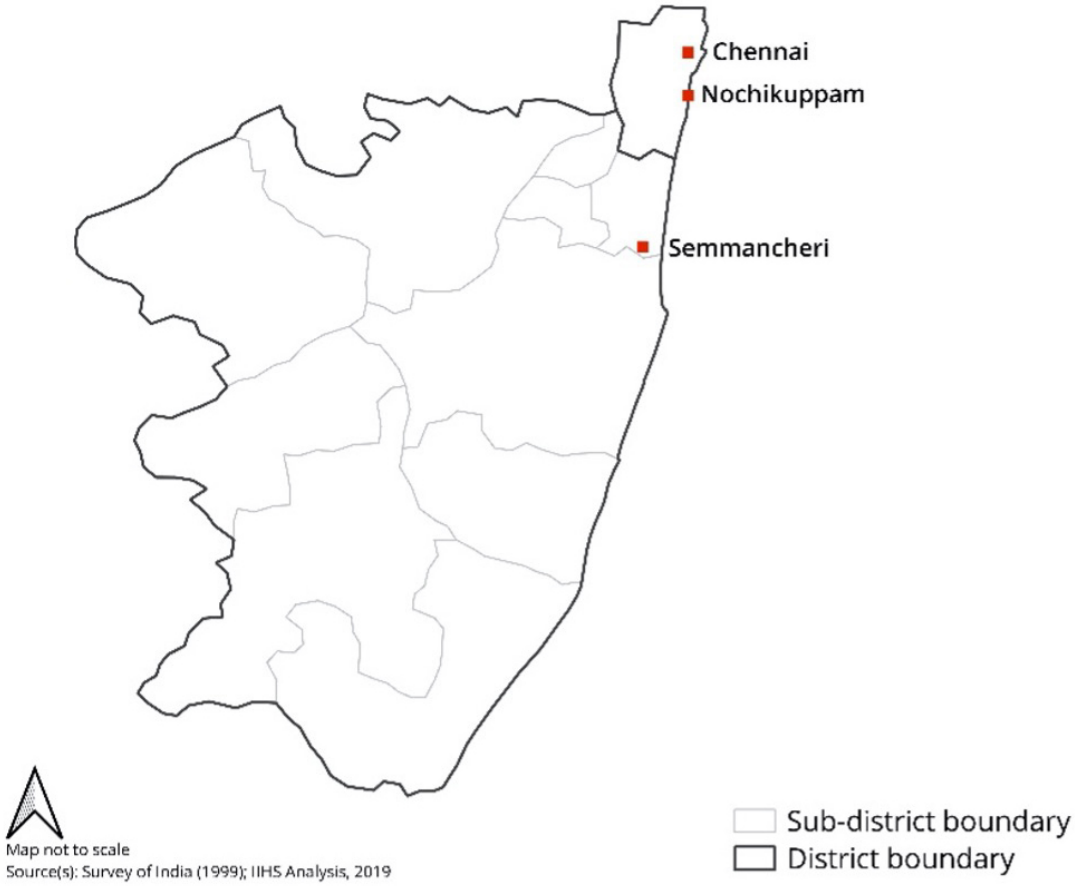
Figure 3.1: Location of case study districts (Chennai and Nagapattinam) in Tamil Nadu



Chennai: Chennai is the capital of Tamil Nadu and the largest city in the state. It has a mostly flat topography with three major rivers flowing through it (Adyar, Cooum and Kosasthalaiyar Rivers). These rivers as well as the lakes and wetlands of the city serve as the main drainage points of the city, given its flat topography. The district has a population of over 70 lakhs (Census, 2011).

Field work was conducted predominantly in two sites: Semmencheri and Nochikuppam (see Figure 3.2). Semmencheri is a slum resettlement colony located in the southern periphery of the city. The second site is an in-situ rehabilitation site, Nochikuppam in central Chennai. Most of the families were moved from central Chennai to the resettlement colony. During the 1980s, the government also provided in-situ housing for slum residents within the city, in close proximity to their earlier settlements. The resettlement colony includes both post-tsunami housing, as well as families who have been moved post the 2015 South India floods.

Figure 3.2: Field sites in Chennai include Nochikuppam (in-situ redevelopment site within the city) and Semmencheri (resettlement site in the periphery of the city)



Nagapattinam: Nagapattinam district is located about 324 km south of Chennai. It has a population of over 16 lakhs. Fishing is practiced in over 53 coastal villages in the district. The other major occupations in the state are salt farming and agriculture. Vedaranyam town in the district is one of the largest salt producers in the state (District Collectorate of Nagapattinam, 2018). The most commonly grown crops in the region include rice and tree crops such as coconut, cashew nut, and mango.

Salt production is a key livelihood in Nagapattinam district. Photo: Yashodara Udupa.

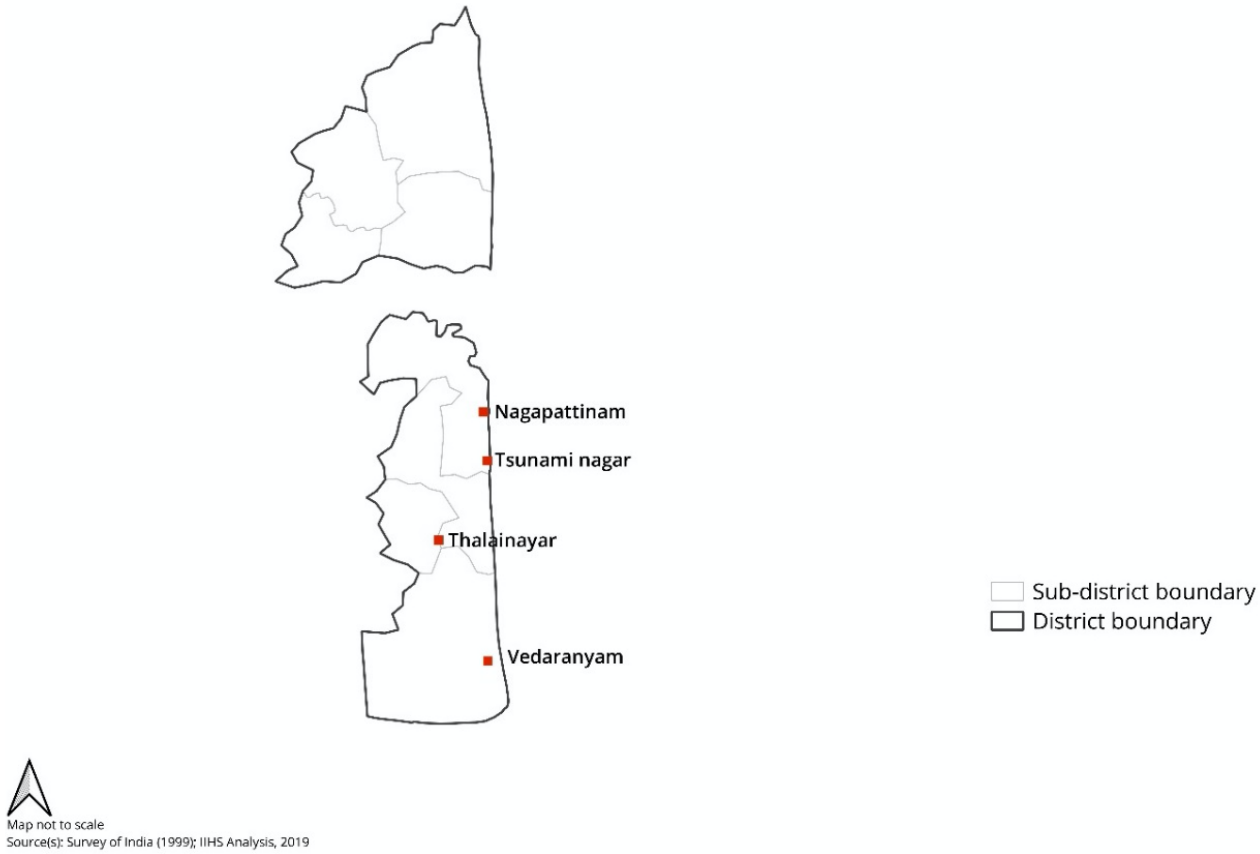
The field work was conducted in three locations: Nagapattinam town, Thalaignaiyiru town and the southern town of Vedaranyam (see

Figure *3.3*). Residents living in Nagapattinam town were severely impacted by the tsunami and relocated to the resettlement colony towards the central town. Their boats and nets were damaged during Cyclone Gaja, but their houses suffered only minor damages. Thalaignaiyiru town, where a local NGO Vanavil is active, has built houses for households that are female-headed and differently-abled people. These houses were built after Cyclone Gaja, which almost completely destroyed most houses. This area is also home to Dalits and religious minorities.

Vedaranyam was severely affected by Cyclone Gaja in 2018 (information from GRRRP IAS officer). It is known for its extensive salt pans as well as horticultural fields (coconut,

cashew nut, mango trees). The salt pans and fields suffered extensive damage during the cyclone. As of the July 2019 visit, most of the fields are still not usable (debris from the cyclone has not been completely cleared). This area is also home to villages with both landed and landless farmers. The housing in the area (a mix of huts and permanent structures) also suffered extensive damage.

Figure 3.3: Field sites in Nagapattinam include two urban and one rural site



4 Disaster portrayal in policy documents

Policy emphasis on building back better tended to focus on housing and physical infrastructure. Photo: Yashodara Udupa

This chapter synthesises findings from a review of state policies in five sectors: disaster management, housing, environment, fisheries, and agriculture. Drawing on 76 documents across government and on-government reports, publications from multilateral and bilateral agencies, as well as humanitarian groups, the review examines how disasters are portrayed in Tamil Nadu and how this is linked to representations of who is impacted and how they recover.

4.1 Representation of the event

Across policy documents, disaster events were attributed to two types of causes: (1) disasters as a result of the hazard event and exposure to that event, and (2) disasters due to pre-existing vulnerability. These framings led to differentiated ways to understand risk and vulnerability and assign blame. For example, attributing disasters to 'natural' causes tended to take attention away from government actors or structural inequalities that render populations vulnerable.

4.1.1 Disasters as a function of nature's exceptionalism

The unprecedented nature of a hazard was one of the key narratives representing the tsunami and 2015 South India flood. Post-tsunami, government and non-government

documents highlight how the event was an “unprecedented calamity never seen before” (District Collectorate of Nagapattinam, 2004) causing “unprecedented devastation” (TNSDMA, 2007). The same is seen in the 2015 flood, which was portrayed through narratives of unparalleled heavy rainfall over Chennai. However, such a version of events is not universally accepted. For example, the representation of the floods as exceptional and almost impossible to prepare for is contested by the Comptroller and Auditor General (CAG) audit report (CAG, 2017), which holds several government bodies culpable in the floods; mainly the Chennai Metropolitan Development Authority (CMDA), for failing to stop large constructions along waterways, and the unauthorized conversion of wetlands and waterbodies to commercial and residential land (Ge, 2019).

This ‘unprecedented nature’ of events framing was in sharp contrast to how policy documents reported Cyclone Gaja, which was always spoken of in conjunction with previous cyclones affecting the eastern coast (e.g., NDMA, 2019) and articulated as a common, recurrent event. As one respondent elaborated, *“In Gaja, no NGOs came; no money flowed in. This was because the number of deaths were low and so perhaps, foreign organisations felt ‘this is a usual one’* (TN_N_2_KII).” This perceived commonplaceness of Cyclone Gaja could have possibly led to relatively lesser aid flow and focus on longer-term recovery.

4.1.2 Disasters as a function of pre-existing vulnerability

This framing assigns disaster attribution through the impacts it has, which are understood as stemming from differential and pre-existing social vulnerability. Thus, events are seen as exacerbating existing vulnerability based on income levels, livelihoods, gender and age. For example, women, the disabled, and the elderly are discussed as most vulnerable, with events shown to exacerbate their exposure and vulnerability.

A World Bank report refers to the tsunami as *“as an event that has accentuated the vulnerabilities of the people”* and *“has exposed a number of issues that could affect their recovery”* (World Bank, 2012, p. 1). Similarly, in the 2015 South India flood, the government highlighted the vulnerability (of slum dwellers along Chennai’s rivers) to justify their relocation from flood-prone riverbanks into housing in “safer” locations. However, as later studies have shown, these resettlement colonies were constructed on marshlands prone to flooding, thereby shifting and in some cases exacerbating vulnerability rather than addressing it (Jain et al., 2021).

Resettlement colonies in Chennai often exacerbate risk because of poor design and they are built on flood-prone lands. Photo: Srisabari Pandian

4.2 Representation of affected people and losses

Across the three disasters, reports by government and bi- or multilateral agencies typically describe disaster impacts in aggregate with a focus on loss of life, damage to infrastructure, and disruption of services (Table 4.1). In many documents, these representations acted to flatten and homogenise populations masking the differentiated experiences of the disaster event and recovery processes. International humanitarian agencies and NGOs tended to report on impacts in locations or areas that they were working in or that were within their organisational remit. For example, Oxfam reported on the heightened inequality following the 2015 South India flood and Arappor Iyakkam described losses in communities where it was actively working. In subsequent sections, we discuss how policy framings identified certain people/social groups as most affected (Section 4.2.1) and tended to focus on tangible, quantifiable impacts (Section 4.2.2).

Table 4.1: Ways in which disaster events are described by different types of actor

Actors	Indian Ocean Tsunami	2015 South India flood	Cyclones (including Gaja)
Government	Loss to lives (7995 persons, 75% of whom were women and children), infrastructure damages, loss to livelihoods through boats and agricultural land lost (erosion, salt intrusion). In government orders, no mention of psychosocial trauma. Estimated value of damages: US $2.56 billion, total estimated need for long-term recovery US $2.1 billion. Psychological trauma discussed in SDMP 2018 (TNSDMA, 2018).	Water stagnation, flooding, fallen trees, road cave-ins, disrupted electricity supply. No mention of differential vulnerability/differential abilities to recover, no mapping of multiple risks especially no mention of informal settlements (Greater Chennai Corporation, 2017).	Trees, lamp posts, and electric lines uprooted, *kutcha* houses destroyed, transportation completely disrupted (Greater Chennai Corporation, 2017). Infrastructural damages to roads, power lines, houses. Some mention of damages to agriculture, orchards, and human and livestock lives.
NGOs	Loss of lives, housing, property, and livelihoods. Additionally, discuss second-order impacts such as food insecurity, safety concerns (Gupta et al., 2014).	Losses in communities where they were working before the flood. Loss of dignity during post-disaster evictions; remote and vulnerable areas underserved; significant livelihood losses (Citizen Consumer and Civic Action Group, 2016).	45 people killed, ~250,000 displaced; 170,454 coconut and banana trees uprooted, 39,938 electric poles toppled; 17,000 houses including thatched huts, tiled roof houses partially or fully damaged (ACT Alliance, 2018).
Bi-/Multi-lateral agencies	ETRP, World Bank: estimated 2.7 million people were affected, 80% from fishing community, 15% farmers and allied livelihoods, 5% small and micro enterprises. Overall damage in Andhra Pradesh, Tamil Nadu, Puducherry, and Kerala estimated at US$1 billion (fisheries (US$ 568 million) and housing (US$ 229 million). ADB, TEAP: loss of lives, homes, livelihoods, and/or access to public infrastructure for clean water supply and electricity.	Monetary losses of up to $2 billion, ($0.8 million insured, making it the second costliest *insurance* event in India) (Swiss Re, 2016).	Crop losses in the village due to saltwater intrusion.
International Humanitarian Actors	Loss of lives, housing, property, and livelihoods.	Heightened inequality of DAPs post relocation (Kapoor, 2019).	No mention

4.2.1 Disaster-affected people

In most government documents, especially the more recent disaster management plans (e.g. Greater Chennai Corporation, 2017; TNSDMA, 2018), there is a clear mention of minority groups (such as the disabled, children, and pregnant women) being potentially the most affected after the tsunami and 2015 South India flood signifying, a recognition of differential experiences. Such recognition is a positive step in disaster preparedness however, it is not reflected in recovery interventions and the focus remains on relief and not on longer-term recovery.

Livelihoods such as fishing which require proximity to the sea, are highlighted as most vulnerable in all reviewed documents. In the case of the 2015 South India flood, informal settlements along river banks were identified as vulnerable due their exposure to flooding. DAPs were represented as slum dwellers with negative connotations of being unclean and dirtying the city, allowing for justifications to be sent away (both for the city to 'develop', and for their own good). For example, a government policy note highlights:

> *The torrential rains in December, 2015 devastated the Chennai City and the slum families living in hutments on the banks of water ways were severely affected and lost their houses. These families were living in hutments in unhygienic conditions without basic facilities and subjected to annual flooding and frequent fire accidents. Housing and Urban Development Department, Policy Note 2016-17*

These framings of who is identified as vulnerable and hence framed as 'target beneficiaries' shapes recovery interventions significantly. Post-tsunami, fishers were targeted by projects to restore fishing infrastructure such as harbours, fishing boats, and fishing nets as well as enhance livelihoods (GoTN, 2018; JFPR, 2013) while post-floods, informal settlement dwellers were targeted for eviction and relocation (IRCDUC and HLRN, 2017). How policy narratives around DAPs and constructions of vulnerability and/or deservedness shape recovery interventions are discussed further in Section 4.3.

4.2.2 Tangible and intangible losses

Across all of three disasters, tangible, and quantifiable impacts such as loss of life and loss of housing were the main currency through which losses were described. Additionally, the focus was weighted towards populations that were more recognised as experiencing the impacts of events. For example, fishing communities in Tamil Nadu were most adversely affected by the tsunami (TNSDMA, 2007) and there was less reporting on losses incurred by other groups such as farmers, small industries, wage labourers. This visibility of certain groups when combined with powerful lobbying (e.g., fishers in Nagapattinam post-tsunami) can lead to access of more support. The converse was true for groups that are more invisible (e.g., farmers post-Gaja) and with less political capital leading to relatively lower recovery support.

Loss of lives was a key type of impact reported. For example, after Gaja, an NDMA report highlighted impacts being relatively low because of the number of deaths averted as compared to other cyclones along the east coast (NDMA, 2019). Consequently, the disaster evacuation and preparedness measures were identified as successful. However, Gaja's impacts and losses as reported in the media (Section 5.2.2) and by disaster-affected people themselves (Section 6.2.1) present a different picture. These other narratives of loss showcase how livelihood losses from Gaja, especially for farmers, had significant negative impacts on household incomes and in some cases, even led to suicides.

Intangible and ongoing (e.g., psychological) impacts and losses were poorly articulated. In both the tsunami and 2015 South India flood, losses of areas of residence through relocation (for certain populations such as those relocated post tsunami and post 2015 floods) were commonly experienced but not widely acknowledged. Similarly, the post-disaster needs assessment for Gaja (MSSRF, 2018) highlighted damage to infrastructure and impacts on livelihoods over and above immaterial (e.g., psychosocial) effects. Lastly, and despite the focus on more tangible loss, there was a difference when comparing governmental and NGO reporting with NGOs tending to focus more on loss to livelihoods and key household assets (Citizen Consumer and Civic Action Group, 2016).

4.3 Representation of recovery processes and outcomes

With the severity of disaster impacts seen as a function of the hazard and existing exposure or vulnerability (Section 4.1.1), interventions towards disaster risk reduction and management tended towards putting in place 'appropriate' infrastructure (such as shelters, disaster-resilient housing) and building local capacities to deal with disasters (e.g., early warning systems, evacuation protocols). This focus on replacing and repairing infrastructure was a key aspect of recovery across the three disasters.

Early warning hazard shelters are common across coastal Tamil Nadu, demonstrating a focus on disaster preparedness and evacuation. Photo: Yashodara Udupa

The three large multilateral post-tsunami projects invested in a suite of recovery interventions from restoration of physical and natural infrastructure (e.g., housing, public buildings, coastal mangroves) to livelihood generation/diversification and public service provision (Table 4.2). DRR specific interventions included relocating people from high-risk locations, providing trainings and capacity building on early warning systems, relief and rescue protocol as well as stricter policy measures (e.g., CRZ guidelines delineating high tide line).

Table 4.2: Target beneficiaries and key interventions in three large post-tsunami multilateral projects (Source: authors' compilation based on secondary review)

Project	Target population (represented as needing assistance)	Key recovery interventions, approaches
Emergency Tsunami Reconstruction Project (ETRP); World Bank; 3 years, US$ 423 million Later continued as Coastal Disaster Risk Reduction Project (CDRRP)	– Houses located between 200-1000 m from HTL deemed vulnerable – Beneficiaries were those with clear land titles	– Allotment of tenements and house reconstruction to tsunami affected – Repair/reconstruction of public buildings – Livelihood restoration – Technical assistance, training and implementation support – Modernisation of four fishing harbours, permanent structure in four bar mouths, construction of two fish landing centres
Tsunami Emergency Assistance Project	– Differently abled, widows, deserted women	– Rehabilitation – Rebuilding infrastructure (roads, bridges,

Project	Target population (represented as needing assistance)	Key recovery interventions, approaches
(TEAP); Asia Development Bank; 3 years, US$ 143 million	– Strong focus on pre-existing poverty and vulnerability, and on women and youth	water supply, drainage, sanitation, ports and harbours; fishing centres, buildings) – Capacity building and financial assistance (through SHGs) – Restoring livelihoods
Post Tsunami Sustainable Livelihood Programme (PTSLP); IFAD; 8 years, US$ 30 million	– Coastal fishers; wage labourers in fisheries & agriculture; fish vendors & processors; small & marginal farmers; other marginalised occupation groups (e.g., sea shell workers). – Focus on single adult headed households (especially widows & widowers, Scheduled Castes & Scheduled Tribes) – Young men targeted for training so that they could diversify livelihoods	– Coastal areas resource management – Rural finance and risk transfer instruments – Employment generation and skills training – Community-based sea safety and disaster management

In the following sections, we discuss three framings that articulate disaster recovery. They coalesce around infrastructure repair and upgradation (Section 4.3.1); livelihood strengthening (Section 4.3.2); and empowering communities, especially women, through capacity building (Section 4.3.3). We then turn to the processes that are used to 'deliver' these recovery interventions, focussing on how beneficiaries are identified (Section 4.3.4), how needs are assessed (4.3.5), and mechanisms of grievance redressal (Section 4.3.6). Taken together, these recovery interventions and processes can forefront or marginalise certain ideas of recovery as well as serve to include or exclude certain locations, social groups, livelihoods, and individuals.

4.3.1 Repairing/replacing/upgrading infrastructure

Providing housing in post-disaster situations is an attractive option– it is 'visible, measurable, and clearly demonstrates post-disaster action' (Jain et al., 2017, p. 9). However, after the tsunami and 2015 flood, housing interventions neither reduced hazard exposure (Jain et al., 2021) nor were sensitive to community needs and priorities (Raju, 2013). Measures to recover from all three events focussed on repairing and replacing damaged/destroyed infrastructure especially providing housing and repairing or replacing damaged and destroyed dwellings (e.g., Rajiv Gandhi Rehabilitation Package, Emergency Tsunami Reconstruction Project, Tsunami Emergency Assistance Project). There was a thrust on relocating families into new houses rather than *in situ* rehabilitation; and this focus on relocation has been repeatedly criticised by researchers, NGOs (Chandrasekhar, 2010; Coehlo, 2016; IRCDUC and HLRN, 2017; Jain et al., 2017) and the media (TOI_T11).

With a lot of loss represented as loss of housing, NGOs and government action focussed on housing provision, which in retrospect, might be because it was easier to coordinate and not necessarily a need coming from communities (Raju and Becker, 2013). Housing as recovery is viewed as more tangible compared to other aspects important for recovery such as education and livelihoods.

Recovery as infrastructural. Housing (top) and fishing boats (bottom) provided after the tsunami in Nagapattinam. Photos: Yashodara Udupa

4.3.2 Repairing lives and livelihoods

Rebuilding and diversifying livelihoods are also seen as important in post-disaster contexts with prominent efforts following the tsunami and Gaja. Importantly, the emphasis on rebuilding and repairing livelihoods was typically seen as a means to help people, families, and communities reassert control over their lives. Thus, DAPs were depicted as severely impacted by the tsunami but central to the reconstruction efforts. For example, the South Indian Federation of Fishermen Societies (SIFFS) organised a *'mass contact programme … in Chinnangudi to understand people's needs and aspirations associated with their houses'* to help fulfil their aspirations for *'2,000 houses in 2,000 designs'* (SIFFS, 2009, p. 16). Interestingly, this aspect was less visible in the 2015 South India flood where livelihoods were reportedly undermined due to recovery interventions (Citizen Consumer and Civic Action Group, 2016; IRCDUC and HLRN, 2017; Jain et al., 2021; Mariaselvam and Gopichandran, 2016).

Such positive intentions (for the tsunami and Gaja) are driven by the desire to ensure communities are active participants in decisions that will affect them into the future (in this

case relocation and housing). The engagement with DAPs is seen as a necessary precursor to ensuring that correct decisions are reached and, in so doing, DAPs are portrayed as abler and more active participants within the recovery process. One risk with framing the problem around vulnerable livelihoods and communities is that the onus for change is placed firmly with DAPs rather than seeking to explore ways in which their lives and livelihoods can be made more resilient in situ.

4.3.3 Empowering women

Several post-tsunami interventions focussed on women empowerment through formation of Self-Help Groups (SHGs) (Chandrasekhar, 2010; Kruks-Wisner, 2011). Viewing the disaster as an opportunity to address existing gendered vulnerabilities, these interventions aimed to empower women economically, alleviate poverty, build capacities (e.g., through microcredit savings trainings), and diversify livelihoods by starting small enterprises. For example, under the Japan Fund for Poverty Reduction, women's SHGs were given varying sums of money (from Rs. 1-2 lakh/group typically) and engaged in activities such as manufacturing sanitary napkins, Korai craft products, weaving, environment friendly handmade paper, and helping on solid waste management. (TNSDMA, n.d.).

Despite the large influx of funds and rapid expansion in SHG membership, several assessments have criticised relief and recovery measures as worsening the situation for women and girls. For example,

> *persistent reports of discrimination against Dalits and members of tribal groups by other caste groups…government failure to address the particular needs of women and girls, including failure to provide adequate sanitation and health facilities in some temporary shelters to protect their privacy and security… (Human Rights Watch, 2005, p. 3)*

Further, there was no physical and social security for widows. Reports from Nagai and Kanyakumari reported that unable to manage the post-disaster stress, women and adolescent girls disproportionately attempted suicide (EKTA Resource Centre for Women, 2005, p. 25).

We now turn to the representational aspects of recovery processes, focussing on how beneficiaries were identified, what recovery interventions were prioritised, and inclusion and exclusion through grievance redressal mechanisms.

4.3.4 The 'worthy' beneficiary and processes of beneficiary identification

Post-tsunami recovery saw a large influx of funds and in hindsight, this has been criticised for haphazard and exclusionary beneficiary identification. While the government and multilaterals injected a lot of money and tried to focus on long-term recovery through infrastructure and livelihoods building, issues of mismanagement and delays, the influx of

decontextualised assistance through the provision of livelihood aids (e.g., fishing boats and nets to non-fishers), and the rush to provide *pukka* houses as opposed to rebuilding temporary shelters important for fishing communities created new cleavages in communities (Raju and Becker, 2013). NGOs attempted to represent community needs but were often haphazard and competing with each other because of different ways of working and visions of what the community needs. This had negative implications for longer-term recovery since there was little room for 'playing a strong role in advocating central issues for long-term recovery' (Raju and Becker, 2013, p. 86).

The review of three large multilateral post tsunami projects (Table 4.2) shows issues of interlocutors misrepresenting DAPs (such as in the ETRP and Tamil Nadu Pudhu Vaazhvu Project), unclear and haphazard beneficiary selection (e.g., in IFAD's Post Tsunami Sustainable Livelihood Programme), and mismatches between losses/needs and recovery interventions, all of which shaped recovery.

The PTSLP undertook participatory resource mapping through local NGOs and made micro plans for disaster recovery. IFAD's own assessment showed the project design and execution was haphazard with a high degree of dependence on self-selection, i.e., it was reliant on the tsunami affected coming forward for assistance. 'Government records and local government agencies were used to further identify deserving beneficiaries. Given the complex situation and the presence of many donors targeting the same population, how far IFAD's targeting was successful or not is unclear' (IFAD, 2018, p. 39). The report also critiques the project for continually shifting objectives and low clarity on whether the poor were the final beneficiaries.

The indicators of the recovery process in ETRP and TEAP and the implementation of the project were measured in terms of physical outputs and percentage of beneficiaries extended to people 'willing to reconstruct their homes to disaster resistant standards (beyond project beneficiaries)' (TNSDMA, 2007). However, the urban housing component suffered from a lot of complications related to difficulties in finding suitable locations to build and beneficiaries refusing to vacate their existing homes. As a World Bank report noted, 'Beneficiaries were apprehensive of Government's intention in spite of a very rigorous and objective beneficiary selection and validation process, which used a biometric method of identification. Several beneficiaries also demanded additional houses as they had extended families even though GoTN had a policy of one new house for one old house' (World Bank, 2012, p. 7). Under the TEAP, while the focus on women and livelihoods building was positive, benefits tended to be captured through quantitative indicators (e.g., 'Against the target of need-based replacement of damaged productive assets, 3,748 SHGs and 38,500 individuals were assisted, and training for skills upgrading was provided to 9,292 SHGs') which did not necessarily capture other non-tangible aspects of recovery (ADB, 2012).

During Gaja, relief benefits were distributed universally to avoid concerns of wrong beneficiary identification (TN_N_03_KII). However, this meant that relief was often captured by well-connected places and the ration distribution was slow and inadequate (ACT Alliance,

2018). During the tsunami, NGOs positioned themselves as mediators, each with their own agendas, leading to a mosaic of organisations speaking *on behalf of* the community. This mediating role had changed significantly by Gaja, where significantly where much lower funding and changing institutional priorities resulted in a much lesser mediating role by NGOs (TN_O_2_KII).

4.3.5 How recovery interventions are prioritised: perceptions of need and what counts as appropriate response

In the coastal district of Nagapattinam, the 2004 tsunami's devastating impacts attracted heavy influx of national and international funding. Most of this activity was focussed on housing and livelihood restoration, and the government allotted 603 acres of land for the construction of houses for those rendered homeless by the tsunami, at a cost of Rs. 300 million. The land was then handed over to non-governmental organisations (NGOs) to build houses, with groups of NGOs getting designated groups of villages. The land allotment, a quantifiable, demonstrated action, also represented institutions as responsive and keen to help disaster recovery.

The prioritisation of interventions in Chennai included the provision of housing although, there remained mismatches between how different stakeholders approached and addressed post-flood disaster recovery. While the government argued that people living along rivers should be moved urgently because they inhabit flood-prone river banks, similar principles were not adopted for the private sector and wealthier citizens (Coehlo, 2016). Civil society actors resisted relocation for certain areas. In other areas where accepted relocation was necessary to reduce hazard exposure, they argued it should be done in a dignified manner, along with provision of services and safety nets (IRCDUC and HLRN, 2017; Kapoor, 2019). They argued that providing housing is inadequate when not combined with livelihoods interventions (TOI_T21). The media and activists highlight that the floods were used to justify an agenda of a 'slum-free city' and flouted norms of in situ rehabilitation in ways that were highly unjust to low-income dwellers (TN_C_04_KII).

During Cyclone Gaja, most of the semi-permanent and a significant portion of permanent housing was either completely destroyed or suffered considerable damage. Despite this, interventions in Gaja did not match need: 'It is a disaster which did not receive much media coverage. Many international NGO refused our requests for aid in housing reconstruction. They blatantly stated that they cannot provide funds for a disaster which did not receive sufficient international media coverage.' [TN_N_06_KII]. Representationally, this meant that international and national visibility and attention mediate fund allocation for local interventions in certain circumstances.

4.3.6 Grievance redress mechanisms

Grievance redress mechanisms were institutionalised after the tsunami but often tokenistic and differentially accessible, indicating a bias towards top-down approaches at the cost of bottom-up experiences. One way DAPs represented their priorities and demanded accountability is through judicial processes. For example, citizens have written petitions for slow and inadequate resettlement post the tsunami, held religious bodies accountable by complaints to the police about misuse of tsunami funds (TOI_T16), and participated in judicial hearings to keep the state accountable. However, formal and informal judicial hearings often marginalised certain social groups such as Dalits and people in remote areas. For example,

> *The collector told us that our village does not actually exist. The tsunami coordinator said, "I have many headaches, why are you giving me another one?" the Tehesildar (government official) said, "Who has died in your village that I should give you relief? Let another tsunami come and then I will see if I can help you." And the revenue inspector promised us,* ***"Wherever you make your complaint, it has to come through me; I will see to it that you get nothing."*** *Dalit DAP, quoted in Gill (2007, p. 41, emphasis added)*

This representation of certain groups as less worthy of support was reflected in provision of interventions (Section 4.3.4) and in grievance redress which was weighted in favour of certain groups and people.

The large housing interventions after the tsunami also had formal mechanisms of grievance redress. In TEAP and ETRP, for example, village/ward level grievance redressal committees were headed by the panchayat president, had at least one female member, and one member from marginalised social groups. NGOs representations were also sought to assist grievance documentation and redress. Under ETRP, such committees were expected to meet once a month while under TEAP, this was fortnightly (ADB, 2007). The government of Tamil Nadu also had an online grievance-petition facility in English and Tamil, which was used in all 13 Tsunami affected districts and linked with all the coordination centres (UN World Bank and ADB, 2006).

There are numerous reports of these redress mechanisms being tokenistic and excluding marginal groups. The then State Relief Commissioner of Tamil Nadu later acknowledged lapses on grievance redress saying 'some of the complaints – for instance, those relating to the exclusion of Dalits– could have been avoided if we had done the enumeration better and with the involvement of all categories of people.' (e.g. Alexander, 2006, p. 7).

After the 2015 South India flood, several special grievance redress events were organised (Kabirdoss, 2019) but activists have argued that while some have been successful through litigation, others remain open. Again, slum dwellers and those without clear documentation are most marginalised in this process.

4.4 Summary: representation of disaster and recovery in policy

- We reviewed 76 government policy documents and non-government reports to examine how disasters, disaster impacts and affected people, and recovery initiatives were represented in them.
- Across policy documents, disaster events were represented in three forms: (1) disasters as a result of exposure to a hazard event, (2) disasters due to pre-existing vulnerabilities, and (3) disasters presented as opportunities. These framings of events shaped understandings of disaster attribution (natural or man-made) and impacted prioritisation of recovery interventions.
- In documents by the government and multilateral agencies, disaster impacts tended to be described in aggregate, quantitative forms with a focus on loss of life, damage to infrastructure, and disruption of services. Civil society reports additionally focussed on finer level impacts such as on household incomes, gendered impacts, and livelihoods. Overall, aggregate representations of disaster impacts and losses tended to flatten and homogenise populations masking the differentiated impacts of the disaster event.
- There was more focus on reporting and enumerating tangible losses from disasters such as infrastructure damage or loss of lives than intangible losses such as longer-term livelihood impacts or psychosocial trauma.
- Policy measures around disaster recovery focussed on discrete, visible interventions such as putting in place 'appropriate' infrastructure (e.g., shelters, disaster-resilient housing), relocating vulnerable communities, and building local capacities to deal with disasters (e.g., early warning systems, evacuation protocols). The focus on replacing and repairing infrastructure was a key aspect of recovery across government, multilateral, and NGO reports.
- Recovery processes were led by the government and multi- and bilateral agencies but mediated by civil society. Mechanisms to address grievances included writing petitions, formal and informal judicial hearings, and speaking to the media to keep the state and other agencies accountable. However, experiences from the tsunami show that institutionalised grievance redress mechanisms were often tokenistic and differentially accessible, indicating a bias towards top-down approaches at the cost of bottom-up experiences.
- There was a strong element of framing recovery as 'building back better', which was introduced after the tsunami and has continued in Tamil Nadu's approach to disaster recovery in subsequent disasters. The build back better narrative focussed on infrastructure, livelihoods, and community (especially women's) empowerment. However, the policy review showed that recovery tended to be understood as intervention-specific and as a series of discrete events rather than process-centric and long-term.

5 How are disasters reported? Findings from media analysis

Post-disaster reporting: illustrative newspaper headlines in national newspapers Source: Author compilation

Representation of disaster events and impacts critically shape the public discourse and exert pressure on public and civil society actors towards relief and recovery measures. The framing devices and semantics used to report on disaster events influence how disasters are understood and responded to (Murthy, 2013; Tierney et al., 2006). In this chapter, we showcase how the discursive structures used to communicate and discuss disasters were framed along spectra with different actors promoting or supporting a particular view of the event and its consequences. The poles of each spectrum represent the most extreme versions of the possible viewpoints and are rarely communicated in such a 'pure' form but the degree to which organisations subscribe or promote them can be inferred from the way in which events and their consequences are communicated.

5.1 Representation of the event

Two areas of contention repeatedly surfaced in how the event was presented in the media. The most common of these was a framing that addressed the cause and degree to which disaster is considered exceptional. The second area was around the extent to which the disaster provided an opportunity for positive or negative change.

5.1.1 Causation and exceptional nature of disaster events

A number of articles made reference to the causation of the event and can be broadly split into two camps: those that reported on or highlighted the role of nature as opposed to those that more clearly saw a strong human influence. This division was most evident in response to the 2015 South India flood with many articles highlighting the causative role of development sprawl and urbanisation. As a result of these activities, floods were reported as more likely to occur and would continue to occur with greater intensity.

> *'Last year's flood could be termed as a result of the government's inability to chalk out plans for the maintenance of the city's tanks and channels over the last several years.' TOI_C1*

> *'Comptroller and Auditor General of India (CAG) called the Chennai floods of 2015 a "man made disaster", a pointer to how the encroachment of lakes and river floodplains has driven India's sixth largest city to this ineluctable situation' H_C1*

Such a framing was also evident with regard to the tsunami (removal of green infrastructure such as mangroves along the coastline) and Gaja but a lot less frequent. In terms of actors, articles referencing government tended towards a 'natural' framing of events. On the other hand, articles drawing on civil society organisations for quotes and source material more frequently highlighted the actions or inactions of (government) institutions in exacerbating negative impacts of events (e.g., development on wetlands that ultimately made Chennai more vulnerable to flooding).

Closely related to the framing above is the extent to which events are considered exceptional, for example articles referred to the unprecedented nature of the events. As with the framing that emphasised the causative role of nature, highlighting events as unprecedented signifies that preparatory and preventative actions are difficult and almost impossible to implement and therefore, blame is shifted away from institutions or ill-conceived action/inaction.

> *'Nature was unforgiving' H_C6*

> *'Despite the State government putting its disaster management system on high alert, the pre-cyclone preparedness paled into insignificance [in light of the severity of the cyclone]' H_G1*

Allied to issues of attribution and responsibility, the degree to which events are considered exceptional also has implications for the way in which recovery is portrayed and described. In the case of the tsunami, it was frequently described in unprecedented terms and this is reflected in the ability of nature and people to recover or not. Of particular note is the sense of fatalism that permeates some of the reportage.

> *'The tsunami has left a lot of people bitter. Fisherman Thennarasu is tired of talking about it. "I've spoken to hundreds of people like you," he glowers. "What's the point? Can you give back what we lost?' Pre2014_T34*

> *'...there is a sense of fatalism among some who cannot or are unwilling to go elsewhere. When Jaishree of Seruthur, Nagapattinam asks, "Where do we go? This is our home, the sea is our benefactor, if she wants to hurt us again, what can we do?"' Pre2014_T13*

Taken together, the degree to which events are considered driven by nature or the (in)actions of institutions, and the degree to which they are exceptional, has ramifications in terms of who is considered responsible, the perceived efficiency and effectiveness of the recovery interventions, and the subsequent actions to try to reduce the risk or severity of impact of such events. Similarly, understanding how events are framed in terms of their causation is important as it influences the solutions that are considered appropriate. In the 2015 South India flood, once the framing of the problem is established linked to removal of green infrastructure, a logical 'solution' is to engineer (or re-engineer) infrastructure, adopt technocratic fixes to mitigate floods, or relocate people considered vulnerable. How events are represented is important for actors as it enables them to defend or justify action/inaction in preparing for or responding to a hazard. If an event is seen as natural and to a large extent unknowable, it is difficult to prepare effectively. Alternatively, if events are seen as more knowable and, in part, a result of social vulnerabilities, then actions or inactions of actors can be more easily linked to loss of life and other impacts.

5.1.2 Disasters as opportunities

The second notable narrative that emerged strongly was around the positive and negative opportunities that were opened up as a result of disasters. Positively framed, the disaster event is seen as a rupture that enables typically marginalised groups to challenge the status quo and assert equity claims. For example, post-tsunami, there opened opportunities for increased access to schooling that was previously not possible, greater participation of women in self-help groups, joint/female-only tenancies, greater valuation and visibility of (the lives of) fishers, and capacity building opportunities to give people new skills, changed social relations. Similarly, there is also the opportunity to promote different ways of addressing problems and defining solutions. In some cases, advocacy and support for nature-based solutions was more visible and included a renewed interest in mangrove plantations to protect the coastline and replanting native species that are more resilient to high winds.

'A self-help group was formed to help them sustain their livelihood. "It is a second life for me. Now I can ensure that my three children get a good education. I want to ensure at least one of them pursues medicine,"...' TOI_T20

'tsunami changed the attitude of villagers along the coast and they now help restore Pichavaram's mangrove bio-shields...it took a tsunami to highlight the need for mangrove plantations and coastal bio-shields to protect the coastline from natural calamities.' Pre2014_T23

'Cuddalore Collector Gagandeep Singh Bedi says the fishermen are now "more open to new ideas, more democratic and come to us with their problems," something unheard of two years ago when even policemen were barred entry during violent disputes between neighbouring villages over fishing rights.' Pre2014_T6

In other cases, the tsunami was presented as an opportunity to develop eco-tourism (Pre2014_T20; DNA, 2006) in Tamil Nadu by building memorials to remember the disaster.

The aim is to preserve the memories of pre-tsunami days and educate visitors about the devastating impact the disaster had on these places. Tsunami tourism will also prevent these places from being completely forgotten. Pre2014_T20

"The blueprint for a bigger tourism project in Cuddalore is getting ready. MGR Thittu, an island completely wiped out by the killer wave, is to be showcased as the living remnants of tsunami and converted into a tourist destination. ***"We ignored Cuddalore's tourism potential. But we have finally realised its worth,"*** *said an official." DNA, 2006. "Cuddalore puts tsunami scars behind", 25 Dec 2006 (emphasis added)*

The converse narrative was also evident and represents disasters as opportunities to entrench existing inequalities. In this framing of events, the rupture caused by the event creates new practices and sees the relaxing of rules and norms. In this post-disaster vacuum, behaviours and actions that would have been considered unacceptable become permissible. For example, the high volume of external relief after the tsunami exacerbated inequality between groups and created dependencies. The disaster also provided new opportunities to pursue existing agendas that ran counter to the needs and wishes of certain groups such as the desire to modernise the fishing industry or to displace people from land along the coast.

'External assistance for relief is unorganised, exacerbates the unequal distribution to population'. OInd_C1

'The committee demanded the halting of the displacement of people from their original home-steads, strengthening the coastal regulation zone laws to protect the under-privileged and demolition of constructions infringing the law.' Pre2014_T8

The portrayal of disaster events as opportunities has implications for recovery as it demonstrates the ways in which actors can use disasters to pursue their own agendas. In that sense, the opportunity narrative shares many similarities with the concept of disaster capitalism popularised by Klein (2007) although here it is seen to provide both positive and

negative opportunities whereas Klein focussed more on the negative way that powerful actors exploit or ferment disasters to push through agendas that would not be possible in 'normal' times.

5.2 Representation of affected people and losses

The ways in which disaster-affected people and their losses were spoken about centred on the extent to which the events were portrayed as universal as opposed to affecting population subsets and a view of people as either highly resilient or highly vulnerable. Both framings have implications for how recovery and support to enable people to recover is conceived and implemented.

5.2.1 Aggregated or differential impacts

Losses and impacts on people were often described in aggregate and presented in economic terms highlighting things like damage to infrastructure or total valuation of loss through livelihood disruption.

> *'almost unimaginable scale of the tragedy became apparent — more than 200,000 dead across Asia, and almost 8,000 here in the southeastern state of Tamil Nadu' OInt_T7*

> *'devastating local agriculture and infrastructure, and destroying thousands of homes' OInt_G11*

> *'killer tsunami… washing away nearly 8,000 and depriving lakhs of their livelihood' TOI_T17*

Alongside the aggregated portrayal of impacts was another framing that focussed on population subsets, typically those groups that were regarded as the most significantly affected. This disaggregated approach to understanding aftermath of hazards events manifested itself with reporting of impacts in specific locations, on groups of people, to scheduled castes or women. Whilst this type of reporting does recognise the differentiated nature of impacts, it also acts to mask those people and population groups that are not portrayed or regarded as the 'primary victims'. For example, in the tsunami, the focus on fishers reduced the visibility of farmers and landless agricultural workers with potential implications on the speed and nature of recovery support that such groups received.

> *'the fissuring out of social strata that accompanied the disaster: in flood-stricken rural areas near Chennai, the brunt of the damages have been borne by the lower castes, while relief efforts have disproportionately benefited upper castes.' OInt_C1*

> *'The Dalit community had been hardest hit, with no government assistance issued to mitigate their plight, V. Karuppan, convenor of the Dalit Joint Action Committee, said. Those involved in farming were badly affected by the farmlands turning saline. But they had been offered no succour, he added.' Pre2014_T8*

With specific reference to the 2015 South India flood, there was a particularly interesting theme in some articles that talked about the significant impact on the middle class, implicitly excluding the poorer sections of society (a similar issue was also described in the Tamil media but in relation to the exclusion of farmers from reports relating to the tsunami). Conversely, in the same articles that described the impacts on the middle classes in Chennai, there was also a portrayal of the flooding event as universal with the rich and the poor affected similarly. Such a view draws on the notion of disasters as a leveller and is seen in the reporting on the tsunami as well.

> *'The middle class and salaried folks have been seriously affected and they are unlikely to forget that while choosing the next representative for their area.' H_C7*

> *'the tsunami spared none' Pre2014_T32*

The extent to which disaster impacts reflect the differentiated nature of society is important for who is able to access and make claims for support. In the examples above, the aggregated portrayal of impacts masks the much differentiated experiences of disaster-affected people and makes it harder to make claims for differentiated levels of support (e.g., support for non-fishing livelihoods after the tsunami). The contested framing of affected populations is also evident for the flooding in Chennai. At one pole, the framing highlights the individual experiences of groups such as the middle classes and those living along rivers. Whilst at the other extreme are claims that the disaster impacts everyone universally. Ultimately, the way in which impacts and populations affected are described, implicitly confers greater moral legitimacy to claims of certain groups and/or excludes other groups. In the 2015 South India flood, the message is that the middle class have been unduly affected and that they are as equal and deserving of support as poorer sections of society despite the privilege that is afforded to them by dint of their wealth and status.

5.2.2 People, communities, and places as resilient or vulnerable

Running in parallel to the framing of events as universal or otherwise (discussed above) was the representation of people as resilient in the face of unimaginable trauma and also as highly vulnerable. Such views are evident in all disasters but particularly come to the fore in relation to the flooding in Chennai and the tsunami. For example, articles refer to 'the spirit of Chennai', of togetherness and the remarkable ways in which disaster-affected people were able to rebuild and recover their lives following the tsunami.

> *'"But the people of Nagapattinam have shown tremendous resilience to bounce back within a year," he said.' Pre2014_T14*

> *'spirit and character of the community itself. It is creative, determined and passionate. Hindu, Muslim and Christian. The people of Chennai have come together to help each other.' OInt_C4*

> *'Even though the flood waters have now receded, it was wonderful to see how a city came together to help one another out.' OInt_C5*

Conversely, media reporting also highlights the incomplete nature of recovery and the ongoing psychological trauma that people experience.

> *"'Though now I go to school every day I find it very difficult to concentrate on studies. Images of water and my mother and sisters keep recurring in my mind," says Gunavathi, who studies in the fifth standard.' OInd_T3*

> *M.K. Saravanan of Marakkanam, who owns a boat yard, explains how fishermen confide to him, sometimes with embarrassment, their fear. "When water ingress was reported in Kanyakumari, there was a fresh wave of fear. It is going to take a long time to heal." Pre2014_T38*

> *"'Out of the 60 men surveyed, 38 are now addicted to alcohol," says the study by the Chennai-based NGO, Pavithram.' Pre2014_T54*

Framing people and populations as either resilient or vulnerable can dramatically shape portrayals of disaster impacts and losses, with implications for post-disaster recovery interventions. Depicting populations as resilient implies that recovery is either unnecessary or not a priority. This can make it harder for affected populations to claim ongoing support or make it less likely that support will be provided. Alternatively, a resilience framing can be used to make the case that interventions have been successful and those who affected are now well on the road to recovery. In such cases, demonstrating that external support has been used effectively justifies or provides a reasoned case to support additional interventions.

The implications of representing particular groups as vulnerable are also twofold. One view sees vulnerable groups in need of additional support to enable recovery, invoking a strong moral legitimacy for their claims. Conversely, there is a risk that interventions will be imposed on these groups as they are deemed in need of further support to recover. The interventions may be positive and well-intentioned or they result in negative outcomes or be done with ulterior motives.

Underlying the framings and impacts described above is the issue of agency and control. To what extent are affected people and populations having these labels about whether they are vulnerable or resilient imposed upon them or otherwise. If these labels are imposed upon them then there is a danger that inappropriate measures to aid recovery will follow or support may be reduced or removed. Conversely, if people are able to effectively take control over how they are seen the chances are increased that the right level of support will be forthcoming.

5.3 Representation of recovery processes and outcomes

Through the analysis of media articles, five clusters or ways of viewing post-disaster recovery were evident. The first cluster relates to the extent to which the impacts and recovery were viewed through aggregated and quantified metrics (discussed in section 4.3.2 in relation to people affected by disasters). Second, recovery processes were sometimes framed to align with a narrow interpretation of the 'build back better' agenda. Particularly in relation to housing, another cluster is grouped by the extent to which disasters were used to provide a strong moral justification for certain actions. The next framing of post-disaster recovery actions related to the role of the state and the degree to which it is considered efficient and effective (or not). Finally, there were a small number of articles that highlighted the need for more data and knowledge to help the recovery processes and minimise risk moving forward.

5.3.1 Demonstrable and quantified metrics

In the media, disaster recovery was often portrayed in relation to housing or livelihoods. For example, for the tsunami, there was a specific focus on fishers and for Gaja, it was farmers.

> *'It's been six years since tsunami struck the Chennai coast, but the state government is still struggling to complete the tenements proposed to be built for those hit by the disaster' TOI_T10*

> *'it was not just the trees that collapsed in the ferocious cyclone taking a toll on the green cover, but the livelihood of many who were depending on their yield.' TOI_G3*

> *'Once completed, people will have better houses, disaster-resistant buildings, schools comparable with the best in towns, better roads, new bridges and facilities such as fish landing centres, fish processing units and drying yards.' Pre2014_T4*

The focus tended towards tangible interventions such as housing and livelihood support. Such a framing help actors to demonstrate responsiveness and at a deeper level, represents recovery as finite. A simplified example of this is: the disaster event has destroyed a person's house, rebuilding the house will signify recovery, and once the house is rebuilt the person can be considered as having recovered. This representation of an event and its implications sees people as moving from a state of impacted to having recovered and this has implications for the level, duration, and nature of support that a person receives or is able to demand.

The analysis above does not seek to downplay the importance of housing and livelihoods within recovery processes but highlights that too much focus on these elements masks other important aspects of recovery, for example, recovering from trauma or emotional and psychological illnesses. In short, if the focus is too strongly weighted towards physical assets, other elements, such as ongoing psychological trauma or disrupted social relations, are neglected.

Mirroring the previous discussion, recovery was also often talked about in aggregate terms

'Almost the entire ₹600 crore (6 billion) contributed by the ADB was used for livelihood rehabilitation and related infrastructure development activities. NGOs contributed initially to supplying boats and fishing nets, building landing bays, ice houses, and setting up alternative livelihood options through self-help groups.' Pre2014_T26

'The district has seen the equivalent of 50 years of development over five years, say district officials here. Of the 19,736 houses that were taken up for construction post-tsunami, over 19,000 were completed and handed over to beneficiaries. The figures include 17,701 constructed by non-governmental organisations (NGOs) and 2,035 by the government. While NGOs have long constructed and withdrawn from the scene, about 667 houses are under construction by the government.' Pre2014_T27

'$607 million (₹2.6 billion) of external aid has been negotiated for Tamil Nadu and is expected to be ratified by the multilateral agencies shortly. Pondicherry would receive $42 million.' Pre2014_T48

The focus on aggregated levels of recovery does show the unprecedented nature of events and the efforts and sustained progress to recover. However, and as with the discussion about impacts on populations (Section 4.3.2), presenting recovery in aggregate terms masks the highly differentiated positive and negative experiences of people in terms of recovery support. In rare cases, the socially-differentiated nature of recovery was recognised, challenging and competing with the more quantitative and aggregated claims. For example, stories of recovery were often framed in terms of the (mainly negative) impact it had had on people's dignity.

'There was an absence of understanding of the coastal community's habits and coastal geography' Pre2014_T27

'Earlier, I was independent,_but now I am forced to depend on my son for survival' Pre2014_T28

'The tsunami is the worst tragedy we could have suffered. Surviving it has taught us to deal with suffering' V_G1

The quotes above show the not only the ongoing trauma that people are experiencing but also the ways in which their dignity has been compromised by the continued reliance on external support. The final quote highlights the way in which people have learnt to live with loss suggesting that they have adapted down their preferences in light of the new normal within their lives.

5.3.2 Building back better or making things worse?

In some instances, the desire to build back better was present either explicitly or more implicitly (also see section 5.1.2 on disasters as opportunities).

'down the line, Cuddalore stands out in Tamil Nadu as a district that has not only matched, but even surpassed its goals set to build back better after the tsunami.' Pre2014_T2

'the United Nations, international financial institutions, governments, businesses and nongovernmental organizations have pledged billions of dollars to help the tsunami generation "build back better"'. OInt_T8

'He said that he had wondered right after the tsunami if the village would recover. Now, he thinks things are better than before. In a strange way, he said, the tsunami was a good thing. "For the first time, the world understood the suffering of fishermen," he said. "They used to ignore us, but this time, they stood with us."' OInt_T7

The build back better agenda can be juxtaposed with instances where the vulnerability of people is compounded by recovery interventions (i.e., actions taken to support peoples' recovery resulted in them being more exposed subsequently). For example, DAPs were relocated after the tsunami in 2004 in areas prone to flooding. Similarly, those regarded as highly vulnerable based on their caste are often more exposed and receive inadequate support to recover. In the 2015 South India flood in Cuddalore, more than 90 per cent of the houses that were damaged belonged to Dalits but inadequate compensation and support led people to take out additional loans.

'The residents of Kargil Nagar expressed anguish at having been at the receiving end of the tsunami, a fire accident and inundation of their temporary shelters.' Pre2014_T8

'The allotted relief funds are insufficient for the beneficiaries to construct even a single wall of a kachha house. This is making them go to financiers and money lenders and this is adding to their farm loan burden.' OInd_G2

"In the path of the floodwaters in December were … low-income dwellings built, ironically, to resettle slums away from flood-prone areas." OInt_C1

The competing ways in which the disaster recovery efforts are framed are crucial for actors who wish to make claims about the success or failure of recovery interventions. Being able to demonstrate that people have been supported to not only recover but recover to conditions that are better than before the disaster struck is a very powerful argument. Similarly, labels of failure can damage reputations and destroy the confidence that people have in decision makers.

5.3.3 Housing

Housing is an emotive issue. Many articles focussed on the ability of the state to provide housing for DAPs and drew out the different expectations and views various actors have on what the state (mainly) should do/is doing and why. For example, the Tamil Nadu Slum Clearance Board (TNSCB) motives were questioned in relation to removing less powerful

population groups land considered to be prime real estate. These locations were highlighted as being at risk of flooding but subsequent development on the vacated land suggested that there were ulterior motives for the relocation of the slums. Similar questions were raised during the tsunami recovery.

> *'A major flaw in the rehabilitation package is that private and government agencies who have interests in coastal slums were attempting to shift people away from the slums and fishing hamlets. The area is a real estate hot spot' and the tsunami, unfortunately, gave them the perfect opportunity to rid the area of people' TOI_T25*

One way in which problems with housing (and the provision of other recovery interventions) were deflected in the media was to highlight that illegal and morally questionable activities were also evident in communities receiving support. For example, by highlighting the problem of free riders and the making of false claims in both the tsunami and the 2015 South India flood. Such issues were reported as hampering the ability of institutions such as the TNSCB to work effectively.

> *'Reports of fabricated claims and misappropriation of relief and rehabilitation packages abound in post-relief tsunami works.' Pre2014_T12*

> *'However, the rehabilitation project has been delayed because of the residents' refusal to move out. "We are way behind schedule. The locals neither agree with our beneficiaries list, nor are they happy with the tenement we are providing," said a senior TNSCB official associated with the project' TOI_T10*

The motivations for claims and counter claims suggest different actors' are seeking to gain the moral high ground in order to give more legitimacy to their claims. In the examples above, civil society groups were claiming the government was not acting in a transparent manner with regards to its relocation programme whilst the government (predominantly), was making counter-claims concerning the integrity of recipients.

5.3.4 (In)efficiencies/(in)effectiveness of state performance

Many examples in the media discussed how recovery was attenuated by the perceived inefficiency of the state at sub-national and national levels. For example, national requirements for awarding death certificates to access compensation are more stringent than those at the state level. Equally, at state level, the inability to successfully provide housing and compensation, to adequately prepare for future events, and effectively control development in risk-prone areas are highlighted. In other examples, conflicting orders from different state bodies were reported as hampering progress and the variety of actors (state and non-state) involved in recovery work resulted in a duplication of effort. Allied to issues of state inefficiency, were those linked to the speed or timeliness of the response: it was sometimes portrayed as acting too quickly without suitable checks and at other times (more generally) as

acting too slowly. Interestingly, whilst acting slowly was generally seen as negative, there was an acknowledgement that recovery does take time and this is important.

Very closely related to the idea of an inefficient state is an ineffective state. In this framing, the state is seen as unable (or perhaps unwilling) to deliver and perform functions necessary to support reduction of risk and recovery. Many articles refer to poor-quality housing that is too small, inadequately built, and under-utilised; the lack of development planning and enforcement of land use zoning; the inability of the state to effectively prepare for and recover from events; failures to support marginalised groups, or the state as not following appropriate processes (e.g., for grievance redress).

> *'The irony, however, is that a majority of the temporary shelters 2,468 units built at a cost of Rs 17.23 crore (0.17 billion) are unoccupied and in a state of neglect.' TOI_T13*

> *'few of them [orphans] were referred by the government itself, but very little help comes from the government. The government provides a monthly grant of Rs 5295, that too for a total of 25 children. "Even after several requests, the government has not increased the amount. To meet their basic needs, I have to depend on public charity,"[Rani Krishna, founder of the orphanage]' TOI_T24*

> *'Those in temporary shelters had been forced to live in inadequate housing conditions without access to livelihood, education and health services for over two years. The report also condemned the ever-persistent threat of forced eviction being faced by communities at Srinivasapuram and Anna Nagar. The Dalits, Irulas and other minorities continued to face discrimination in rehabilitation and resettlement.' Pre2014_T22*

The ways in which the state collected data on disaster impacts is another area around which its performance was questioned. For example, there were reports that certain low caste areas were not visited or reports of the number of deaths were downplayed to corroborate with census figures. In general, the use of science and data to support better risk reduction, hazard prevention and prediction, and recovery, implies that the events are, to a large extent, knowable, and thereby manageable. Much less common was the portrayal of the state as effective and prepared. Such a framing was evident in relation to Gaja especially (where the state was represented as minimising loss of lives) and post-tsunami in relation to certain actions. Similarly, there were instances where steps taken by the government to highlight its accountability were described.

> *'Thanks to the Tamil Nadu government's far-sightedness, precautionary measures were taken in time to avoid loss of life.' OInd_G1*

The narratives described above and the ways in which the government is positioned shows that it is held primarily responsible for enabling recovery. Its ineffectiveness and inefficiency are used to highlight how it is failing in the basic duty of supporting recovery. This type of framing does downplay to a certain extent the role of others in supporting the recovery process, whether that is disaster-affected people themselves or civil society organisations.

5.4 Summary: representation of disasters and recovery in media

- Media reporting of disasters often mirrored the ways in which key actors spoke about and framed disaster events.
- Reporting of the event itself often drew on or alluded to the natural causes of the hazard event. The association of the event and its impacts to 'natural forces' obscures from view the ways in which institutions and society contribute to exacerbating risk and can make the impacts of a hazard event considerably more detrimental.
- Often employed to highlight the scale of the disaster event, reportage tended to aggregate and focus on more tangible impacts and losses. In conveying the extent and severity of impacts like this, the socially-differentiated way in which the event was experienced is flattened and universalised.
- Impacted people and places were often talked about in binary terms of either being vulnerable or resilient. Depending on specific circumstances, these representations can enhance or diminish people's agency and ability recover from the hazard event.
- Reporting of recovery processes tended to focus on more visible measures such as housing and infrastructure which supports a view of impacts as spatially and temporally bounded.
- The performance of the state was addressed in depth through media reporting with considerable attention on housing and state efficacy. These two issues were the source of much attention and disagreement indicating that there was no single framing that gained ascendance.

6 Insider and outsider representations of disasters and disaster-affected people

Disaster recovery is a process and means multiple things to disaster-affected people. Photo: Yashodara Udupa

Interviews with primary and secondary stakeholders, highlighted significant divergences in how disasters, the affected populations, and the impacts from disasters were perceived and understood. Overall, uneven representation of the needs of certain groups (e.g., landless labourers, farmers) had indirect impacts on the targeting of recovery interventions. Disaster-affected people tended to describe recovery as repairing and rebuilding multiple aspects of their lives including housing infrastructure and livelihoods as well as communal green spaces and public services.

6.1 Representation of the events

As with the policy and media analysis, the representation of disaster events was discussed using examples of causation (i.e., disasters as unprecedented and predominantly 'natural' or strongly modified by human actions), and viewed as an opportunity to change local conditions.

6.1.1 Disasters as unprecedented events that caused large-scale damage

Across the disaster events, the tsunami and flooding in Chennai (initially at least) were regarded as extraordinary, unprecedented events. In the case of the tsunami, this was associated with the relative unfamiliarity with the hazard while in the 2015 South India flood, it was a result of the scale of damage.

> *"At the time of the tsunami we didn't even know what the name meant. The difference with Gaja was that it was predicted, IMD was aware. It did not take use by surprise." (TN_N_4_KII), District government official*

In early reports, the 2015 South India flood was attributed solely to extremely heavy rainfall and not, as was the case later, as a consequence of Chennai's spatial changes, development, and urbanisation. Similarly, the 2004 tsunami was and is regarded as an unprecedented event which caused tremendous loss of life damage and large-scale destruction for coastal communities in Tamil Nadu. Cyclone Gaja, on the other hand, reported as 'just another cyclone' by the media, was discussed as devastating by DAPs. Primary stakeholders in Gaja-affected sites spoke of how it could also be called a tsunami, based on the extent it impacted their lives:

> *Gaja is not a cyclone, it's a tsunami for us, all these politicians what they did, they called it a cyclone, we had to face a lot of loss, all are boats, nets, were destroyed. (TN_N_02_SSGI)*

> *As for Gaja, thanks to the preparedness of the government, we escaped without much loss of lives. But in terms of loss of property, I feel it is some 15 times that of the tsunami. (TN_N_12_SSGI)*

This difference in how the disaster event was reported by the media and government when compared to those affected by the event is significant. Gaja had dispersed impacts over large areas and impacted remote, rural areas [TN_N_01_KII; TN_O_01_KII; TN_N_04_UGC] away from the centres of power. The tsunami was on a much larger scale and the flooding in Chennai significantly affected the economic and political centre of the state. Linked to the differences in distribution of impacts, several secondary stakeholders alluded to an urban bias in media coverage of disasters. For example, a senior government official noted:

> *Gaja did not receive enough media coverage "as it is not Chennai". A disaster in non-urban Tamil Nadu is generally given less attention. Also because the loss of life was not*

significant. There is also the fact that the area is spread out (across 50,000 sq km) and populations are not as concentrated as they are in Chennai. (TN_N_1_KII)

Journalistic priorities towards urban centres and practicalities of reporting (inadequate time to travel to remote affected villages) drove relatively lower media attention on Cyclone Gaja [TN_O_01_KII]. These biases (and representations of the event) also had implications on local recovery. As an NGO officer affected by the tsunami, but also working on disaster recovery, noted the low coverage of Gaja's impacts sharply shaped recovery funding:

In Gaja, no NGOs came; no money flowed in. This was because number of deaths were low and so perhaps, foreign organisations felt 'this is a usual one'. Many came to a post Gaja meeting to demand Gaja be announced as a 'national disaster'. They were angry that Chennai floods got so much attention. Gaja didn't get as much (media) attention because impacts were spread out. (TN_N_2_KII)

6.1.2 Disasters as "man-made" events

Closely tied to the above framing about the scale and nature of the disaster event are views on causation. Interviews with secondary stakeholders on Gaja, the tsunami and the flooding in Chennai (initially at least), as well as testimonies from those affected understand the events as 'natural'. A view of the disaster events in which 'nature' is seen as the primary causative agent helps to insulate certain actors (such as state actors) from accusations of inadequate action. Whereas the attribution of causation for tsunami and Gaja remained strongly associated with natural drivers, the media, especially took a more critical stance in relation to the flooding in Chennai, as typified in a comment from a member of a coastal rights group.

"In 2015, most media narratives were the same as that of the government at first – that this was caused by unprecedented rains. But after many different groups started talking about the causes, most of the TN media went through a learning curve and reporting on floods became more advanced, more critical, asking why (rather than just giving numbers of impacts and telling stories of rescue etc)." (TN_C_3_KII)

While there were heavy rains in December 2015, the actions of the state in terms of its mismanagement of the excess flows from reservoirs and decades of ecologically-insensitive urbanisation made the city and its inhabitants particularly vulnerable to flooding (Jain et al., 2021).

6.1.3 Disasters as opportunities

One pattern that has repeated itself following the tsunami and the flooding in Chennai is the removal of urban poor from informal settlements located in areas that were affected by the disaster event. After the tsunami, many informal settlements within the city were relocated to the peripheries of Chennai, about 20-25 km from the centre of the city. According to a disaster

management academic, the government is justified in moving people from precarious locations (such as flood-prone banks of rivers and lakes) but, given that there is adequate land available within the city to build resettlement colonies, it seemed that the state was primarily concerned with moving the poor to the peripheries and clearing more desirable central locations within the city. He elaborated,

> *"Yes, people live in objectionable areas (such as the banks of rivers, lakes) which could be unsafe for them and others. But according to UN regulations they should be relocated within 2 km of their present settlement, not way out into the peripheries." (TN_C_1_KII)*

Credence is lent to this argument as land considered 'objectionable' to live on is freely encroached upon by elite settlements (Coehlo, 2016). Even a Special Economic Zone (SEZ) is being constructed on the Pallikaranai marshlands, which are identified as a critical and a fragile ecosystem in Chennai (Vencatesan et al., 2014). The poor on the other hand, as said by a Chennai-based academic, *"Are literally thrown out of the city" (TN_C_1_KII)* for occupying the same land. These differing views on who has a right to the city and can exercise this right are brought to head in the aftermath of disasters as seen in the 2004 tsunami and 2015 South India flood.

6.2 Representation of affected people and losses

6.2.1 DAP perspectives on losses

Overall, disasters impacted all facets of life from personal property and infrastructure such as houses and small shops to public amenities such local schools and temples, and green cover (Table 6.1). DAPs reported varied losses, both as a direct result of the disaster events and as incidental to interventions set in place after the disaster (for example, relocation of people to resettlement colonies).

Table 6.1 typifies the types of losses and impacts that are considered important by DAPs and includes sense of loss, difficulties that arise for people as a result of relocation, ongoing psychological trauma, and experiences of isolation. It demonstrates the multiple, varied impacts of the disasters which are in sharp contrast to the more homogeneous and aggregated narratives around loss in media reports and government documents (Sections 5.2 and 6.2).

The varied disaster impacts also contrast with recovery initiatives that emphasise the singular foci on things like housing and livelihoods thereby inadequately covering the gamut of recovery concerns. Moreover, many of the issues highlighted above are intangible and not readily addressed through infrastructure, housing, and livelihood support.

Table 6.1: Perspectives on losses and impacts of disaster events from disaster-affected people

Disaster impacts		Illustrative quotes
Changed living conditions	Drastic reduction in quality of life. Women especially complained of increased work burdens such as having to make multiple trips to and from their job, perform household activities such as procure food and water, and care duties. This becomes more difficult when their homes are moved away from their jobs, in comparison to their earlier settlements.	*Before the tsunami, all us men used to sleep in the open, by the sea. We lived in huts. It was very peaceful, but it was not safe. Most of our houses were washed out during the tsunami. We could not even build back the huts. (TN_N_03_SSGI)* *It was easier to get water, food and (the) children prefer their school there. (TN_C_1_SSI)*
	Poor quality, badly ventilated buildings in the resettlement colonies, higher susceptibility to damage from extreme events like rain and floods.	*[The government] built us many houses after the tsunami, but most of them got damaged during Gaja. There are people whose houses almost collapsed on them during Gaja. Luckily no lives were lost due to this.* (*TN_N_02_SSGI)* *The houses are of poor quality, see the walls are crumbling, there are cracks on them. Barely any light comes in. We do not have a patta either for the flats (no tenure security). (TN_C_04_SSI)*
Loss of livelihoods and social networks	People with jobs in the city found it difficult to find employment close to the resettlement colony. Especially hard for older people who lost social networks in the city. Poor bus connectivity in resettlement sites, although it has improved in subsequent years. More expensive to travel into the city, and those who do, expend a large portion of their wages on travel. Fishing livelihoods particularly disrupted.	*I think the older generation (among resettlers) also struggle to find jobs here. They have spent so many years working in jobs in the city, it is hard for them to adjust now. Also there are fewer opportunities for them and they find it very difficult to commute so much. (TN_C_03_SSGI)* *Many women over 40 are unemployed here. They just stay and go home and look after things there. There was additional income before, from their work, now they are jobless and bored at home. (TN_C_01_SSGI)* *Now we have buses here, but in order to go far or into the city, it costs a lot of money. It is expensive to do this every day. (TN_C_02_SSGI)* *My husband works as a labourer in the Marina beach fish market. He has to travel to the city from the resettlement colony daily (about 18-19 km). (TN_C_1_SSI)* *The quality and the quantity of the fish has continuously gone down each year since the tsunami. This is obviously a direct result of the tsunami and the motor boats we were given after (TN_C_4_SSI)*
Health impacts	Direct health impacts in the form of injuries or disease. In Chennai, people reported better access to healthcare facilities within the city as compared to in the resettlement colonies.	*My leg had been wounded during Gaja. A large log fell on it. I had to go to Chennai to operate it. It cost me a lot. It has been six to seven months and it still has not healed. People in this village have similar struggles. At least if we are guaranteed basic amenities then we will not feel so hopeless. (TN_N_04_SSGI)* *There is a hospital (government primary care centre) now*

Disaster impacts		Illustrative quotes
		though, and an anganwadi (crèche) too. But there is a very bad response in the hospital, very few people attend to patients. It is very difficult to see a doctor, there is always a long line and huge waiting time. (TN_C_02_SSGI)
Psychological impacts	Many people were witness to gruesome incidents but most people were hesitant to access counsellors and resources provided for psychological care. Many people reported cases of trauma (people who had lost family or lost all their possessions), especially after the tsunami. Adequate care and even the type of information for mental health and trauma care was not widely available.	*Being by the sea is a daily reminder of it (the 2004 tsunami). I still remember what it felt like to be there at the time. (TN_C_5_SSI)* *When it flooded here (resettlement colony) all the bodies we had buried in a makeshift grave nearby floated up to the entrance of the buildings. How is one supposed to forget a sight like that?" (TN_C_01_SSGI)* *The only thing we realised after cyclone (Gaja) is that we lost 40 years of our hard work. We cannot find a single mango tree here and 10 to 15 coconut trees. … From where will we get mangoes now? (TN_N_11_SSGI)* *When we saw this [destroyed boats and nets], we were devastated. This was such a huge loss for us. We had kept these things very safely until now. (TN_N_12_SSGI)* *We lost almost everything we had [during the tsunami]. It was like starting our lives all over again." (TN_C_SSI_4)*
Damages to public infrastructure, basic services, green cover	Long-lasting and persistent impacts with implications for people's ongoing livelihoods and belonging to place.	*We had good fresh ground water but now everything has become salty. (TN_N_02_SSGI)* *A lot of the trees have been destroyed. There used to be so many trees here, it was a beautiful and flourishing grove. The quality of the water in our area used to be famous. People would remark about how good it is. But after the tsunami and Gaja, the water is saline…there is a small lake (reservoir) here with good quality water. We are afraid that it too will become saline. (TN_N_02_SSGI)*

6.2.2 Compounding vulnerability

Table 6.1 (above) hints at the ways in which vulnerability can compound over the course of a person's lifetime. For example, housing that was provided for people following the tsunami were damaged during Gaja or the people who were relocated following the flooding in Chennai are now struggling to access jobs in the centre of the city. Similarly, settlements in Chennai where people had been relocated post-tsunami were affected by the floods 11 years later. When the floods hit these settlements, people reported that the impacts only added to their pre-existing vulnerabilities. For example, one respondent stated that,

> *"Before we finish the repairs after one disaster, it seems like another one hits us. We just don't have the time, money or the capacity to recover from them completely." (TN_C_5_SSI)*

It is not just people who were affected by the 2004 tsunami who experience this type of layering of disaster impacts, but other disadvantaged communities too whose vulnerabilities are further exacerbated. These vulnerabilities were a factor of the location of the settlement,

gender, caste, class, and whether they are differently abled. As noted by a relief worker (who worked for a relief-oriented NGO during the 2004 Tsunami and the 2015 South India flood),

> *"The vulnerable become more vulnerable in any disaster situation. It (a disaster) disproportionately affects vulnerable people. Intersectionality plays a huge role– for example a Dalit woman would be more vulnerable than an upper caste woman." (TN_C_6_KII)*

One of the reasons that disadvantaged groups are especially vulnerable during a disaster is that access to documentation, money, and capital to overcome and recover from the disaster is limited. Many people complained of having lost their identification documents and ration cards (card to access public distribution system) which inhibited their access to various state benefits following disasters.

> *"As people have moved, their documents for address and everything may have complicated the issue. People who have not changed/lost their ration cards also have difficulties" (TN_C_03_SSGI)*

As demonstrated by the quote above, after relocating to the resettlement colony, many people also complained of the difficulty involved in the process of receiving new documents as a result of change in address. They also lack or have limited access to demand compensation and aid for relief and recovery. These examples show that the impacts of an event can ripple through someone's life, accumulating and depleting one's ability to respond to future events. This view of events questions the extent to which one can say someone has recovered when the negative impacts of that disaster can resurface months and even years later.

6.2.3 Socially-differentiated experiences

DAPs reported how losses impacted some livelihoods and social groups more than others. This can be driven by the nature of the hazard and exposure to it (e.g., the tsunami-affected fishers and those living along the coast whereas Gaja affected fishers and farmers significantly) or underlying structural vulnerabilities (e.g., poor people living in huts face higher losses than those who had the means to build concrete houses) (TN_N_4_UGC). Even within livelihood groups, disaster impacts were differentiated (e.g., landless labourers, Box 1).

Experiences of losses were differentiated by landholding significantly. For example, during Gaja, the most affected group were landless farm labourers for whom there was no special compensation. This was in contrast to fishers or farmland owners who received compensation for loss to horticultural trees or fishing equipment. To recover, landless labourers had to rely on the support of their employers (landowners) which was negligible since the farms had faced significant losses.

DAPs across fishing and farming livelihoods also noted that the government and media tended to report only certain types of livelihood losses, which tended to exclude their experiences of the disaster. For example, media reports tended to focus on coconut growers but did not note the extent to which other crops were also affected:

> *...they (TV news reports) talked mainly about the losses to coconut farmers, but other farmers suffered losses too. Mango orchards, cashew trees, casuarinas and others suffered heavy losses. Maybe (they focus on coconut trees) because coconut trees give people so many products. The coconuts, coconut water, coconut milk, coir. Also the other trees take a while to give fruits and other products. They give fruits every five months or so? This might be the reason. But the sad thing is that coconut trees will take so long to grow back after they are destroyed. (TN_N_02_SSGI)*

Overall, representations of disaster impacts as aggregated and homogenous (as typically seen in government reports and the media), serve to erase or overlook the highly differentiated impacts communities affected by disasters face. This under- or misrepresentation of disaster impacts can shape how recovery interventions are planned and prioritised.

Damaged mango orchard, pictured four months after Cyclone Gaja. Photo: Chandni Singh

The experience of disasters differs. Yet this framing of events is not without challenge. After the 2015 South India flood, there was a portrayal by the media and the government that this was an event that affected both the rich and the poor alike. This narrative was reiterated by a disaster management academic, who claims that both the rich and the poor suffered damages, but the aggregate damages of the rich were monetarily higher.

> *"Everyone was affected by the 2015 floods– the middle income group lost a lot too and they never got any help'. The middle class restored things by themselves, and some people have raised their homes as a flood adaptation. The middle income group were 'silent sufferers' of the flood. No compensation given. Poorer people were approached with offers of help, got compensation of ₹5000 at least from NGOs etc. They know the pattern (of disaster impacts), what to do etc." (TN_C_2_KII)*

He went on to argue that the poor are at an advantage because they are most accustomed to regular flooding and damage of their property and can recover "sooner" as they "know what to do to recover". However, this can be criticised on the basis that poor do not have the means to recover, unlike the middle class and they are faced with a raft of existing vulnerabilities that impedes recovery chances.

Clearly, the 2015 South India flood was an event whose effects were not limited to just the poor, the difference lies in experiences of recovery. Whilst more wealthy households were able to recover more quickly, poorer households' recovery trajectories were longer owing to pre-existing levels of vulnerabilities as argued by an activist based in Chennai:

> *"... the floods affected everyone, although the rich had insurance to cover it and their trauma was the inconvenience caused by the event. Normal people are constantly recovering in daily life and every such shock sets them back." (TN_C_5_KII)*

Even within disadvantaged communities, there exist additional layers of vulnerabilities. For example, the fishers in Chennai are generally a stronger group among the vulnerable, owing the presence of strong fishers' union and political clout, which influences their ability to command more agency in demanding relief and other resources as compared to other communities. This was something that was evidenced during the tsunami and the floods.

> *"Financially, fishing communities do tend to do well in terms of aid support after disasters." (TN_C_3_KII)*

> *"Dalits and scheduled tribes (like the Irulas) often struggle to obtain support after disasters" (TN_C_6_KII)*

Disasters are experienced individually with differentiated impacts reflecting the nature of the disaster and the social vulnerability of those affected. Such variation is often at odds with how disasters are reported (e.g., aggregate impacts) and the design of response and recovery interventions.

6.2.4 Perceptions of how disaster-affected people are represented through the media

Through discussions with primary and secondary stakeholders, two notable themes emerge regarding how disaster impacts and the representation of DAPs by and in the media. First, there is a focus on material impacts and an unwillingness or inability to engage with more complex experiences of losses. Second, DAPs themselves were represented in a variety of ways in the media, both positive and negative. We detail these below.

Material and infrastructural losses: For the more recent disaster events[2], the flooding in Chennai and Gaja, when reflecting of their own experiences of the disasters in light of what is reported in the media or by government enumerators, DAPs felt livelihood losses and the severity of impacts on their lives were captured inadequately. Across the group discussions, respondents highlighted how the media tended to report disaster impacts only immediately after the event and they seldom captured the range of losses experienced. There were also reflections on how the severity of impacts and the substantial altering of lives and living practices were not represented accurately.

> *They [the media] have depicted it [impacts of Gaja] accurately. But it looks like only half of the real damages were shown. The real severity of the situation is not shown. (TN_N_02_SSGI)*

> *What they have shown is true, farmers were gravely affected. But they have not [talked] about how the interiors were affected, about where people live and how their homes were damaged. They spoke only of farms. They should have spoken to more people and got their personal stories. (TN_N_04_SSGI)*

> *The media saw the destruction of the trees along the main roads, but what they did not see is that some sea water had come into these areas. Nobody talked about the effects of the sea water encroaching the coastal villages. The water is still saline, the coast is still eroding. Now, because the ground water is so saline, only coconut and casuarina will be able to grow. (TN_N_11_SSI)*

> *But what about things like creating a better future for our children? More job opportunities for them, improved safety so that they can go out and play? In the playgrounds that they have built for them, only hooligans use it to do drugs and other bad (illegal) activities. When will these things change? Why is nobody talking about them? (TN_C_1_SSGI)*

These quotes typify the feelings of DAPs in relation to the media reporting, a focus on visible impacts (trees for example) and infrastructure but markedly less discussion about the impact on livelihoods, psychological effects of the events, and other non-material losses.

[2] The ways in which the media reported on the tsunami were not discussed in depth owing to the length of time since the event.

Portrayal of DAPs: Post-tsunami, DAPs were often represented through and by activists and civil society groups. Through these actors, disempowered groups brought greater visibility to themselves, providing a counterpoint to the more homogenised ways in which disaster affected populations were predominantly represented. For example, certain NGOs negotiated with the government to improve inclusion (TN_N_02_KII, TN_O_02_KII), some organised collective petitions to generate awareness through bottom-up, data-driven activism (TN_C_04_KII); while others performed a brokering role to bridge gaps between DAPs and disaster recovery implementation agencies (TN_C_04_KII).

Particular to the 2015 floods, several secondary stakeholders noted that Chennai's poor who have been affected by the tsunami and floods are framed as encroachers by the state and the media. This framing, based on the locations the poor live in (e.g., river and lake banks, coasts), tends to overlook pre-existing marginalisation that strongly influences where people live (e.g., informal workers living in temporary settlements) and only adds to their historical precarity. According to an activist based in Chennai, *"the media's use of words like "shanties", "squatters", "encroachers", frames the poor a certain way." (TN_C_4_KII)*. Post-disasters, the poor are often framed as people who do not belong in the city, creating a sense of "otherness". According to an academic,

> *"People say that these are people who have come from faraway places, from rural areas…they have illegally occupied places…illegal encroachment…they need to be evicted and in fact the government is giving them accommodation…so they should be thankful for it. These are words that the journalists use and put ideas in the minds of the people". (TN_C_1_KII)*

Similarly, in relation to Gaja, some DAPs reflected that media reports did not explore the more structural and fundamental reasons why they were vulnerable and tended to be severely affected by disaster events.

> *A lot of issues of the village are still hidden, they haven't been reported about. The police have (been) attacking villages where people have nothing. The people who are influential never face the consequences of their actions. People who have nothing continue to have nothing, even to this day. People who have things, keep going higher. Again, there is caste violence, people use this to keep people in lower positions. People only look out for themselves and people like them. (TN_N_04_SSGI)*

However, this was not the only way in which DAPs were talked about and perceived themselves to be talked about. In the days and weeks after the flood, the reportage saw a more varied, critical response, which was more empathetic towards the structural vulnerabilities and differential exposure to disasters that informal settlements faced. DAPs at Semmencheri, for example, welcomed media reportage, citing that it can bring required attention to an area and highlight neglect and insufficiencies. Key development in the area such as the building of *anganwadis*[3], hospitals, schools and waste management centres near

[3] Centre providing care for mothers and young children.

the resettlement colonies were attributed to the increased media attention and demands from the people portrayed in media reports. Moreover, there were also discussions around the role the media plays in highlighting neglected issues and laying bare 'hidden suffering'. In Nagapattinam, a respondent said,

> *Even before Gaja people have been suffering, the groundwater quality is deteriorating. I feel that only after Gaja has happened have the existing issues come out. It is not like our lives were better before Gaja, it is just that our suffering was hidden. The farmers in this are trapped. The educated people find jobs outside and leave Nagapattinam, but what about the rest of the people? Where do they go for help? Even after all of this is being said in the news, nobody has come to help us. So I wonder if there is any point. (TN_N_04_SSGI)*

This discussion above shows that perception of media reporting of DAPs is mixed with some undoubted strengths, such as the ability to highlight hidden suffering and the reasons for this. Among DAPs, there is also dissatisfaction that the reporting about disaster events fails to adequately represent the losses and suffering that they have experienced and perhaps, more unforgivingly, actively 'others' and delegitimises the claims they make about their suffering and ongoing need for support.

6.3 Representation of recovery processes and outcomes

6.3.1 What signifies recovery

DAPs represented the idea of recovery through a set of three core themes: the provision of adequate shelter or housing, an ability to practice their chosen livelihoods, and the overcoming of development deficits through the provision of infrastructure, services, and amenities. These themes were discussed consistently by DAPs and broadly align with state priorities and those of other actors engaged in recovery work. In addition to these three main themes was a set of less commonly discussed elements that related more to issues of disaster risk reduction, the rebuilding of a community's social fabric, and, less tangibly, people's changed relationship with nature as well as their future hopes and ideas of improvement (see Table 6.2 and Figure 6.1). These issues are much harder to address, are more complex, and are often confounded by broader structural issues that contribute to the vulnerability of whole population groups.

When people were asked what they thought "recovery" was, there was a range of answers pointing to both tangible and intangible aspects of their life (Table 6.2 and Figure 6.1). People also predominantly referred to recovery not just as returning to their previous state and quality of life, but in improving it. In effect, they feel they will have truly recovered only when their pre-existing vulnerabilities have been addressed. This includes better quality infrastructure, housing, environment, accessibility to resources and services, and better livelihood opportunities. These aspects of recovery, as seen from the quotes below, are

largely interconnected in the sense that their outcomes are dependent on each other. For example, creating a better future for the children in the community is directly influenced by the access to better quality infrastructure and in the creation of more job opportunities.

Table 6.2: DAP identified attributes of recovery

Attributes of recovery	Illustrative quotes
Housing	**Nagapattinam:** *For us, our houses, being able to fish and living a comfortable life is important. (TN_N_03_SSGI)* *After Gaja, the condition of our houses became worse. Most of the houses in the village are huts. We want permanent houses that can withstand storms.* (*TN_N_04_SSGI)*
	Chennai: *For the first few years our houses were sturdy and accommodated us well. But now, it looks like it is falling apart. We spend so much money on repairs. Now that our family has expanded, it is too small for us. (TN_C_SSGI_3)*
Livelihoods/job opportunities	**Nagapattinam:** *As fishers, a boat is extremely important to us…Now keeping our boats safe and strong is of paramount importance to us fishers.* (*TN_N_03_SSGI)* (fishers) *If our boats are not secure, how will we continue our livelihood and move up in life? How will the village have any hopes of moving up? (TN_N_03_SSGI)*
	Chennai: *I want to be able to find a good job. There are no job opportunities here, especially for someone my age (about 55 years old)* (*TN_C_SSGI_1)* *If we all have work, then we will have good lives.* (*TN_C_SSGI_3)*
Infrastructure/ amenities/services	**Nagapattinam:** *All the roads around this area have been severely damaged. It is important for us to travel to work. Also during Gaja a lot of trees were lost. There's barely any trees left. I even struggle to find shade these days.* (*TN_N_04_SSGI)* (farmers)
	Chennai: *The roads here are broken, the street lights don't work or are not properly placed. The schools and anganwadis are in a dilapidated condition. For an easy and peaceful life we need all these things. (TN_C_SSGI_4)*
Social support/community rebuilding	**Nagapattinam:** *I have drawn a temple, it has to be fixed. We also need a marriage hall. These amenities are very important for our community. We want more spaces where we can gather together…and open spaces for children to play in.* (*TN_N_05_SSGI)* (farmers) [Pointing to a picture she has drawn to represent recovery] *This is a lake for people to bathe and use. This is a pipe with clean drinking water. There are lots of trees around the village. And this is a strong house. (TN_N_05_SSGI)*
Disaster resilience	**Nagapattinam:** *We also need a proper cyclone shelter. We go stay at the school when there is a storm. There is inadequate space there for everyone. Also people get injured on the way to the school. It is about 2-3 km for some people. (TN_N_05_SSGI)* (farmers) *I have drawn a lot of trees. Most of the trees in the area have been destroyed. I would like to have more trees planted here. (They) reduce the impact of the winds and the storm.* (*TN_N_05_SSGI)*
Green cover	**Nagapattinam:** *Now, to protect the greenery, we are planting palm trees, this palm tree helps in sustaining ground water. It's not just us but our kids will be living here too, so this is for their future too. Our life is dependent on nature and the sea hence we need more rain…These trees have saved our lives. When the tsunami had come, 2-3 people's life was saved because they had climbed these trees. (TN_N_02_SSGI)* (fishers) *Nature is very important to us, but we want to be safe from the ravages of it. We do not want to abandon our homes and go stay at the shelter (school building) far from us when a disaster like Gaja strikes again. (TN_N_03_SSGI)* (fishers)

Attributes of recovery	Illustrative quotes
Beliefs and aspirations	**Nagapattinam:** *I've drawn the boat and this is the sea, and this is the fish, there's no fish, we are not able to catch fish, only few fishes we are able to catch… That is the only thing from which we can earn a living, that's the only thing we know. (TN_N_02_SSGI)* (fishers) *I have drawn a school. In today's time in order to change society, to uplift people in a village like this, a school is of paramount importance. But it should be a good school, with good teachers. My hope is that we one day have a good school in our village. (TN_N_04_SSGI)* (fishers)
	Chennai: *I want my children to have a good education. I want them to leave this area, to go out and live in better areas within the city. (TN_C_SSGI_3)* *I want to have a good job, and if I have that I think I will get all these things- a good house, good food and my children will have bright futures. (TN_C_SSGI_1)* *If we do not feel safe within our own colony (resettlement colony), how can we call this home? We think twice before we let our children out alone to play. (TN_C_SSGI_4)*

Figure 6.1: Drawings by disaster-affected communities in Nagapattinam when asked to depict what recovery means to them. The pictures depict recovery as multifarious: as infrastructural (e.g., houses, schools, roads) but also nature-based (green spaces, trees), livelihoods-based (e.g., fishing boats), and communal (a temple and community hall, top right).

The group interviews showed that within each broad theme, there were multiple concerns related to the extent to which one would consider themselves and their community to have recovered. For example, under housing, recovery was represented not just as the provision of housing but also included the quality of housing, its suitability for the inhabitants, its location, and longevity. Often, people felt that without larger and better-quality housing, they would not recover, lives are very difficult even after receiving free housing and this was because the type of housing given to them was not sufficiently sized or of good quality. In relation to livelihoods, the focus is not just on the ability to work but on the quality and accessibility of livelihood opportunities. Fishers talk about the importance of their equipment and Chennai residents refer to the lack of local opportunities and transport costs impeding access to employment. Similarly, on access to public services, a functioning community that has recovered was denoted as having the full range of services and amenities such as clean water, toilets, well-lit roads, and functional schools. As with the two themes previously discussed, the simple absence or presence is the very simplest measure but this doesn't reflect the issues around quality and accessibility that were also discussed.

Other issues related to community functioning and cohesiveness, measures to support disaster preparedness and risk reduction were also discussed in the group interviews. Moreover, the ways in which the recovery measures relate to each other are also important; rarely would people talk about single issues in isolation but discussed how recovery meant multiple things, at individual, households, and community scales. For example, one respondent from Nagapattinam talked about recovery as having clean water to bathe in (for himself), a strong house (for his family), and lots of trees (in his village).

Recovery is about myriad of issues that are interlinked and go beyond their simple absence or presence. More fundamentally, it is underpinned by people's identity, constituents of the good life, and their aspirations for the future. The impact of disaster events on these deeper psychosocial elements is very hard to address through single and simple, time-bound interventions and can on occasion be made worse (if poorly designed and implemented).

6.3.2 Inclusion and exclusion in recovery processes

Overall, DAPs noted that disaster events may affect everybody– rich or poor– somewhat equally but recovery is differentiated. Recovery measures, which tend to be based on damages (and not on their differentiated capacities to recover) tend to overlook the socially-differentiated experiences of recovery (TN_O_1_FN). Table 6.3 highlights some of the key axes of differentiation with regard to the disaster events and affected populations.

Table 6.3: Recovery interventions can often exclude certain groups based on livelihood, age, gender, asset ownership, and caste.

Axes of differentiation	Illustrative quotes
Livelihoods	*I think the difference between fishers and farmers (post Gaja) is that the fishers were able to demand some amount of compensation and start going back into sea. But the poor farmers, they still haven't been able to recover from the loss they suffered. Most of them are still not doing anything. Now it will take them over five years or so to rejuvenate their groves and start working again.* (*TN_N_02_SSGI)*
Land ownership (landed versus landless)	*Agriculture and horticulture were most badly affected by Gaja. Some of the farmers had alternate sources of income by growing paddy, groundnuts and such. But landless labourers were most badly affected because landowners who had suffered losses didn't hire them. (TN_N_4_UGC)*
Education level	*No, we had to do everything by ourselves. We usually depend on educated people in the village like (local NGO field staff) to help us out. If we have any trouble, we approach two or three people like him in the village to guide us. (TN_N_13_SSGI)*
Age and gender	*Maybe some people who are old or differently abled struggled to ask for compensation when they did not receive it. There was a long queue outside the village tehsil. It is not possible for many people to endure these long queues and their complaints are not heard.* (*TN_N_10_SSGI)* *Widows and old people may be suffering more and taking longer time to recover. They find it harder to take the initiative of rebuilding with the compensation that we have given. Most of the people can utilise our compensation according to their capacity. (TN_N_4_KII)* *Women-headed households faced more problems accessing relief. Compensation tended to be given based on what you had pre-tsunami. So, fishers got boats. But women had petty shops or sold fish and so they only got the basic compensation, nothing extra.* (*TN_N_2_KII)*
Caste	*After Gaja, many villages didn't receive attention. When we agitated, the police attacked…in villages where people have nothing. The people who are influential never face the consequences of their actions. People who have nothing continue to have nothing, even to this day…there is caste violence, people use this to keep people in lower positions. (TN_N_04_SSGI)*

In light of the differential ability to access recovery interventions, the processes by which they were implemented are also critical. The selection of beneficiaries was typically done through the government directly (as in the case of Gaja where village officers assessed damages and created beneficiary lists) or through local NGOs (as in the case of the tsunami where NCRC was a group of NGOs based at Nagapattinam that served as a conduit between DAPs and the district administration (TN_N_4_UGC, TN_N_12_SSI). Further, ooru panchayats (local village councils) provided government officials with lists of affected residents following the tsunami but have been criticised for excluding certain individuals, such as widowed women and dalits (Aldrich, 2020). The typical process of beneficiary identification reflected in most interviews is elaborated by two women:

> *After the tsunami, we got housing based on a lottery. I stayed in a temporary shelter for the first two years. After Gaja, the village officer came and assessed the damage to our house. We were given compensation based on how much damage we suffered. People*

> *whose houses were fully damaged got full compensation, those whose houses were partially damaged got half. (TN_N_9_SSI)*

An important change in Gaja was the shift towards universal compensation where the government gave a flat compensation of Rs. 5000-10,000 to all families affected. However, government officials we spoke to noted that there were errors in the enumeration process possibly due to the short time they had. *"There seemed to be significant mishap in the enumeration. The agriculture department 'super-checked' the figures later, which led to a significant drop in numbers* (TN_N_1_KII)." Some DAPs maintained that the compensation was insufficient given the scale of the disaster, a view that was recognised by government interviewees as well:

> *There are heavy costs involved in restoring the plantations. This is because each coconut tree takes 20 years to grow and some more years to reach to their previous state. So the compensation can only help in the short-term. (TN_N_1_KII)*

Notwithstanding the potential inadequacy of the compensation, government informants did feel that a universal compensation approach is faster and more inclusive. They also noted that it is tough to identify beneficiaries due to the scale and scattered nature of the disaster impacts and thus universal benefits avoid issues of creating further differentiation and enmity within communities. From earlier experiences, many people did not receive benefits because targeting methods were weak, which is why the government has shifted to universal compensation. It is also worth noting that the government respondents were aware of the inadequacy of the compensation vis-à-vis the damages incurred.

The analysis above highlights that recovery interventions are targeted to address a specific subset of issues that only partially addresses the range of issues DAPs identified as necessary to support recovery. Similarly, the ability to access recovery support is differentiated axes such as gender, caste, and landholdings. Lastly, Gaja saw a shift to universal provision of compensation for affected areas rather than previous approaches which had attempted to more precisely identify those who were impacted by disaster events. This shift is symptomatic of the trade-offs (increased speed of disbursement over increased precision of support) decision makers must consider in supporting recovery.

6.3.3 Recovery processes, actors, and intermediaries

Two key actor groups interfaced with DAPs and interpreted their concerns directly (e.g., local government actors) or represented priorities on their behalf (e.g., NGOs and local leaders). The village officer plays a critical role in damage assessment, compensation distribution, and relaying ground-level impacts to the district administration. As a government officer in charge of disaster management in Nagapattinam explained:

> *Enumeration (of damages and beneficiaries) is usually conducted with the help of village officers, the information is then passed on to us (district administration) and we consolidate it. Most of the NGOs which came forward only documented (impacts) for their own purpose. They want to be highlighted for the efforts in the media. They do not really help us in obtaining data. They were mostly involved in the relief process. We have "experienced" people to monitor the process and outcomes of disaster management- they check whether people can access benefits, if there are any groups which are left out. The Gaja GRRRP team also does periodic monitoring of relief and recovery activities. They are mainly concerned with rehabilitation processes post the cyclone. (TN_N_4_KII)*

Understandably, the village officer is well-placed to understand local conditions. However, village officers also hold a lot of power and can sometimes act as gatekeepers or along caste/kinship ties. Given their critical role as interfaces between DAPs and local government, the 'delivery' of recovery interventions are sharply mediated by village officers. As two fisher women described:

> ***Village officer's personality and relations with local government are important:*** *The person we first approach is the village officer. She has a good relationship with the people. But she seems constrained by the number of demands. Distribution of support depends on the kind of village officer. If you have a hard working, sympathetic one, you can get a lot of support. Some areas don't receive support because of their VOs being aloof. In some areas they don't intervene unless they get orders from higher government officials. (TN_N_9_SSI)*

> ***Village officer as the 'face' of the government, but potentially without power to change top-down compensation:*** *We could not ask for more compensation. Our village officer told us that everyone will receive a standard amount. (TN_N_10_SSI)*

Several respondents also discussed the need for local influencers to broker with the government: *We do not have enough influential people in the village. Villages which have good amenities have a good relationship with the MLA. Now we have [name withheld] who is very influential in this area, he has helped us in making many demands to the government. But he alone is not enough, one person cannot make such a big change. We need about 10 to 15 people like him in the village who are keen to make a difference and who will regularly campaign on our behalf* (TN_N_04_SSGI). This was confirmed by district government officials who noted, '*There is also inevitably liaising between field officers (and lower level government officials) and the people in the area they work in, which distorts claims*' (TN_N_1_KII). Thus, the political capital of the village sharply shaped their ability to present their needs, make claims, and broker with the government.

Government interviewees also highlighted the role of intermediaries in recovery processes. For example, they noted how, while claiming benefits, it is often the majority social group from an area that makes claims, and tends not to represent the minority community. Minorities and most affected communities find it too expensive to travel to government

offices to claim benefits. They also prefer not to get involved in protests if they think others are doing it on their behalf (TN_N_1_KII).

The role of government is crucial in trying to ensure fair and timely recovery interventions. Yet, people complained of an inadequacy of government action, processes were chaotic and disorganised, often mired in bureaucracy or lacking in proper regulations without appropriate implementation methodologies. As noted by a disaster management academician and an environmental rights activist,

> *"Relief and other interventions were hampered by lack of information- almost all effort was ad hoc- there was no methodology to understand potential impacts and social vulnerability." (TN_C_1_KII)*

> *"The government had… failed on multiple fronts, in both warning people, in managing the reservoirs, relief, in every aspect the failure was very apparent." (TN_C_9_KII)*

The dissatisfaction of DAPs with response action likely stems from their more multi-faceted view of recovery and the desire for improvement rather than just a return to the pre-event state. In essence this means that issues considered important by DAPs for recovery were likely not adequately addressed by those responsible for delivering interventions or supporting recovery actions or they were delivered but the focus was on quantity rather than quality. Even in the cases where formal relief methods were in place, there was heavy reliance on other actors including civil society, NGOs, and citizens to take action. This was the case especially during the 2015 South India flood, where there was large-scale mobilisation of local citizens and civil society groups to assist in relief operations.

During the tsunami, local and national NGOs were critical intermediaries and supported rapid damage and needs assessments, beneficiary identification, prioritisation of recovery interventions, and implementation (Lakshmi et al., 2014). Some NGOs have been experimenting with targeted interventions, especially focussing on certain social groups with moderate success (see Box 2).

Box 2: What targeted intervention can look like: the case of Vanavil NGO

Senthil (name changed, TN_N_13_SSI) lives in Thalainayiru village, a low-lying flood-prone, inland village, with his wife who is a homemaker and his primary caregiver. He belongs to a Scheduled Caste, is disabled, and has lived through the tsunami and cyclone Gaja. Before being bed-ridden, he used to work as a farm labourer as most of the people in his village do. During the tsunami, his hut was completely damaged but the family did not receive any compensation because they didn't live along the coast or in a fishing village. Being in an inland agricultural village, tsunami recovery interventions bypassed families like Senthil's. To recover, they slowly built another hut in the same location, drawing on support from their extended family.

Vanavil is an NGO working on disaster recovery, women's empowerment, and children's education in Nagapattinam. After Gaja, the organisation targeted women-headed households and the differently abled whose houses had been completely destroyed, providing housing free of cost. This focus was based on Vanavil's understanding of such households being the most vulnerable families in Thalainayiru. Using deep knowledge of the district since their post-tsunami work, identifying beneficiaries was not too difficult (T_N_1_FN).

Senthil is one of the beneficiaries of Vanavil's post-Gaja house reconstruction. He and his wife recall the period after Gaja:

> *Senthil: Nobody helped us during Gaja. We weren't able to go and ask for help either. We didn't get the compensation of 10000 for our house either, although our house was completely damaged.*
>
> *Wife: Nobody came to this area, even with the knowledge that so many people here are suffering. Even complaining to the local panchayat did not help.*

In the conversation, Senthil is referring to the government relief package of Rs. 10,000 for huts completely damaged and Rs. 5000 for partial damage. However, Vanavil field workers noted that given the area was remote, the government had not made significant recovery efforts in this area.

Disaster recovery processes can often exacerbate existing inequalities and have a negative influence on the existing power dynamics in communities. But, according to a relief-worker and a housing rights activist (both based in Chennai), recovery processes can also be used to overturn or challenge these power dynamics. This framing of the disaster as an opportunity can have implications on inclusive recovery, as illustrated in the quotes below.

> *"We attempt to use these communities to change the power dynamics in places. For example, we try to establish women leaders, thereby initiating a possibility for women to have more power in the particular setting, by removing hindrances to participating in key decision making processes."*
>
> *"We also want a more equal power dynamic between donors and the community, we do this by forming partnerships with the local community and community leaders. Engaging them in key roles in the relief and recovery processes." (TN_C_6_KII)*

An example of an organisation working to reverse power dynamics and to enable the urban poor to recognise and demand their rights as citizens is Information and Resource Centre for the Deprived Urban Communities (IRCUDC) in Chennai. The organisation advocates for the rights of the urban poor through information dissemination and social audits, as well as translating various laws and policies into Tamil to make them more accessible to the community. For example, the Tamil Nadu Slum Areas (Improvement and Clearance) Act, 1971 was not available in Tamil. IRCDUC recognised the irony in an act created for slum communities that cannot be read by most of them and translated it for local communities. "When these acts were read to the communities, they were shocked to see how the act described their localities (as unclean, unsafe)." (TN_C_4_KII). IRCDUC also makes sure that people from the communities are the ones who collect and compile data, ensuring greater autonomy to the community in the process.

During the tsunami, Social Needs Education and Human Awareness (SNEHA), a local civil society organisation also advocated on behalf of fishers in Nagapattinam demanding their right to coastal land which are commons that fishers use. Coalitions of NGOs such as BEDROC, SIFFS, and SNEHA came together to advocate for community rights and broker information between DAPs and the government (Nalla et al., 2019).

In contrast, Gaja saw very limited NGO mobilisation mainly due to the poor coverage and the perception that the event was not a significant and impactful disaster (see also Section 4.1). Post-tsunami, NGOs positioned themselves as mediators, each with their own agendas leading to a mosaic of organisations speaking *on behalf of* the community. Some NGOs focussed on particular social groups or livelihood types while others played a brokering role interfacing between the government and DAPs, between different NGOs, and between funders and DAPs. The multiple roles NGOs played is explained below through the examples of BEDROC:

> *Post the tsunami, in 2004 Annie George (and others) came to Nagapattinam. They visited affected areas and felt that there should be coordinated work– at that time, within 3 days to 1 week around 400 NGOs descended on Nagapattinam. The role BEDROC (then NCRC) played at that time was to coordinate these NGOs' activities, try to minimise duplication, provide accurate information to the government, and do proper needs assessment (who should be the beneficiaries). At that time NCRC was camped in the DC office (Mr. Radhakrishnan, now Health Secretary), giving numbers on deaths, impacts etc. The government used BEDROC numbers to 'allot' house numbers to NGOs to build. The local Panchayats were very strong and suggested needs; also some local NGOs came and gave data (based on their interests) and suggested what they can do (which aligned with their agendas 'we will do this here; we will do that there'). BEDROC collected all this information and gave to the DC office. BEDROC started Village Information Centres (VIC) in almost all affected Panchayats, which assessed impacts and collected data to feed to the DC office. There were no phones then; the VIC used volunteers and some software to assess damage etc. (TN_N_2_KII)*

However, more than a decade after the tsunami, NGO priorities have shifted from disaster recovery to wider development challenges (e.g., BEDROC moving to education) and thus their mediating role has changed from tsunami to Gaja. This shift has been driven by changes in funding, organisation priorities, and the nature of disaster exposure (i.e., the tsunami was an unprecedented event that mobilised large-scale action versus annual cyclones which are treated as more usual and hence less deserving of specific attention). Importantly, NGOs especially during the tsunami, utilised certain practices of representation and claim-making such as negotiating with the government to improve inclusion (CASA, BEDROC), collective petitions on behalf of people (BEDROC), and generating awareness through village-level drives (NCRC).

6.3.4 Were the interventions matching what people needed?

While not a direct focus of this project, discussions on what recovery meant often coalesced around reflections on poor fit and efficacy of current recovery interventions. These discussions tended to report six types of deficiencies (Table 6.4): (1) poor fit between recovery measures and peoples' needs; (2) poor targeting of relief interventions; (3) a focus on relief at the cost longer-term recovery; (4) time lags between impact and intervention; (5) insufficient critical engagement with underlying power structures; and (6) a fragmented approach to relief and recovery.

As seen in Table 6.4, flawed recovery processes (e.g., the lack of proper beneficiary identification mechanisms) affects who is able to access support and whether the interventions reach those who are most in need. A major critique is that there are no pre-disaster studies or surveys conducted to identify the most vulnerable populations. And in the event of a disaster, implementing adequate recovery measures becomes difficult and there are likely to be more reliance on understandings about who is or is not vulnerable, and who can make the most convincing claims for support. In such circumstances, the pre-existing beliefs and views that actors have about locations and population sub-groups will influence behaviour with the very real possibility that some groups will be missed out or ignored.

Table 6.4: Recovery interventions often mismatched with local needs: reflections from disaster-affected people

Critiques of recovery interventions	Examples and illustrative quotes
Poor fit between needs and recovery interventions	After Gaja, ₹5000 was given per family as livelihood compensation which was insufficient since damage to fishing boats and nets led to 3-4 months of no fishing. After the tsunami, non-fishing communities were given fishing boats, new houses provided were a misfit for fishing livelihoods. – *A lot of people got a lot of things…a lot of duplication. For example, in my village, there were about 3000 HHs, 100 of which had big boats, 200-300 had fibre boats. After the tsunami, everyone, whether a fisher or not, managed to get a boat. (TN_N_2_KII)* – *The biggest problem with these houses (built after the tsunami) is that they are two-storeyed. It is very difficult for us (as fishermen) to live on the first floor because the boats and other equipment are very heavy. It is also very difficult for us to carry water up to the top floor. For the elderly and injured it becomes very difficult as well. (TN_N_1_UGC)*
Poor targeting	Absences of transparent databases and social audits prevent equitable targeting of recovery interventions. With a standard relief amount or recovery procedure, people may receive a lot less or more than they need. Universal benefits make relief and recovery distribution easier and faster but ignores differential impacts. When targeting specific groups, there may be problems of late delivery or improper targeting. There may also be cases of appropriation of recovery resources by powerful groups. – *What would have been ideal (post Gaja) would have been to have a proper database to enable recovery. So the understanding (of impacts), (recovery) process, and therefore outcomes were ad hoc. (TN_C_1_KII)* – *We started a campaign called "relief is a right". There should be an operational procedure to separate what an affluent community needs versus what a poor community needs. (TN_C_4_KII)*
Focus on relief at the cost of recovery	– *The government is only present during the initial stages of the disaster; after that they disappear. (TN_N_8_SSI)* – *The government seems more alert in terms of sending us warnings. During the tsunami there was a huge outpouring of relief and recovery efforts which lasted for a long time (a couple of years). During Gaja only during the first few weeks was there a lot of relief that was received. After that most of the NGOs have disappeared. There was no long-term investment from them. (TN_N_9_SSI)*
Insufficient interventions, time lags	– *We came here 2 years after the tsunami. But there are people who have moved here only 4 years after. We were in the temporary shelters till then. (TN_N_1_UGC)*
Lack of critique of power dynamics within recovery processes	Recovery processes, as with any other intervention processes, are influenced by local power dynamics. – *(There are) two types of civil society: 'white collar NGOs' who are keen to be seen to do something, but their actions are limited; 'blue collar NGOs', volunteers, who do more, they are the ones who really helped post the floods despite not having much money- 'remarkable the way they worked'. Many NGOs (white collar) look for visibility through distribution of food etc., but in reality they are part of the system and so won't criticise or challenge authority. A third type of NGO- big international NGOs. They are fine with the status quo and don't want to antagonise the power dynamics– they survive on the disasters. (TN_C_1_KII)*
Fragmented working of relief and recovery efforts	– *(The) civil society in Chennai is very divided. Based on ideology and even caste. And what sector they work with. People working in the environment do not want to work with organizations working with informal settlements.* – *The most powerful organisations do not support our struggle for the rights of the urban poor. (TN_C_4_KII)*

6.3.5 Grievance redress and slow and fast action

Overall, DAPs reported getting recovery support in the form of monetary compensation (based on lives lost or housing infrastructure damaged) but that there were no feedback processes to change recovery interventions based on their experiences. For example, a group discussion with women affected by Gaja noted: "They came and counted all the coconut trees that were lost in the village, but we did not get any compensation for this. (We approached) the panchayat, but that was of no use" (TN_N_05_SSGI). The experience of recovery was often top-down with processes of loss enumeration and selection of appropriate recovery interventions being state-led without local participation. Fishers from Kameshwaram elaborated on the long-winded processes for raising grievances and making their post-disaster needs heard:

> *We approached the fisheries minister, the district collector, we protested for many days. We finally went to the district collectorate and complained that we have not got compensation for our losses. We submitted all our national and state identity cards. We questioned them and about whether they consider us citizens of this country? If we are citizens, isn't it our right to receive compensation? We submitted our Aadhar cards, ration cards, voter IDs and surrendered them to the collectorate. So they gave us an ultimatum of 3 days. They told us that within three days we would receive compensation. We had a peace meeting with the sub-collector. Then they said we will be compensated within 7 days. ₹1.2 lakhs were given to the entire village (as a whole). Even if we received this very late, we are happy that there is a government order, where we need a joint account in order to receive this compensation (for fishers). But this was changed and now people can use the money for whatever losses they faced. If their boats were damaged, they can buy boats, otherwise if your engines were damaged, you can buy engines, if your nets were the most damaged, you can buy nets. But if it is in a joint account, you can only buy a little at a time. This usually goes wasted, does not affect us. Since then, we have started fishing. But I wouldn't say that we have completely recovered. We are still struggling with the damages. We still need more houses in this village. We have even showed the government where all we need the homes, and who all need them. This is all public land, and they have agreed to build houses. But till now nothing has materialized. We aren't allowed to build within 200 metres of the sea, that is why we have been protesting against the government. TN_N_12_SSGI*

The quote above highlights several points around protest as a last recourse for grievance redress. While the quote ends positively with fishers receiving some compensation, it highlights how the onus of inclusive and sufficient recovery falls on DAPs with the government acting reactively and slowly**.** It is important to note that fishers have historically been at the forefront of collective action and bottom-up activism through unions and powerful leaders. However, without similar collectivisation, farmers tend to be excluded and their needs seldom vocalised or acted upon. When it comes to farmers, the process of demanding compensation is similarly long-winded but without strong unions, their demands are often ignored by the government. As a village officer in one of the affected villages elaborated,

> *The landless labourers visit the village officer as a first point of contact to demand compensation from the government. They also use petitions when their needs are ignored. After Gaja a group of labourers who did not receive the standard compensation sent a petition to the government, but till (9 months after the disaster) now this has not been answered. They have to rely on their employers (landowners) to fix damages from Gaja. Some of the villagers faced police brutality while trying to receive and demand relief material. They are not clear as to why this happened, they feel that their village was wrongly targeted. (TN_N_2_FN)*

In some cases, government apathy or slowness has led to conflict with protests, sit-ins at the district collector's office, resulting clamp down and police brutality. More often than not, it is the most marginalised that are targeted for example scheduled caste as the quote below, from two farmers, highlights:

> *They (the government) haven't even done anything for rehabilitation. There is a problem with the minister regarding this now. These people, they blocked the minister and started to fight. It became a big issue then. They arrested 4 to 5 people and searched for SC people for around a month. Apart from the cyclone, this became another major crisis for the people. (TN_N_11_SSI)*

Conversations with district government officials, however, described how in post-disaster situations, the government is pushed to act quickly. This imperative towards acting quickly is what motivates district officials to roll out rapid damage assessments (ideally within three days of a disaster event) and universal interventions.

> *It is the government's image at stake depending on the outcome of the recovery processes. The two important aspects post disasters are evacuation and enumeration- but there is the problem of obtaining primary data when access to areas is blocked. How can data be expected if nobody can get in? This leads to relief being targeted incorrectly. (TN_N_1_KII)*

Bureaucratic enumeration culture is often hinged on distrust of claimants. This underlying assumption of people seeking compensation as potentially 'faking', assigns untrustworthiness to poorer populations on one hand, and undermines uptake and assistance on the other. A second factor that shapes recovery measures is governmental fear of being seen to be inefficient or non-transparent or biased in aid. This creates over-emphasis on hierarchical monitoring processes that raise barriers to aid in the name of efficiency and avoidance of paying 'non-victims'.

Post disasters, *"the image of the government is also at stake"*, so it is *"important to act efficiently"* (TN_N_1_KII). During Gaja, the government was well prepared and acted promptly to evacuate people and save lives. However, post-disaster, the demand for immediate data on damages/losses means that initial assessments were quick and basic– often relying on a visual survey of damages. Recognising the error of this rapid assessment, the district administration followed up with a "super-check process", which was done in a multi-scalar

fashion: the figures of each enumerator were checked by the administrative area official above them and so on up the hierarchy. This process reduced the total estimate of damaged houses by 35-40 per cent. The implications of this process, which rewards reducing assessed damage successively, is that it does not necessarily lead to more accurate assessments: "reduction for accuracy is good, but perhaps in this case was too much" (TN_N_1_KII). A culture of demonstrating efficiency and dealing with concerns of dissuading people from making wrong claims works through hierarchical monitoring ends up as too restrictive– as one officer noted, *"in a massive disaster this backfires and process seems too draconian and delayed. If you focus on the 20% who might make false claims, and not the 80% who genuinely lost, then there's a problem in preventing assistance that's needed"* (TN_N_1_KII). This push for fast assessments however is a product of the structures and reward systems governments function in: *"The government gives random/approximate figures during disasters due to pressure from people and the demand for 'immediate data', including from the media"* (TN_N_1_KII).

The conundrum of local needs versus the imperative of the state to act fast post a disaster is a particularly difficult governance challenge and requires more long-term strategies to reduce exposure to hazards rather than reactive recovery measures alone.

For interventions that were aimed at rebuilding public infrastructure, progress was typically slow (see Box 3). Government interviewees attributed recovery slowness on land titling issues where government land is mostly used and the only recourse is to transform land usage by changing the land classification. However, this is a contentious and drawn out process (TN_N_1_KII).

Box 3: Rebuilding public infrastructure: recovery as a slow, long-term process

Let us take the example of the village bridge in Kameshwaram, Nagapattinam. After cyclone Gaja, the village bridge, a critical link for children to go to school and women to collect water, was destroyed. The government initiated restoration efforts through the rural employment guarantee scheme, MGNREGS, however, progress has been slow. As a group discussion with women fishers elaborated:

> *Some of the people working for the 100 days' scheme (MNREGS) were called to fix it. They brought some sand and tried to fill in the area. We brought this to the Gram Sabha's notice as well. But the repair is still going on. It would be good for us if they fix it soon. The last time we went (to the Gram Sabha) was last month. But we have been talking about this for the past five months. We brought it to the attention of the collector. (TN_N_02_SSGI)*

This kind of slow progress on restoring public infrastructure had wide implications on recovery. For example, with the bridge unbuilt, children had stopped going to school and women's drudgery had increased. The quote also illustrates that despite being vital to the village, repeated requests to the Gram Sabha to hasten the rebuilding have not been responded to. Respondents noted a sense of resignation and exhaustion when interacting with the government citing long delays and lack of information flow once they file a protest or complaint. On overall recovery measures post Gaja, the group elaborated:

> *Complaining to the government is useless. Only after protesting profusely after Gaja did we get any compensation for our damaged boats. We protested for four to five months before we received any compensation. Now we feel exhausted, we do not feel like asking them for anything. (TN_N_02_SSGI)*

Overall, many respondents spoke of despair and resignation with the government and fatigue with having to protest for what they perceived as their right. Some illustrative quotes:

> *But how will any of this (recovery) happen if the government remains so indolent? We have to protest so much to receive the most basic compensation, how can we then expect them to provide us with such (early warning) technology? Even that one lakh rupee they gave the village, it just about covered minimal damages. We needed about 5 lakhs to completely cover all damages, but we received only 1 lakh for a village with a strength of over 200 people. (TN_N_02_SSGI)*

> *We have been asking the government (for a modern harbour) for many years now. The district collector said that he would initiate this, but then nothing has materialised. We speak to the government and voice our needs. But all their promises are stuck in limbo... (the Gram Sabha) just make records in their books when they need to and then never come back. A lot of our younger residents put out the word about our suffering on social media and WhatsApp. I feel this brought some attention to us and helped us receive aid. Some people did not even know where our village is. (TN_N_02_SSGI)*

There were repeated conversations about mistrust around government motivations and efficacy, which strengthens the argument that governance barriers strongly constrain inclusive and effective disaster recovery in Nagapattinam.

6.4 Summary: representation of disasters and recovery by people affected

- The lack of representation of certain groups (landless labourers, farmers) has an indirect effect on the targeting of recovery interventions. This links to perceptions of who is deemed worthy of receiving recovery support. For example, those who are considered in need of support (fishers, certain population sub-groups) are able to access support, other people and locations (e.g., landless labourers in rural areas) are represented as not as badly affected, with repercussions on recovery targeting.
- The continual nature of recovery (or lack thereof) highlights how recovery processes, especially in a state like Tamil Nadu that sees regular extreme events, is seldom complete. Acknowledging the incomplete nature of recovery is at odds with representations of recovery (typically government and multilateral agency views) that view recovery as finite and fixed.
- DAP representations of recovery were outcome- and process-based, framed as repairing or rebuilding multiple aspects of their lives (e.g., housing infrastructure and livelihoods as well as communal green spaces and restoration of public services such as electricity or water).
- DAPs perceived recovery is being as much about individual and community wellbeing and cohesiveness, addressing more intangible elements that make up individual perceptions of a good life in addition to those that are more commonly recognised such as sturdy housing or return to pre-disaster livelihoods.
- The issue of agency (i.e., being able to represent yourself adequately will support effective recovery) tends to be easier for majority (more powerful) groups than minority ones who are typically more disempowered within society.

7 Discussion

The ways we represent disasters and associated losses, shape recovery priorities. Households deemed 'at risk' to flooding within Chennai city were relocated to flood-prone colonies such as the one above. Photo: Chandni Singh

This chapter synthesises the findings to highlight how disaster events are described using different frames– as natural, as man-made, as unpredictable, and as opportunities– all of which hold implications for long-term recovery. We also discuss the multiple representations of disaster-affected people and their losses, reflecting on different narratives of loss and recovery.

7.1 Representing events: disaster attribution shapes disaster recovery

Portrayals of disaster events are diverse and produced by various actors, most prominently the government and the media. Understanding how disasters are spoken about and reported is critical for relief and recovery because the words used describe events and report on them shapes how they are understood and responded to (Murthy, 2013; Tierney et al., 2006). We examined representation of disaster events in policy documents, national and state media, and by disaster-affected people.

Overall, framings of extreme events in Tamil Nadu tended to fall along three continua: disasters as unpredictable and unprecedented to knowable and commonplace (Section 7.1.1); disasters as natural to man-made/a function of pre-existing vulnerability (Section 7.1.2); and disasters as opportunities (Section 7.1.3). These three framing devices had direct and indirect implications for disaster attribution (e.g., man-made versus natural), post-disaster funding, and recovery measures. It is important to understand that representation of disaster events should not be seen as a binary (i.e., man-made versus natural disasters signalling disasters as caused by one thing or the other). The framings used to represent disaster events fell along a spectrum, the poles represent the most extreme versions of the different perspective. Actors rarely subscribe to these more extreme views and adopt elements of them to support their particular version of framing of events and recovery.

The reporting of disasters was also unequal which fed into these three narratives. Events got uneven media coverage based on location. For example, reporting on the 2015 South India flood heavily focussed on Chennai city with relatively negligible reporting on impacts in neighbouring rural districts revealing a rural-urban bias that was confirmed by interviews with journalists and humanitarian agencies. Similarly, some events, like Cyclone Gaja, were rendered invisible in national and state media because of their annual nature and hence perceived commonplaceness that was perceived as not warranting attention when compared to 'unprecedented' events such as the tsunami or 2015 South India flood. This uneven representation of events impacted visibility of the events, as well as recovery funding and speed.

7.1.1 Disasters as 'unpredictable and unprecedented' or 'knowable and commonplace'

Framings of unprecedented, once-in-100-year events tend to absolve the state's role in creating/perpetuating underlying conditions of vulnerability. On the other hand, 'commonplaceness' of a disaster can make disasters seem routine and unworthy of disaster recovery attention (e.g., Cyclone Gaja).

Perceiving events as unknown or unprecedented supports narratives of them being impossible to prepare for or prevent, which articulates loss of life/livelihoods as 'unavoidable'. Such a framing where disaster attribution is towards 'natural' causes, tends to absolve the

state of responsibility for inadequacies in relief and recovery phases. Moreover, once narratives are established they can be difficult challenge and rework. As seen in the aftermath of the 2015 South India flood, moving the narrative from a dominant 'natural disaster' framing to a more nuanced understanding of how extreme events interact with socio-economic vulnerabilities to shape disasters, is difficult (Ge, 2019) and requires widespread and sustained action. In Chennai, this was done through litigation and bottom-up pressure, spurred by public anger over poor relief measures, and recognition that recovery measures were divisive and inadequate.

At the other extreme, seeing events as knowable and predictable (to a certain extent) such as the recurrent occurrence of cyclones in Tamil Nadu during the North East monsoon lead to perceptions that events can be understood through more data and science. This 'knowable' nature of disasters undermines the 'natural disasters' framing above and leads to recovery measures that focus on predicting and preparatory measures to reduce exposure through better forecasting or cyclone shelters, for example (Figure 7.1).

Figure 7.1: Disaster framings as unprecedented and unpredictable, or commonplace and knowable, have implications for long-term recovery

Disasters as unpredictable and unprecedented events	Disasters as knowable, recurrent and commonplace
• Framing implies it is impossible to prepare for (e.g. once-in-100-year rainfall in Chennai) • Absolves the State of responsibility for inadequate relief and recovery measures and can lead to policy/action inertia because disasters are seen as "beyond one's control" • Over the long-term, can lead to measures that relocate people from "risk-prone" "high-exposure" areas (e.g. riverbanks in Chennai, coastal fishing villages in Nagapattinam)	• Framing of a "knowable" event implies it is possible to measure, detect, predict, and prepare for (e.g. cyclone warning, flood forecasts) • Focus on disaster risk mitigation and preparatory measures such as forecasts and early warnings, vulnerability mapping, risk assessments • Tends to rely on experts and science to improve disaster management with focus on "controlling" disasters and reducing impacts

Highlighting events as unprecedented indicates that preventative actions are difficult and/or impossible to implement and therefore, blame (for inadequate action) is shifted away from particular institutions or specific ill-conceived actions/inactions. By doing so, the 'exceptional event' argument deflects responsibility (for the disaster and ensuing recovery) away from institutional and socio-economic causes simplifying, to a certain extent, the type and nature of recovery interventions.

7.1.2 Disasters as natural or man-made and a function of pre-existing vulnerability

Disaster representation can fall along a continuum. At one pole, events are framed as strongly linked to social actions and antecedents (e.g., 2015 South India flood shaped by poor dam management, rapid urbanisation, and building over floodplains) that are a function of pre-

existing vulnerability (e.g., slum dwellers as most affected because of their poverty and quality of housing) (Figure 7.2). At the other end of the spectrum, events are represented as 'natural', driven mainly by environmental factors and climate anomalies such as extreme rainfall or stronger cyclones. The reality of disasters lies in between the environmental precedents of a disaster (e.g., uncharacteristically heavy rains in 2015) get overlaid on social vulnerability (e.g., informal settlements and informal livelihoods in Chennai city) to shape differentiated disaster exposure and impacts. However, relief and recovery measures tend to flow only from the environmental understanding of the event rather than the social vulnerability angle. The idea of how discrete extreme events overlay on deep-seated vulnerability to shape disaster impact and recovery are discussed in more detail in Section 7.2.

Underlying the representations of disasters as natural or man-made is a theme of differential attribution and hence assigning of blame (for the disaster). Seeing events as natural can justify inadequate or delayed action.

Figure 7.2 Disaster framings as man-made or natural have implications on disaster attribution and blame

Disasters as man-made or a function of pre-existing vulnerability	Disasters as 'natural' event
• Framing of events being man-made tend o exert demands for more accountability from the state (e.g. in Chennai where man-made nature of the floods speared civic engagement/outcry) • Recognition of pre-existing vulnerability leads to recovery measures that either aims to reduce exposure (e.g. relocation of exposed populations) or interventions that "build back better" (providing housing, strengthening livelihoods). • Highlight how socioeconomic inequalities and anthropogenic drivers of risk accumulate over time and shape disaster impact	• Attributes loss of life/livelihoods to natural causes leading to inadequate attention to pre-existing drivers of vulnerability • Insulate certain actors (such as the state) from being accountable for disaster relief and recovery

7.1.3 Disasters as opportunities

Disasters have often been identified as "a window of opportunity" (McSweeney and Coomes, 2011, p. 5203) to "build back better" and as a potential development opportunity (Rogers and Wilmsen, 2020) to "enact development reforms over un-affected areas too" (Kennedy et al., 2008, p. 31). However, while an event creates spaces for change, it "raises the pertinent question of whether recovery can be exploited as a window of opportunity, and in that case, whose window of opportunity" (Raju, 2013, p. 2).

We found that the opportunity framing portrays the hazard event as a social rupture which can be exploited for both positive and negative outcomes. On the positive, viewing disaster events as an opportunity sees recovery interventions as opportunities to build back better

(e.g., during the tsunami) with a strong focus on addressing visible damages and losses that often translate into infrastructural interventions (e.g., repairing fishing harbours). The post-disaster moment highlighted development challenges for specific areas and communities, focussing attention and funding on long-neglected sectors. The opportunity framing also lead to positive action on addressing structural vulnerabilities (e.g., livelihood strengthening and women's empowerment activities post the tsunami that have disaster recovery and inclusive development co-benefits). In some events, the disaster increased the visibility of certain people/communities (e.g., "after the tsunami, Chennai discovered its fisherfolk", cited in Jain et al., 2017), which enabled targeted action and in some cases, mobilised communities to highlight their needs (Section 6.3.3).

On the negative, as in the case of post-flood relocation in Chennai (Section 5.1.2), the event was used as an opportunity to evict disenfranchised communities and relocate them to distant prebuilt housing tenements (Jain et al., 2017), mostly without warning or consultation. This exploitation of the post-disaster opportunity exposed how unequal power and differing visions of recovery were subverted in the race to exploit the disaster opportunity (Klein, 2007).

7.2 Representing disaster-affected people and their losses

This section draws together insights from the three analytical chapters about plural representations of loss and recovery, the different ways in which resilience and vulnerability are represented and the importance of recognition plays as a vital component of recovery.

7.2.1 Pluralising representations of loss

Experience of disaster events, their impacts, and the losses that people experience are hugely varied. Accordingly, understanding the different ways in which a hazard event is framed and the impacts on affected populations influences the ways in which actors respond and interact with each other. Simply put, how one frames a problem or understands a particular cause and effect relationship significantly influences the solution space or intervention options that are considered optimal and implicitly closes down those options that are seen as suboptimal.

Through analysis of policy documentation, media reporting on disaster events, and those directly affected by disaster events, we can see that there are crucial differences in how events are experienced and understood (see Table 7.1).

Table 7.1: Different ways in which disaster-affected people and their losses were represented with implications on recovery

Representation of disaster-affected people (DAPs) and losses			Implications for recovery
Policy	**Media**	**DAPs**	
In terms of loss of life, damage to infrastructure, and disruption of services	Quantified metrics, focus on housing, and livelihood support	In terms of sense of loss, difficulties that arise for people as a result of relocation, ongoing psychological trauma, experiences of isolation.	• Non-tangible, non-material aspects not represented • Lives lost narrative tends to capture one-time impacts (static); overlooks cascading risks and compounding impacts (which is closer to what DAPs reported)
Captured in monetary terms	Monetary terms used to communicate scale	Discuss monetary and non-monetary impacts	• Non-material losses such as loss of commons, mental wellbeing not captured • Monetary losses might tend to lead to monetary interventions (hunch)
Tend to report aggregate numbers	Aggregated or differential impacts	Socially-differentiated experiences	• Homogenise experiences, impacts…potentially leads to universal relief and recovery rather than targeted • Some people get left out– e.g., fishers vs farmers
Frames certain people, communities, and places as resilient or vulnerable	Focusses on people, communities and places that are considered 'primarily affected' and as resilient or vulnerable. Reporting impacts in specific locations, groups of people.	Can use frames of neediness to make claims, attract attention to impacts	• Implications on agency of DAPs– either as 'needy' vs. 'resilient'– both caricatures of actual impacts but recovery interventions may not always be tuned to this. • Reflects a static view of recovery and how disaster impacts unfold over time
Discuss locations as hazard-prone but disasters as discrete	Very event-focussed, no reporting on long-term vulnerability.	Compounding vulnerability	• Multiple, longer-term impacts get left out and recovery focusses on the immediate

In policy documentation (produced predominantly by national or state-level government and international actors), there is a tendency to focus on more visible and tangible losses and to describe events in aggregated and monetary terms (Section 4.2.2). Non-governmental or civil society organisations describe events and subsequent impacts in similar ways but with some key differences. The most noticeable of which are a greater focus on more intangible losses (such as impacts on dignity for relocated communities) as well as increased engagement with issues like inequality within and between socially-differentiated population groups (Section 4.2). Analysis of media reporting mirrors, to a certain extent, the ways in which disaster events

and recovery are described in policy documents. Reporting tends to engage most concretely with the scale of disaster events and associated disruption, often expressed in shorthand using monetary valuations such as total economic cost, reflecting the aggregated ways in which disasters are talked about in policy documents (Section 4.2.2). In terms of recovery, the focus is on housing and livelihood support but understood via certain geographic locations and people that are considered to be 'primarily affected' (Section 4.3). For example, during the tsunami the focus of media reporting was on fishers to the neglect of other livelihood types.

These ways of seeing, describing, and responding to disaster events determine to a certain extent how the problem is viewed and the sorts of actions or interventions that are considered feasible and likely to be successful. The focus on the more visible aspects of disaster impacts (such as damage to housing, infrastructure, and livelihoods) directs one's attention in terms of recovery towards rebuilding and repairing that which has been physically damaged (as evidenced through the 'build back better' mantra, see Section 7.3.1). Issues such as housing are of course vital to support recovery, but in focussing attention on physical assets and livelihood provision, there is a real risk that the more intangible aspects of recovery are marginalised. Similarly, the ways in which impacts and recovery are aggregated flattens out social differences within and between communities. In this way fishers are considered impacted by the tsunami, without probing too deeply the social strata within fishing communities and the extent to which sub-populations are differently affected. In Gaja, farmers were very significantly affected but little account was taken of the differences in experiences between those with land and landless labourers. Aggregation is necessary to communicate scale and to describe the extent of impacts but this need must not be achieved to the detriment of flattening and masking impacts for specific groups of people with attendant risk that recovery interventions and support are inadequate or poorly conceptualised.

Compare the ways in which disaster events and recovery are typically described (above) with the ways in which disaster events are understood at a community level. Analysis of DAP views of disaster events and recovery reveal a view of disaster impacts as long-term, deep (affecting all facets of their lives and livelihoods), and socially differentiated. Furthermore, DAPs ascribe value to intangible (in addition to tangible) losses and impacts of disasters at both personal (psychological impacts and feelings of loss for example) and community (disruption to the functioning and cohesiveness of social interactions) level. The importance of these less visible impacts of disasters diverges from the aggregated, economic, and visible ways that actors involved in response and recovery and the media tend to portray events (focussing on number of lives lost, infrastructure damaged, and total estimates in billions of dollars or rupees). The danger in these divergent ways of seeing recovery is that impacts, loss, and recovery are seen in a particular way which acts to funnel activity and interventions down particular paths that are not necessarily the most efficacious for the recipients of those interventions.

7.2.2 Critiquing framings of vulnerability and resilience

As alluded to in the previous section, disaster events are neither discrete nor formed and experienced in a social vacuum. Events occur and are superimposed on to existing social structures and experiences such that they mediate the ways in which the hazard is experienced. In this section we focus on two specific and linked issues: the ways in which vulnerability can compound over time which undermines a view of disasters as discrete, particularly in relation to decisions taken in response to disaster events, and the ways in which framings of vulnerability and resilience can be used to justify certain (in)actions.

Compounding vulnerability and the unbounding of impacts and recovery

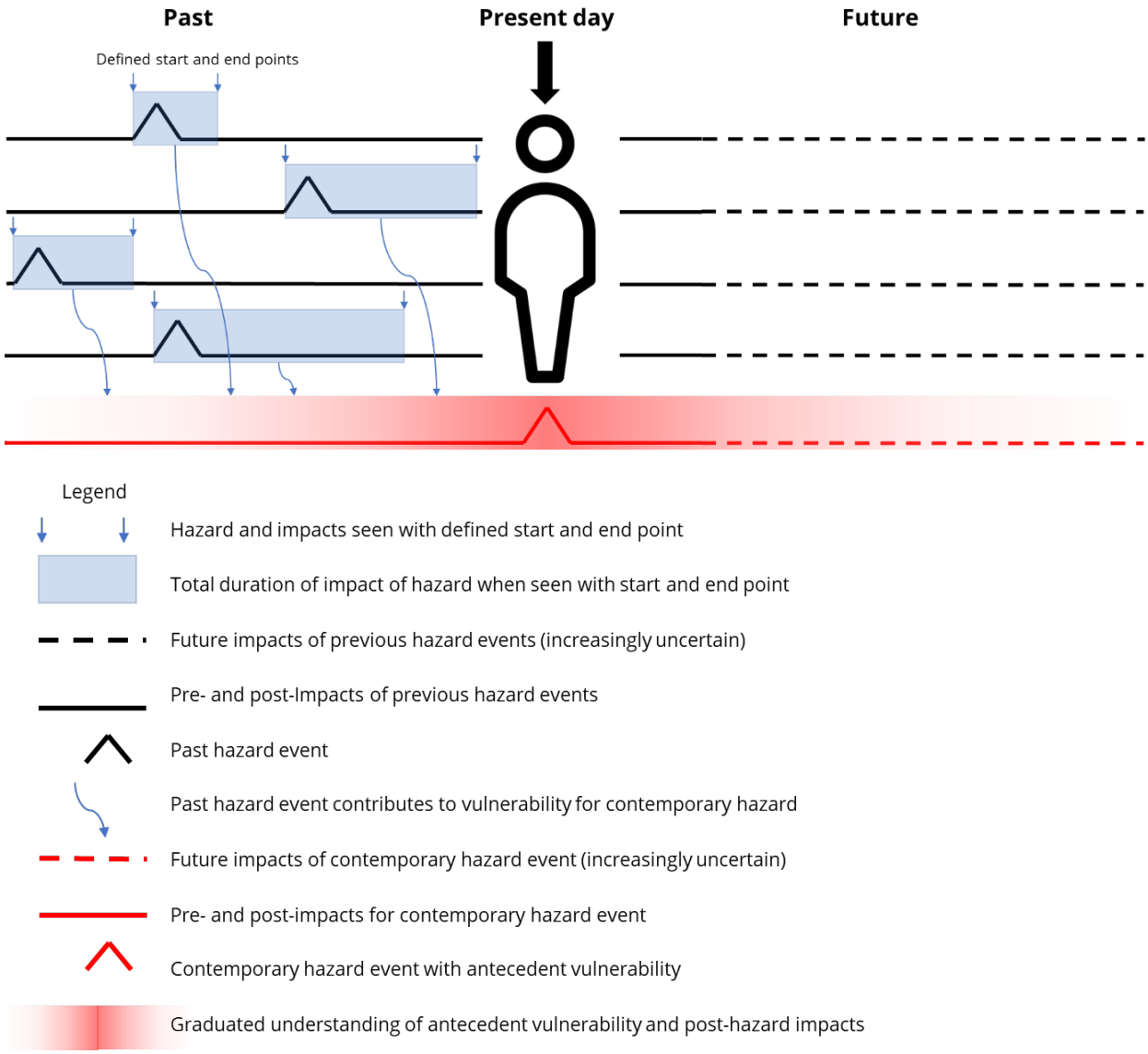
A typical approach to understanding vulnerability would look at exposure and the situation immediately preceding the hazard without acknowledging the longer-term influences from both previous hazards and other forms of socially-derived vulnerability that influence who and how people are affected. In the period after the hazard, the dominant approach following the crises phase, tends to delimit time periods after which people and places are considered to have recovered. The policy documents and media reporting suggest a view of disaster events as discrete with identifiable start and end points. The manifestation of this framing of events and impacts can be seen in recovery interventions whereby the focus is directed towards getting people and places back up and running again in terms of livelihoods and provision of adequate shelter or reporting that sees people and places as first impacted and subsequently recovered. In simple terms, the mentality underpinning this approach (influenced possibly by project management cycles) is that people and places are supported to 'recover' but this recovery is often linked to buildings or provision of livelihood support after which priorities and attention can move elsewhere.

Yet, there is a large body of evidence that shows that disaster events should not be seen as discrete with clearly identifiable start and end points. Exposure to a hazard is strongly influenced by and interacts with existing forms of vulnerability (Gajjar et al., 2019; Swamy, 2018). Similarly, recovery is more complex, multifaceted, and often has a very long tail during which time the impacts of the disaster continue to ripple through and disrupt peoples' lives. These longer-term impacts are poorly addressed within current disaster response (Swamy, 2018; Zaidi, 2018).

The compounding of vulnerability over time occurs in different ways and can be through events such as hydro-meteorological hazards or social processes. Figure 7.3 shows the layering of (social and physical) hazards and their impacts: spikes represent hazards events that have impacted on person. Historical events are represented by black lines and spikes; the red line and spike represents a contemporary hazard (the hazard of interest). Whilst each

hazard event has antecedents that contribute to the vulnerability of an individual (or community), impact and recovery are typically understood from the point at which and in direct relation to the hazard occurring and then for a finite amount of time after the hazard event, this is the length of time for the impacts to dissipate (represented by the coloured blocks). In the figure, the contemporary event (red line and spike) is of interest.

Figure 7.3: Layering of vulnerability from different hazard events and the ongoing nature of recovery



Drawing on the empirical chapters, we see simple examples of this layering of vulnerability. In relation to Gaja, vulnerability was in part a legacy of recovery interventions following the tsunami which relocated fishing communities to locations away from the coast making it more difficult to practice their livelihood (5.2.2). In the 2015 South India flood in Cuddalore, the majority of houses that were damaged belonged to Dalits, inadequate compensation forced some of those affected by the flooding to take out loans to support themselves which

increased the burden on themselves long after the event itself had finished (4.3.2). These two straightforward examples show different ways in which hazard events contribute to the compounding of vulnerability whereby populations experience recurring shocks and stress.

Understanding how and why someone is vulnerable requires not only understanding why they are vulnerable to a particular event but also how previous events have contributed to this vulnerability. Of particular interest is the way in which vulnerability can layer within a person's lifetime, leading to strongly negative cycles that reinforce each other and create situations in which hazard impacts are likely to be felt very severely. Once locked into these vulnerability traps, recovering (in the broadest sense of the word) is increasingly difficult.

Vulnerability and resilience as double-edged swords

As the above discussion highlights, understanding how and why someone is vulnerable (or resilient) is a crucial element in determining what sort of response is required to enable people and communities to recover. However, labels of 'vulnerability' and 'resilience' are not politically neutral or purely technical terms, they are imbued with power and can dramatically shape recovery attention in negative and positive ways.

The rendering of certain people/social groups/places as vulnerable or more exposed can act as a tool to justify certain types of interventions (see Section 4.2.2). The starkest example of this is seen in the narrative of Chennai's slum dwellers as being 'at risk' of flooding because they inhabit river banks. Their high exposure is used as a justification for relocation. Less attention is paid to the multiple benefits they derive from living within the city (livelihood, social network) or the costs they bear of relocating to settlements on the outskirts of the city (lower level of services, greater transport costs and time to access livelihoods in the city centre). The irony of the relocation is evident in the recycling of the vacated land for commercial and business development, further questioning the justification for the removal and relocation. The converse of this can be seen with regard to fishers located in Nagapattinam. This group of people are portrayed as exceptionally exposed to cyclones, resulting in large amounts of resources directed towards recovery measures for them following hazard events.

The two examples above illustrate the power imbued in concepts such as vulnerability and the attendant risks. If a community is seen as vulnerable, then it can be easier to access recovery support but also exposes people and places to having measures imposed which are not desired (e.g., relocation). The same logic applies to the concept of resilience. If a community is seen as resilient, then it is likely to be harder for them to access support as there is less perceived need. Equally, the 'resilient community' is less at risk of having undesired measures imposed as the need is less and recovery trajectories are likely to be endogenously facilitated and self-sustaining.

7.2.3 Recognition and visibility are vital components of recovery

Predetermined views structure how we see hazard impacts and recovery

Evidence from the policy review and in interviews with DAPs suggests that decisions about who is impacted and associated recovery needs relies to some extent on pre-existing world views. The use of such heuristics or short cuts is widely recognised in academic literature as they provide a means to make sense of complex situation or where information is incomplete. In the case of hazard events and disaster recovery, responses and interventions are often formulated with only partial information and in a knowledge vacuum which increases the likelihood that people will fall back on what they 'know'. The use of such heuristics is often an unconscious process and can shape thinking in unintended ways.

Interviews with DAPs (section 5.3.4, Table 7.2) demonstrate mismatches between needs and recovery interventions. Part of the explanation for this lies in the lack of understanding about the distribution of vulnerability within and between communities. In the absence of this information, decisions are taken that rely on the nature of the hazard and its visible impacts (more deterministic) as opposed to a more complex and dynamic understanding that takes account of pre-existing vulnerability and its interactions with the biophysical manifestation of the hazard event. Another contributory factor leading to poorly aligned priorities for action and recovery needs stems from actors seeing hazard events refracted through their own agendas and priorities (Section 4.2). For example, Oxfam reported on heightened inequality (a key organisational focus) and Arappor Iyakkam's attention focussed exclusively on locations where they were working. Whilst this makes sense at an organisational level, the risk is that the filtering of information provides an incomplete picture concerning the nature of impacts and the most appropriate forms of recovery mirroring, as it does, the organisations' particular 'take on the world', leading to downstream impacts.

For all the disasters studied, we find evidence that pre-existing views of disasters, the populations that are impacted, and the nature of recovery needs draw on beliefs or assumptions. For example, certain people, livelihoods, places, or sectors are very quickly identified as being affected (sections 4.2, 4.3). Attention and focus are directed towards specific people and places, creating inertia in the system, that makes re-evaluating or shifting focus subsequently to other locations that are similarly affected but for a variety of reasons have not receive the recognition difficult. Similarly, the sort of interventions that are prioritised are often based on ideas of actors about what needs recovering rather than reflecting on the priorities of communities who are benefiting from these recovery interventions.

Visibility

As picked up in the previous paragraph, the visibility of communities is crucial in how one experiences disasters and the interactions with actors linked to disaster recovery. Broadly speaking, the more visible a community is, the greater leverage it will have to attract and

access support (section 4.2.1). Places that have more social capital and influence with state and other actors can utilise these connections to ensure preferential treatment, highlighting how the socially-differentiated nature of places feeds through into recovery (section 6.3.5).

The issue of (in)visibility plays out in media reporting of disaster events (section 6.2.3). The analysis shows that there is a tendency for the media to focus more on metropolitan areas than rural areas, reflecting perceptions about the relative worth and importance of different locations. In other words, urban areas/political centre is viewed as more important and newsworthy than rural areas (see also Section 7.1). This urban bias was noticeable with the level of coverage about Gaja, which primarily affected rural locations. Furthermore, different types of losses and impacts are accorded differential treatment within media reports of disasters, with those that are more tangible and visible generating more coverage when compared to impacts that are more intangible (such as the undermining of community cohesion) (sections 5.1.1, 5.3.1). Allied to these more specific examples of bias are more general issues concerning blind spots. For example, there is, in general, a superficial engagement with why people are vulnerable and the socio-structural issues that create vulnerability. Reporting tends to take as its starting point, the hazard and how that drives vulnerability for communities rather than engaging more concretely with the underlying causes of the vulnerability (section 5.2). At an editorial level, it is also likely that decisions about what and how to report is, in part, driven by pre-existing beliefs about what has happened and what is important. As with the previous discussion about the role of heuristics, media actors will rely on pre-existing views of people and places/world views to make decisions about what to cover, how, and why. Ultimately, this line of reasoning might help to explain certain socially-differentiated sections of society struggle to get support/be heard or make themselves visible.

7.3 Representing recovery

Although recovery measures undertaken after the three disaster events were varied, three common themes emerge. First, narratives of recovery can be placed along a continuum: on the one extreme are top-down narratives of recovery tended to be static and infrastructural while on the other extreme are DAP portrayals of recovery as being long-term and multifaceted (Section 7.3.1). Second, recovery interventions are often represented as one-time actions which is opposite of DAP narratives that frame recovery as long-term and continual (Section 7.3.2). Third, the articulation of what recovery entails was layered resulting in multiple representations that fed into and challenged each other (Section 7.3.3). This leads us to put forth the idea of the 'disaster representational space' that showcases how different actors' positions and constructions of what causes disasters shapes understandings of recovery (as well as which recovery interventions are prioritised).

7.3.1 Recovery as infrastructural or multifaceted and 'building back better'

Overall, what emerges from Tamil Nadu is the presence of multiple understandings of recovery (Sections 4.3, 5.3, 6.3.1). Top-down narratives around recovery were represented through heurists of 'building back better' including infrastructural, livelihoods, and empowerment aspects (Table 7.2). Key actors supporting recovery tended to focus interventions on infrastructure, housing and livelihoods, thereby privileging the tangible, visible, and measurable.

Table 7.2: Different narratives of what recovery means has implications for how recovery interventions are prioritised and implemented

Representation of recovery interventions/processes	Implications for recovery
Policy: Recovery as…replacing and repairing infrastructure Media: …as housing DAPs: …as complex and linked to infrastructural, livelihoods, capacity, and agency related aspects of life	• High visibility and political mileage gained for states showing quick action • Focus remains on infrastructure at the cost of intangible recovery interventions
Policy: …building back better Media: …building back better or making things worse? DAPs: …as long-term change to resume livelihoods but also meet aspirations (e.g., children's education, better housing, and better jobs)	• BBB approach focus on interventions but does not articulate better for whom. • Tends to focus on infrastructure, housing, less on livelihoods, long-term resilience, and empowerment. • Focus on external metrics of 'better' tend to leave out DAPs and act as tick marks to demonstrate action by HAs, state and others.
Policy: …repairing or strengthening lives/livelihoods DAPs: …returning to pre-disaster livelihoods (e.g., fishing)	• Focus on livelihood repairing and strengthening help longer-term recovery but some livelihoods (e.g., agriculture after tsunami and Gaja) are neglected because impacts are less 'visible'. • Diversifying livelihoods is seen as one way to support recovery: achieved in tsunami and Gaja but unsuccessful/undermined in Chennai, where people who were relocated found it more difficult to earn a living. • Tends to focus on livelihood diversification which may not always be desirable to DAPs.
Policy:…empowering women	• Can cause social cleavages, more conflict • The focus on women can sometimes exclude men, and ignore how women's empowerment is relational

Among DAPs, there was appreciation that recovery includes housing, livelihoods, and infrastructure as well as overcoming development deficits and meeting future aspirations (e.g., for their children) (Section 6.3.1). Using a relatively expansive understanding of recovery, DAPs highlighted how disaster risk reduction, repairing the social fabric, meeting aspirations, and coming to terms with altered social relations with nature tend to remain unaddressed in recovery support (4.2). Thus, DAPs framed recovery as improvement and betterment in their lives not just a return to pre-event state (as implicit in the build back better narrative).

In policy documents, recovery was often equated with housing provision and restoring/rebuilding built infrastructure. This focus on infrastructure, especially housing, potentially crowds out bottom-up narratives of what recovery means (more-than-infrastructure; nature-based; community rituals; and commons). Kennedy et al. 2008 find something similar in post-tsunami Sri Lanka where they note, "success was increasingly measured by the number of houses built; organizations with limited experience in housing construction became more involved; and beneficiaries expected housing to be completed sooner, meaning that the focus on safety, security, and livelihoods was diminished" (Kennedy et al., 2008, p. 27). This critique of focussing recovery measures on housing is not to argue for shifting focus from infrastructure (DAPs mentioned better houses, roads, lighting in their representations of recovery) but calls for a "beyond infrastructure" approach to build back better that also focusses on livelihoods, mental recovery, and local aspirations. Seeing bottom-up, top-down, and intermediate (media) narratives of recovery (and the differing motivations for these representations) together is important for more inclusive recovery.

In the media, recovery was often signalled through reports of demonstrable and quantified metrics and/or using an accountability lens to highlight (in)efficiencies/(in)effectiveness of state performance. These narratives tend to portray disaster-affected people as moving from 'impacted' to 'not recovered' to 'having now recovered', which held implications for the level and nature of support that a person is able to receive and its duration. For example, post Cyclone Gaja, reports of infrastructure repair (e.g., power line restoration, road repairs) tended to be equated with recovery despite farming livelihoods being significantly impacted by saltwater intrusion and sand deposits. The media narratives that reported on intended action versus actual action were a public way of holding the state accountable and/or learning from past for current/future recovery.

7.3.2 Recovery as static and one-time or long-term and continual

Recovery measures in policy documents were often framed as project-related interventions that were one-time and static, which was often at odds with DAP narratives of recovery that signified more long-term, continual, and systemic rebuilding of lives and livelihoods. Chandrasekhar highlights this temporal dissonance in recovery approaches when she says, "The recovery support model typically involves assessing local needs at a certain time and

place and then creating various aid and assistance mechanisms to meet them. But this assumes that what constitutes "recovery" on day 6 is the same as what it is on day 60 and again on day 560. In fact, recovery is a process that continues to evolve for years if not decades after a disaster" ("The Chaos after the Storm," 2020, p. 489).

As we show through recovery experiences of DAPs affected by the tsunami in 2004 and Cyclone Gaja in 2018, hazard exposure is repeated with certain social groups and livelihoods more exposed than others (Sections 2.4.2, 6.1). Understanding disaster events as milestones along a continuum of hazard exposure and vulnerability is key to effective and sustainable recovery.

7.3.3 Recovery is mediated: self or mediated representation and spaces of misrepresentation

Narratives of recovery were varied. They tended to flow from differential disaster experiences, multiple understandings of what counted as losses, and stated and unstated agendas and positions of different actors (Table 7.3).

Table 7.3: Different actors in the disaster representation space and how they frame events, impacts, and recovery.

Actor group	The Frontline	The Middle	The Remote
Actors involved	Disaster-affected people differentiated by livelihood, social group, gender, caste directly exposed to/impacted by disasters	Interlocutors/brokers such as the media, local NGOs, charitable trusts, labour unions, community-based organisations, researchers	Government, international humanitarian agencies, bilateral organisations, scientists, disaster management experts
Representation of disaster events	Disasters as a continuum of events embedded in longer-term marginalisation	Disasters as unprecedented	Disasters as unprecedented, as opportunities
Representation of disaster impacts	Experiential understanding of losses often as multi-faceted, tangible and intangible, and temporal	Losses often as aggregate and/or case-based, tangible	Losses often as aggregate and tangible
Representation of recovery	Recovery as long-term and multi-faceted, beyond infrastructure alone; recovery as a way to return to livelihoods but also move beyond to meet future aspirations	Recovery as a way to hold the state accountable, report on positive actions as learnings	Recovery as discrete interventions with a focus on infrastructure, livelihoods, and in some cases, relocation away from high risk areas

To examine how narratives around recovery are formed and perpetuated, we use the heuristic of the "disaster representation space". The disaster representation space:

- …is a way to visualise how different actors and their agendas, institutions, capacities, and constraints mediate representation of disaster events, impacts, and recovery.
- …highlights that the way the 'above', 'middle 'and 'frontline' represent disasters and their impacts, and modes of recovery, have different strengths and biases, different motivations and agendas, and lay bare different epistemological entry points (to recovery).
- …brings attention to the fact that information, ideas, priorities, and power flow between actor groups, all of which have implications for recovery.

In the disaster representation space, three key framings on recovery, emanating from three actor groups are identified (Figure 7.4).

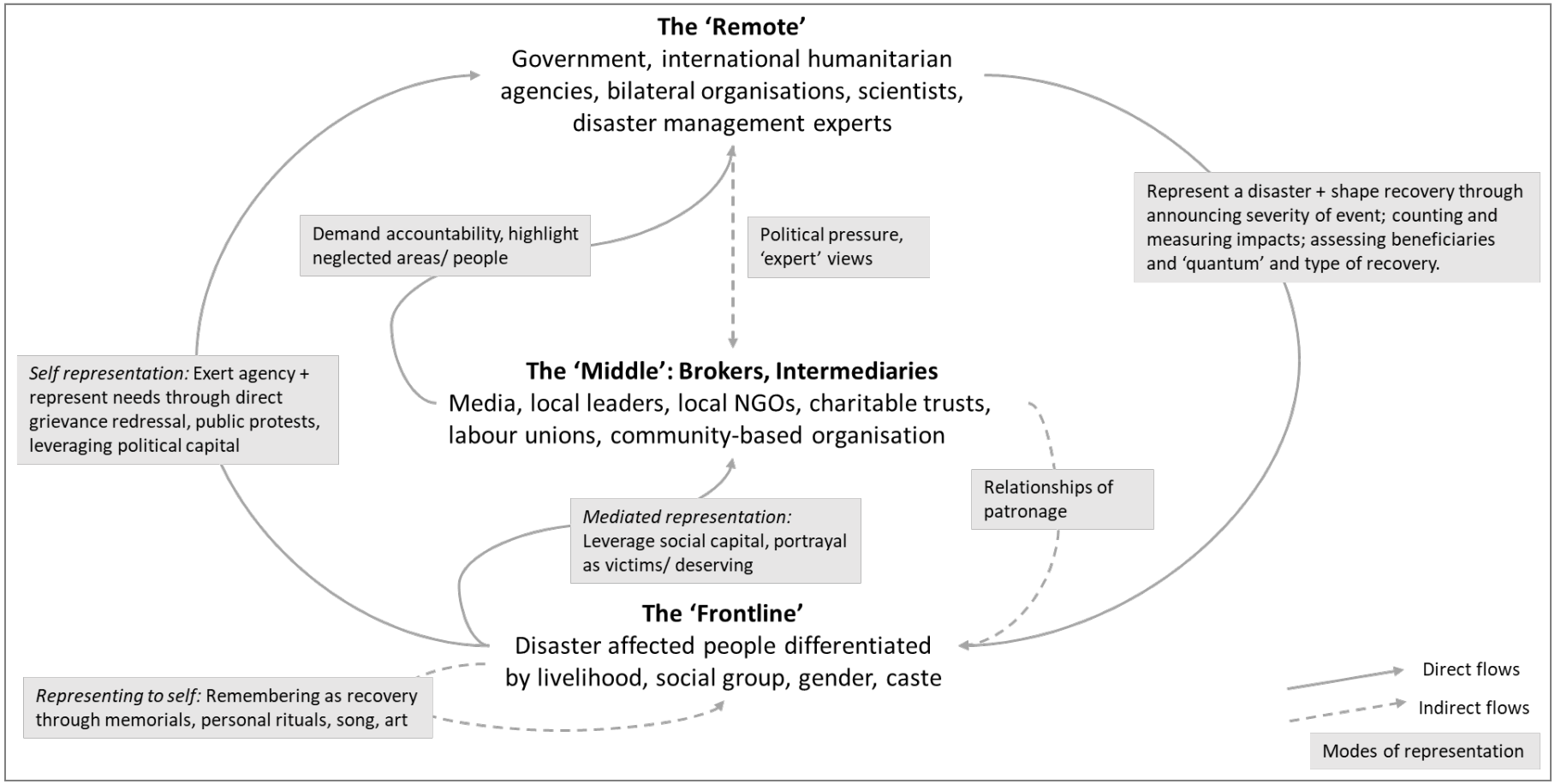
First, the 'Frontline' denoting DAP narratives tend to be articulated at the personal, highly granular scale, in relation to personal trajectories of past disaster experience and structural vulnerability; potential support from state and non-state actors; and in a dynamic manner that has an eye on the future (e.g., personal aspirations). Here, recovery can be 'demanded' directly by portraying disaster losses (*self-representation*) to the 'remote' or they can be mediated through interlocutors (*mediated representation*), who present disaster impacts and hence apply pressure to the state and other actors to invest in recovery. To a lesser extent, we find a third category of representation, '*representation to self*', where DAPs make sense of the disaster and their losses through private rituals, everyday practices and use routine and memory to overcome losses and 'return to normalcy'. Within this third category we also see, in some cases, evidence in form of despair and resignation (section 6.3.5) or fatalism (section 5.1.1) that DAPS are adjusting down their preferences. In other words, they are adapting by lowering expectations about how they can live their lives, the level of support they can expect from other actors, and what they can achieve or be in the future. This sort of adaptation is worrying at a fundamental level as it signifies a truncation of agency, a foreshortening of peoples hopes and dreams.

Second, the 'Remote' comprising actors who may not be directly impacted by the disasters but are entrusted/expected to help recovery. These actors are typically instrumental in driving state and donor narratives of disasters with a focus on assessing damage and providing immediate relief by examining aggregate impacts and identifying areas/people most-affected. Most often such narratives rely on experts for prioritising effective recovery and 'predicting' and 'avoiding' future impacts. These narratives of disaster loss and recovery tend to hold power and inform most recovery prioritisation. At times, they can be held accountable by intermediaries (e.g., the media, researchers, and activists).

Third, the 'Middle', comprising journalists, activists, local civil society, and sometimes, researchers, performs a brokering role and '*representing on-behalf-of*'. The interlocutors can

hold the state accountable (or not); present ‘expert’ views on a topic, i.e., reportage for representing science; highlight social unrest and grievances, reportage for social action; portray local stories of impact and recovery using reportage for learning; highlight neglected people/places thereby using reportage for accountability. Impacts and needs of DAPS are thus often filtered through interlocutors/brokers highlighting the significance of the brokering role of the media and civil society in providing a channel to converse with government, raising awareness about recovery gaps and grievances, and in some cases, demanding accountability. However, it also highlights potential weaknesses as these brokers can be benign or malign. DAPs aligned with particular brokers are able to articulate demands (e.g., fisher unions post tsunami). While this can lead to positive action for them, it potentially marginalises groups without agency.

Figure 7.4: The disaster representation space: modes and flows of narratives around representation



We also find a certain bureaucratisation of recovery which shapes recovery narratives from 'the Remote'. This bureaucratisation tends to project actions and responses as successes, with a focus on highlighting recovery in terms of efficacy, speed, and sufficiency. Pressure from the frontline and brokers pushes expectations on the above to act quickly and conclusively, but this thrust towards the 'fast-acting state' brings its own risks and issues around mismatched and ill-designed interventions and needs (Section 6.3.5). Another outcome on portraying recovery as fast and effective is the recent trend towards universalism in terms of interventions (e.g., targeted aid after the tsunami and floods versus universal aid for Gaja).

Overall, the disaster representation space highlights how recovery and narratives around what recovery means and how it can be implemented are framed by the broader political economy of disaster management. It highlights how different actors pursuing different agendas frame recovery solutions in terms of how they see the world (and envision futures). Therefore, development sector and civil society actors tend to focus on structural vulnerability and livelihoods strengthening, typically focussing on particular social groups or sectors. They might represent on behalf of certain community groups but this is defined sharply by their development and political agendas. On the other hand, state actors function within certain constraints such as state-centre political relations, voting cycles, funding pools and timelines, as well as pressure from international aid agendas.

8 Conclusion

Fishers in Nagapattinam. Attention to better livelihoods, resilient infrastructure, healthy ecosystems, and personal wellbeing can enable inclusive post-disaster recovery. Photo: Yashodara Udupa

8.1 Disaster responses and outcomes are highly differentiated and recovery interventions must acknowledge and incorporate this

The ways in which people and places experience disasters are dynamic and socially-differentiated in terms of how events are perceived and what direct and indirect impacts are experienced. Whilst the severity and nature of hazard impacts are important influencers of recovery outcomes, so too are social differences that permeate society before a hazard. Actions and interventions to stimulate and support recovery must recognise the differing needs of people and respond flexibly as various recovery trajectories take shape.

For policy and practice this means implementing a more reflexive approach through which assumptions about who are affected, how severely and the support required are reappraised at regular intervals. Moreover, this 'taking stock' needs to involve a variety of stakeholders to ensure that the plural perspectives of recovery are given due visibility. This focus on different needs during post-disaster recovery can reduce the likelihood of specific social or livelihood groups being ill-served or excluded from recovery support.

A key aspect of recovery is ensuring that all disaster-affected people have equal access to necessary support processes as they move forward. Our evidence suggests that this is not always the case, with actors developing mechanisms and processes of support that develop their own inertia, effectively locking institutions into particular ways of

responding. For example, the focus on visible infrastructure and more tangible losses marginalises less visible impacts of repairing the social fabric of places or meeting aspirations. Greater and more diverse engagement is needed to ensure that the plural ways that people recover are recognised and supported.

8.2 The evolving disaster management policy landscape is driven by certain agendas, which mediates recovery priorities

The disaster management policy landscape has clearly changed since the Indian Ocean tsunami in 2004. Disaster risk reduction and recovery are much more visible within the state government apparatus. The state has become more visible, more multi-stakeholder partnerships have emerged, and the application of science to inform policy-making is increasingly deployed and discussed. Yet, these multi-stakeholder and science-informed approaches have not always led to inclusive and sustainable outcomes. These superficially neutral and techno-infrastructural approaches to managing disaster responses and recovery mask the specific agendas actors hold and power they exert to shape perceptions of events, interventions and, ultimately, recovery.

We find that the deployment and use of specific frames and discursive devices influences how blame and attribution for events are understood. The most striking example of the contestation about the framing of events is seen after the 2015 South India flood. Initially, the flood was understood as driven by the unprecedented rains but this narrative was challenged later as the role of unsustainable urbanisation in mediating disaster losses gained traction. Recognising and analysing these narratives is important as they relate directly to the attribution of blame and responsibility, not only for preparing for future events but also its aftermath.

Hazard events are never entirely located in the biophysical or hydro-meteorological realm. The severity of impacts and nature of recovery are determined by a combination of the hazard event and how it overlays on every aspect of society, including one's ability to represent oneself effectively. The informal settlements in inner city Chennai were considered ecologically sensitive and populations living there were regarded as vulnerable and highly exposed to flooding. This vulnerability was used as the main reason by the state and the slum clearance board to relocate the communities into resettlement colonies. Conversely, many wealthier communities that also suffered damages and were located in vulnerable areas experienced little to no attempt at relocation out of precarious areas. This example aptly illustrates the differential power and influence that actors have and how this is deployed to influence and support actions that are beneficial to certain groups. The power one possess to shape agendas and represent oneself is crucial in influencing the nature of recovery interventions and outcomes.

8.3 Acknowledging different ideas of 'good/effective' recovery is critical for inclusive recovery

Representing recovery includes competing ideas about what is considered 'desirable' and 'effective'. We see many instances of fast action (from the state) being seen and understood as effective recovery. This representation of recovery, as seen in the media, shapes recovery processes in terms of how interventions are designed and delivered. For example, we see a shift in how support is provided from the tsunami to Cyclone Gaja with moves from more targeted approaches to those that are more universal. This shift from targeted to universal action speeds up the disbursement of financial support. However, speed in recovery provision can also result in negative outcomes such as wrongful or hastily planned evictions. Ultimately, a balance is clearly needed between speed and the ability to target and tailor provision. As a rule of thumb, the focus should shift from more universal and faster in the early stages of recovery to more bespoke and targeted as recovery needs for specific people and places emerge and are identified.

Closely linked to the notion of effective recovery as being a fast response, is that of a visible response. The analysis shows that actions associated with housing and infrastructure provision as well as livelihood strengthening are delivered and highlighted as interventions meeting expectations. Whilst we do not wish to downplay the importance of such infrastructural interventions, we do stress that this only partially represents what recovery entails. Non-governmental actors and DAPs have highlighted the importance of other elements of recovery beyond infrastructural improvements and tied more broadly into addressing development deficits. This view of recovery is necessarily a more long-term view than the more bounded perspective that many actors implicitly employ in supporting and implementing recovery interventions. Neglecting these under-represented views of recovery impinges not only on the affected populations' abilities to recover but also, more fundamentally, on their dignity. Recovery needs to be about listening to and responding not only to people's immediate and basic needs but to the larger issues that impact and impinge on their wellbeing.

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10 Annexures

Table 10.1: Sectoral schemes included in the analysis. D: Disaster management; H: Housing; F: Fisheries; E: Environment; A: Agriculture

Scheme name	Description	D	H	F	E	A
State Disaster Management Policy 2014	This policy was formulated by the Tamil Nadu state to provide guidelines for the management of disasters in the state and to ensure that disaster management is a more proactive process.	✓	✓			
State Disaster Management Perspective Plan 2018-2030	The Tamil Nadu State Disaster Management Perspective Plan 2018–2030 has been designed using the Sendai Framework for disaster risk reduction. It is based on consultations undertaken with various stakeholders in the state's disaster management process.	✓	✓	✓	✓	
Chennai Disaster Management Plan 2017	The city disaster management plan is a set of guidelines for the disaster management taking into consideration the unique history of disasters, vulnerabilities, and geography of Chennai.	✓	✓		✓	
Emergency Tsunami Reconstruction Project (ETRP)	Funding by the World Bank, Fisheries Department towards (a) restoring damaged fisheries infrastructure, clearing bar mouth and estuaries to maintain estuarine habitats; (b) re-establishing safety-at-sea services and assisting agriculture, horticulture, and livestock; and (c) promoting sustainable management of coastal land and water resources.	✓	✓	✓		✓
Tsunami Emergency Assistance (Sector) Project (TEAP)	Funding for rehabilitation; rebuilding infrastructure (roads, bridges, water supply, drainage, sanitation, ports, and harbours; fishing centres, buildings); capacity building and financial assistance (through SHGs); restoring livelihoods	✓	✓	✓		
Post-Tsunami Sustainable Livelihood Programme (PTSLP)	IFAD Assisted PTSLP for developing viable enterprises and resource management systems owned and operated by poor men and women affected by the tsunami and supported by community and other appropriate institutions.	✓	✓	✓		✓
Rajiv Gandhi Rehabilitation Package	The Rajiv Gandhi Rehabilitation package was Government of India funding to support relief and recovery following the tsunami.		✓	✓		
Fisheries Management for Sustainable Livelihoods (FIMSOL I) Project *(2010-2012)*	World Bank supported project implemented by FAO with the Department of Fisheries, Tamil Nadu. Supported development of a long-term policy framework for sustainable fisheries management and livelihoods through stakeholders' consultations, expert reviews, and capacity building processes.			✓		
Fisheries Management for Sustainable Livelihoods (FIMSOL II) Project	Building on FIMSOL I, FIMSOL II delivered a number of activities to promote socio-economic standard of fishers.			✓		
Tamil Nadu and Puducherry Coastal	World Bank funded project, implemented by GoTN. Focusses on increasing resilience of coastal communities to hydro-	✓	✓	✓	✓	

Scheme name	Description	D	H	F	E	A
Disaster Risk Reduction Programme (CDRRP) *(2013-2018)*	meteorological and geophysical hazards. Sustainable Fisheries component supports fisheries sector.					
Vazhnthu Kaatuvom (Scheme)	Scheme implemented under the auspices of the TN government and aims to create economic opportunities and build social capital in the poorest communities.			✓		✓
Japan Fund for Poverty Reduction (JFPR)	Established in May 2000 after the Asian financial crisis; assists the poorest and most vulnerable groups.			✓		

Table 10.2: Details of organisations/actors reviewed, divided by sector

Actor	DRM	Fisheries	Housing	Environment	Agriculture
Public sector	– Tamil Nadu State Disaster Management Authority (TNSDMA) – Chennai Corporation – Tamil Nadu State Planning Commission (TNSPC) – Revenue Administration, Disaster Management and Mitigation Department (RADMMD)	– Department of Fisheries – Ministry of Home Affairs	– Tamil Nadu Slum Clearance Board (TNSCB) – TN Housing and Urban Development Department	– Tamil Nadu Environment and Forest Department – Coastal Disaster Risk Reduction Project (CDRRP) – Coastal Regulation Zone (CRZ)	– Tamil Nadu Department of Agriculture – Mahatma Gandhi Employment Guarantee Act
NGO/CSO	– AID India – NGO Coordination and Resource Centre (NCRC)/BEDROC – Tsunami Rehabilitation Information Network (TRINet)	– Tamil Nadu State Apex Fisheries Cooperative Federation (TAFCOFED) – Tamil Nadu Fishermen Welfare Board (TNFWB) – South Indian Federation of Fishermen Societies (SIFFS) – M.S. Swaminathan Research Foundation – TRINet	– Housing and Land Rights Network (HLRN) – Information and Resource Centre for Deprived Urban Communities (IRCUDC) – Citizen Consumer and Civic Action Group	– Coastal Resource Centre – Environmentalist Foundation of India – Care Earth Trust	– Vanavil Nagapattinam – M. S. Swaminathan Research Foundation
Humanitarian	– Oxfam – Aid Alliance	– Oxfam	– Action AID	– N/A	– N/A
Multi-/bilateral	– World Bank – UNDP – IFAD – ADB – Swiss Re	– World Bank/FAO/Department of Fisheries – World Bank – World Bank/GoTN – ADB/GoTN – Japanese Fund for Poverty Reduction/GoTN – International Fund for Agricultural Development/GoTN	– World Bank – UNDP – ADB	– World Bank – UNDP – Post-Tsunami Disaster Initiative – Tamil Nadu and Puducherry Coastal Disaster Risk Reduction Project	– World Bank – UNDP – IFAD – Post-Tsunami Sustainable Livelihood Programme (PTSLP)
Religious /cultural groups	– RSS – Mata Amritanandamayi	– Church Auxiliary for Social Action (CASA) – United Evangelical Lutheran Churches In India (UELCI)	– N/A	– TN Temple tanks	– N/A
Academic institutions	– IIT Madras – MIDS	– Central Institute of Brackishwater Aquaculture (CIBA)	– MIDS	– IIT Madras – MIDS	–

Actor	DRM	Fisheries	Housing	Environment	Agriculture
	– University of Utah (Chandrasekhar PhD)	– Central Marine Fisheries Research Institute (CMFRI) – Central Marine Fisheries Research Institute (CMFRI) – Tamil Nadu Dr. J. Jayalalithaa Fisheries University		– Indo-German Centre for Sustainability – IISC	
Other	– NA	– FAO workshop output	– N/A	– Documentary film- Chennai Megafloods- National Geographic – Documentary film- Kaneer Kadal (2017)	–

Table 10.3: Example template used to analyse the media articles

Source (reference and date)		
Background Information		
Reviewer's name		
Type of item (opinion OR news OR feature/documentary)		
Type of author (journalist OR role/organisation of other)		
Event that is the main focus		
Phase discussed (emergency phase OR post-disaster)		
Representation Themes		
What is represented	How it is represented	Description and extracts
Disaster event (its causality & how to reduce future risk)		
People affected (impacts on DAPs and their actions; & people's actions, needs, rights, remembrance – post-disaster)		
Support activities (external assistance, priorities for intervention, NGO activism, and official memorialisation)		
Other themes (not fitting into categories above)		
Notes (e.g., things for follow-up):		

Primary stakeholders

Orientation

- Recollection of event(s), impact on you, your community, your neighbourhood

Recovery

- Do you feel you have recovered, what does recovery mean to you, what was important in enabling your recovery, what about your emotional and psychological health? Was your recovery different when comparing the two events, why was this?
- Looking back on events now, do you think things could have been done differently/better? In what ways, why, why not?
- Can you still see any impacts of the event? What are these, why do you think this is the case?
- What about people, are there any people/groups that still seem affected? Why is this, what about groups of people that are not affected anymore, why is this? What do you think explains the differences between those who are still affected and those who are not?

Memorialisation and sharing memories

- Do you mark the event in any way, is this a shared event or activity, what do other people do, do you prefer to mark the event as a community or on your own/with friends/family?

- Are there some places or people where you can go where it is easier to talk about events and your experiences? Where/who are these?
- Do you think other ways/forms of being able to describe events and their impact are necessary, would they help you, how and what ways?
- What ways/how do you and your community share stories about the events (songs, poems, or music)? Which do you prefer and why?
- What about state/national events, what do you think of these?

Representation

- How were people affected by the event like you described or portrayed (for example by government or in the news)? Did you agree with this, is there anything you would have changed, why and what? Were there descriptions of you/your community that you tried to change, how did you do it, how effective was it?
- What about other people or communities, how were they represented, was it the same or different to you? Why was this? Were some people/communities described in a more favourable light when compared to others?
- Were there people/organisations that you think described you and your experiences well? Who were these and what did they do that was different compared to other people/organisations? What about the opposite, were there people who described your situation poorly? How, in what ways and why do you think they did?
- Looking back at events, were there groups of people that received a lot of support (perhaps more than was warranted)? Why do you think this was? What about the opposite, where their groups that received little support? Why was this? What do you think explains the difference?
- Were there any groups of people that were particularly good at requesting support, attention, resources to support recovery? Who were these groups, why do you think they were good at this? What made them good? What about the opposite, were there groups that were not good at asking for, demanding, advocating for resources to support recovery?

Secondary stakeholders

Orientation

- Recollection of event(s), describe your/your organisations role? What were your main activities? Was it more direct and immediate, more long term or something else?

Recovery

- Looking back on events now, do you think things could have been done differently/better? In what ways, why, why not?
- Can you still see any impacts of the event? What are these, why do you think this is the case?
- What about people, are there any people/groups that still seem affected? Why is this, what about groups of people that are not affected anymore, why is this? What do you think explains the differences between those who are still affected and those who are not?

Support

- Where there any groups of people that were particularly badly affected? Who were these, why were they badly affected? Did you vary your approach to working with groups that were affected in different ways, how and what ways did you approach vary?
- Looking back at events, were there groups of people that received a lot of support (perhaps more than was warranted)? Why do you think this was? What about the opposite, were their groups that received little support? Why was this? What do you think explains the difference?
- Where there any groups of people that were particularly vulnerable or resilient? Why was this? Did you work in different ways with these different groups?

Other organisations' provision of support

- What about other organisations and their activities, were there any groups of people that seemed to receive a lot of/little support? Who were these, why do you think they received more/less support?
- Were there any groups of people that were particularly vulnerable or resilient? Why do think this was? Did other organisations in different ways with these different groups? Why, why not?

More media focus on representation

- Did you talk about affected groups in particular ways, why was this? How did you differentiate? Was this a conscious choice?
- Did you represent certain groups in a way to generate sympathy, garner support, or for some other reason? Did this change over time?

Other people's representation of DAPs again with a more media focus

- What about other people/organisations? Do you think they described events and those affected in an even-handed way? Yes, no, how, in what ways? Where some organisations/people more unfair, fair, why was this? What did they do?
- Do you think specific types of organisations (religious, NGOs, INGOs) pursued their own agendas in any way? Why, which ones, what was the practical impact of this on the ground? What about the media?

Advocacy

- Were there any groups of people that were particularly good at requesting support, attention, resources to support recovery? Who were these groups, why do you think they were good at this? What made them good? What about the opposite, were there groups that were not good at asking for, demanding, advocating for resources to support recovery?

Change

- Has the way you engage/work with DAPs changed over time? How and in what ways? What is responsible for the change?
- What about other organisations, do you think that they have changed how they engage with DAPs? Why did the change occur, when, what the reasons for this change?

Nagapattinam district, Tamil Nadu. Photo: Yashodara Udupa

Fishers at Nagapattinam beach, Credit: Yashodara Udupa

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