

# The role of the affected state in humanitarian action: A case study on India

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# 1. Introduction

This case study is part of the ODI HPG research programme on the role of the affected state in humanitarian action. It aims to describe the essential elements of **India's** approach to disaster management as seen in its response to the 2001 Gujarat earthquake and the 2004 Indian Ocean tsunami. The study also analyses policy trends in **India's disaster response, focussing on the 2005 Disaster Management Act.**

India is affected by both expected and unexpected natural disasters each year. The number of people involved is often substantial - flooding in the state of Bihar in 2007 affected some 23m people. Disasters are also financially costly.

India is one of the largest and most vulnerable countries, in terms of exposure to natural hazards including floods, cyclones, earthquakes, tsunamis or droughts. Reported direct losses from natural catastrophes more than quadrupled from 1981-1995, reaching \$13.4bn, as compared to the losses registered during the previous 15 years (\$2.9bn). This alarming trend is accelerating with total losses of \$13.8bn reported during the period from 1996-2001.

([gfdrr.org/proposal\\_pdfs/1471a.pdf](http://gfdrr.org/proposal_pdfs/1471a.pdf))

Both the 2004 Indian Ocean tsunami in Tamil Nadu and the 2001 Gujarat earthquake revealed different areas of priority and focus for disaster mitigation, preparedness and recovery. This report

examines the actions taken by the central and state governments and by the military, and examines the interaction between the state and NGOs assisting in the response effort.

The response of the local and international community to each disaster was equally significant. Approaches that evolved from the responses have continued to affect policy towards disaster management in India. The third section of the report examines the legislative and policy framework at national level and **assesses the progress of India's attempt to shift** policy on disaster management away from response and relief towards mitigation. The report offers a series of conclusions, as well as recommendations.

The research consisted of an extensive literature **review and two weeks' fieldwork in India from 15-29 September 2008.** The authors travelled to New Delhi, Chennai, Pondicherry and Nagapattinam to ensure a balance of interviews between central and state government and with officials in the worst-affected field location, and with other key stakeholders from bilateral agencies and NGOs. Research in Gujarat was conducted by Kuldeep Sagar, who interviewed 90 people through individual and focus group meetings in the towns of Bhuj, Bhachau, Rapar and Anjar and two districts of Kutch and Surendranagar from January 5 to February 2, 2009.



## 2. The 2001 Gujarat Earthquake

The Gujarat earthquake of 26 January 2001 occurred as the Indian tectonic plate shifted to the north and northeast, colliding with the Eurasian and Arabian plates. Measuring 6.9 on the Richter Scale, the earthquake was the second since 1956 to affect the same districts. A series of aftershocks continued in the region for several months.

The impact of the earthquake was immense. Affecting 24 districts, of which Kutch, Surendranagar, and Radhanpur were the most severely affected, it damaged 7,904 villages, left 16,927 dead and 166,836 injured, and destroyed 147,499 homes<sup>1</sup>. Half a million people were left homeless<sup>2</sup>. The worst effects were seen in Bhuj, Anjar, Bhachau, and Nakhatrana in Kutch district. **The city of Ahmedabad, Gujarat's capital, lost 750 and saw 4,040 injured<sup>3</sup>.** In the city of Bhuj, more than 3,000 people died, close to 90% of all buildings were destroyed and 16 slums were badly affected.

The earthquake followed two consecutive droughts in Gujarat in 1999 and 2000. These recurring droughts are severe for communities whose main sources of income relate to agriculture, animal husbandry, salt mining, handicrafts and trade. The earthquake added to the severity of economic hardship. In these areas up to 80% of employment is in the informal sector of the rural economy. Impact included damage to agricultural lands—including 240 earthen dams used for irrigation—11,600 schools, bridges, 1,200 health clinics and many factories<sup>4</sup>. Urban and rural water supply systems were damaged. In Bhuj, even the cinema hall, hospitals and the jail collapsed. DISHA, an NGO concerned with the rights of tribal groups, noted that a large number of migrant tribal construction labourers from eastern Gujarat left the area the day after the quake—without work and often without wages or the government assistance provided to others.

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<sup>1</sup> Gol. 2001. Government of India Situation Report. February 11, 2001.

<sup>2</sup> Sinha, A. 2004. The Gujarat Earthquake 2001. Asian Disaster Reduction Center.

<sup>3</sup> Gol. 2001. Government of India Situation Report. February 11, 2001.

<sup>4</sup> World Bank and Asian Development Bank. 2001, March 14. Gujarat Earthquake Recovery Program: Assessment Report. A Joint Report by the World Bank and the Asian Development Bank to the Governments of Gujarat and India. Washington, DC: World Bank.

Some specific features of earthquake are worth noting. Earthquake impact is most evident in structures and buildings but losses are also borne by the many that face indirect impact. Newly constructed flats and high-rise commercial buildings suffered more damage than either old traditional or local vernacular construction such as *bhungas*—low round structures with three-foot-high mud or brick walls with lightweight pointed roofs.

The worst-hit were families with houses built in the past three decades, schoolchildren, those living in four- to seven-story high-rise buildings, and rural artisans. Navsarjan, a national human rights group, noted that *Dalits* were badly affected by the loss of buildings and livelihoods. An estimated 50,000 artisan livelihoods were lost.<sup>5</sup> Many women lost their livelihoods in rural and urban areas, as reported by the Self-Employed Women's Association (SEWA), the largest trade union of informal sector women in India, and Kutch Mahila Vikas Sansthan, a leading NGO in Kutch working for women. Ganatar, an action and advocacy NGO **working with children's rights and education**, noted that many children were out of school for between three and nine months.

### 2.1 Summary of Response to the Emergency

The response was unprecedented, both in terms of global giving and charitable links, and marked a turning point as Gujarat moved from disaster relief to a more pre-emptive strategy. After the earthquake, the government of India focussed more energy on preparedness for future hazards. Starting from next-door neighbours and continuing from neighbouring towns, different states of India, and Gujaratis living overseas, communities sent relief material and money to affected families and relief funds set up by NGOs and the government.

The initial challenge was to search for the missing and rescue those buried beneath debris. Emergency camps were set up in large numbers. At one point, Bhuj town had 18. More than 300 were built in Kutch, Patan, and Surendranagar districts. One in three survivors coped by boarding with neighbours or relatives in the same town or elsewhere. Family tracing was a challenge but addressed, to an extent, with the use of newly

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<sup>5</sup> Kishore, R. 2006. Build Back Better: Earthquake Reconstruction in Gujarat. Presentation December 19, 2006.

installed mobile phones from private companies and satellite phones set up with support from donors including DFID and UNDP. People-to-people tracking was informal, but effective. Depending on the situation, women and the elderly guarded damaged houses while spouses, mostly men, went out in search of food, water, information and assistance from NGOs, CBOs and government offices.

The established public distribution system for food was utilised by the government of Gujarat to pump in food rations for daily local use and essential commodities such as matches, soap and kerosene for cooking. Intercity transport was made available free of charge for up to 30 days to help transport the injured, food and other relief goods. Existing NGOs and CSOs moved to affected areas within hours to help with organised teams and relief material. Local temples, *masjids* and church groups were in action quickly. Local food markets were active within two days and building construction material was available in key locations in ten days and in less than 60 days in almost all other affected locations.

## 2.2 The central government response

The Government of India responded immediately. The office of the Prime Minister sent a team to review the situation. The Cabinet Committee declared the earthquake a national calamity and invited international assistance. The High Powered Committee of the Government of India, mobilised the technical inputs and systems to aid the central government. The Home Minister, L.K. Advani, travelled to Ahmedabad to meet with the Chief Minister of Gujarat, Keshubhai Patel, and indicated that property loss in Gujarat would exceed Rs10,000 crore. By 2002, the total amount officially projected would total Rs1,500 crore<sup>6</sup>. YASHADA, a state level public administration institute in Maharashtra set up after the Latur earthquake, provided support with assessment and mobilisation. The Orissa State Disaster Management Authority mobilised its teams to Gujarat. NGOs with experience in the 1999 Orissa cyclone came to provide support, including CYSO, XIMB, and Voluntary Health Association of India.

The relief efforts at the central level were coordinated by the Natural Disaster Management Control Room in Delhi, working closely with the

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<sup>6</sup> NCDM. 2002. Gujarat Earthquake: A Case Study. New Delhi. Cited in Gol/Planning Commission. 2002. Tenth Five Year Plan: Disaster Management, the Development Perspective. New Delhi.

government of Gujarat's control room in Gandhinagar and the state relief commissioner. The government of India provided Rs6.1 billion (\$130 million equivalent) from the National Calamity Relief Fund and the Prime Minister's Relief Fund as emergency cash assistance. In addition, the Reserve Bank of India permitted the government of Gujarat to access advances beyond normal limits for emergency relief and rehabilitation until 31 March 2001<sup>7</sup>.

Governments of other states—especially Maharashtra, Orissa, Delhi and Rajasthan—sent relief material and medical, rescue, assessment, and volunteer teams in unprecedented numbers to assist survivors. The state government of Delhi, Maharashtra and Rajasthan adopted villages to support with new houses. Various public sector units owned by the government of India, such as the Steel Authority of India, Bharat Heavy Electricals and others, offered relief and rehabilitation packages. Nine nationalised banks and three private banks sponsored rehabilitation activities. The House of Tata and its long standing Tata Relief Committee and Reliance Industries also provided support to national authorities and local communities.

## 2.3 The role of the military

Kutch is a district that has a long-disputed border with Pakistan. Army and air force bases located in this zone, near Gandhidham town, suffered heavy damages and losses in the earthquake. The Bhuj air force base not only suffered structural damages but also lost over 40 pilots (along with their families) in the earthquake. Undeterred by personal and organisational losses, the soldiers were operational within a few minutes of the earthquake and rendered aid to civil authorities. Existing infrastructure and a live coordination system (established after the 1999 Kandla cyclone) helped responders act quickly. Ongoing training in the desert was cancelled to redirect troops to Gujarat within hours to provide assistance.

A large number of army personnel were deployed in towns and villages of Bhuj, Ahmedabad, Dhangadhara, Jamnagar, Rajkot and other affected areas in Gujarat. Vehicles and specialised equipment were also deployed to support the relief operations throughout these areas. Soldiers

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<sup>7</sup> Asian Development Bank (March 2001). Report and recommendation of the president to the board of directors on a proposed and technical assistance grant to India for the Gujarat earthquake rehabilitation and reconstruction project.



in more than 60 columns worked day and night in rescue and relief operations<sup>8</sup>. In addition, three columns of army engineers were deployed for initial technical inspection including on-the-spot repair measures of damaged buildings within days. The key tasks undertaken by the army in the aftermath of the earthquake included:

- provision of safe drinking water in border villages and key towns;
- establishment and running of tented camps in urban and rural areas;
- establishment of schools in rural areas;
- provision of tents and tarpaulins to local authorities in border districts;
- patrolling of affected areas to avoid theft or loot or disorder;
- provision of communications for civilian action;
- running of free kitchens in Bhuj and four towns in the initial weeks.

The army rescued 478 people (almost half of them in the first two days), evacuated 484 seriously injured persons, and recovered 2,260 corpses<sup>9</sup>. It established 48 relief camps for 23,000 people in Kutch villages to house displaced people and provide emergency medical care. With the military hospital in Bhuj rendered unusable, the army airlifted injured to Pune military hospital in neighbouring Maharashtra state. Army doctors performed 11,284 major operations, treated 17,566 patients with severe injuries, evacuated 600 injured to available hospitals for further treatment, and airlifted 486 to Pune or Ahmedabad for additional medical relief or operations.

The army patrolled 19 towns, protecting evacuated properties and coordinating the flow of traffic and relief goods. To assist most affected areas, it set up 39 camps within the first two days and initiated and managed 39 free camp kitchens that reached 14,000 families every day.

The air force pressed into service six IL-76s, 18 AN-32s, 4 Avros, four Dorniers and 16 helicopters in the largest peacetime mobilisation for a relief effort. It made 953 sorties, carrying relief materials, tents, equipment, food items, rescue teams and injured persons, and assisted international teams including from the USA, UK, Switzerland, Turkey and Denmark.

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<sup>8</sup> Samachar, S. *Army's Massive Rehabilitation Venture: A Retrospective*. Sainik Samachar.

<sup>9</sup> Mishra, P.K. *The Kutch Earthquake 2001: The Aftermath*. pp 43.

The navy provided hospital ships and helicopters, facilitated casualty evacuation and transportation of relief material and supplies from the Jamnagar base in Gujarat, and despatched teams with satellite phones. The INS Ganga carried relief materials to Kandla Port in Kutch and two naval ships were converted into hospital ships where surgeries were performed on severely injured victims for two weeks. A Dornier operated between Mumbai and Kandla carrying fresh water and sterilised equipment for hospital use.

Additionally, the army and air force established separate cells in Ahmedabad and Bhuj Airfields to receive international aid in coordination with the government of Gujarat, drawing from its experience in Orissa Super Cyclone of 1999. The aid cargo, received from 18 countries including fPakistan, was sorted according to sector and then handed to the Government of Gujarat for distribution. The military and civilian responses were coordinated at both the central and the state levels, encompassing relief supply coordination, loss assessment, relief needs assessment and removal of debris from roadways.

#### 2.4 The state government response

At state level, the significant loss of life and damage caused by the earthquake changed the approach to disaster management. A single authority was created with the power to manage recovery and subsequent preparedness and mitigation efforts state-wide.

Although systems were in place to manage cyclone, drought and flood relief through the relief commissioner's office, Gujarat was ill-prepared for earthquakes. No authority had official responsibility for earthquake preparedness, and there were no contingency plans or policies for dealing with such a catastrophe. Still, the GoG responded quickly. At the district level, the damage suffered impaired the response, but arrangements were rapidly improvised. The GoG began emergency rescue operations on the same evening, and many cases within hours, and initiated efforts to restore lost communication links, electricity, water supply and civil supplies. Existing institutional structures including public corporations and line departments assisted as specialised needs emerged. The Gujarat Mineral Development Corporation of GoG played a long and effective role from relief to recovery as it was based in Kutch.

The chief minister of Gujarat, Keshubhai Patel stationed a team of high-level officials in each district to take on-the-spot decisions. By 14 February, the Gujarat State Disaster Management Authority (GSDMA) was established with the chief minister as chairperson. The GoG also established the high-level Disaster Management Task Force to advise on relief and reconstruction policies<sup>10</sup>.

Within a month of the disaster, the GoG devised a rehabilitation policy and compensation package for the reconstruction of damaged houses in the rural areas of Gujarat<sup>11</sup>. The policy drew from experience in Latur and Orissa. The package established a damage assessment system with teams of local engineers, provided support for public-private partnerships in reconstruction, and made direct payments to homeowners for shelter reconstruction<sup>12</sup>. A complaint cell was set up in three locations in the state with the intent to promote accountability in use of public money and improve performance. According to the UNISDR, factors that contributed to GSDMA's ability to implement the Gujarat Recovery Programme included<sup>13</sup>:

- management by senior and experienced state officials;
- close ties with line departments, and financial and executive authority to disburse funds, review progress and take corrective policy measures based on field assessments;
- ability to use existing field agencies, including public works, education, health and water supply, to implement programmes;
- transformation of the GSDMA, after the closure of the Gujarat Project of earthquake recovery, into the permanent disaster prevention and management organization of the state.

The continuation of GSDMA's authority after the relief phase has ensured that lessons learned are being incorporated into the state's disaster management plans, at least to some extent. However, the advisory council of eminent citizens did not meet beyond three times to oversee the GoG-CSO link. CSO involvement focused on shelter

reconstruction and lessened over time. This had the unanticipated result of developing what is now called an 'owner-driven' housing process, whereby each survivor rebuilds his or her own shelter at a pace suitable to him or her. This concept, which Kutch Nav Nirman Abhiyan (KNNA) played an active role in developing, succeeded thanks to the self-starting nature of local people, existing social and physical infrastructure, active NGOs, and GoG commitment. A similar, rights-based concept of the Home Losers Association (HOLSA) in Ahmedabad was launched by Ahmedabad Study Action Group but did not evolve as much due to low-level GoG support, smaller numbers of affected families and limited donor and rehabilitation interest in Ahmedabad compared with Kutch district.

To address 'one of the worst earthquakes in the last 180 years'<sup>14</sup>, GoG announced an earthquake reconstruction and rehabilitation policy<sup>15</sup> and four reconstruction and economic rehabilitation packages totalling nearly \$1b. One of these included a large-scale relief and rescue operation, the Gujarat Emergency Earthquake Reconstruction Project (GREEP). GREEP claims that, as part of recovery, the state government implemented the **world's largest housing reconstruction project with over 900,000 houses repaired and nearly 200,000 reconstructed**<sup>16</sup>. When the project closed in October 2008, it had invested over \$500m in housing construction (61%), roads and highways (14%), irrigation and drainage (13%), state and local public administration (10%), and other social services (2%). The reconstruction investments directly focussed on 'owner-driven' shelter reconstruction as well as multi-sector rebuilding of social, economic and physical infrastructure to revive the economy and provide the basis for economic recovery. In 2004, GREEP received an award from the Commonwealth Association of Public Administration and Management for making a 'paradigm shift from the conventional approach of response post disaster to mitigation and preparedness'<sup>17</sup>. GoG also received the Sasakawa Award from **the United Nations' International**

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<sup>10</sup> Asian Development Bank. March 2001. Report and recommendation of the president to the board of directors on a proposed technical assistance grant to India for the Gujarat earthquake rehabilitation and reconstruction project.

<sup>11</sup> UNDP. January 2002. Gujarat Transition Recovery Team – A Synopsis.

<sup>12</sup> Through instalments cheques provided to 700000 homeowners.

<sup>13</sup> UNISDR. 2007. Learning from Disaster recovery: Guidance for Decision Makers. IRP, ADRC, and UNDP.

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<sup>14</sup> Kishore, R. 2006. Build Back Better: Earthquake Reconstruction in Gujarat. Presentation December 19, 2006.

<sup>15</sup> Modi, N. no date. Gujarat Earthquake Reconstruction and Rehabilitation Policy. Gandhinagar. Available at: <http://www.gsdma.org/pdf/Earthquake%20Rehabilitation%20Policy.pdf>.

<sup>16</sup> Rediff News. 2004. Three Years after Killer quake, Gujarat Emerges Stronger.

<sup>17</sup> CAPAM. 2004. CAPAM International Innovations Awards, Winners and Jury, 2004.

Strategy for Disaster Reduction for exceptional performance.

## 2.5 The role of the UN

During the rehabilitation and recovery phase, the United Nations Development Programme was the focal agency for the UN system. Other key UN bodies included UNICEF, the World Food Programme, International Labour Organisation and World Health Organisation. Beyond working with government, they set up a coordination centre and SETU (meaning bridge) with local NGOs such as Kutch Mahila Vikas Sangathan with the support of SDC, two donors and four international NGOs, including Save the Children, UK. UNDP funded an information campaign to help people build safer buildings with funding from the government of India. The UN disaster management team established an on-site operation coordination **centre within the district collector's compound in Bhuj**. This enabled the development of a closer working relationship and improved exchange of information between the chief relief coordinator, the collector and the UN system.

The role of Kutch Nav Nirman Abhiyan in this process was prominent and the coordination centre included a WHO disease surveillance desk to monitor outbreaks of illness. WFP initiated an emergency operation of more than \$4m to provide relief food rations to 300,000 people with focus on women and poor without access to the public **distribution system. SEWA's network of self-help groups in 300 villages in three districts** was used for this distribution. Existing UNICEF programmes in Kutch and many districts in Gujarat expanded and upscaled within two weeks. These established links helped other UN activities considerably in reaching out.

## 2.6 NGOs, INGOs and the IFRC

Search and rescue teams soon arrived from Switzerland, the United Kingdom, the United States, Russia and Turkey. Relief teams and supplies soon followed from 38 countries, UN agencies, INGOs, and the Red Cross/Red Crescent. An estimated 240 INGOs were active in the relief phase, but 11 months later only 30 INGOs continued their work with the government of Gujarat.

On 2 February 2001, 12 aid agencies from the United Kingdom grouped in the Disaster Emergency Committee launched an appeal for

survivors that raised over £24m<sup>18</sup>—the fourth largest sum raised by the DEC at the time<sup>19</sup>. DEC agencies benefited from the existing work of a wide range of NGOs, including service delivery, coordination and human rights work. Oxfam coordinated water and sanitation work with the GoG and provided strategic livelihood support, including helping herders keep livestock healthy instead of selling them for cash<sup>20</sup>. ActionAid and Concern worked with human rights organisations.

The IFRC had a major international response with more than 15 national societies operational through a camp in Bhuj. The Indian Red Cross Society implemented four complementary programmes in Gujarat: the integrated health programme, the rehabilitation/shelter programme, the capacity-building programme, and the management and coordination programme<sup>21</sup>. The largest of these was the integrated health programme that provided health support to 500,000 people in 400 villages of Kutch, Surendranagar, Rajkot, and Jamnagar. The Indian Red Cross used the opportunity to spread lessons from ongoing countrywide programmes into Gujarat recovery. This included components on health and disaster preparedness and response.

The response within India was immediate. Gujarat is home to the powerful network of Gandhian organisations—schools, hostels, and ashrams—as well as a number of large organisations set up by religious and business groups that actively provided teams and material. With a tradition of voluntary work dating back two centuries, Gujarat boasts some of the most progressive NGOs in the country<sup>22</sup>, most of whom responded to the earthquake. More than 185 NGOs sprang into action with trained personnel and volunteers. Local *panjarapoles* and *dharmashalas* responded in large numbers with food and shelter to victims and animals. Local communities helped one another by mobilising resources and providing food and

<sup>18</sup> DMI/HI/Mango. 2001, October. Independent Evaluation of Expenditure of DEC India Earthquake Appeal Funds. London: HI.

<sup>19</sup> DEC. 2009. History of Appeals. <http://www.dec.org.uk/item/59>.

<sup>20</sup> Oxfam. 2002. Gujarat earthquake response programme of Oxfam GB. Available at: <http://www.reliefweb.int/rw/rwb.nsf/db900SID/OCHA-64CGFC?OpenDocument>.

<sup>21</sup> IRCS. 2001, October 30. Operations Update: India/Gujarat Earthquake: Recovery and Rehabilitation. Appeal No. 20/01. New Delhi: IRCS.

<sup>22</sup> DMI/HI/Mango. October 2001. Independent Evaluation of Expenditure of DEC India Earthquake Appeal Funds. London: HI.

shelter, ensuring that the roles and responsibilities of communities were emphasised in the disaster management policy declared by the government<sup>23</sup>.

Local NGOs including Kutch Nav Nirman Abihyan, SEWA, Janpath and Navsarjan suggest that the community was the first to respond to survivor needs. Responding households provided goods and services in the initial weeks when support from outside organisations remained minimal. The strong NGO network in Gujarat supported community efforts to reach out to the victims as well as to support GO-NGO and INGO-NGO links in a coordinated manner. This demonstrated that activities of these NGOs could be effective in modern emergencies and in coordination with international organisations.

KNNA played a key role in coordination between UN, NGOs and government and set up SETUs. The purpose of SETUs was to establish the link between government, NGOs and communities. KNNA was formed after the 1998 cyclone hit Kutch, when 26 local NGOs in Kutch came together. Since its establishment, KNNA has had an important role as a local NGO network as each member NGO continues working in its own specialised field. To improve coordination of relief arriving from outside the area, KNNA instituted a cluster level 'sub-centre' for every 15-20 villages. This sub-centre became the SETU. With its unique institutional structure, the SETU focused on coordination between villages and government or aid agencies and information management to bring the most relevant available support to the communities during relief and rehabilitation processes. Janapath, a state-level network of NGOs, set up centres to reach out to victim communities in three districts.

The largest direct focus on women was led by **SEWA, a national women's trade union**. SEWA provided relief to 40,000 women and their families in three districts and built 8,000 houses for rural women in 78 villages to assist decision-making on shelter type, location, safety and costs. The shelters are registered in the names of these women and are designed to complement their livelihood efforts. The district federations of SEWA set up learning centres for local women to make their recovery faster and less painful, including

tools, techniques and information about government schemes. The centres continue into early 2009 and have served as focal points during flood recovery in years since the earthquake.

## 2.7 Donor agencies and bilateral assistance

Funding was provided through a combination of domestic and international governments, grants and loans from bilateral agencies, payments from insurance companies, loans from multilateral development banks, and grants from NGOs and the private sector.

To support recovery, the Asian Development Bank and the World Bank offered loans of \$300m and \$500m respectively. A pioneering joint assessment was carried out by the World Bank, Asian Development Bank, and UNDP. Participants in the process included representatives from the **UK's** Department for International Development (DFID), the European Commission, ILO, Japan Bank for International Cooperation, Japan International Cooperation Agency, Kreditanstalt fuer Wiederaufbau and German Development Cooperation (GTZ). A joint programme was developed for funding.

DFID was active in supporting livelihood relief and later funded the transition from relief to recovery. In May 2001, the European Commission launched a three-year LRRD project that supported 11 NGOs working on local livelihoods and risk management in recovery.

## 2.8 Lessons Learned

The passing of seven years since the earthquake provides the opportunity to assess both the immediate lessons of the disaster and longer-term rehabilitation efforts in the context of subsequent disasters. While the legacy of destruction reverberates today, the Gujarat earthquake **marked a turning point in India's disaster response**. In Gujarat, community groups were on the frontline of recovery. Their role was not just to provide relief but to demand rights, and this work continues today. Delivering relief according to accepted standards and accountability mechanisms is one way of effective response. Supporting victims in advocating their rights is another way to make the system work. Gujarat showed that when delivery and demands are balanced well, recovery is accelerated.

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<sup>23</sup> World Bank. July 2008. Disaster Risk Reduction: World Bank Good Practice Notes. Accessible online at: [http://siteresources.worldbank.org/CHINAEXTN/Resources/318949-1217387111415/Disaster\\_Risk\\_en.pdf](http://siteresources.worldbank.org/CHINAEXTN/Resources/318949-1217387111415/Disaster_Risk_en.pdf).

## 2.9 Provide Support to Local Organisations and Community Recovery Priorities

Years after the emergency response, many of **Gujarat's vibrant and capable local** organisations remain active agents within local society. The resilience of local communities in the face of disaster makes the ultimate difference. There is a need for a long-term vision to respond to disasters, and that vision must place the most vulnerable at centre stage.

Despite strong coordination between government and non-government actors in the recovery effort, relations between the two sectors are still developing. Relations between humanitarian agency and government have been complex, contributing to an under-utilisation of civil societies in disaster mitigation and preparedness. The top-down nature of state institutions and the need to make quick decisions in emergencies resulted in low levels of local participation in the longer-term recovery effort.

### 2.10 Recovery of the Local Economy and Livelihoods are Central to Long-term Recovery

The rate of recovery and level of preparedness within Gujarat reflected its level of economic and social development. Although Kutch is one of the poorer areas of Gujarat, the economy of the state as a whole has grown faster than much of the rest of India. The state has vast social and human resources and infrastructure such as roads, power, bridges and schools. The effectiveness of emergency recovery efforts after 2001 varied widely, representing strengths and weaknesses in different local economies and district administrations. The response to the 2006 flooding in Baroda was managed well, while flooding in Surat was not. Adequate preparedness requires continued vigilance. Progress in some areas has, in some cases, contributed to a false sense of safety. While building codes for construction have improved across the state, enforcement remains poor and uneven.

Another cause of the faster recovery in Gujarat is **the state's long-standing** philanthropic tradition. Recovery processes in other parts of India have been slow, even when administrative structures have been similar. Government recovery programmes should focus on providing an enabling environment for community recovery rather than driving the recovery itself. Following the earthquake, the state government prioritised **housing. The restoration of Bhuj's public**

marketplace was postponed until the completion of long-term urban planning. While roads were redesigned, zoning issues streamlined, and government infrastructure rebuilt, households and vendors could not wait to meet their livelihood and consumption needs. Vendors who once operated from the central market moved to the periphery where new markets sprang up spontaneously. Three years after the earthquake, the city commercial centre still had not recovered<sup>24</sup>.

Some recovery programme efforts that focussed on economic development were not driven by community design. A number of weavers who lost their looms in the earthquake were provided with new ones by a government programme, but they were not of the type traditionally used in the region<sup>25</sup>. Around 500 shops operate in steel containers **measuring 10' x 20'**.

Post-earthquake incentives to industry attracted corporate houses and brought demographic change. Local labourers now have to compete with migrants from Bihar, UP, Orissa and even skilled labours from China. According to Sushma Iyengar, of KNNA, the number of weavers in Gujarat today is 500, compared with 1,800 before the earthquake. Macro-economic factors affect occupations and how people adapt their livelihoods to changing opportunities: in the past five years, 3,500 farmers have adopted organic farming, turning recovery into ecological development.

### 2.11 Special emphasis is needed to minimise discrimination

Discrimination surfaced early in relief efforts. A 'working for all' approach often discriminates (perhaps unintentionally) where vulnerable groups—including women, children, socially marginalised caste groups, disabled and older persons—were excluded. Because of lack of information, not all affected people had access to available rehabilitation programmes. The **Indian Peoples Tribunal (IPT) noted that 'There has been discrimination in access to rehabilitation package on the basis of caste and community'**. Dalits, shepherds and fishermen appear to nurse grievances still. The frequency of discrimination against scheduled castes and tribes justifies the demand for a proper enquiry, IPT argued. The compensation disbursement process was marked by protests from people who complained of

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<sup>24</sup> WB Independent Evaluation Group. 2006. Hazards of Nature, Risks to Development. Washington, DC: World Bank.

getting too little money, ad hoc fixing of compensation packages, and a general lack of understanding about a complex process. In several instances, the money survivors received was not enough to build adequate shelters and ensure a basic standard of living. The media reported high levels of discrimination, often on sectarian grounds, in certain areas. Disasters give an opportunity to rebuild the community based on equity.

Development agencies believe that current policies will amplify inequalities<sup>26</sup>. Accordingly, ActionAid set up the Sneh Samudaya network to address the issues that concern the poorest and most vulnerable survivors: the marginalised communities of kolis, muslims and Dalits in 150 villages. The Sneh Samudaya network supported these communities to provide access to food and security and to lead dignified lives. Women usually have greater need for support in emergencies but less access to available assistance because they often face discrimination, and a group within the network catered specifically to the needs and rights of women who lost their husbands in the earthquake. Another group worked to ensure that people disabled by the earthquake, particularly paraplegics, have access to services and receive the support from the state to which they are entitled.

On World Disability Day, 1 December 2001, more than 5,000 disabled persons from all parts of Kutch demanded their right to equity in public policies and equal opportunity in every facet of life—as articulated by the 1995 Persons with Disabilities Act. The event was aimed at sensitising government officials, the public and NGOs involved in reconstruction and rehabilitation. Persons with disabilities (PWDs) submitted a memorandum of demands to the district collector. Key demands included accessibility to public offices; making the new townships disabled-friendly; enrolment of every disabled child in schools; basic facilities such as toilets for disabled children in schools; appropriate and good quality appliances for mobility; decentralisation of the issuing of disability certificates; and priority in livelihood support. It was the first time PWDs in such a huge number were assembled in the district headquarters and created visibility that built a disability movement in Kutch. Despite this, a social audit conducted in 2004 by a group of

disability activists including UNNATI found that accessibility features were not included in new buildings.

## 2.12 Government efforts to provide a holistic approach in recovery

Significant progress has been made towards integrating government efforts since the **earthquake to support peoples' recovery**. The largest single publicly-financed recovery effort aimed to produce the following three holistic outcomes:

- vulnerability reduction through infrastructure built to disaster-resistant standards;
- increased risk awareness and preparedness of communities to natural hazards, through access to more sustainable incomes and enhanced knowledge of hazards and disaster reduction techniques;
- enhanced emergency preparedness and response capacity of responsible entities

But there is concern over the appropriateness of some administrative decisions towards this end. One state government resolution indicated that **state's 4.56m ha of wasteland would be given to resourceful** (ie, large-scale) farmers and corporate houses.<sup>27</sup> As late as May 2005 a government order allowed large corporations to be given so-called 'waste' or unused government land for corporate farming<sup>28</sup>. It may have been more appropriate to put the needs of earthquake widows before those of corporate farmers. Campaigners played a **lead role in setting up people's tribunals and public litigations** to challenge such discrimination, particularly against Dalits. This experience has inspired similar interventions in tsunami-hit areas, **helping to draw the government's attention to the appropriate distribution of aid**.

More than 2,000 tenants who lost houses in the earthquake are still living in temporary homes. The state government declared compensation and tenants will be given 65 yards of land at the government price and Rs140,000. A list of less than 900 tenants has been produced but many tenants are waiting for compensation. After deduction of land price the amount was reduced to Rs 90,000, for which it is impossible to build a seismically-safe house.

<sup>27</sup> Government of Gujarat 2005: Resolution number cmn/3903/453/a/(part-1), 17 May 2005

<sup>28</sup> ActionAid. 2005. Gujarat Earthquake: What have we learned about tackling natural disasters? Available at: <http://www.actionaid.org/main.aspx?PageID=207>.

<sup>26</sup> Indian Peoples Tribunal 2001. Gujarat Earthquake: Healing Wounds

In Anjar, around 70% of those affected do not have their own pucca (concrete or stone) houses, and continue to live in their tin huts. The town's drainage and water supply network is still incomplete, despite spending of Rs150m on the project. According to Dr Shyam Sunder of Group 2001, not a single house in the city has been provided with drainage or water supply from the new network. Jadiben, a field officer working with poor women in Bhachau said that 25% of households could not get housing compensation from the government. They still live in rented, interim houses or have built their own houses on the edge of town. She said reconstruction has been very complicated in the town and poor people are being marginalised in the recovery process. Additionally, blasting in stone mines near a housing site in Anjar has caused cracking in walls of newly built houses. House owners fear that their houses will not withstand an earthquake.

### 2.13 Improved coordination at local, national and international levels

The work of Abhiyan stands out as a successful example of local coordination. Its network was nominated to coordinate NGO activities and developed a plan for reconstruction based on 'a fundamental belief in self-help...' They set up 22 local sub-centres in Kutch to coordinate information and assistance, with encouragement and formal endorsement from the government<sup>29</sup>. Yet development of similar networks across the state is not recognised by the state and subsidiary non-governmental coordination is not established in preparedness plans. The community, supported by NGOs, took leadership on different social issues such as domestic violence, right to information, right to work, disability, and education.

Smaller but vibrant movements are taking place in the district. NGOs working in the district can play a vital role in disaster preparedness provided that the government coordinates efforts in this direction. Dinesh Sanghvi, secretary of Gram Swaraj Sangh, said 'NGO strength is not fully utilised for disaster preparedness'. He suggested that 'every government officer should be trained and examined on the topic of disaster

**preparedness.** ... Government engineers got training on building codes in their formal technical education and still the public buildings built under their supervision were destroyed in the earthquake and killed many. Why were they not made responsible for the death of people?' Some of the houses constructed after the earthquake were damaged in Jatavada village of Rapar Taluka in a moderate earthquake measuring 5.6 on the Richter scale on 7 March 2006. This highlights the need for strong monitoring in construction.

### 2.14 Capacity-building in disaster risk reduction remains a priority

Based on the negative perception among many who have seen modern buildings collapse, a wide-scale effort has been made to train 29,000 local masons and more than 6,000 engineers in resilient design and construction techniques. Additionally, to promote public confidence in the durability of new housing, the government provided four 'shake table' demonstrations where sample units were publicly tested for earthquake resilience.

In addition to experienced masons, newcomers who used to work as unskilled labourers in building construction may need training in safer building and should be regularised through a registration process. Sushma lyengar, convenor of KNNA, explained that assessing housing for compliance with building codes is critical. In terms of cyclone-safe housing, she says, there is little compliance. Adequate building materials are not available so cyclone safety was not incorporated in earthquake recovery'. Overall, there is awareness of the importance of safer house construction. Yet, when it comes to building a house, implementation depends on the availability of financial and land resources.

Disaster preparedness committees have been formed in all villages in the district of Surendranagar. The district collector, who is also the district magistrate and the most senior representative of the government in each district, said village secretaries and sarpanches have been trained in disaster preparedness and drills were conducted in schools last year. According to the collector, the Narmada Canal is one of the reasons for flooding in the last monsoon. He explained that the canal bisected areas where water would flow. Hazard and rescue maps are being prepared at village levels and training was given to 50 masons on disaster resistance building, said Kamlesh Patel, the district disaster management officer,

<sup>29</sup> World Bank and Asian Development Bank. 2001, March 14. Gujarat Earthquake Recovery Program: Assessment Report. A Joint Report by the World Bank and the Asian Development Bank to the Governments of Gujarat and India. Washington, DC: World Bank.

though he noted that coordination with NGOs on disaster preparedness needs to be strengthened.

Yet many community groups in the district are not aware of these efforts. For example, members of **women's** self help groups (SHG) are not aware of any similar disaster preparedness activities in Jogad village (Halvad block). Because of the earthquake, they have learned lessons for food security and started a small grain bank with support of the Centre for Environment Education (CEE). Women in Jogad village started savings and credit activities in their SHGs that provide loans for consumption and livelihood purposes at affordable rates of interest. The earthquake is now considered an opportunity to bring changes, explained Ashwin Bhai, an officer in CEE. Before the earthquake, all families were living in kutcha houses; because of earthquake they got pucca houses with space around them and a wide road. They also **formed a federation of 23 women's** SHGs. That the village is flooded every year during the monsoon indicates a continued need for action and capacity-building in addition to formation of disaster preparedness committees.

Ms. A.M. Memon, marmalatdar in Lakhtar said that following the formation of GSDMA, government officers at different levels were clear about responsibilities in disaster response and this was apparent during the floods of the last monsoon.

#### 2.15 DRR strategy is often de-linked from communities

Efforts to improve the monitoring of earthquakes have been improved. Equipment to monitor

seismic activity has been installed in 40 seismological observatories in the state allowing 24-hour surveillance.<sup>30</sup> Monitoring is centred at the Institute of Seismic Research in Gandhinagar.

The fishing community in Kutch district has been concerned about cyclones and tsunamis since the cyclone of 1998 caused widespread destruction. Fishermen have some knowledge about forecasting hazards from knowledge passed down from their grandfathers about changes in seawater movement and colour. This knowledge can be used as part of a more comprehensive early warning system. Amadbhai, a fishing community leader in Bhadreswar, believes the government should demarcate high-tide and low-tide zones and display maps in coastal gram panchayats.

Most fishermen know how to swim, but few have lifesaving skills. This was a challenge when the cyclone struck. Many believe that training and safety material would have allowed the rescue of more people. Amadbhai is disappointed that the state government has not invested in capacity building of fishermen and fisherwomen; lessons learned from the 1998 cyclone have not been used to prepare for tracing people lost in cyclones and the most of the community is unaware that the administration has set up a system to do this. Community members interviewed believed that a hazard map of the village would be useful and could identify evacuation routes.

Kherajbhai, a former deputy sarpanch in Sinugra Village, said most of the Afat Nivaran Kendra (disaster mitigation centres) in villages are not in use and many local people no longer associate the centres with disaster preparedness.

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<sup>30</sup> ADB. 2008. GERRP Completion Report. Manila: ADB.



### 3. The Tsunami

The Indian Ocean tsunami of 26 December 2004 was caused by a sub-ocean earthquake off the coast of Indonesia measuring 9.1 on the Richter scale, the second largest earthquake ever recorded. The event triggered a series of aftershocks and devastating tsunamis which hit the North Sumatran coast in Indonesia and travelled across the Indian Ocean to Africa. The worst affected countries were Indonesia, Sri Lanka, India, Thailand, and the Maldives. Of the estimated 12,405 deaths in India, two-thirds occurred in the south-eastern state of Tamil Nadu, with the Andaman and Nicobar Islands also badly affected. Around 7,000 people were injured, and 650,000 displaced.<sup>31</sup> In parts of Tamil Nadu the tsunami waves travelled as far as 3km inland.

The specific features of a tsunami (in contrast to disasters such as floods or earthquakes) are worth noting. The impact of the tsunami is severe as it hits land, but rapidly decreases as it moves inland. While the maximum distance affected in Tamil Nadu was 3km inland, in some areas the impact was negligible because of breakwaters. The wave slows as it moves inland, thus many people even with short notice were able to outrun the tsunami to reach safety. Once the water had receded, those individuals remained inland, fearful of further waves but in areas unaffected by the tsunami from which they could be moved to temporary shelters (often public buildings such as schools).

The main challenges then in the response phase were the provision of food and water; the identification and disposal of corpses (often carried inland by the tsunami); the need to prevent outbreaks of disease and more general medical care. At the same time, restoring physical infrastructure was a high priority. And while the number of deaths was high, particularly in the district of Nagapattinam, the number of injured after the tsunami was relatively low (the Gujarat earthquake, for instance left 20,000 dead but as many as 170,000 injured). The proximity of safe areas meant that family tracing was less of a priority than in slower-moving disasters, such as flooding, where women and children are often moved to safe areas before men.

The worst-hit group was the fishing community, which forms a relatively exclusive community living close to the sea along the coast from Orissa through Andhra Pradesh and into Tamil Nadu. Although the standard of housing varies, many dwellings were made of nothing stonger than thatch, providing negligible protection from the tsunami. The tsunami also damaged or destroyed some 83,000 fishing boats, destroying the livelihoods of many fishermen.<sup>32</sup> Although few Dalits were killed in the tsunami, a large number lost their livelihoods because of their economic links with the fishing community.

#### 3.1 The central government response

The primary responsibility for disaster response lies with the state government. But it can call for assistance from the central government in circumstances such as the tsunami when the disaster response overwhelms its own capacity. This assistance includes support from military and paramilitary forces, as well as financial support to pay for both the response and subsequent rehabilitation effort. The central government is also responsible for providing strategy and policy advice to state governments in dealing with disasters. Many of the institutional structures in Delhi are primarily concerned with assessing the needs of states and sanctioning financial transfers to them.

In the case of the tsunami, the central **government's key decision was to announce, on 29 December, that India would reject foreign assistance in the initial response to the tsunami.** The government had made a similar statement following the Gujarat earthquake but quickly withdrew it after assessing the damage. The government cited were two reasons for the decision: first, that the disaster was not of the magnitude of the Gujarat earthquake, in particular, and India had sufficient resources to provide relief; second, that foreign assistance should go to worse-affected countries. India pointed out that its

<sup>31</sup> [http://www.un.org.in/untrs/content\\_01.asp?ref=aboutus](http://www.un.org.in/untrs/content_01.asp?ref=aboutus)

<sup>32</sup> Statement made by Home Minister Shivraj Patil in Parliament regarding relief and rehabilitation of tsunami affected People, March 10, 2005. See online [mha.nic.in/press-release/pr100305b.pdf](http://mha.nic.in/press-release/pr100305b.pdf). Also see Oxfam, Situation Update, South India and the Andaman & Nicobar Islands, January 26, 2005 [online], [www.oxfam.org.uk](http://www.oxfam.org.uk) (retrieved February 9, 2005) and Tsunami, India Situation Update, World Health Organization, March 3, 2005.

own navy was involved in the relief effort in Sri Lanka, the Maldives and Indonesia.

The announcement was widely interpreted through a political lens. India had recently rejected aid from a number of donors and had launched its own assistance programme for other developing countries. These moves were seen as a means of changing the external perception of India from being a recipient of aid to a donor, strengthening its drive to be accepted as a rising power, and in particular to have a permanent seat at the UN Security Council.

Following domestic and international criticism, on 6 January 2005, the government announced that it would accept contributions for longer-term rehabilitation from international agencies including the World Bank, IMF and UN agencies. Assistance from bilateral donors was also welcomed, provided it was routed through multilateral agencies. The move came on the day that the government decided that the Empowered Group of Ministers and the Crisis Management Committee (see below) did not need to meet on a daily basis because the situation was under control - in effect, the immediate response phase had come to an end. At this stage, the government announced that:

The Government of India has decided to approach international and multilateral agencies such as the World Bank, the Asian Development Bank and the United Nations for assistance. Such assistance will be closely coordinated with our own national effort and will have, as its objective, the earliest possible return to normalcy in the areas affected **by the Tsunami. ... Funds from bilateral and other multilateral sources could also be [channelled] through these three agencies in order to ensure better coordination.**<sup>33</sup>

The initial decision obviously prevented foreign military personnel (or bilateral donors) from providing immediate relief. But even the subsequent decision made it difficult for UN agencies to raise funds for their efforts because India had not explicitly invited foreign assistance. On 14 January, India's then External Affairs Minister, Natwar Singh, announced that India had entered the reconstruction phase and stated that **the government would 'consider receiving aid from**

**whatever quarters (gives it)'**.<sup>34</sup> India appears to have assumed that the same logic would have held for international NGOs (INGOs) with operations in India. But despite the lack of an official request to raise funds, many INGOs did launch appeals for funding. However, those INGOs active in the disaster response already had programmes in India, and often in the affected areas. **India's strategy did prevent an influx of INGOs which were not already active in India.**

The central government becomes involved in disaster response following a request by the chief minister for assistance, on the ground that the **response is beyond the state's own capacity.** The request for central government assistance came almost immediately after the tsunami struck. Within 24 hours of the tsunami, the National Crisis Management Committee (NCMC), headed by the cabinet secretary, B.K. Chaturvedi, met in Delhi.<sup>35</sup> This committee is intended to provide strategy and direction and to enhance coordination in the response effort.

A prime ministerial crisis group meeting<sup>36</sup> involving senior ministers was also called immediately following the tsunami. This group worked alongside the NCMC and established an empowered committee, headed by the minister for home affairs, Shivraj Patil. This committee was given cabinet powers (in terms of authorising spending) to approve longer-term relief and **recovery plans.** The central government's involvement also reflected the international nature of the tsunami. Whereas the state government is responsible for the tsunami response in India, the central government was responsible for the decision to assist in relief efforts in Sri Lanka, the Maldives and Indonesia.

Several federal ministers were sent to tsunami-affected areas to assess the situation. These ministerial assessments appear to be more political than substantive. The chief minister ordered an aerial survey immediately following the disaster, with other assessments carried out by local state officials on the ground. These were then

<sup>33</sup> Embassy of India. January 2005. 'Press Guidance on India's Position on Tsunami Relief Assistance'. Via: [www.indianembassy.org/press\\_release/2005/Jan/9.htm](http://www.indianembassy.org/press_release/2005/Jan/9.htm)

<sup>34</sup> CNN. January 14 2005. 'India: Outside aid now welcome'. Via: <http://edition.cnn.com/2005/WORLD/asiapcf/01/14/asia.tsunami/index.html>

<sup>35</sup> The Calcutta Research Group. 23 April 2005. Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement. Via [www.mrcg.ac.in/tsunami.htm](http://www.mrcg.ac.in/tsunami.htm)

<sup>36</sup> The Hindu. 27 December 2004. Manmohan promises all help, speaks to Chief Minister. [www.hindu.com/2004/12/27/stories/2004122702701100.htm](http://www.hindu.com/2004/12/27/stories/2004122702701100.htm)

reported back to the prime minister and the ministry of home affairs (MHA) so that the various committees could assess the scale of funding required for the state to respond to the disaster.

At the time of the tsunami the MHA was the nodal ministry for disaster response, although the institutional structure for dealing with disasters evolved following the tsunami (see below). The national tsunami response efforts were monitored by Shivraj Patil from the National Centre for Disaster Management in Hyderabad. Patil was also responsible for coordinating the military operations.<sup>37</sup> The MHA was criticised for issuing a tsunami alert on 30 December. This hindered relief operations, as many volunteers helping in the response effort temporarily fled.<sup>38</sup>

The central government has two funds from which state governments can draw funds following a disaster: the Calamity Relief Fund (CRF) and the National Calamity Contingency Fund (NCCF). These funds are intended to cover relief, rehabilitation and infrastructure development. The central government provides 75% of funds allocated under the CRF, with the remainder funded by the state government. The Finance Commission, which allocates spending over a five-year period, sets the funding for both the CRF and the NCCF. Under the current five-year plan, the CRF was allocated Rs200bn (around \$4.5bn). Each state is allocated a proportion of the CRF, which can be drawn upon in the event of a disaster. Should the fund be exhausted, the state can receive funding from the NCCF, which was allocated around \$500m in the same five-year plan.

Although primary responsibility lies with the affected state, few states, if any, are able or willing to cover the considerable costs of widespread disaster relief. Officially there is a provision that the finance commission can approve additional funding. In practice the process of central government assistance involves a number of departments and select reviews.

In the case of the tsunami, the Tamil Nadu state government was quick to announce ex-gratia payments for tsunami-related loss of life and injury, as well as supporting spending by the IAS teams. This happened before the central government had sanctioned the spending.

<sup>37</sup> The Hindu. 27 December 2004. Manmohan promises all help, speaks to Chief Minister. [www.hindu.com/2004/12/27/stories/2004122702701100.htm](http://www.hindu.com/2004/12/27/stories/2004122702701100.htm)  
<sup>38</sup> [news.bbc.co.uk/1/hi/world/south\\_asia/4137343.stm](http://news.bbc.co.uk/1/hi/world/south_asia/4137343.stm)

Following its initial assessments of the cost of the disaster, the chief minister of Tamil Nadu, Jayaram Jayalalithaa, submitted a memorandum to the central government describing the level of funding required. This request is based on specific criteria that set out, for instance, the cost of rebuilding a house.

In Delhi it is assumed that state governments routinely over-estimate the cost of rebuilding. In the absence of any sophisticated loss assessment mechanism, it seems highly plausible that state governments request too much, rather than too little. Despite the strict criteria to requesting funds, the central government generally only provides a small percentage of the funding requested by the state government. In the case of the tsunami, the Tamil Nadu state government sought Rs 48bn (approximately \$1.1bn) in relief funds, and 54,000 tonnes of food aid, from the central government. This would cover both the short-term relief effort and the longer-term rehabilitation process. The chief minister initially discussed the request with the home minister on 27 December, and formally requested the funding via a memorandum sent by the chief minister to the prime minister and home minister on 4 January.

The request was based on a quick assessment of the damage made on the day of the tsunami, and the chief minister argued that the unprecedented nature of the disaster meant that usual CRF norms should not be applied. The request broke down as follows:

Activity	Rs (m)	\$ (m)
Search, rescue and relief	205	5
Temporary relief package	900	21
Public health	715	16
Compensation for loss of livelihood	2,614	59
Restoration of infrastructure, repairs and reconstruction	6,289	143
Restoration of ecology and development of mangrove forests	2,000	45
Temporary housing	2,500	56.8
Rehabilitation and restoration of fishermen's livelihood	10,540	240
Restoration of livelihoods of other communities	1,306	30
Coastal protection	4,490	102
Permanent housing	7,500	1,701
Restoration of community assets in coastal areas	7,092	161
<b>Total incl others</b>	<b>48,000</b>	<b>1,090</b>

Source: <http://www.hindu.com/2005/01/05/stories/2005010507670400.htm>

On the day the request was formally made, a 12-member central government team led by the joint home secretary of the MHA, A.K. Srivatsava, travelled to Tamil Nadu to assess the situation on the ground in Tamil Nadu, and the request made by the chief minister,<sup>39</sup> and the central government announced that it had released Rs2.5bn to Tamil Nadu from the NCCF, along with Rs1bn to each of Andhra Pradesh, Kerala and the Andaman and Nicobar Islands and Rs350m to Pondicherry from the NCCF.<sup>40</sup>

Subsequently, the central government sanctioned funding for the relief and response phase of Rs6.17bn in Tamil Nadu while the state government incurred expenditure of Rs6.58bn.<sup>41</sup> The funding came from both the NCCF and the CRF. In addition, the central government pledged funding for longer-term rehabilitation from the Prime Minister's Public Relief Fund (PMNRF) and the Tamil Nadu's Chief Minister's Public Relief Fund was also used for longer-term projects.

The PMNRF was established in 1948 to assist displaced persons from Pakistan. Since then, it is primarily used to provide immediate relief to families of those killed in natural disasters, to victims of major accidents and riots and for longer-term rehabilitation projects after large disasters. Donations for the PMNRF are accepted throughout the year, and emergency appeals are launched following major disasters. Donations are accepted from both domestic and foreign sources, and it receives significant funds from companies. However, while the Indian government's view is that 'the best way to aid the Indian effort is to contribute to the PM's relief fund which then takes on the task of disbursement',<sup>42</sup> many foreign governments prefer not to donate to this fund. The table below illustrates the surge in income following the tsunami. However, disbursements have risen more slowly. In total, Rs8,954m (\$203.5m) of the fund is allocated for longer-term tsunami-related relief and rehabilitation schemes.

<sup>39</sup> [www.hindu.com/2005/01/05/stories/2005010507670400.htm](http://www.hindu.com/2005/01/05/stories/2005010507670400.htm)

<sup>40</sup> [www.pibchennai.tn.nic.in/karuvoolam/Releases%20Archives2005/January2005/04012005/04012005er2.htm](http://www.pibchennai.tn.nic.in/karuvoolam/Releases%20Archives2005/January2005/04012005/04012005er2.htm)

<sup>41</sup> [www.tn.gov.in/tsunami/r-gandhi.html](http://www.tn.gov.in/tsunami/r-gandhi.html)

<sup>42</sup> The Times of India. December 2004. 'Government t refuses foreign aid to fight disaster'. Via: <http://timesofindia.indiatimes.com/articleshow/973923.cms>

Reasons for foreign governments' reluctance to fund the PMNRF were illustrated in the aftermath of the tsunami. The US ambassador provided \$1m to the PMNRF but, following the government's decision to reject foreign assistance, the Indian government subsequently announced that this contribution was accepted as an individual donation, rather than as bilateral assistance. Such issues explain why most foreign governments prefer to donate, via their own development agencies, to international agencies working in affected areas (such as the Red Cross) or to international appeals by the UN. The US, for instance, provided \$3m to distribute to NGOs working in India.

Year	Income		Expenditure		Balance	
	Rs (m)	\$ (m)*	Rs (m)	\$ (m)	Rs (m)	\$ (m)
2003/04	505	11.5	885	20.1	4,449	101
2004/05	9,688	220	1,016	23	13,121	298
2005/06	2,781	63.2	1,092	24.8	14,809	337
2006/07	1,443	32.8	1,819	41.3	14,434	328
2007/08*	1,622	36.9	1,063	24.1	14,993	341

\* Provisional  
Source: [pmindia.nic.in/relief.htm](http://pmindia.nic.in/relief.htm)

### 3.2 The role of the military

The military has traditionally played a significant role in large-scale disasters, a role that was institutionalised following the tsunami (see below). The military is formally involved in disaster recovery if the affected state requests military assistance. This is then approved by the National Crisis Management Committee in Delhi. The system also utilises informal personal relationships between, for example, district collectors and officers in the military.

The military was involved in many aspects of the tsunami disaster recovery process. In the immediate aftermath of the disaster, the prime minister sent both the air force and the navy to assess and report on the damage. In addition, both the army and navy were put on alert by the central government and ordered to provide rescue and relief work, which was carried out on a 'war footing'.<sup>43</sup> The army, navy and air force were used in relief distribution in India as well as in other affected countries.

<sup>43</sup> The Hindu. 27 December 2004. Manmohan promises all help, speaks to Chief Minister. Via [www.hindu.com/2004/12/27/stories/2004122702701100.htm](http://www.hindu.com/2004/12/27/stories/2004122702701100.htm)

In practical terms, the Indian army mobilised around more than 8,300 troops for rescue and relief operations, throughout affected areas of India and in Sri Lanka. The first troops were deployed within six hours of the tsunami. According to the military, the troops rescued almost 28,000 people, set up 60 relief camps and treated more than 41,000 patients. The army also provided food and medicines, cleared debris and recovered 990 bodies. The military continued to be involved for the next nine months, though on a lesser scale, repairing infrastructure and manning essential services.

The use of the military had a political dimension. In early January the main opposition party in the central government, the Bhatiya Janata Party, asked for the military to be placed in charge of erecting temporary shelters for fishing communities. The central government rejected suggestions that the military should be placed in charge of the response effort, preferring the lead role to remain with the state government, primarily because the scale of the disaster was less than in the case of the Gujarat earthquake.

### 3.3 The state government response

**The state government's initial response to the tsunami** involved a rapid damage and needs assessment. The tsunami offered particular challenges: in the immediate aftermath of the disaster, the worst-affected district of Tamil Nadu, Nagapattinam, was cut off, requiring a rapid reworking of existing contingency plans to create an institutional response structure on the ground. That the system allowed this to occur reflects on the particular political and bureaucratic situation within the state.

The district collector of Nagapattinam was on leave. Collectors are usually confined to their district but the tsunami struck at a time when the collector had been given permission to travel. This required the chief minister to send other administrative officials to the district. It is clear that the various district collectors and other senior Indian Administrative Service (IAS) officers sent to the district among the best in the state and could counter any weaknesses encountered. The quality of the bureaucracy of Tamil Nadu, and of the south of India more generally, is generally perceived to be more effective than in many northern states. This strategy may not necessarily have been as effective in other states.

On the day of the disaster, the state government sent a number of IAS officers into the affected districts to assess the damage. Damaged roads made travelling difficult. The government responded by creating 11 teams, each of which took responsibility for seven villages. The teams comprised a district collector or senior IAS officer, a minister from the state government and health and public work officials. This strategy was possible because only two or three districts were seriously affected, and even within those districts only a relatively narrow strip of land by the coast was affected. Further inland, social and physical infrastructure was completely unaffected.

The state response took advantage of, and was enabled by, the magisterial powers of the collector. The collector could order work to be done, and was provided with the financial resources to facilitate this. In special circumstances, such as disasters, the collector is permitted to withdraw funds from the treasury. This allowed state officials to immediately finance the reconstruction of infrastructure, such as electricity supplies, paying above-market rates. In the case of the tsunami, the state government provided funding before the central government had sanctioned the transfer from central funds.

The main feature of the response was that collectors employed common sense, working out needs, assessing the resources at their disposal (both from the state and from NGOs) and attempting to fill them. In the immediate aftermath, those displaced by the tsunami congregated inland in public buildings such as schools and community centres. The collector would send medical staff to these temporary relief camps to provide medical supplies and to ascertain shortages. The collector would then liaise with UNICEF and NGOs to determine whether they could fill any shortfalls that were apparent. In one case, UNICEF was utilised to provide lavatories, lacking in many of the temporary facilities.

The high calibre of state officials in Tamil Nadu was the key feature enabling a generally-successful response. Some officials noted that they had utilised the disaster management training undertaken as part of their IAS training. The strength and impartiality of the administrative apparatus in Tamil Nadu meant that many of the problems witnessed in other disaster responses were avoided.

The relative development of Tamil Nadu meant that many NGOs active in the response came with an advocacy, rather than with a development, focus. Thus issues of exclusion were highlighted. This resulted in a greater government focus on exclusion as a problem, but makes it harder to compare the extent of exclusion in the tsunami response to exclusion in other areas.

The immediate response to the tsunami was conducted by citizens themselves, local NGOs and community and religious organisations. According to the Relief Commissioner for Cuddalore, C K Gariyali, 'immediate distress was mitigated by **combined citizens' initiative**'.<sup>44</sup>

In Kanyakumari district, after an initial period in which the administration of relief was left almost entirely to the Church, the GoTN acted decisively by bringing in a new Collector, as well as three other IAS Officers and three Ministers to provide institutional and political strengthening to the administration. The difference was almost immediately felt. Apart from streamlining relief efforts, the Collector and Additional Collector set targets, and also helped facilitate better coordination among all state and non-state actors. The Collector also established and maintained direct contact with NGOs and communities, rather than depending on intermediaries. One of the first things the Collector did was to hold Focus Group Discussions in all villages and camps, attended by parish council members, affected people and representatives of civil society organisations to assess damage, losses and needs.<sup>45</sup>

Thus the collector assessed what needs were being met, and fulfilled unmet needs by using the **state's resources or directing other NGOs or UN agencies** to fill those needs. While there were criticisms of apparent un-coordination and shortages in the immediate aftermath of the tsunami, often those stemmed from misguided philanthropy. And while there may have been shortages at times, the absence of outbreaks of disease and subsequent deaths among the affected populations suggests a strong degree of effectiveness.

The state government was also quick to announce a relief package for those who had been injured or

orphaned in the tsunami. The collectors were charged with surveying how many people had been affected, and to enable those people to receive government benefits. Those that had been disabled by the tsunami received a payment of Rs25,000 (\$570), and those that had received serious injuries Rs5,000 (\$115). The government also announced that those orphaned would receive Rs400,000 (\$9,000) each, with a further **Rs100,000 from the prime minister's public relief fund** held in trust for them until they reached the age of 18.<sup>46</sup>

Government officials charged with carrying out the response in Tamil Nadu were unaffected by the sharp political differences between the government and opposition in the state. Government officials and political parties claim that political differences are put to one side in disaster response, even when the state government is an opposition party in the Lok Sabha.

This was the situation in Tamil Nadu when the tsunami occurred. The main opposition party in Tamil Nadu, the DMK, was part of the central government and the state government, the AIADMK, was in opposition in the Lok Sabha. Despite claims that political differences are forgotten during disasters some politicians clearly tried to use the tsunami for political purposes. Some DMK politicians claimed, for instance, that there were irregularities in distribution:

The Tamil Nadu Government came under attack in the Lok Sabha for allegedly failing to provide 'timely and adequate relief and rehabilitation to the people affected by the tsunami'. At a discussion on natural calamities under Section 193, the A.K. Vijayan, DMK, accused the State Government of failing to take steps to save the people who had escaped the killer waves. 'It was only after the Central team visited the areas that the State Government geared up. There was massive corruption in the relief distribution also, with the money being distributed to young children and those dead' Mr. Vijayan alleged and asked the Centre to look into these allegations. R. Prabhu, Congress, said that distribution of relief was haphazard and the clash of egos between the Centre and the State Government

<sup>44</sup> <http://www.adeptasia.org/Indexpress.htm>

<sup>45</sup> The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience. TATA INSTITUTE OF SOCIAL SCIENCES 2005.

<sup>46</sup> The Hindu, January 4th 2005, 'Chief minister announces relief for injured, assistance up for orphaned children.

added to the problems of the devastated people.<sup>47</sup>

It was also reported that the minister for shipping in the central government, a DMK member, complained that the AIADMK Tamil Nadu state government was not cooperating in the relief effort. Newspaper reports quoted the prime minister as saying that it was time to 'help them instead of finding faults'. But there seems to be little evidence that political feuds in Delhi had any actual impact on the response effort. Overall, although the chief minister lost the subsequent state election, most observers suggest that she gained support from her handling of the crisis. The success or otherwise of the response effort here, and in other Indian disasters, appears to be largely disconnected from any political bickering that takes place.<sup>48</sup>

The specific political situation within Tamil Nadu also determined the manner and effectiveness of the response. In Tamil Nadu, the two main political parties are divided by personalities rather than by major policy differences. The chief minister, Jayalalithaa, was able to impose her decisions on the bureaucracy, knowing that effective policy implementation was vital for her support base. Her dominant position within the state allowed her to move her best officials into the response effort. That both local and international media witnessed the response encouraged effectiveness, and Jayalalithaa issued daily statements about what she demanded on the ground, encouraging prompt action.

### 3.4 The role of the UN

India has different degrees of relationship with different UN agencies, some of which work closely

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<sup>47</sup> National Institute of Disaster Management. March 2005.

Disasters Update: Issue No.107. Via:

[www.nidm.gov.in/disaster\\_updates-pdf/24-3-05.pdf](http://www.nidm.gov.in/disaster_updates-pdf/24-3-05.pdf)

<sup>48</sup> Similar trends in Bihar following flooding caused by the shifting course of the Kosi River in 2008. In this case, the state government sits in opposition in parliament. At the same time, a key party in the central government sits in opposition in Bihar. It appears to have been in the interest of both to suggest that the response effort was failing. The chief minister of Bihar called for international assistance (knowing that the central government would not sanction such a request) to suggest a lack of concern from the central government (and in particular from his political opponents). It was also in the interest of the minister for railways (in the central government, and a former chief minister of Bihar) to suggest that the relief effort was failing, because of the incompetence of his opponent. As in Tamil Nadu, this political point-scoring seems removed from the actual disaster response.

with both state and central governments in providing technical assistance and assisting with policy formulation. In the case of the tsunami, **India's decision not to appeal for international assistance hindered the UN's ability to involve itself in the initial disaster response** (because the UN works at the invitation of the host government). But the widespread UN presence within India meant that several UN agencies were involved in the immediate response, particularly in assisting NGO coordination, as well as in the longer-term **rehabilitation effort. The UN's Disaster Management Team met with officials such as the Chief Secretary of Tamil Nadu providing input on issues such as counselling, rehabilitation, livelihood and the use of information technology.** Organisations such as WFP were not involved in the relief effort in India itself, although WFP airlifted high-energy biscuits from India to Indonesia and the Maldives

Many international agencies looked to UNDP to coordinate their tsunami response. UNDP has worked with the Indian government to draft disaster response and coordination guidelines, and the UNDP resident representative in India doubles as the UN Resident Coordinator. In the initial aftermath of the tsunami, UNDP led a joint initiative to establish the Tamil Nadu Tsunami Resource Centre (TNTRC), which acted as a coordination point for INGOs, NGOs and civil society organisations to share resources and information. UNDP was also involved, along with the World Bank and ADB, in conducting an assessment of the costs of reconstruction. It was also asked to mobilise resources for rehabilitation and to assist the state government in the rehabilitation effort.

Although the UNDP acts as the coordinator of UN activities in India, UNICEF is the largest UN organisation in India, with offices in 16 states. As a result of its presence in Tamil Nadu, UNICEF was able to accelerate and refine projects following the tsunami. State officials used UNICEF to undertake, or lead, certain tasks. Thus, for the first few days after the tsunami, around 1,000 people were housed in 100 or so public buildings including schools and community centres. In Nagapattinam, UNICEF was asked to carry out a rapid needs assessment, which uncovered the lack of toilets. Perhaps the most significant success following the tsunami was in health care provision, which received a significant allocation of tsunami

spending. UNICEF took a lead role in ensuring standards of sanitation in relief camps.<sup>49</sup>

Some other UN agencies are integrated into central government ministries, notably WHO, which works within the Ministry of Health. Following the tsunami, WHO offered technical guidance in areas such as the disposal of bodies, immunisation services and disease surveillance. Those UN agencies that lack the agreement that UNICEF has with the Indian government can act only if they receive an invitation from the government.

Among UN agencies there is a clear recognition that generic UN strategies have little relevance to disasters in India. The strategy is India-specific, depending more on Indian policy than on UN capacities. This can lead to a mismatch of needs and capacities. Thus, India rarely lacks resources in the immediate aftermath of a disaster, but often lacks human capital. Its greatest need is for pre-disaster capacity-building. But UNDP is unable to access CERF funding for this since capacity-building is not classified as emergency response.

### 3.5 NGOs and INGOs

NGOs, civil society groups and religious organisations play a major role in Indian society, in part filling gaps resulting from weak state capacity. Coordinating the efforts of these groups is a key role for the state. However, there is no formal standard operating procedure for either local or international NGOs to follow in the event of disasters. However, given the frequency of natural disasters in India and the prevalence of civil society and NGOs, some degree of standard practice has evolved over the past 20 years, and many NGOs have been involved in disaster risk reduction projects. Local NGOs in Tamil Nadu are credited with being among the first to respond to the tsunami, and the government reported unprecedented NGO, corporate, state and donor coordination.

The tough task was to remove dead bodies, transfer survivors to the temporary camps, and provide first aid, food and clothing. The Tamil Nadu government moved fast by deputing its Senior IAS officers to the areas to take charge of the rescue and relief operation. Some lessons learnt from the past disasters were applied to address this great human tragedy,

particularly with reference to NGO collectives called Coordination Committees.<sup>50</sup>

The extent of cooperation between the state and NGOs in the response is not clear-cut, however. In theory, there should be a high degree of coordination. National policy towards the voluntary sector encourages NGO activities to be conducted in partnership with the government at national, state or district level.<sup>51</sup> In the immediate aftermath of the tsunami, a number of local NGOs assisted in the immediate response, and a number of other NGOs moved in from surrounding areas and the rest of India. Estimates suggested that as many as 400 NGOs appeared in Nagapattinam district alone. These NGOs were involved in areas such as constructing temporary shelters and providing food and clothing.

The early effort was, however, described by both government and NGO staff as chaotic. Many NGOs suggest that the response was characterised by a lack of coordination, at least initially, and suggested that the NGOs were undertaking functions that the state had failed to perform. At the same time, government officials accused some NGOs of seeking publicity rather than providing assistance. Others were criticised for lacking Tamil-speakers and local understanding.

Many of the main failings noted in the immediate aftermath of the tsunami stemmed from the actions of NGOs and other non-state groups (including companies) that provided unneeded relief materials that then became a burden for state officials. In particular, many NGOs provided unneeded clothing, which state officials then spent valuable time on distributing elsewhere. All NGOs, useful or not, ate into the time of local state officials, asking where and how they could assist.

Along with NGOs, individuals and civil society organisations, particularly churches and temples, were the first to respond in terms of rescue, first aid and removal of bodies. The Tata Institute of Social Sciences found that:

apart from the Army, the most systematic early response came from well-organised and small,

<sup>50</sup> The Calcutta Research Group. 23 April 2005. Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement. Via [www.mcrp.ac.in/tsunami.htm](http://www.mcrp.ac.in/tsunami.htm)

<sup>51</sup> Government of India, Planning Commission. 'Report of the Steering Committee on Voluntary Sector for the Eleventh Five Year Plan'. Via: [planningcommission.nic.in/aboutus/committee/strgrp11/str11\\_vac.doc](http://planningcommission.nic.in/aboutus/committee/strgrp11/str11_vac.doc)



local, organisational networks. For instance, in Kanyakumari, the Church, the Rashtriya Swayamsevak Sangh (RSS) and the Democratic Youth Federation of India (DYFI) appear to have been at the forefront of the initial rescue and relief work.<sup>52</sup>

Although an ad hoc coordination mechanism evolved quickly, its effectiveness depended on local officials and was not consistent. The district collectors operating in the village clusters held daily meetings with NGOs, and attempted to create something akin to a 'cluster' approach: state officials assessed the capabilities of NGOs and used them to provide services in areas where there was a particular need. This raised concerns among some NGOs which felt they were simply used as contractors. In Nagapattinam, the NGO Coordination Unit functioned

**'...at the district level in the Collectorate campus at Nagapattinam. It mainly serves as a place for information exchange on matters pertaining to works undertaken by different NGOs. It was indicated that there are about 467 NGOs working in the area alone. The relief aid pledged and poured in look more than sufficient. But one thing that is definitely wanting is proper coordination and non-duplication of efforts'.<sup>53</sup>**

Similar to the district-level unit, the Tsunami Relief and Rehabilitation Coordination Committee was established on 30 December. This was intended to coordinate NGOs throughout Tamil Nadu and Pondicherry. As with the district-level coordination units, the division of NGO activities generally focused on geographic rather than on sectoral expertise. Membership of the TRRC subsequently grew to around 300. The TRRC was neither an implementing organization nor a nodal agency for any funding organizations. Rather, it was a coordination committee that was informal in its form and structure. Its main functions were to:

- monitor state relief and rehabilitation activities;
- campaign on issues relating right to relief and rehabilitation of people, particularly marginalised and vulnerable communities;
- **influence the state's relief and rehabilitation policies;**

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<sup>52</sup> Tata Institute of Social Sciences. 2005. The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience.

<sup>53</sup> The Calcutta Research Group. 23 April 2005. Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement. Via [www.mcrg.ac.in/tsunami.htm](http://www.mcrg.ac.in/tsunami.htm)

- influencing all actors, particularly the state, to demonstrate transparency and accountability;
- ensuring that the 'right to the coast' of coastal communities was protected.<sup>54</sup>

These interactions between NGOs and the state were enhanced by state government moves to cut back on bureaucracy and to use various IT systems to speed up the response. The success of otherwise of state, district and sub-district coordination largely depended on the calibre of state government staff. In some areas they were criticised for spending more time escorting VIPs than in coordinating the relief effort. In Nagapattinam, the officials were widely praised for being open to NGO activity, and accessible to NGOs. Thus although the administrative autonomy provided to local issues was widely praised (when they were effective), in some respects this autonomy led to failings by other officials. The coordination effort clearly improved as lessons were learnt. By 15 January, the state government had established a framework for NGOs enabling them to sign MoUs with the district collector that allowed the NGOs, for instance, to construct houses.

As well as practical assistance, NGOs also publicised issues of exclusion in the relief effort. Many stressed the treatment of Dalits and women. Some focussed on the fishing community, at the expense of other affected groups. NGOs that raised the issue of exclusion were often NGOs that focussed on advocacy. Consequently, the criticisms of exclusion were more publicised in Tamil Nadu than in disasters in less-developed Indian states where NGOs focus primarily on the provision of more basic developmental needs.

The main criticism of the disaster response following the tsunami relates to discrimination against Dalits and women, by both the state and NGOs. Provision of relief provision based on caste was prevalent in many villages in Tamil Nadu. Various fact-finding teams reported that Dalits were even denied food aid on the grounds that there were no deaths among them. Dalit communities live further from the coast than the fishing community, and only 55 Dalits were killed in the tsunami. However, the devastation of the fishing communities meant that many Dalits immediately lost their source of livelihoods. There

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<sup>54</sup> The Calcutta Research Group. 23 April 2005. Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement. Via [www.mcrg.ac.in/tsunami.htm](http://www.mcrg.ac.in/tsunami.htm)

were reports of Dalit families being unable to access relief materials, of being prevented from queuing to collect aid, and of Dalit communities being ignored in assessments of tsunami-affected villages.<sup>55</sup>

Other organisations noted the over-emphasis on the fishing community, by NGOs more than government, and particularly in the rehabilitation process. The government was accused of failing to clamp down on some NGOs which appeared more interested in self-promotion.<sup>56</sup>

Criticisms of the tsunami response also focussed on insensitivity – by NGOs, government, and external donors. A review by the Oxford-based NGO *Forced Migration* found numerous examples of donations of inappropriate material – quilts, poor quality second-hand clothes and bread, for people whose staple diet is rice. Perhaps more significant were the claims of gender bias, notably the provision of relief money and compensation to male heads of fishing households.<sup>57</sup>

### 3.6 The Indian Red Cross Society

The International Federation for the Red Cross/Red Crescent received \$2.2bn dollars in response to its tsunami appeal.<sup>58</sup> Of this it provided around \$3m to the Indian Red Cross Society (IRCS) for emergency relief efforts.<sup>59</sup> The IRCS provided assessment teams and provided assistance, distributing clothes and cooking utensils to some 10,000 families.

Indian Red Cross Society NHQ sent a team to assess the situation. The team composed of the Joint Secretary (Dr Ganthimathi) and the Federation DM delegate (Mohamed Babiker) who joined the IRCS Secretary General in Chennai. The team had a meeting with the state branch and the IRCS Secretary General

and proceeded to the affected sites of Chennai city (Patanapakkam). In the state of Tamilnadu, Tanjavore and Nagappattinam districts are very badly affected. The Youth members of the Red Cross are helping in rescue/evacuation of the people from the affected areas. Emergency food, clothes, in the form of saree and dothi, and kitchen utensils have been released to support about 10,000 families from the Red Cross warehouse at Arakkonam.<sup>60</sup>

Further to this the IFRC pledged some CHF7.7m (\$6.5m) in longer-term relief and recovery as well as in support of disaster management and training.<sup>61</sup> The chair of district-level IRCS activities is the district collector, ensuring a level of coordination between IRCS activities and the state.

**The IRCS' post-tsunami** disaster management and training initiatives are popular and have been used by the private sector to provide disaster preparedness training.<sup>62</sup> The IRCS Disaster Management Centre in New Delhi organises National Disaster Response Team Training. The first National Disaster Response Team (NDRT-I) was established in June 2004 and was used in the tsunami, Maharashtra floods (2005), Tamil Nadu floods (2005), and Jammu and Kashmir earthquake (2005). The IRCS continues to be active in national disaster relief operations. NDRT-II training for volunteers was held in 2006, involving 40 participants from 16 states. In recent nation-wide floods (June 2008):

The national disaster response team (NDRT) and state disaster response team (SDRT) members have been put on alert. The IRCS national headquarters has prepositioned 45,000 non-food family packs as disaster preparedness (DP) stock, which are stocked at six strategically located regional warehouses. It has also kept five water purification units on standby at these regional warehouses, which **can be deployed at short notice, if required...** There is now quick exchange of information between the NHQ and the State branches and vice-versa.<sup>63</sup>

<sup>55</sup> Tata Institute of Social Sciences. 2005. *The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience*.

<sup>56</sup> Banerjee, P., & Chaudhury, S. B. R. June 2005. 'Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement'. Calcutta Research Group Symposium. Via <

<http://www.fmreview.org/FMRpdfs/Tsunami/21.pdf>

<sup>57</sup> Banerjee, P., & Chaudhury, S. B. R. June 2005. 'Report on a Symposium on Tsunami and the Issues of Relief, Rehabilitation and Resettlement'. Calcutta Research Group Symposium. Via <

<http://www.fmreview.org/FMRpdfs/Tsunami/21.pdf>

<sup>58</sup> <http://ipsnews.net/news.asp?idnews=35984>

<sup>59</sup> IFRC 2008. *Revised Plan and Budget. 'Tsunami Emergency and Recovery Revised Plan and Budget'*. Via: 2005-2010 [http://www.ifrc.org/cgi/pdf\\_appeals.pl?04/280463.pdf](http://www.ifrc.org/cgi/pdf_appeals.pl?04/280463.pdf)

<sup>60</sup> <http://www.reliefweb.int/rw/rwb.nsf/db900sid/JMAN-68AHAH?OpenDocument>

<sup>61</sup> Ibid.

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<http://www.thehindubusinessline.com/life/2007/04/06/stories/2007040600160400.htm>

<sup>63</sup> <http://www.indianredcross.org/flood1.pdf>

### 3.7 Donor agencies and bilateral assistance

The global response to the tsunami surpassed that for any previous disaster, with governments, the private sector and individuals providing assistance for relief and rehabilitation. Médecins Sans Frontières did not launch a tsunami appeal but was given so much money that it had to stop accepting donations and to ask for funds to be diverted to other causes.

The bulk of this foreign assistance went to Indonesia and Sri Lanka since **India's** announcement that it did not require foreign assistance affected the ability of foreign governments to provide assistance to India. The **US ambassador's donation to the PMNRF** epitomised the curious position (see above). Although some governments did provide assistance to INGOs, until the government stated, on 9 January, that it would accept foreign assistance in rehabilitation and reconstruction efforts, most foreign governments focused their assistance on other, worse affected countries.

During the relief phase, Government of India had stated that while it deeply appreciated the offers of assistance from foreign Governments and international agencies, it had the capabilities and resources to deal with the aftermath of the disaster through its own national effort. Taking into account the requirements that are now emerging in the new phase of rehabilitation and reconstruction, the Government of India has decided to approach international and multilateral agencies such as the World Bank, the Asian Development Bank and the United Nations for assistance.

([http://www.indianembassy.org/press\\_release/2005/Jan/9.htm](http://www.indianembassy.org/press_release/2005/Jan/9.htm))

Following the decision to accept foreign assistance, the UNDP, along with the World Bank and the ADB carried out an assessment of the costs of rehabilitation in February 2005. The multilateral agencies assessed that \$1.2bn was required to rebuild infrastructure, rehabilitate livelihoods and develop disaster prevention and management systems. The cost of reconstruction in Tamil Nadu was estimated at \$868m. In May the World Bank and the ADB signed agreements with India providing \$733.5m in grants and loans towards reconstruction and recovery efforts in India.

A number of donors provided some immediate **financial support (before the government's**

announcement). The day after the tsunami USAID, for instance, provided \$100,000 to USAID India of which half was presented to the Prime Minister's National Relief Fund and half to the IRCS. But the bulk of donor assistance concentrated on the subsequent rehabilitation effort working through NGOs, the state government or multilateral institutions. Japan donated \$2.5m from the Japan Fund for Poverty Reduction to the Tamil Nadu state government.<sup>64</sup> The UK provided funding through existing DfID programmes and contributed to the UN effort. USAID, pledged over \$17m to India which was used for education, sanitation, shelters and livelihood support.<sup>65</sup>

EU member states coordinated humanitarian aid through the European Commission Humanitarian Office (ECHO). The humanitarian assistance provided by the EC ensured that affected populations had sufficient food, water, shelter, sanitation and health services. Total ECHO support for Indian post-tsunami reconstruction was around \$12m, and was used to provide food, shelter, sanitation and healthcare and to support reconstruction and livelihoods.<sup>66</sup> The Swiss Agency for Development and Cooperation (SDC) also made a substantial contribution to UNDP and funded several local NGOs working with flood victims in 2005-2006.

Foreign assistance for the rehabilitation effort was substantial (and donor countries provided more assistance through the World Bank and ADB rehabilitation effort). Several countries, notably **the US, remain engaged in improving India's** disaster management capabilities directly, and several others, including the UK and EU, indirectly **through UNDP. India's reticence in relation to** foreign assistance during disasters has led many donors to focus their attention on other developmental concerns.

### 3.8 Lessons learned

In some respects the tsunami was an unrepresentative disaster for India. The impact was intense but short-lived. The area affected was a narrow strip of land stretching at most 3km from the sea. The main supply route to the affected

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<sup>64</sup> Tata Institute of Social Science. 2005. 'The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience'.

<sup>65</sup> USAID India. June 2007. Disaster Management. Via: <[http://www.usaid.gov/in/our\\_work/program\\_areas/disaster\\_management.htm](http://www.usaid.gov/in/our_work/program_areas/disaster_management.htm)

<sup>66</sup> European Commission Humanitarian Aid. India. Via: <[http://ec.europa.eu/echo/aid/asia/india\\_en.htm](http://ec.europa.eu/echo/aid/asia/india_en.htm)

area, the East Coast road, was largely unaffected, providing easy access for relief supplies. The **administration of Tamil Nadu is one of India's best**, open to ideas in relation to disasters prior to the tsunami, and then to revising procedures as needed in its aftermath. And the primary health centres and education system in the state work well, providing a state infrastructure available for use following the disaster.

The access to the area of the domestic and international media, in contrast to the situation during flooding for example, heightened awareness of the disaster in India and abroad, and increased pressure on the state and central governments to deliver an effective response. The tsunami took place at a time when India was trying to demonstrate its enhanced international standing, encouraging a robust response with national resources rather than international assistance.

Most assessments of the response to the tsunami are generally positive, certainly from the point when the government response kicked in strongly. Most donors accept that the government of India is best-placed to tackle the immediate aftermath of a disaster, and few argue that additional international support would have significantly **improved India's response**.

The disruption of communication systems caused an inevitable delayed response in the immediate aftermath of the tsunami.<sup>67</sup> The fact that the disaster touched many government officials and their families also led to an initial delay as other officials were brought into affected areas. In the response phase generally, however, there are a number of specific lessons and criticisms.

### 3.9 Coordination

As noted, the extent of coordination between different actors is disputed. The lack of clear guidelines meant that there were initial problems in inter-agency collaboration.<sup>68</sup> Coordination improved rapidly as ad hoc systems of inter-agency information sharing were established. And the flexible nature of these systems was generally seen as a strength rather than a weakness.

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<sup>67</sup> Tata Institute of Social Sciences. 2005. *The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience*.

<sup>68</sup> Dash, B. December 2004. Course Completion Project: Tsunami. Via: [info.worldbank.org/etools/docs/library/144021/Biswanath%20Dash%20-India.pdf](http://info.worldbank.org/etools/docs/library/144021/Biswanath%20Dash%20-India.pdf)

The initial relationship between government and NGOs was clearly problematic. On the one side, hundreds of NGOs (almost 500 in Nagapattinam district alone) moved into the affected districts providing relief material. Many of these NGOs perceived a lack of government activity and coordination and felt that they were doing what the government should be doing. From the government perspective, however, many of these NGOs were felt to be more interested in self-promotion than in providing assistance. And in demanding coordination, each demanded time of state officials which may have been better spent coordinating efforts with the military and other state actors.

Those affected by the tsunami complained about the scale not of the relief effort but of the various damage- and needs-assessments that were carried out by state actors and NGOs following the tsunami. That NGOs conducted their own assessments stems from their own procedural arrangements, as well as distrust of the state administration. One all-encompassing needs assessment exercise would clearly be preferable to a plethora of exercises amongst an often traumatised population.

### 3.10 Treatment of the victims

Specific issues, such as the need to provide identity cards in order to receive aid, were criticised by those affected by the tsunami since many of the affected population had lost their cards during the tsunami. Passing the burden of proof of entitlement to the victims was felt to be oppressive in the context of the tragedy.

Gender and caste discrimination were also noted in the response effort. Some NGOs complained of discrimination against women, particularly among members of the fishing community. This was remedied in the rehabilitation phase, with bereaved women receiving fishing boats. The role of women in the fishing community is unusual, with women much more active economically than in many other parts of India. But the fishing community is at the same time patriarchal and in some cases, especially initially, women were overlooked by their own community in receiving relief. Similar criticisms were made in relation to the treatment of Dalits, as mentioned above. This is a complex issue. In the rehabilitation phase those who had lost homes eventually received newly built homes. But those, who did not have homes prior to the tsunami, many Dalits among them, did not receive new homes.

While complaints about bias in the distribution of relief to women and Dalits are serious, the more general criticism about treatment of women and Dalits reflects discrimination all across the country. Overall, it seems optimistic to argue that a disaster response effort will change a set of entrenched social dynamics. While efforts can be made to ensure that the response does not exacerbate caste or gender divisions, existing social cleavages will inevitably be reflected in the behaviour of those affected by a disaster.

The fact that NGOs and the government were openly criticised for discriminating against the Dalit community speaks highly of the nature of society and civil society organisations in Tamil Nadu. That many NGOs are involved in advocacy work stems from the relatively higher levels of development in the state. In less-developed states such as Bihar, NGOs often focus on providing services. In Tamil Nadu, a broader focus on advocacy ensures that social biases gain greater attention.

### 3.11 Official autonomy

While the political situation within the state allowed the chief minister to set up a framework for the response effort, the system also allowed the key officials, the district collectors, a great deal of autonomy and access to funds to expedite the disaster response in Tamil Nadu. This was the clear positive lesson from the tsunami response. Capable officials, with training in the key needs following a disaster, given requisite resources and with interaction with the key agencies can make a massive difference.

Even within Tamil Nadu the response effort varied, and it was most successful where the officials were the most competent. The situation worked best when the officials were given maximum leeway, and did not need to gain official clearance before taking important decisions. By the same logic, however, less competent officials would wait for official clearances rather than risking taking a 'wrong' decision. **The system's strength is also its weakness.** Because the approach depended on individual capabilities rather than set guidelines, the response was as good, or as weak, as those individuals.

### 3.12 The role of the panchayats

**India's system** of local government (panchayats) is in formulation. A range of powers are being transferred to the panchayats although state

governments are often reluctant to transfer powers on the grounds that the panchayats lack the capacity to undertake certain functions.

In the case of the tsunami, local governments were overlooked, and when there was interaction, particularly in relation to the fishing community, it was with the 'traditional panchayats', the local community leaders. This dialogue raised the risk of entrenching existing caste and gender biases, and also sidelined the elected panchayats. While there is a stated effort to involve the panchayats more closely in disaster response, in practice the top-down approach towards disaster response mitigates against this. By and large the traditional community structures were seen as more important than the elected bodies.

Where panchayats were involved in distributing aid, they were often found to do so more efficiently. But there are suggestions that the state apparatus was keen to bypass the elected councils to prevent any relief distribution being influenced by political imperatives.<sup>69</sup> **The government's wish to better involve panchayats in disaster response suffers from a catch-22.** State governments feel that they lack the capacity to assist, but by limiting their involvement ensure that their capacities remain limited.

### 3.13 The evolution of government policy towards disaster

**The tsunami occurred at a time when India's policy** towards disasters was evolving significantly. Until the 1980s, disaster response was based on the relief code written during colonial rule. Since then, India has tried to shift its approach towards disasters from response towards mitigation and risk reduction. The colonial policy towards disasters focussed on responding to disasters (in particular, droughts) by providing relief. Consequently, the institutional responsibility for disaster response, as late as 2002, fell to the ministry of agriculture.

By the mid-1980s, a series of persistent droughts was encouraging a focus on drought eradication rather than simply providing relief. This led to a gradual shift into preparedness in the 1990s that manifested itself, for instance, through the pre-positioning of supplies – an expensive strategy that the government ended before the tsunami

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<sup>69</sup> Tata Institute of Social Sciences. 2005. The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience.

(although UNICEF and Oxfam still pre-position supplies in states most prone to disasters, like Assam). There was little sense of systemic preparedness towards disasters.

This shift in thinking was encouraged by the UN's International Decade for Natural Disaster Reduction (1990-2000). The premise behind this was to utilise a range of well-known ideas, including on construction, to reduce rising losses from disasters. It did not, however, lead to a new institutional approach to disaster management. The change in strategy in India stemmed from a series of domestic disasters each of which resulted in the development of better preparedness and mitigation strategies.

The 1993 Latur earthquake encouraged the use of earthquake-resistant construction materials, and the preparation of disaster management plans throughout Maharashtra. Following the 1999 Orissa super-cyclone, cyclone shelters were constructed in vulnerable areas, emergency evacuation plans were drawn up and an early-warning system developed. The 2001 Gujarat earthquake began the process of institutionalising these changes. The National Institute of Disaster Management was established; it was agreed to set up the National Disaster Relief Force and new building standards were introduced. In 2002, responsibility for most disasters was shifted from the ministry of agriculture to the ministry of home affairs. In response to the Gujarat earthquake, the government established a disaster management board (in essence, the existing cabinet) and a major five-year disaster risk reduction programme led by UNDP and the ministry of home affairs. The post-2002 division of responsibility is as follows:

Crisis	Ministry
Natural disaster (except drought)	Home Affairs
Drought	Agriculture
Biological Disaster	Health
Chemical Disaster	Environment
Nuclear accidents and leakages	Department Of Atomic Energy
Railway accidents	Railways
Air accidents	Civil Aviation

Source: WHO 2007

A key outcome of the Gujarat earthquake recovery process was the establishment of a central administrative agency with direct responsibility for reconstruction, GSDMA, to utilise general public support for preparedness for longer-term risk reduction. The Gujarat State Disaster Management

Act of 2003 and formulation of the state disaster management policy have built the power of the state to finance prevention-oriented efforts. The response to the Gujarat earthquake served as a turning point towards a more comprehensive approach to pre-emptive disaster risk management<sup>70</sup>.

The Tenth National Plan (2002-07) was the first to dedicate a section to disaster response, preparedness and mitigation. The plan was intended to recognise the negative impact of disasters on economic development. As a result of strategies set out in the Tenth Plan, both the central and state governments became increasingly involved in disaster preparedness and mitigation exercises, mainly directed by the National Centre for Disaster Management (currently known as National Disaster Management division of the MHA). This division was established in 1995, but was then associated with the Indian Institute of Public Administration. The National Disaster Management division has established separate Disaster Management Faculties in State Administrative Training Institutes in 18 out of 25 States, prepared a source book for senior civil servants regarding disaster response, and conducted public education and community awareness campaigns.<sup>71</sup>

But when the tsunami occurred, there was still no standardised national or state-level operating procedure in the event of a natural disaster. Instead, disaster response fell to several appointed bodies, both to coordinate and decide how best to proceed with a loose disaster response framework. At the time of the tsunami, the central government was drawing up national contingency plans, in consultation with civil society, the National Institute of Disaster Management and international organisations including UNDP. The NIDM and local NGOs were lobbying for a Natural Disaster Management Bill, hoping that this would, for the first time, formalise disaster mitigation plans. Legislation to formalise this new approach was eventually developed in late 2004.

<sup>70</sup> World Bank and Asian Development Bank. 2001, March 14. Gujarat Earthquake Recovery Program: Assessment Report. A Joint Report by the World Bank and the Asian Development Bank to the Governments of Gujarat and India. Washington, DC: World Bank.

<sup>71</sup> National Disaster Management. Brief Note on Operation of Scheme of Natural Disaster Management Program. Via [www.ndmindia.nic.in/rand/randmain.html](http://www.ndmindia.nic.in/rand/randmain.html)

The tsunami itself had an impact on government disaster management policy, increasing the focus on exclusion in disaster response. There has been little concrete progress towards tackling this issue, which remains a major problem, but there is at least greater awareness of it. Disaster intervention is unlikely to succeed in tackling exclusion where decades of development activity and positive discrimination have failed, but there is at least a growing awareness that the response to disasters should not exacerbate social exclusion.

The tsunami led to a division of responsibility within the MHA between disaster mitigation and disaster response. It demonstrated the utility of disaster preparedness and disaster mitigation. Assessments of the tsunami response suggested that those districts of Tamil Nadu that had been subject to the disaster risk reduction (DRR) programme prior to the tsunami responded better than those that had not been. Most importantly, the tsunami expedited the passage of the Disaster Management Act. The legislation, prepared late in 2004, was introduced by executive order immediately after the tsunami and was passed in parliament a year later.

### 3.14 The 2005 Disaster Management Act

The Disaster Management Act involved the establishment of a National Disaster Management Authority headed by the prime minister, lower-level State Disaster Management Authorities headed by the chief minister, and District Disaster Management Authorities co-chaired by the district collector and the local panchayat leader.

The Disaster Management Act 2005 envisages a holistic and comprehensive approach to disaster management with a greater focus on prevention, mitigation, preparedness and capacity building.<sup>72</sup>

The primary outcome of the bill was the creation of the National Disaster Management Authority (NDMA), an apex body chaired by the prime minister and responsible for laying down policies, plans and guidelines on disaster management so as to ensure timely and effective response to disasters.<sup>73</sup> The NDMA is assisted by a National Executive Committee headed by the secretary of the MHA, and comprises the secretaries of all

relevant ministries. This committee acts as the executive agency for the NDMA, and is intended to mainstream disaster preparedness into other relevant ministries.

A national policy on disaster management began being circulated among senior officials in September 2008 and is likely to gain cabinet approval shortly. There are still no codified or standard operating procedures for either state or central Government to follow in the event of disasters.

The national disaster management plan will have three components: a national response plan, a national disaster mitigation plan and a national capacity-building plan. The overall plan will include inventories of resources and the division of responsibilities following a disaster. The national plan will form the basis for a state strategy towards disaster management, and will lead to district level strategies. The government also intends to establish emergency operations centres at national, state and district levels, and to appoint project directors in each state and district project officers in districts. A greater role for international agencies is expected once the various plans are in place.

Some states, but not all, are in the process of setting up state and district Disaster Management Authorities led by the chief minister and have disaster management plans in force. The differing progress among states often relates to the extent of public demand for a better disaster response. Thus states where serious disasters have occurred are generally taking more steps to move towards mitigation and preparedness measures, regardless of central government activity. West Bengal, affected by flooding in 2000, is now widely seen as leading on community-based disaster preparedness.

The primary responsibility for disaster response will continue to fall to the state, but should lead to a more integrated approach towards disasters and with central government assistance according to the recommendations of the finance commission.<sup>74</sup> Once the new structure in Delhi is embedded, the central government should be better placed to provide greater technical support **to state governments. The act also codifies India's** description of a disaster:

<sup>72</sup> <http://www.un.int/india/2006/ind1294.pdf>

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[http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11\\_v1/11v1\\_ch9.pdf](http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11v1_ch9.pdf)

<sup>74</sup> UNDP India. 2007. Disaster Preparedness and Response Plan. Via [data.undp.org.in/dmweb/pp/UNDP\\_IDPR%2045%20Version%20web.pdf](http://data.undp.org.in/dmweb/pp/UNDP_IDPR%2045%20Version%20web.pdf)

(d) 'disaster' means a catastrophe, mishap, calamity or grave occurrence affecting any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;

This definition allows for some severe events not to be classified as disasters. Annual flooding in Assam is not classified as a disaster because it is expected, and so it is assumed that the local community develops coping mechanisms to combat it. Similarly, 'regular', seasonal flooding in Bihar is not categorised as a disaster. But in 2008, when the Kosi River changed its course, this was categorised as a disaster since it affected communities which did not expect flooding, even though fewer people were affected than in flooding in the same state in 2007.

For now, the MHA will continue to take the lead in coordinating and monitoring relief efforts even though the responsibilities of the MHA and the NDMA appear to overlap. This seems likely to be resolved in favour of the NDMA in the coming years. Other branches of central and state government are also utilised to decide on the scale of disaster and response at both national and state levels. Decision-making involves the cabinet, led by the prime minister. Cabinet meetings are called at the occurrence of a disaster at which point the government decides how best to proceed. The National Crisis Management Centre (NCMC), led by the cabinet secretary and comprising the secretaries within various ministries, is intended to implement and co-ordinate the response. The prime minister will also issue instructions should the armed forces be required to act. The NCMC receives reports from the Crisis Management Group at the MHA, which is headed by the Central Relief Commissioner.

The NCMC is supervised by the empowered group of ministers (eGoM) on disaster, led by the deputy prime minister. This is a select committee that reviews reports from the Crisis Management Group. It decides on immediate relief and rehabilitation as well as longer-term mitigation and preparedness.<sup>75</sup> The NDMA reports to the eGoM, which in turn reports to the cabinet.

<sup>75</sup> <http://www.ndmindia.nic.in/management/egom.html>

### 3.15 The National Disaster Response Force

The 2005 National Disaster Management Bill also provided for the formation of a National Disaster Response Force, which was set up in November 2006. The NDRF consists of eight battalions drawn **from India's central paramilitary forces**<sup>76</sup> and stationed around India<sup>77</sup>, with a particular focus on areas, such as Orissa, prone to natural disasters. This force, active in the response to the 2008 Bihar floods, is considered highly efficient despite at times, as in the case of the Bihar floods, lacking the quantities of equipment, including boats, needed to meet the immediate challenge.

In the event that NDRF capacity is insufficient, the NCMC in Delhi will allow wider military activity. The creation of the NDRF reflects general government reluctance to deploy the military. In the next couple of years, the budget for the NDRF will shift to the NDMA, significantly expanding both the remit and the budget of the NDRF.

The NDRF is trained in more technical-disaster response techniques, such as search and rescue operations following earthquakes. The NDRF battalions are integrated with the state disaster response mechanisms. The military is also involved in national and local disaster mitigation and preparedness campaigns, and has been involved in formal disaster response training exercises with the US. Launched in 2005, this US-India Disaster Relief Initiative is a government-to-government initiative between USAID and the MHA:

**...the US and India seek to increase their ability to respond to disasters in an integrated fashion, partnering with other US, Indian and UN agencies, as well as international Non-Governmental Organizations (NGOs) and other governments as appropriate. The US and India will continue to work together with the regional community on the development and implementation of early warning system programs.**

As mandated by the New Framework for the US-India Defence Relationship, the US and India will strengthen their military capabilities

<sup>76</sup> The NDRF comprises two battalions from each of the Border Security Force (BSF), Indo-Tibetan Border Police (ITBP), Central Industrial Security Force (CISF) and Central Reserve Police Force (CRPF)

<sup>77</sup> The eight battalions are stationed at Arrakonam (Tamil Nadu), Mundali (Orissa), Greater Noida Uttar Pradesh), Chandigarh, Barasat (West Bengal), Guwahati (Assam), Pune (Maharashtra) and Gandhinagar (Gujarat).



to respond effectively to future disasters by conducting joint and combined military exercises. US Pacific Command (USPACOM) and the Indian Integrated Defence Staff (IDS) will be the respective military leads in each country to establish a dialogue and identify additional military training needs, skills-development requirements, and other challenges to a speedy and effective disaster response.<sup>78</sup>

The Indian military capacity in disaster relief has a clear international dimension, as witnessed by the **navy's response to the tsunami. India is keen to play a wider role throughout the Indian Ocean (as its current involvement in preventing piracy off Somalia demonstrates) and is increasing its capacity to assist in the aftermath of future disasters.**

### 3.16 Improving coordination

Since the Tenth National Five Year Plan (2002-2007), steps have been underway to improve coordination among various state and non-state agencies in disaster response and rehabilitation under the aegis of the home ministry and the Planning Commission.

The Planning Commission has a national coordinating role with international partners such as the UN, NGOs (local and foreign) and 'voluntary organisations'<sup>79</sup> and maintains a database of NGOs and voluntary organisations (VOs). International organisations liaise with the Planning Commission regarding their development work but have direct relationships with the central and state governments.

Despite frequent calls from ministers, there are no clear-cut guidelines for NGOs to follow although longer-term national projects are subject to approval of the Planning Commission. The tenth five-year plan identified 11 key areas for NGO and VO activities which included 'social sector priorities such as reduction of poverty, maternal mortality rate, infant mortality rate, gender gaps in literacy, provision of gainful employment'.<sup>80</sup> During the announcement of this

<sup>78</sup> <http://www.state.gov/p/sca/rls/fs/2005/49730.htm>

<sup>79</sup> Government of India, Planning Commission. April 2002.

'Proceedings'. All India Conference on the role of the Voluntary Sector in National Development. Via: [planningcommission.nic.in/data/ngo/vac\\_prced.pdf](http://planningcommission.nic.in/data/ngo/vac_prced.pdf)

<sup>80</sup> Government of India, Planning Commission. April 2002.

'Proceedings'. All India Conference on the role of the Voluntary Sector in National Development. Via: [planningcommission.nic.in/data/ngo/vac\\_prced.pdf](http://planningcommission.nic.in/data/ngo/vac_prced.pdf)

plan, the prime minister, Atal Behari Vajpayee, requested that the commission:

create a structural and legal framework to enable accredited NGOs to play a more effective role in implementing and monitoring government's programmes. Our focus should be to create replicable models of NGO-led development and NGO-delivered services that do not depend on Governmental intervention for growth. In doing this, we should actively involve the State Governments and learn from the success stories in each State.<sup>81</sup>

As part of the Eleventh Plan (2007-2012), the Commission was asked to prepare a national policy on the voluntary sector, to include:

organisations engaged in public service, based on ethical, cultural, social, economic, political, religious, spiritual, philanthropic or scientific & technological considerations. VOs include formal as well as informal groups, such as: community-based organizations (CBOs); non-governmental development organizations (NGDOs); charitable organizations; support organizations; networks or federations of such organisations; as well as professional membership associations.<sup>82</sup>

Under the new policy, approved in May 2007, the planning commission will encourage state governments to review their existing laws regarding the voluntary sector, and simplify and rationalise these laws to ease the registration of non-profit organisations.<sup>83</sup>

The Indian government generally welcomes international assistance in areas of disaster mitigation, preparedness training, rehabilitation and post-disaster reconstruction and development. There are several examples of successful attempts to integrate localised and scattered NGO preparedness efforts with the

<sup>81</sup> Government of India, Planning Commission. April 2002. 'Proceedings'. All India Conference on the role of the Voluntary Sector in National Development. Via: [planningcommission.nic.in/data/ngo/vac\\_prced.pdf](http://planningcommission.nic.in/data/ngo/vac_prced.pdf)

<sup>82</sup> Government of India, Planning Commission. 'Report of the Steering Committee on Voluntary Sector for the Eleventh Five Year Plan'. Via: [planningcommission.nic.in/aboutus/committee/strgrp11/str11\\_vac.doc](http://planningcommission.nic.in/aboutus/committee/strgrp11/str11_vac.doc)

<sup>83</sup> Government of India, Planning Commission. May 2007. National Policy on the Voluntary Sector. Via: [planningcommission.nic.in/data/ngo/npvol07.pdf](http://planningcommission.nic.in/data/ngo/npvol07.pdf)

government programme.<sup>84</sup> At both the state and central levels, government agencies are accustomed to, and welcome, multi-party relief efforts of local NGOs and civil society organisations.

The NDMA is attempting to find ways for the government to work better with NGOs in relation to disasters, and is in contact with around 200 NGOs. Approximately 20 of these sit on an 'NGO taskforce', which will meet monthly for a three-year period. The intention is to bring together the experiences of these organisations to work out operating procedures for NGOs following disasters and to set in place a framework to enable longer-term, legally-binding NGO activities.

Some NGOs have expressed doubts about this strategy. Many NGOs, and particularly those involved in advocacy, dislike being used as 'contractors' for the government. The strategy appears to prioritise larger NGOs over smaller, more local NGOs. Most international NGOs have become 'Indianised'. Most major international NGOs, such as Oxfam, are now locally-registered **with Indian leadership. The Indian government's** increasing reluctance to allow foreign assistance has changed the ease by which foreign funding can be provided for NGOs. All foreign contributions are regulated by the Foreign Contribution Regulation Act (FCRA). Indian NGOs (which includes INGOs) apply to the Ministry of Home Affairs for registration under the act:

The Central Government has framed guidelines for bilateral agencies to give direct assistance to voluntary organizations for projects of social and economic importance. It controls access to such funds and their utilisation, both through the FCRA and through regulation by the Department of Economic Affairs.<sup>85</sup>

In 2006 Sphere India launched an initiative to establish a system of unified response towards humanitarian emergencies. UNICEF India is both a member of Sphere India and supports the design and pilot phase of this initiative, described as the Unified Response Strategy (URS). This attempt to strengthen NGO response was a clear lesson from

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<sup>84</sup> United Nations, the World Bank and the Asian Development Bank. 2006. Tsunami, India – Two Years After. Via: [www.un.org.in/untrs/reports/Two\\_Year\\_Report\\_final.pdf](http://www.un.org.in/untrs/reports/Two_Year_Report_final.pdf)

<sup>85</sup> Government of India, Planning Commission. 'Report of the Steering Committee on Voluntary Sector for the Eleventh Five Year Plan'. Via: [planningcommission.nic.in/aboutus/committee/strgrp11/str11\\_vac.doc](http://planningcommission.nic.in/aboutus/committee/strgrp11/str11_vac.doc)

the tsunami, and is seen as something of a cluster response with different member NGOs leading on different issues following a disaster. It is also an attempt to provide a unified response among NGOs towards government policy.

Under this new approach NGOs have taken responsibility for particular functions, thus Oxfam India works on water and sanitation, while Plan International leads on child protection. But following disasters NGOs recognised that it is geographic access, rather than sectoral capacity, that primarily determines the response. This was certainly the case following the tsunami where a cluster approach, such as it was, was reflected in NGOs being utilised geographically rather than because of their specific sectoral expertise.

### 3.17 Financing mechanisms

As of September 2008, the funding mechanisms for disaster response and relief remain as they were at the time of the tsunami. The main source of funding is the Calamity Relief Fund, which is administered by the National Centre for Calamity Management. In Tamil Nadu the appointed department is the Department of Revenue, Administration, Disaster Management and Mitigation. The central government provides 75% of funding from the national budget, with the state funding the rest.

Should the Calamity Relief Fund be exhausted, the central government can fund disaster response and relief from the National Calamity Contingency Fund (NCCF). The five-yearly finance commission determines the size of the NCCF for a five year period (from 2002-2007 this was Rs2,000bn (\$45bn). Between 2000 and 2008 the NCCF released a total of Rs134.6bn (\$3bn) for various projects throughout the country.<sup>86</sup>

In the case of natural disasters, this NCCF is **supervised by the MHA's Disaster Management Division's High Level Committee.** (Other ministries are responsible for allocating funds in the case of drought or other disasters, as delineated in the box above.) Funds are received from the central **government's Finance Commission and are then dispersed to the state.** Requests are again made through the MHA, in the case of natural disasters, or other ministries as according to their responsibilities. In the case of a disaster, the MHA

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[http://finmin.nic.in/the\\_ministry/dept\\_expenditure/plan\\_finance/FCD/national-calamity.html](http://finmin.nic.in/the_ministry/dept_expenditure/plan_finance/FCD/national-calamity.html)

will establish a High Level Committee to monitor and coordinate relief. This committee, together with the central Finance Commission, is given the authority to disburse additional funds.

The Finance Commission liaises with the High Level Committee. Requested funds come via a Central Assessment Team which is put together and supervised by the MHA Inter-Ministerial Group. The Finance Commission ultimately decides whether, and how many, additional funds will be released from the NCCF to the state.

This funding structure is likely to change imminently. The 2005 Disaster Management Act called for the establishment of several funds to support mitigation and preparedness programmes but did not specify how these should be formed or financed. It appears that a National Disaster Response/Relief Fund and a National Disaster Mitigation Fund will be put in place, replacing the current funding mechanisms. These funds are likely to fall under the remit of the NDMA. This may well be opposed by the MHA, which is currently responsible for budgetary allocations. Were the NDMA to become responsible for funding the National Disaster Relief Force (NDRF), as is being mooted, the financial importance of the NDMA would be substantial.

Other sources of domestic funding, particularly for **rehabilitation, include the Prime Minister's National Relief Fund (PMNRF) and the Chief Minister's Public Relief Fund. Both are financed by voluntary contributions rather than state funding.** Domestic Indian companies often make charitable donations through these funds which are exempt from income tax. The bulk of the funding comes from within India. Although foreign contributions are allowed, external donations to the PMNRF are more often symbolic rather than substantive. The PMNRF is used to support rehabilitation projects, as opposed to providing immediate relief or support for disaster preparedness.<sup>87</sup> The fund is considerable. The balance in 2006-07 stood at Rs14,434m<sup>88</sup> or \$328m. Following the tsunami, **the Tamil Nadu Chief Minister's Public Relief Fund** was not used for immediate relief as this was covered by the Calamity Relief Fund.

Some Indian companies have their own means of providing assistance following disasters. The Tata

Group, for instance, has a Tata Relief Committee which provides food, medical aid and rehabilitation.<sup>89</sup> The Confederation of Indian Industry (CII) is working to harmonise approaches to issues such as corporate social responsibility, which includes corporate response best practice in the wake of disasters.

### 3.18 Disaster risk reduction and early-warning systems

Moves towards risk mitigation in the 1990s stemmed from specific disasters—constructing cyclone shelters in Orissa following the 1999 super-cyclone, for instance. The 2002-07 ministry of home affairs/UNDP Disaster Risk Management Programme marked a major step in improving pre-disaster preparedness (rather than reacting to a past disaster). This project focussed on 169 of **India's most hazard-prone** districts in 17 Indian states (there are 611 districts in total in India). The project was intended to reduce vulnerabilities to natural disasters in these districts through a community-based approach. The programme was funded partly by the Indian government and partly by donors including the EU, USAID and DfID.

An impact assessment following the tsunami found that those districts of Tamil Nadu where the disaster mitigation programme had been undertaken were more effective in their disaster response, and this strengthened the case of those calling for the project to be rolled out to the rest of the country. These 169 districts now have disaster mitigation plans in force. This plan has identified assets (such as wells) available at the village level, and established means of protecting these assets in the event of a disaster. The programme also worked to set up committees at village level to take responsibility for post-disaster needs, such as food and sanitation and carcass disposal. Details of village assets are listed at India Disaster Resources Network ([idrn.gov.in](http://idrn.gov.in)). This project also provides practical linkages between public and private sector equipment suppliers.

With the exception of nuclear, biological or chemical disasters, UN agencies, in particular UNDP, UNICEF and WHO, have been closely involved in the shift towards disaster mitigation. But the Indian government has clear ownership of these programmes, primarily through the NDMA:

The National Disaster Management Authority (NDMA), chaired by the Prime Minister, has

<sup>87</sup> Prime Minister's Office India. December 2005. 'PM Reviews India's Response to tsunami'.

[www.pmindia.nic.in/tsunamireview\\_body.htm](http://www.pmindia.nic.in/tsunamireview_body.htm)

<sup>88</sup> Prime Minister's Office India. 'PM's National Relief Fund'.

Via: [pmindia.nic.in/relief.htm](http://pmindia.nic.in/relief.htm)

<sup>89</sup> [http://www.tatasteel.com/Company/ORISSA\\_relief.asp](http://www.tatasteel.com/Company/ORISSA_relief.asp)

been created with the provision for similar organizational arrangements at the state and District levels. Some states have already taken action in this regard. The NDMA has formed core groups to formulate strategy and guidelines to mitigate effects of disasters, such as earthquakes, cyclones, floods, and chemical and industrial disasters. The Disaster Risk Management Project is being implemented jointly with the UNDP in 169 districts with high vulnerability to natural disasters and includes the important elements of community preparedness and community capacity building. The process for the creation of Disaster Response Teams for providing a specialized response has started and is looking at equipment and training needs.<sup>90</sup>

Other foreign donors have funded projects related to disaster mitigation. Disaster management is **one of USAID's programme priorities. Its work** includes an initiative to improve earthquake safety, for which the operating partner is an NGO, Geohazards International. The project funds a panel of Indian and US experts to design plans to retrofit critical installations such as government ministries, hospitals and police stations, to ensure that they can function after an earthquake. USAID has also contributed to capacity-building schemes, training scientists and flood management officials to improve systems that forecast and issue warnings for floods and other weather-related disasters, and training disaster managers in the organisation of disaster simulations. It has also helped establish three Incident Command Centres in Gujarat, which are intended to be a model for other Indian states.

Similarly, the EC's Humanitarian Aid Department is funding a project aiming to support vulnerable flood-affected populations to facilitate early recovery and increase resilience to natural disasters through the promotion of long-term disaster preparedness in Bihar. At least 3,200 households will improve their livelihoods through cash for work activities; two elevated platforms serving more than 150 households as disaster gathering points will be constructed and equipped with shelter, sanitation, and water facilities; 5,065 households provided with basic NFI hygiene items; 40 flood-damaged government tubewells

<sup>90</sup> Sen, N. 2006. 'Statement by Mr Nirupan Sen, Permanent Representative, on Agenda Item 69 [A], [C], & [D]: Strengthening of HE Coordination of Humanitarian and Disaster Relief Assistance of the United Nations, Including Special Economic Assistance'. 61st Session of the UN General Assembly on November 13, 2006. Via: [www.un.int/india/2006/ind1294.pdf](http://www.un.int/india/2006/ind1294.pdf)

repaired and raised above flood level; 2,871 families receive water filters; and 50 disaster preparedness maps created for future coordination and planning. The project also prioritises community mobilisation through disaster management trainings for community members, participatory development of local disaster plans, and the constitution of steering committees. At least 30,390 individuals (5,065 households) will directly benefit from the project.<sup>91</sup>

Following the 1999 Orissa super-cyclone, the Swiss Agency for Development and Cooperation (SDC) worked with local NGOs to construct 32 flood- and storm-resistant buildings which were subsequently used as schools. Many Indian commentators highlighted **SDC's role following the 2001 Gujarat earthquake**, when a small group of Swiss experts with rescue dogs played a significant role in search and rescue operations. They **noted that India's reliance on outside assistance reflected a particular lack of capacity.** Subsequently, SDC has worked to train Indians, particularly through the NDRF in disaster management, with special emphasis on the development of local disaster-prevention capability—particularly in the field of urban search and rescue operations.<sup>92</sup>

As with disaster mitigation, until recently early-warning systems were established after disasters had taken place. The government is now putting in place a range of early-warning systems, although the extent of last-mile connectivity of the new systems, and those already established, is open to question.

Since 1998 India has launched ten remote sensing satellites.<sup>93</sup> The tenth satellite, RESOURCESAT-1, was launched in October 2003 and has several land and water resource applications as well as disaster management capabilities, although the extent of its use in mitigating or predicting flooding since 2003 is unclear. Following the tsunami, the government announced it would launch a radar imaging satellite (RISAT) configured to disaster management, monitoring cyclones, floods and other extreme weather.<sup>94</sup> Development of this satellite is still in progress. India also

<sup>91</sup> Acted. 2008. India: Recovery and Disaster Preparedness in Bihar. Via: <http://www.acted.org/2008/04/01/india-recovery-and-disaster-preparedness-in-bihar/>

<sup>92</sup> Swiss Agency for Development and Cooperation. India. Via: [http://www.sdc.admin.ch/en/Home/Countries/South\\_Asia\\_Himalaya/India](http://www.sdc.admin.ch/en/Home/Countries/South_Asia_Himalaya/India)

<sup>93</sup> <http://www.isro.org/rep2004/Earth%20Observation.htm>

<sup>94</sup> <http://www.physorg.com/news7744.html>

announced that it would unilaterally set up a tsunami early-warning system in the Indian Ocean. The system, developed by scientists at the Indian National Centre for Ocean Information Services, was launched in October 2007 and reports to the disaster division of the ministry of home affairs.

While the scientific technology has largely been developed indigenously, external institutions have been involved in the last-mile connectivity, and in more localised early-warning training. In 2005, UNDP launched a one-year relief training programme; **'Capacity Building for Local Level Action on Early Warnings in Tamil Nadu'**.<sup>95</sup> UNDP

also runs projects aimed at institutionalising early-warning systems within disaster management committees (DMCs) and disaster management teams (DMTs) and has held workshops training key resource-persons in early-warning systems to be employed to mitigate the risks of cyclones, flooding, tsunami, drought and epidemics. The UNDP also undertook a study mapping existing early warning systems in Tamil Nadu, and testing various technological options. The pilot project installed a public address system in 55 locations in Cuddalore, and installed a wireless radio system in another 55 locations.<sup>96</sup>

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<sup>95</sup> <http://www.unisdr.org/ppew/tsunami/pdf/undp-india.pdf>

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<sup>96</sup> <http://www.unisdr.org/ppew/tsunami/pdf/undp-india.pdf>



## 4. Conclusions

India's response to disasters has evolved as lessons have been learnt from specific disasters. Building restrictions were tightened after the Gujarat earthquake; a tsunami early-warning system was established after the tsunami. These responses may not necessarily have relevance across all disasters. Nonetheless, a number of conclusions can be drawn from the two case studies examined here, as can a number of **challenges to India's evolving** strategy in shifting from post-disaster response to disaster risk reduction mechanisms.

- Investment in local responses reduces the impact of disasters

What the Gujarat earthquake taught people eight years ago, and what the tsunami and the Kashmir earthquake have confirmed, is that investment in local people and local responses is a long-term disaster reduction strategy. The effectiveness of top-down development efforts is limited in developing countries. This lesson must be built into any post-disaster rehabilitation mechanisms. India has a unique system of grassroots democratic governance and has recently given more power to local self-governing bodies. Yet many of these still lack capacity and resources for disaster mitigation.

The Gujarat earthquake led to the design of state, district and *taluka* level disaster management plans throughout Gujarat, and the compilation of a comprehensive database of response assets. But many people are unaware of what GSDMA is doing for disaster preparedness in the district. Jarinaben in the Himmatpura slum area of Bhachau said: 'There is a need of coordination between the government and communities for disaster preparedness. We do not know what the government is doing on DRR except safer schools'. Amra Bhima Ahir, a *sarpanch* in Samkhiyali Village said: 'The GSDMA has formed committees and given training on disaster management but those committees are not active.' He emphasised that disaster risk reduction is a priority at community level but systematic efforts are needed. Village level government officials require training on **disaster management to avoid 'last-minute response'** to disaster'.

It is important that local government institutes be strengthened prepare and implement the disaster preparedness plan. They need information,

knowledge, skills and technologies to manage disaster situations more effectively within the framework of overall governance and to incorporate disaster preparedness into longer-term development of villages and urban pockets.

Heavy rain in September 2008 flooded the vast, flat area in little Desert of Kutch to a depth of about 1.7m. More than 50 villages in Surendranagar district were severely affected by the flood. According to the District Disaster Management Centre, 10,879 families were affected, 15 people died and thousands lost their houses in the flood. So far, families in more than 20 villages have not received compensation declared by the government. A deputy taluka development officer in Lakhtar said that non-availability of funds has caused delays in the distribution of compensation. Another senior government officer said there was large-scale misappropriation in damage assessment and survey that left many genuine flood-affected families without compensation.

Around 40,000 saltpan workers harvest salt in the Little Rann of Kutch and live in small huts. One problem in this low, flat arid region is that there are very few structures and no trees to climb in emergencies. Flooding in areas surrounding Kharaghodha village remained almost unnoticed as the focus was on neighbouring Lakhtar. The saltpan workers do not have titles to the land they work and are therefore ineligible for compensation.

Rahimbhai, an elderly fisherman, lives in Kharaghodha village on edge of the Rann. He had two boats, both of which were destroyed in the recent flood. He and his nephew repaired an old boat to evacuate people trapped in the flood. They went up to 25 km inside the flooded area for two consecutive days and saved 37 people. Initiatives such as these need reinforcement, support, and linkages with government disaster risk management efforts.

Laljibhai Desai, director of MARAG, an NGO working on disaster response since the earthquake, believes indigenous knowledge and insights are not being recognised in current disaster preparedness efforts sponsored by the state in Gujarat. He argues that village-level committees and training loaded with western

concepts will not in themselves involve the community in creating a safe environment.

- The effectiveness of disaster response varies significantly depending on to the state administration.

The state administrations in Gujarat and Tamil Nadu are among India's most effective. While the tsunami research focussed on Tamil Nadu, it was clear that in the Andaman and Nicobar Islands, the other badly-affected area, the response was both slower and more haphazard (partly attributable to limited media access). This suggests that the successful response in Tamil Nadu does not reflect an institutionalised response, but rather a combination of favourable factors. While it is clear that India is moving towards a more institutionalised response mechanism, the effectiveness of this is likely to depend on the capacity of the individual state, in terms both of relief materials and the quality of personnel.

The ability of the different Indian states to respond to disasters varies on relatively predictable lines. States such as Bihar which are less developed and have a less efficient bureaucracy perform less well in disaster response (as in other social service provision) than states such as Tamil Nadu and Gujarat which are both more developed and have more effective bureaucracies. Some states with regular experience of disasters—notably Orissa, which regularly experiences cyclones—have also developed a more effective disaster response.

Although they occur regularly and, indeed predictably in parts of India, those disasters with the greatest impact are still floods and cyclones. Yet because of their predictability they are rarely defined as disasters. Some commentators suggest that disasters in more developed states are more likely to be declared as disasters than similar events in less-developed states. The new definition of a disaster is clearly intended to overcome this problem but, as the Kosi river flood in Bihar demonstrated, disasters are not immune from party political machinations. Whether this actually hindered the response and relief effort in that instance is much harder to ascertain.

Despite recent policy changes, disaster management has been a low priority for state governments and there continues to be a variation between those states that recognise that they can save money by better preparing for disasters, and those that do not. While some of the more developed states may not have focussed on

disaster preparedness as much as could be expected, in general the more progressive (generally southern and western) states with better functioning bureaucracies appear more effective in managing disasters.

- The effectiveness of the tsunami response in Tamil Nadu stemmed from the abilities of empowered personnel, with autonomy and political backing

While some individual officers noted the importance of disaster management training, taken as part of their IAS training, this often functioned more as a checklist than as strategic advice. Common sense, and access to resources, enabled them to manage the situation. The current focus on developing the policy framework may inadvertently hinder competent personnel from following their own initiative. The Tata Institute of Social Sciences noted that:

The commitment and integrity of those in key administrative positions also ensured greater transparency and more responsiveness, as **also a willingness to take decisive action. ...**

It is important to underscore another important lesson the Tamil Nadu experience throws up, namely that an efficient administration under conditions of sufficient autonomy can actually compensate for shortcomings in the policy frameworks. Last but not the least, it was also pointed out that while the Central government extended its support, it did not attempt to influence or direct the response of the State Government. And in turn, it appears that the State Government did respect the principle of devolving decision-making albeit within some broad parameters. Despite the fact that the policy frameworks were not always consistent with local conditions, the freedom given to the local administration to make the necessary re-configuration, though not always officially, ensured more satisfactory outcomes than the policy framework permitted.<sup>97</sup>

Those areas where the overall system of governance is more effective generally correlate with the areas best able to undertake a strong disaster response. Improving general levels of governance may be a more effective strategy to improve disaster response than establishing new administrative structures.

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<sup>97</sup> Tata Institute of Social Sciences. 2005. The State and Civil Society in Disaster Response: An Analysis of the Tamil Nadu Tsunami Experience.



- The quality of physical infrastructure affects the disaster response, and existing social divisions are reflected in the disaster response

The spread of mobile telephony across India has **provided a massive boost to India's disaster response capacity**. When disaster response appears slow, this frequently stems from the lack or poor quality of physical infrastructure such as roads. These issues affect general economic **development as well as the state's ability to respond to disasters**. In areas without connectivity, whether roads or telephones, it is harder to empower the local community to develop an effective response to a disaster. In the case of the tsunami, communications infrastructure was largely unaffected because of the nature of the disaster. The existence of functioning state infrastructure, including schools and hospitals, enabled a strong disaster response.

Failings in disaster response in India generally reflect entrenched problems including social division and poor physical infrastructure. In areas where caste divisions are more entrenched, such as Bihar, these problems will affect disaster response. It is simplistic to assume that issues like social division will be removed in the process of disaster intervention. But increased government recognition of issues such as exclusion can ensure that disasters do not worsen social divisions. Caste divisions, for instance, can create a lack of empathy among generally higher-caste officials towards lower-caste groups. Thus while they may ensure the supply of relief materials, issues such as reuniting separated families may be less of an immediate concern. These divisions become more apparent, particularly to international audiences, in the aftermath of disasters.

- India is stronger at response than at prevention or rehabilitation

**India's response capacity is clearly higher than its ability to prevent disasters**. While there is a clear trajectory towards mitigation, many commentators **still perceive India's main strategy to be reactive**. Disasters are not yet mainstreamed through the **breadth of government, and India's record in preventing disasters appears poor**.

The switch in course of the Kosi river in 2008, for instance, involved the breach of an embankment the expected life of which ended in 2002. Its condition had further deteriorated because of a contract dispute stemming from the complex

system of the contracting and sub-contracting of public works contracts. The disaster also reflects the low priority given to the maintenance of infrastructure. Empowering local people to maintain local infrastructure would counter these trends, but would reduce the power of vested interests and subsequent scope for rent-seeking if not outright corruption. Whether similar 'vested interests' attempt to undermine the shift in responsibility for disasters from the Ministry of Home Affairs to the NDMA is unclear.

The policy move towards mitigation and preparedness from response is clearly positive, but there are concerns about the extent to which change is institutionalised, or whether knowledge is held by specific individuals. If the latter, knowledge may be lost should roles shift. This problem is exacerbated by the fact that disaster management is not the preferred function of many IAS officers. For many, it is something to be done before moving on.

The limitations of the institutionalisation of processes are a major concern in India, as in many other developing countries. There is a clear danger that disaster preparedness will become a rapidly-forgotten series of localised events. Key tools in disaster response, such as mobile phone numbers, need to be regularly checked and updated. While the NDMA is acutely aware of this, its ability to ensure that guidelines are followed at the district level is less certain. Similarly, the impact of earthquakes, for example, could be mitigated if building guidelines were followed. The NDMA intends to change existing guidelines into regulations, but ensuring the generic enforcement of such regulations is likely to prove challenging.

In the case of the tsunami, the later rehabilitation phase was not as impressive as the initial response. Temporary shelters continued to house affected people until March 2007, more than two years after the tsunami. And in the Andaman and Nicobar Islands, the local administration took two years to agree a design for new houses.

Overemphasis on the fishing community was also reflected in the rehabilitation phase along with, perhaps, a lack of longer-term planning. Concerns about over-fishing are widespread, but with large-scale donations of boats more fish are now caught than were prior to the tsunami. The tsunami rehabilitation could have been used to retrain fishermen for potentially more sustainable occupations, particularly given that they now face increased competition from larger fishing boats.

- The relationship between the government and NGOs is complex

The public reaction to the tsunami, both in India and internationally, was unprecedented. The scale of the disaster, affecting a number of countries, the high level of media access to affected areas and the timing, on 26 December, heightened awareness and financial assistance among individuals and governments worldwide.. Accusations that some NGOs jumped onto a bandwagon to raise their profile are almost certainly true, though many of these quickly left, leaving more effective NGOs to carry on relief work.

In the response phase, public outpourings of support, channelled primarily through NGOs but also by the corporate sector, were often unwanted and cost time in terms of administration by the state apparatus. Many clothes that were provided following the tsunami were later shipped on to victims of other disasters, including the 2005 Gujarat floods. This same issue recurred in the 2008 Bihar floods, leading the chief minister to ask for relief supplies to be halted because of a lack of storage capacity in the state. While criticisms of over-supply or inappropriateness of relief materials (including boats, in the case of the tsunami) relate more to NGOs than to the government, NGOs are essential because of the lack of sufficient government capacity.

Government policy in many areas of social service provision, including disaster management, explicitly provides a role for NGOs. Current strategy towards NGOs has evolved directly from lessons learnt during the tsunami. But there is a clear disjuncture between government and NGO perceptions of the tsunami response. While some NGOs complained of an apparent lack of government activity following the disaster, this may be explained by the government allowing NGOs to take on work that it was unable, or unwilling, to undertake, or that would allow it to focus its own efforts elsewhere.

The government is learning positive lessons from various disasters in improving coordination among NGOs. But there are serious questions about its attempts to establish guidelines, and to introduce a semi-contractual arrangement with NGOs following disasters. While such arrangements may be appropriate with larger NGOs (such as Oxfam and Plan International), many smaller NGOs (which may end up being the ultimate service providers) either lack capacity in certain areas, prefer advocacy work over service-provision or

would prefer to keep an arms-length arrangement with government rather than acting as a contractor for the government (and in some cases filling needs that some NGOs feel should be met by the government). The gradual shift in NGOs (which varies regionally) from service-provision towards advocacy on issues such as exclusion could **reduce the impact of the government's strategy.**

The importance of the issue of coordination among NGOs following the tsunami stemmed from the large numbers of NGOs that moved into the area. While larger NGOs do respond to less publicised disasters (such as flooding in Bihar), such disasters do not require such complex coordinating mechanisms because of the substantially fewer number of NGOs working in the area. Some NGOs felt that moves to improve coordination among NGOs had the additional (and for them positive) result of creating a united front against the government.

- The top-down approach to disaster management threatens traditional coping strategies

**Part of India's success in disaster response is that** Indians are well-used to disasters – whether floods or droughts – and have developed their own systems for dealing with them, often unconnected to state policies. Included within government policy towards mitigation is the recognition of traditional coping strategies.

But while there is a widespread community-based knowledge of mitigation techniques and response mechanisms on which the government can draw, the overall strategy towards disaster management is clearly a **top-down process**. When the NDMA's national policies are in place, and then introduced and adapted at state and district level, the strategy may appear more holistic, but at present the system appears both exclusive and disconnected from existing strategies. The focus on developing disaster warning systems, for instance, is clearly positive. But the difficulties and slow time-frame involved in establishing last-mile connectivity to deliver warnings is concerning. In fact, the time taken in improving preparedness and response to disasters indicates a level of complexity that may reduce their on-the-ground impact and suggests that capacities may be held by individuals rather than being institutionalised in systems.

Furthermore, the capacity, particularly at the district level, for putting together an effective

disaster preparedness and response strategy is questionable. There is little involvement from **'people's representatives'**, whether members of panchayats of community-based organisations, in government planning. The focus on the district collector rather than panchayat members is understandable given that the latter often lack requisite skills and training. However, this works against communities buying in to disaster mitigation strategies and can reinforce a paternalist approach that ignores existing knowledge. This is part of a wider question facing **India's political system. Responsibility for empowering panchayats falls to state governments**, many of which view any moves in this direction as a threat to their own powers.

In theory, the greater the local ownership of the disaster response, the more effective it would be. Until the capacity of the panchayats improves, the effectiveness of the response to disasters will stem from the effectiveness of local administrative officials, and in particular the collector. And this situation may continue much longer than planned if state governments prefer not to risk devolving responsibilities to the panchayats. In developing its strategy for disaster response, the NDMA needs to balance the need for authoritative state action (particularly in the early stages of the response) and community involvement.

**While the NDMA's approach is intended to result in district-level plans**, there are concerns that a bottom-up approach would reveal very different concerns and that the current approach will create a macro-level, generic framework potentially ill-suited to all communities. Most observers agree that the more empowered the panchayat, the more effective would be the immediate disaster response.

Although an evolution is clearly taking place, at present disaster management strategy is far from holistic. Businesses are not mainstreamed into the issue of disaster response and businesses potentially responsible for disasters rarely see their actions as linked to the issue. It is also clear that there is a long way to go before disasters are mainstreamed into the actions of other government departments, including the police. At the same time, significant steps are underway to consolidate and coordinate the growing interest among Indian companies into corporate social responsibility.

- **From recipient to donor...**

Since the late 1990s, Indian politicians have increasingly seen India as a key 'pole' in a multi-polar world, and have sought to position India as a regional, if not global, power. Within a short space of time, India has adopted numerous facets of a global power, including nuclear weapon status and a space programme. And India is playing an increasingly visible regional role, as witnessed by its assistance in moves to combat piracy in the Indian Ocean.

Switching from being an aid recipient to an aid donor was another move which was both justified (India has the resources to do so) and fitted within this shift towards becoming a globally-relevant actor. In the context of disasters, this fits with the opposition to international assistance in the response stage, but increases pressure on those responsible to ensure that the response is satisfactory given the global audience.

**India's response to the tsunami was widely praised**, particularly for the absence of any serious epidemics or of any breakdown in law and order following the disaster. No other international actors claim to hold a comparative advantage over the Indian state in disaster response and there is little belief that greater international assistance **would significantly improve India's disaster response capability**. The shift by donors towards **building India's own technical capacity dovetails with India's own assessment of its priorities**.

**India's disaster response strategy has formed the template for other countries in the region**, including Pakistan, Sri Lanka and the Maldives, **and India's armed forces, particularly its navy, will play an increasing role in responding to regional disasters**. More than anything, this ability to assist in other countries provides lessons at home, and works to ensure that domestic disaster response continues to improve.

#### 4.1 Recommendations

Multilateral donors:

- Very little high-quality and published information is available about how long-term disaster recoveries unfold in developing countries. Yet data on this is critical for informing recovery need assessments and risk management strategies that are conducted by multilateral institutions in each country after each major disaster. Comprehensive reviews should be conducted on long-term outcomes of the key recovery approaches.

- As emphasis has shifted from rehabilitation to development in recent years, awareness and interest in microfinance has risen among groups in slums and rural areas. The groups formed for microfinance may be vital leaders in disaster preparedness. Local microfinance institutions may develop innovative mechanisms to expand financial and disaster risk management among self-help groups and communities. Targeted support in appropriate quantities is likely to promote experimentation in this area.
- The establishment of a public body has been central to maintaining broad focus on risk reduction following the earthquake. The linkages between such an authority and civil society are critical. Continued guidance by a multi-stakeholder advisory council can improve effectiveness.

#### State and National Government:

- Information about safe construction is available but these need to be enforced ensuring seismically-safe building design, building codes and construction standards in private housing.
- Self-led recovery builds community capacity. Government recovery programmes should focus on the strategic enabling environment for community recovery instead of implementing recovery projects directly.
- There is need to share long-term recovery lessons on disasters in India. NIDM should work with the World Bank Institute to revise the online DRM course currently provided to thousands of practitioners. An updated course should include research related to longer-term recovery issues in disaster recoveries such as the Latur and Gujarat earthquakes.
- There is high demonstrative value and opportunity for local innovation in local projects. Offering financial grants and targeted technical assistance to *gram panchayats* for implementing their own disaster risk reduction programmes may allow state disaster authority funding to achieve much. Investment in local people and local responses is a long-term disaster reduction strategy.
- Excellent work is done in Surendranagar, Gujarat, to train to village leaders on disaster preparedness and conducting mock drills. Some local leaders found the improved capacity apparent during recent floods. Yet many communities in the district were not aware that these were conducted. Additional value may come from sharing information about community training provided across the state.

#### Nongovernmental Organisations:

- Conduct targeted sectoral assessments of the long-term effectiveness of support provided following disasters. These should focus on issues such as the state's **emerging DRM** framework, risk assessment and early warning, knowledge management strategies, livelihood security, and preparedness for response. These assessments can dually create baseline data for measuring impacts of future hazards and recovery efforts in these disaster-prone communities.
- Review structural safety and compliance with building codes in select housing settlements constructed following disasters.
- Civil society organisations have little awareness of government disaster preparedness arrangements that do exist. Information and education about preparedness and existing programmes can be shared through public schools.
- Process-intensive and community-led systems for risk assessments, risk reduction, and preparedness planning can be led at local levels.
- There is limited awareness of financial tools like microinsurance among community. The state and NGOs should jointly assess the feasibility of microinsurance as a risk financing option. If feasible, they can attract private insurers under the supervision of the Insurance Regulatory and Development Authority to motivate house owners for insurance.
- Communities at risk should be leaders their own risk management. Formation of a state-wide civil society network for advocacy in DRM could help ensure that public resources are used to support communities implementing their own priorities.
- The experience with Abhiyan stands out as a successful example of local coordination. The development of similar local networks across the district may be a central aspect of preparedness for future emergencies.
- There is a desire for awareness on risk management among local public leaders. Opportunities include displays of hazard maps for *gram panchayats* and training on water safety and rescue.





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