

# District Disaster Management Plan of Sheohar District

## Part VI: Recovery Plan

Prepared by:

District Administration, Sheohar

State Disaster Management Authority, Bihar

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## 1. From Response to Recovery

According to the terminology by the United Nations Office for Disaster Risk Reduction (UNISDR), while response is the 'provision of emergency services and public assistance during or immediately after a disaster'<sup>1</sup>, the 'division between the response stage and the subsequent recovery stage is not clear-cut'. Some activities start during the response stage and go beyond to the relief one. Additionally, stating when the response has finished is more related to certain conditions met, rather than how much time has passed since it started. Some measures help to indicate when the district is moving towards the recovery<sup>2</sup>:

- life-saving efforts, such as Search and Rescue, are nearing completion;
- emergency social services and mass care are established (health, shelter, food and water) in the impact area;
- initial assessment of damage complete for critical infrastructure including roads, railways, airports, buildings and systems;
- services restored to essential critical infrastructure;
- establishment of staging areas with movement of relief supplies, response personnel and other critical resources and goods into the impact area;
- planning for recovery underway and key elements are ready to or are activated; etc.

The recovery stage encompasses the **rehabilitation** and **reconstruction** of the district and 'should be based on pre-existing strategies and policies that facilitate clear institutional responsibilities for recovery action and enable public participation'<sup>3</sup>. The importance of the recovery lies in the valuable opportunity that it holds for building back better or, in other words, implementing measures to reduce the disaster risk to lower levels than previously. In view of this, the recovery is 'the restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities'.

The Recovery Plan is, therefore, focused on building back better by putting in place a coordination mechanism for the activities that need to be performed from over a short-term to medium/long-term recovery period.

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<sup>1</sup> Terminology, UNISDR. Available at <<https://www.unisdr.org/we/inform/terminology>>

<sup>2</sup> Province of British Columbia, B.C. Earthquake Immediate Response Plan. Available at <<http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/provincial-emergency-planning/irp.pdf>>

<sup>3</sup> Terminology, UNISDR. Available at <<https://www.unisdr.org/we/inform/terminology>>

## **2. Immediate Recovery**

The Damage and Loss Assessment is the first and critical component to identify what is the extent of recovery required to be done to bring normalcy to the district. This component lays the foundation for setting the priorities of the recovery stage (see the annexure for an example of format of the assessment).

The immediate or short-term recovery goes from a day to a month, depending upon the extent of the disaster, the damage caused, and the activities necessary to overcome the situation. Then, based on the findings from the Damage and Loss Assessment, the district administration along with the line departments and external supporting agencies (e.g. NGOs, contractors, etc.) has to define a plan for the recovery, covering the timeline for completion and the strategies and activities to be performed.

Three are the most important elements of the recovery stage and to which the district administration should focus on: infrastructure, social, economic. They are related to health and educational facilities, water, drainages and sanitation facilities, electricity, transportation and connectivity, etc. Hereafter, each one of them is explained along with the actions that are required to complete the phase of immediate recovery.

### **2.1. Infrastructure recovery**

This element represents the restoration of utility and critical services within the district.

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#### **Water supply**

For affected habitation in rural areas, Public Health Engineering Department has to work to restore water supply units that were identified as dysfunctional during the Damage and Loss Assessment exercise.

#### **Power**

The Energy Department have to restore the power lines in areas where damage was reported. The restoration of critical buildings such as hospitals, health centers and administrative buildings is to be prioritized. Meanwhile these buildings are under repair, generator sets should be made available.

#### **Telecommunication**

Disrupted lines of telecommunication links have to be repaired on highest priority by Bharat Sanchar Nigam Limited (BSNL) and other private telecom agencies to restore the connectivity of the district/area affected.

#### **Critical lifeline buildings**

Lifeline buildings are those necessary to keep the administrative machinery or any emergency centres functioning during a disaster and despite the damages inflicted by it. Hospitals, schools, Anganwadi centres, offices of line departments and district administration are examples of critical lifeline buildings and that should be retrofitted or reconstructed after throughout assessment.

#### **Roads and bridges**

The Public Works Department (Road Construction Department) and the National Highways Authority of India should list down the roads and bridges that need repair and those requiring complete reconstruction. Based on that, the priority projects are appointed to guide the plan for recovery. Critical roads and bridges open access to health centers in rural areas, vulnerable groups in remote areas, police stations and outposts, etc.

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## Households

It involves the identification of houses that were damaged by the disaster or that are vulnerable to secondary incidents associated to the major impact. It is essential that measures be taken accordingly, whether it is relocation, retrofitting, or reconstruction.

**Owner-Driven Approach:** the owner-driven approach supports the owners to design houses as per their needs giving them a sense of ownership, while the administrative costs are reduced and the district can focus on proper monitoring.

### Disaster resilient construction

The District Disaster Management may constitute a committee to ensure that technical requirements for disaster resilient housing are met during the reconstruction. This committee would assist the multi-hazard resilient design, monitor the process of reconstruction, and ensure that disaster resilient techniques are incorporated in various schemes and development projects. Funds under schemes such as Indira Awaas Yojana and Housing Schemes for Scheduled Castes and Denotified Tribes can be used for reconstruction.

## 2.2. Social recovery

The social recovery is paramount as it deals directly with the lives of those affected by the disaster. Their needs should be recognized and measures undertaken accordingly. Bringing normalcy to their lives is required for engaging them in the process of building back better.

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## Temporary shelter

The management of relief shelters is continued from the response phase to the immediate recovery phase and done through Incident Response System (IRS – as per Response Plan). Temporary rehabilitation or relocation of people has to be done for those damaged houses, either completely or partially destructed. These people have to be provided with relief supplies while the construction or repair of the houses is undertaken.

### Psychosocial support

Health department is responsible to coordinate the psychologists within the district for providing psychosocial support to people highly affected by the disaster, who faced major economic losses or losses in the family, especially to the most vulnerable groups as children, women, elderly, etc, in order to reduce the psychological trauma at the community level. Support and co-ordination from NGOs should be utilized for the same.

### Physical health

First aid and emergency health care has to be provided at the earliest. In case health care centres are affected by the disaster, temporary medical relief camps have to be installed while the building is retrofitted or reconstructed. Mobile medical units may be pushed into action for immediately health care close to the community.

### Animal health

Injuries and diseases to animals must be addressed through necessary veterinary support at the village or panchayat level.

### Financial support

The Department of Social Welfare shall release the money of life insurance and others according to state and

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national social welfare schemes.

**Peace meetings**

In case of any violence in the region, peace meetings have to be organized by the Police Department and the District Magistrate along with leaders of estranged communities to diffuse tensions.

**2.3. Economic recovery**

The recovery of economic dimension is fundamental for the success of the entire recovery stage as it brings sustainability for the programme and closely supports the principle of build back better by reviving the local economy.

**Risk transfer**

Crop and livestock insurance beneficiaries have to be identified during early recovery stage so to provide the affected people with money for meeting their immediate expenditures and necessities.

**Wage employment**

This shall make available on high priority to people of affected areas so as to give access to money soon after disaster response when the withdrawal of relief supplies generally takes effect. MGNREGS shall be implemented to provide temporary wages while using this to build assets that could be beneficial for their long-term recovery.

**Banking operations**

Banking operations affected due to disaster must continue with minimal period disruption so that communities are able to draw money deposited via MGNREGS work, insurance amounts besides being able to avail regular banking benefits.

**Relocation**

When the recovery involves relocation of the community, the relocation site should be in close proximity to the existing sources of livelihood (places of work, agricultural farms, livestock facilities, markets, etc). This ensures favourable conditions for livelihood generation and other economic activities.

### **3. Long-term Recovery**

Post-disaster recovery is a complex process involving several dimensions such as livelihood regeneration, psychological care, environmental rehabilitation, reconstruction, etc. This requires strong linkages between government, NGOs, as well as international organizations and the communities in the district itself, and there is no time-bound to be finished. As the stage of immediate recovery, the long-term recovery involves three major dimensions – infrastructure, social, and economic.

#### **3.1. Infrastructure and environmental recovery**

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##### **Strengthening and retrofitting**

This shall be executed during this phase for all the critical lifeline buildings on priority by the PWD – Building department, besides that for canals and embankments by Canal (Irrigation dept) and WRD, respectively. These works for schools shall be undertaken by Building Construction Division of Education Department.

##### **Repair and reconstruction**

###### **Roads and bridges**

The execution shall be undertaken and monitored by the NHAI and the PWD – Roads (State & Rural) as per the execution plan defined during the first segment of recovery phase.

###### **Housing**

Development of permanent housing solution for victims happens during this period under National Housing Scheme (IAY & RAY). Additionally, housing solutions may be provided in cooperation and financial support of external agencies such as NGOs, Corporate Social Responsibility department of private companies, etc. The planning and execution has to involve the local community through consultations and assessments while empowering them.

##### **Regeneration of biodiversity**

Afforestation initiatives have to be undertaken by Soil Conservation, Forest and P&RD in affected areas to regenerate forests and biodiversity.

##### **Treatment of wetlands**

Natural wetlands (rivers, streams) have to be cleared of debris and sediment deposits to restore the aquatic biodiversity of the region, including fishes and plants.

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#### **3.2. Social and economic recovery**

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##### **Rehabilitation**

During this phase, families placed in temporary shelters due to damage or destruction of their houses or erosion of their land has to be smoothly rehabilitated through requisite infrastructure recovery interventions. Efforts shall be made to rehabilitate these families to locations at least close to the original habitations to keep them in proximity of pre-disaster communities and land.

##### **Education**

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Schools have to be made operational in the shortest span through the post-disaster period.

### **Wage employment**

The focus on providing wage employment through MGNREGS should be continued with greater vigour for the affected parts of the district so as to provide economic recovery while original livelihoods such as agriculture outputs are restored to normalcy.

### **Livelihoods**

Work towards strengthening livelihoods to be more economically and environmentally sustainable, as well as more resilient to future disasters. In this long-term recovery effort, focus is on livelihoods diversification, creation of alternative income generating activities, providing financial services such as loans and insurance, and strengthening forward linkages with markets for existing and new livelihoods.

#### **Credit**

This shall be done by formation of self-help groups (SHGs) for affected communities so as to support in buying or rebuilding assets such as domestic animals, farm equipments, craft equipments and others by providing microcredit. This is critical to reduce the dependency of the population in the district administration for support.

#### **Microinsurance**

Increase of the coverage of microinsurance in order to include more farmers and livestock owners and their productive lands/livestock to ensure risk transfer benefits in case of damages from any future disasters.

#### **Disaster resilient livelihoods**

Agriculture is the mainstay of the district while it is one of those vulnerable to natural hazards. Alternative livelihoods such as crafts, sericulture and plantation of Khus (Vetiver) for its oil production with a processing industry may be sought by the district.

### **Agronomic rehabilitation**

The district administration has to ensure that soil testing labs research and formulate necessary steps required for agronomic rehabilitation and may coordinate with NGOs working in this field to channelize their support. Additionally, it is paramount to suggest cropping patterns, suitable compositions of fertilizers, pesticide, etc, depending upon the changes in soil due to the disaster and develop a model of rehabilitation of the same.

Various measures such as seed capital, micro finance and other related schemes should be used for the social and economic recovery of the district. Some activities to support livelihood generation and improvement that can be provided by schemes under the Welfare Department are given below:

- training tailoring to SCs/BCs destitute/ widowed women/girls;
- upgrade of typing and data entry skills of the SC/BC unemployed youth through computer training;
- financial assistance for training to scheduled castes candidates in unorganised sector through private institutions;

- creation of employment generation opportunities by setting up employment-oriented institutions/ training programme;
- other schemes such as MGNREGS, PMGSY, Hunar se Rojgar Yojana can also be used for livelihood generation.

The district administration may also coordinate with the Animal Husbandry and Dairying Department to ensure alternate livelihood generation activities by providing cows and buffaloes. Various schemes under Animal Husbandry and Dairying Department can be used for the same:

- schemes for employment opportunities to scheduled castes families by establishing livestock units and insurances of their livestock (SCSP);
- special employment to educated/ uneducated young men/women of rural area through dairy development;
- Self-employment generation in dairy sector by establishing hi-tech/ mini dairy units; schemes for salvaging and rearing of the male buffalo calves.
- For further information about the schemes, one may refer to the **Disaster Risk Reduction (DRR) Plan**.

#### **4. Holistic Recovery Process**

The District Disaster Management Authority of Sheohar should formulate the necessary institutional mechanisms for ensuring that each aforementioned parameters and activities related to the recovery stage, including reconstruction and rehabilitation, are performed accordingly. In view of this, they should not only monitor, but also coordinate with the work of NGOs and other agencies so to better utilize the expertise and resources available at the district. It should be noted that external agencies have a time-bound approach and communities may or may not be completely recovered by the time their project ends. Therefore, the Disaster Management Authority is the final responsible for the recovery process and has to ensure its appropriateness within the district, through planning and constant monitoring of the progress and reporting.

During the recovery process, it is paramount to ensure that the communities do not get dependent solely on assistance from the local administration. It is necessary to define in advance clear indicators and a plan stating the withdrawal as per the situation in the district. Additionally, multi-disciplinary activities should be incorporated in the recovery process in consultation with the affected community in an institutionalized manner, as this would support in ensuring sustainable development of the community and the district as a whole.

## **5. Severe Occurrences Recovery Programme Coordination**

### **5.1. Role of the State Disaster Management Authority**

Develop approach, policy guidelines and action plans for meeting the objectives of the programme.

Obtain funds for rehabilitation and resettlement and to ensure optimum utilization of these funds made available from national and international agencies.

Prepare programmes and plans to mitigate the impact of disasters as a strategy for long-term disaster preparedness.

Overall coordination and monitoring with the implementing line departments for the procurement of works, goods and services for the specific components of the public sector infrastructure.

### **5.2. Tasks to be performed during the Recovery Programme**

Build, retrofit, repair and strengthen houses, schools, buildings in the health sector and public buildings affected by the earthquake, through the application of earthquake-resistant technology.

Revive the local economy by providing assistance for agriculture, industries, small business, handicrafts, and regenerate livelihood for the people.

Rebuild and upgrade community and social infrastructure, improve education and health systems, and strengthen social protection measures for weaker sections of the population.

Provide health support to the people injured by the earthquake on a long-term basis and psychological counselling for the people traumatized by the disaster.

Restore lifeline infrastructure of transport networks and utility infrastructure of power and water supply, and reduce their vulnerability to natural disasters.

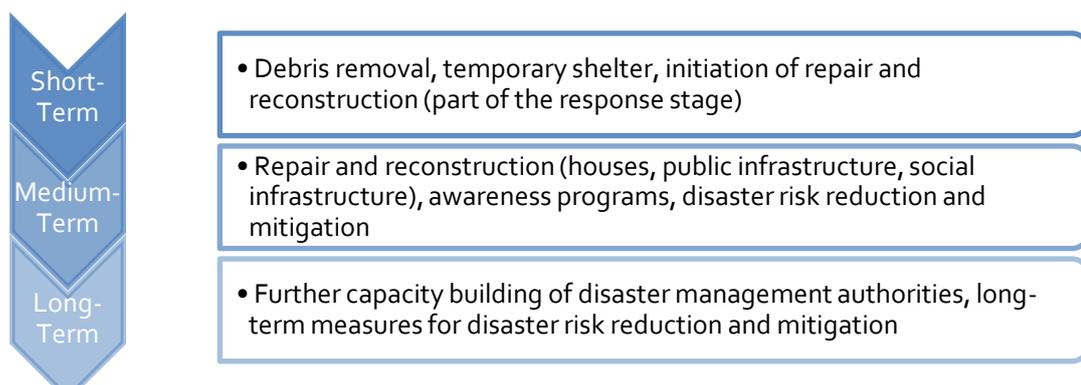
Support gender empowerment through involving women at all stages in the programme implementation.

Provide support for the children affected by the earthquake, and alleviate social deprivation through an integrated nutrition and education strategy.

Implement a comprehensive disaster management programme, improving the disaster preparedness and emergency response capacity of the government to deal with different types of disasters.

Reduce vulnerability through long-term mitigation programmes through structural and non-structural measures and improve people's resilience through diversification of sources of income generation and asset building.

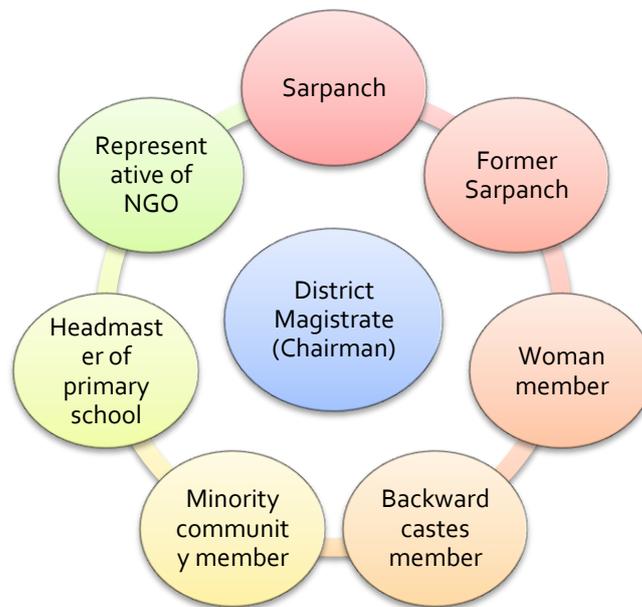
### **5.3. Phases**



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#### **5.4. Community Participation**

When it comes to community participation, specific arrangements at the village level should be designed – in the case of Gujarat Earthquake 2001, Gram Navrachna Samitis were created. The Gram Navrachna Samiti has one chairman, which may be the District Magistrate, and its members are comprised of representative from different groups (Sarpanch, a former Sarpanch, a woman member, a member from backward castes, a member from a minority community, the headmaster of the primary school and a representative of an NGO). The idea of the Gram Navrachna Samiti is to ensure the representation of all segments of the community in the decisions related to the design, building material and construction technology, as it is responsible for the overall supervision of the reconstruction programme.



## Annexure - Detailed Damage and Loss Assessment Format

Type of Disaster:

Date of Assessment:

Name	Name of the Reporting Official(s)	Designation	Signature
Panchayat			
Block			

### 1. AFFECTED AREAS AND ESTIMATED AFFECTED POPULATION

Areas	Villages	Population affected
Worst Affected		
Moderately Affected		
Unaffected		

### 2. STRUCTURAL DAMAGE

Condition	Houses		Private Buildings	Public Buildings	Govt Buildings
	Pucca	Kutcha			
Fully Damaged / Severely Inundated / Washed Away					
Severely Damaged					
Partial Damaged					

### 3. DAMAGE TO BASIC INFRASTRUCTURE

Condition	Roads	Bridges	Electricity	Hand Pumps	Wells	Piped Water	Latrine
Functional							
Damaged							
Destroyed							

### 4. SOCIAL INFRASTRUCTURE

Condition	Health	Primary	Middle	High	College	Panchayat	Fair	Shelter
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**First draft for Comments and Inputs**

	Centre	School	School	School		Bhawan	Price Shop	(Community Hall)
Total								
Functional								
Severely Affected								
Moderately Affected								
Used as Relief Centre								

5. STATUS OF SOLID WASTE DISPOSAL

Status	Very Poor	Poor	Good	Very Good
Presence of sewage in open				
Drainage Systems				
Quantity of Solid Waste				
Management of Solid Waste available				

6. HUMAN HEALTH (to be submitted by health centres)

Presence of Vector Borne diseases	Malaria	Dengue	Lymphatic Filariasis	Kala-azar
Number of cases reported				
Vector Control measure available at the health centre	Yes		No	
What measures are available?				
Number of people reported Dead				
Number of Infants Dead				
Cause(s) of Death (Name Diseases):				
Number of Women Dead				
Cause(s) of Death:				
Number of Old Dead				
Cause(s) of Death				
Number of Men Dead				
Cause(s) of Death				
Number of Specially Challenged Dead				
Cause(s) of Death				
Number of people who lost eyes or limbs				

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Number of people with grievous injuries requiring immediate hospitalization	
Number of Mobile Medical Units made available to the Panchayat	
Number of Doctors available	

7. ANIMAL HEALTH (DOMESTICATED ANIMALS)

Are animals reported Sick/Dead?	Yes	No	
Diseases Reported:			
What control measures are available?			
Name of the animals reported Dead			
Name of the animals reported Sick			
Map the name of the animal with number of Dead	Animal	Disease	Dead
Cause(s) of Death (Name Diseases)			
Map name of the animal with number of Sick	Animal	Disease	Sick
Cause(s) of Sickness			

8. DISPLACEMENT AND RELIEF SHELTERS

Humans

Number of Families	Number			
Total Displaced				
Accommodated by Host Families / Relatives				
Staying back in Damaged Houses				
Government Relief Shelters				
No of families accommodated at	Schools	Religious Places	Panchayat Bhawan	Others (Specify)

Domestic Animals

Number of animals displaced	
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Number of temporary shelters for Livestock	
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9. LIVELIHOODS

Type of Livelihoods	What is the Damage	Put a Tick Mark	No of people affected or area Damage (in acres, where applicable)		Extent of Damage
Agriculture	Silting				
	Inundation				
	Crop Failure				
Agri. Labourer					
Labourer					
Fisheries	Boats				
	Nets				
Petty Shop					
Rural Artisans	Loom Equipment				
	Accessories				
	Yarn, Dies, Chemicals				
	Others				
Animal Husbandry					

10. AGRICULTURE

Area	Number		
	Kharif	Rabi	Garma
Ongoing Season			
Total Crop Area			
Total Crop Area Damaged (Silting of agricultural land)			
Total Cropped Area			
Total Crop Damaged			
Cause(s) of Damage			