

TRAINING MANUAL ON LONG-TERM RECOVERY AND RECONSTRUCTION STRATEGIES

**FOR SENIOR POLICYMAKERS AND
PROGRAMME MANAGERS**

**THINK RECOVERY THINK LONG,
THINK RECOVERY THINK SAFER.**

**NATIONAL INSTITUTE OF DISASTER MANAGEMENT
(MINISTRY OF HOME AFFAIRS)
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Abbreviations and Acronyms

ACA	Additional Central Assistance
ADRC	Asian Disaster Reduction Centre
AIDMI	All India Disaster Mitigation Institute
ALNAP	Active Learning Network for Accountability and Performance
ARWSP	Accelerated Rural Water Supply Programme
BRR	Badan Rehabilitasi dan Rekonstruksi
BT	Bio-terrorism
BDM	Biological Disaster Management
CBRN	Chemical, Biological, Radiological, Nuclear
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CLEAR	Country-Level Effectiveness and Accountability Review
CRF	Calamity Relief Fund
CWGER	Cluster Working Group on Early Recovery
DDA	Detailed Damage Assessment
DDMA	District Disaster Management Authority
DDRP	Pre-Disaster Recovery Planning
DFAA	Disaster Financial Assistance Arrangements
DMF	Disaster Mitigation Fund
DRF	Disaster Response Fund
EIA	Environmental Impact Assessment
EMA	Emergency Management Australia
ERF	Environment Relief Fund
FEMA	Federal Emergency Management Agency
GoI	Government of India
GREEP	Gujarat Emergency Earthquake Reconstruction Project
GST	Goods and Sales Tax
HIA	Health Impact Assessment
IAF	Indira Awas Yojana
IIASA	International Institute to Applied System Analysis
IDNDR	International Decade for Natural Disaster Reduction
IMF	Inter Ministerial Group
IPCC	Inter-governmental Panel on Climate Change
IRP	International Recovery Platform
ISDR	International Strategy for Disaster Reduction
KDP	Kecamatan Development Program
MCE	Mass Casualty Event
NCCF	National Calamity Contingency Fund
NCDM	National Centre for Disaster Management
NDMA	National Disaster Management Authority
NDRR	Natural Disaster Relief and Recovery Arrangement
NDRF	National Disaster Response Fund
NIDM	National Institute of Disaster Management
NGO	Non-Government Organisation

NREGS	National Rural Employment Guarantee Scheme
OSDMA	Orissa State Disaster Management Authority
PA	Public Assistance
PEPPER	Post-Earthquake Rebuilding
PLI	Public Liability Insurance
RDA	Rapid Damage Assessment
SLC	State-Level Committee
TCIP	Turkey Catastrophe Insurance Pool
UNFCCC	United Nations Framework Convention on Climate Change
UPP	Urban Poverty Project
UTI	Union Territory

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Forword (NIDM)

Dr. Satendra Singh, Executive Director
National Institute of Disaster Management (NIDM)

Preface

Recently, long-term recovery from disasters has received renewed interest by various sections of our society and organisations in India and South Asia, especially, at the highest levels of policymaking in Government setups.

Discussion at various forums, including those at the topmost political and planning levels such as Asian Ministerial Conferences, India Disaster Management Congress and various workshops organised by the National Disaster Management Authority (NDMA) and National Institute of Disaster Management (NIDM), of the key issues and challenges that constrained long-term disaster recovery and preparedness planning, has to be valued, captured and analysed in charting out the future policy and programme directions to address India's emerging problems in managing disaster recovery effectively and more efficiently.

This consensus on the need for developing both better disaster recovery planning and efficient and effective disaster recovery organisations at various levels in India has been discussed in the Government of India's National Policy on Disaster Management, 2009, the recent report on Disaster Management in India by the Ministry of Home Affairs, Government of India, 2011. Established since 2005, following the enforcement of India's Disaster Management Act, 2005, the NDMA has produced a number of guidelines to support and strengthen various aspects of disaster management in India and facilitate disaster recovery and preparedness planning.

Similarly, NIDM has made key efforts in building capacities and knowledge around disaster recovery issues in India in the last several years. This effort in particular, development of a training module on long-term disaster recovery issues for policymakers, demonstrates the urgency and commitment towards improving disaster recovery efforts in India and originated from the NIDM.

Many civil society organisations which demanded more focus on long-term recovery issues in India would feel that this was long due and welcome the initiative with both hands.

It is against this milieu that this module covering key aspects of long-term disaster recovery in India is prepared and assumes high relevance. This training module emphasises the importance of disaster recovery planning and highlights key role of policymakers in driving post-disaster recovery efforts, including overview of disaster situations in India.

AIDMI was requested and invited by NIDM to produce this module and used its experience to create a suitable product for policymakers. Based on its experience of working with disaster-affected communities and global humanitarian agencies for more than two decades now, AIDMI has designed this training module with major support and contributions from NIDM, NDMA and its supporters across India.

National Institute of Disaster Management

December 24, 2012

Executive Summary

Prof. Santosh Kumar, NIDM

How to use this manual?

Introduction:

Disasters offer unique challenges and opportunities for serving people in distress and developing systems for reducing such distress. Relief efforts in a disaster scenario can serve not only to reverse losses but to spearhead long-term sustainable recovery. Transition to recovery is essentially a development activity, which grasps the opportunities offered by crisis to make the transition from unsustainable to sustainable development. Gradually, in India various State Governments have started taking initiative for the long-term recovery. Governments are taking housing, infrastructure and livelihood recovery on a priority basis. Also, mitigation is getting integrated into the whole recovery process with 'Build Back Better' accepted as the basic principle of recovery.

Key objectives

Key objectives of the training module on long-term recovery and reconstruction strategies are as follows:

1. Describe the long-term recovery and rehabilitation policy and framework and importance of post-disaster damage and needs analysis.
2. Introduce systems for disaster management in India and institutions for long-term recovery.
3. Explain widely recognised and practised principles in long-term recovery.
4. Describe the issues and challenges of housing, infrastructure and livelihood recovery, including psycho-social aid and gender issues in long-term recovery.
5. Explain damage assessment process and strategies for financing reconstruction and long-term recovery, including building back better practices from past disaster recovery experiences.
6. Describe components of long-term recovery planning

Target audience

Primary target audience of the module is senior policymakers and programme/project managers, including officials of the departments that are directly responsible for assessing damage in the aftermath of disasters. Participants would comprise officials from the Disaster Management/Revenue & Relief Departments and various sectors like agriculture, infrastructure, public works, etc. Participation from various sectors as well as core disaster management departments would facilitate consideration of sectoral as well as overall disaster management scenario.

Pedagogy

The pedagogy of the manual is interactive and uses the methods of lectures, presentations, group discussion field vision and exercises. The manual is developed in such a manner that it could be used as a self-study module. A guide book for facilitators has been developed and included. The manual has two sets of training designs: one of two days for the senior

policymakers from the Central Government and another of five days' duration for programme and project managers, both at senior and middle levels.

Long-term recovery and reconstruction strategies: methodology and design

Step: 1 Review of literature

Step: 2 Review of available training designs

Step: 3 Inception report (draft module on LTR)

Step: 4 Validation workshops (by NIDM)

Step: 5 Refinement and finalisation

Design/structure of the module

Module 1	Introduction to disaster recovery	What is disaster recovery?	Relevance of post-disaster damage and needs analysis for recovery planning	What are the frequently used terms in DRR and recovery policy drafting?	What is the context for disaster recovery planning in India?
Module 2	Overview of Disaster Management in India: An input to recovery policymaking	What is the trend of disaster impact in India?	What guidance on recovery is available from India's national policy on disaster management?	What is the institutional framework for DM in India?	What guidelines are available from NDMA?
Module 3	Recovery principles	What are the key guiding principles of disaster recovery?	What are the good practices in recovery policy making?	What are the commonly used principles in recovery?	What are the policies for post-disaster recovery?
Module 4	Key recovery themes	Shelter recovery: guiding principles for transitional and permanent housing	Infrastructure recovery: Examples and guiding principles	Livelihood: importance, examples and guiding principles	Gender, psycho-social, health, education, economy, environment and CCA
Module 5	Key role of policymakers in driving recovery	Launch emergency response and establish coordination mechanism	Guide damage assessment and prioritise recovery needs	Establish new or strengthen existing recovery organisation?	Develop R&R policies, plans and convergence
Module 6	Recovery planning	What is pre-disaster recovery planning?	How does pre-disaster recovery planning fit within the DM cycle?	Key components of pre-disaster recovery planning	Lessons from previous disaster recoveries
Facilitator's Resource Guide					
Resource/reference material (recommended readings)					
Relevant video/documentaries on long-term recovery					
Final outputs submitted to NIDM					

Organisation of the manual

This manual uses the experiences of key disaster response, recovery and risk reduction agencies of India and outside, including the Government of India and UN systems. By providing participants with examples of good and successful practice, this module gives them a good overview on planning long-term disaster recovery operations.

Note to facilitators and potential users

This manual has six modules. Each module outline provides information on module objective, key contents, session objectives, key concepts and recommended readings. Information on how to implement each module can be found in facilitator's note. Facilitator's guide outline provides information on:

- Training design (two days and five days schedule)
- Preparation required in advance
- Session objectives
- Materials/resources needed
- Suggested methods
- Indication of time required
- Guidance on using videos/documentaries
- Suggested readings (resource material)

Modular planning of training programmes

The matrix below provides an indicative plan for designing five days and two days training programmes for policymakers and programme managers keeping in view their specific needs.

No.	Sessions Title	5 Days Training	2 Days Training
Opening			
1	Inaugural Session	✓	✓
2	Introductory Session	✓	✓
Module 1: Introduction to Disaster Recovery			
3	Introduction to Disaster Recovery	✓	
4	DM Continuum and relevance of PDNA for recovery planning	✓	✓
Module 2: Overview of DM in India: An Input to Recovery Policymaking			
5	Overview of DM in India: An Input to Recovery Policymaking	✓	
6	Disaster Situation in India	✓	✓
Module 3: Recovery Principles			
7	Recovery Principles	✓	✓
Module 4: Key Recovery Themes			
8	Shelter and Infrastructure Recovery	✓	
9	Livelihoods Recovery	✓	
10	Psycho-social Recovery	✓	✓
11	Engendering Recovery	✓	

12	Field Visit Planning	✓	x
13	Field Visit	✓	x
Module 5: Key Role of Policymakers in Driving Recovery			
14	Key Role of Policymakers in Driving Recovery	✓	
15	Damage Assessment	✓	
16	Financing Recovery	✓	
17	Building Back Better: Case Study 1. 2001 Gujarat EQ	✓	✓
18	Building Back Better: Case Study 2. 2004 Tsunami Recovery	✓	
19	Building Back Better: Case Study 3. 1999 Orissa Super Cyclone	✓	
20	Organizational Models for the Management of Disaster Recovery	✓	
Module 6: Recovery Planning			
21	Development Trends	✓	✓
22	Recovery Planning	✓	
Closing			
23	Course End Evaluation	✓	✓
24	Closing Ceremony	✓	✓

Two days training schedule for senior policymakers

Method of delivery: Lecture, discussion, group exercise, case studies and simulation through scenario, etc.

Session	Key Learning Objective	Key Elements	Duration (minutes)
Recovery Day 1			
Inauguration	Ensure that the objectives of the training are clear	Overview of training	20
		Total	20
Introductory	Know each other & explain overview of the course content and schedule	Introductions	40
		Course overview & design	15
		Clarifications (Q&A)	05
		Total	60
Introduction to Disaster Recovery and PDNA	Basics of disaster recovery and importance of PDNA	Introduction to key DRR Terms	30
		Introduction to key recovery concepts	40
		Building back better (video)	10
		Discussion (Q&A)	10
		Total	90
Overview of DM in India: An Input to Recovery Policymaking	Familiarise participants with DM systems/institutions in India	Types of disasters (video)	04
		Analysis of disaster trends in India	30
		Overview of disaster management in India	40
		India statement during GP 11	06

		(video)	
		Discussion (Q&A)	10
		Total	90
Recovery Principles	Draft context specific recovery principles to demonstrate ‘building back better’ approach in planning recovery	Introduction to recovery policymaking	30
		Scenario-based framing of recovery principles	40
		Making DRR everybody’s business (video)	10
		Discussion (Q&A)	10
		Total	90
		Recovery Day 2	
Key Recovery Themes	Understand issues, priorities, challenges, and key lessons learned in disaster recovery	Key recovery issues in shelter & infrastructure, livelihoods, psycho-social health, gender, etc.	15
		Presentation of cases focused on good practices	50
		Impact of climate change on livelihood (video)	15
		Discussion (Q&A)	10
		Total	90
		Key Role of Policymakers in Driving Recovery	Understand key governance issues and policy decisions for guiding successful recovery operations
The case of 2001 Gujarat earthquake (video)	10		
Discussion (Q&A)	10		
Total	90		
Recovery Planning	Mainstream recovery planning in DM and development plans		
		Community participation in recovery (video)	10
		Discussion (Q&A)	10
		Total	90
		Closing Ceremony	Evaluation & wrap-up
Closing remarks & vote of thanks	05		
Total	20		

Five days training schedule for senior policymakers

Method of delivery: Lecture, discussion, group exercise, case studies and simulation through scenario, etc.

Session	Key Learning Objective	Key Elements	Duration (minutes)
Recovery Day 1			
Inauguration	Ensure that the objectives of the training are clear	Overview of training	20
		Total	20
Introductory	Know each other & explain overview of the course content and schedule	Introduction	40
		Overview of course contents & design	15
		Clarifications (Q&A)	05
		Total	60
Introduction to Disaster Recovery	Basics of disaster recovery and its relevance in overall disaster management cycle	Introduction to key DRR Terms	30
		Introduction to key recovery concepts	40
		Building back better (video)	10
		Discussion (Q&A)	10
		Total	90
DM Continuum and Relevance of PDNA for Recovery Planning	Understand disaster management cycle and importance of PDNA in planning recovery	DM Continuum	50
		Discussion (Q&A)	10
		Total	60
Overview of DM in India: An Input to Recovery Policymaking	Familiarise participants with DM systems/institutions in India	Types of disasters (video)	04
		Analysis of disaster trends in India	30
		Overview of disaster management in India	40
		India: Disaster Risk Reduction Statement at GP11 (video)	06
		Discussion (Q&A)	10
		Total	90
Recovery Day 2			
Disaster	Analyse disaster context of	Disaster Situation in India	70

Situation in India	India	2008 Floods in India (video)	10
		Discussion (Q&A)	10
		Total	90
Recovery Principles	Draft context specific recovery principles to demonstrate building back better approach in planning recovery	Introduction to recovery policymaking	30
		Scenario-based framing of recovery principles	40
		Making DRR everybody's business (video)	10
		Discussion (Q&A)	10
		Total	90
Key Recovery Themes	Understand issues, priorities, challenges in shelter and infrastructure recovery	Shelter & infrastructure recovery	35
		Discussion (Q&A)	10
		Total	45
Livelihoods Recovery	Understand issues, priorities, challenges in livelihoods recovery	Livelihoods recovery	35
		Discussion (Q&A)	10
		Total	45
Psycho-social Recovery	Understand issues, priorities, challenges in psycho-social recovery	Psycho-social recovery	35
		Discussion (Q&A)	10
		Total	45
Engendering Recovery	Understand key gender issues in recovery	Engendering recovery	35
		Discussion (Q&A)	10
		Total	45
Field Visit Planning	Prepare for field visit	Field visit plan	15
Recovery Day 3			
Field Visit	Field exposure: understand recovery in progress	Recovery site visit: Meeting with government, NGOs and communities Sectoral coverage: shelter, livelihoods, infrastructure, etc.	Full day
Recovery Day 4			
Key Role of Policymakers in Driving Recovery	Understand key governance issues and policy decisions for guiding successful recovery operations	Decision making in different states of recovery	60
		Tsunami recovery efforts (video)	20
		Discussion (Q&A)	10
		Total	90
Damage	Share experiences of PDNA	Key issues involved in PDNA	35

Assessment		Discussion (Q&A)	10
		Total	45
Financing Recovery	Understand options for financing recovery	Recovery financing tools and approaches	35
		Disaster and debt (video)	15
		Discussion (Q&A)	10
		Total	30
Building Back Better: Case Study 1 Gujarat EQ	Understand recovery of Gujarat Post EQ	Impact to recovery	40
		From rubble to recovery (video)	10
		Discussion (Q&A)	10
		Total	60
Building Back Better: Case Study 2 Tsunami Recovery	Understand Tsunami recovery in TN	Impact to recovery	40
		Tamil Nadu five years after the Tsunami (video)	10
		Discussion (Q&A)	10
		Total	60
Recovery Day 5			
Building Back Better: Case Study 3 Orissa Recovery	Understand Orissa recovery	Impact to recovery	50
		Discussion (Q&A)	10
		Total	60
Organisational Models for the Management of Disaster Recovery	Understand key governance issues and various models of recovery organisations	Types of recovery organisations	35
		Local Development Academy on DRR (video)	15
		Discussion (Q&A)	10
		Total	60
Development Trends	Understand factors that may negatively/positively impact recovery & recovery planning, including adverse impacts of disasters in India	Poverty, education, risk, population, urbanisation, global economic slowdown, etc.	35
		Discussion (Q&A)	10
		Total	45
Recovery Planning	Mainstream recovery planning in DM and development plans	Multi-hazard disaster recovery planning	70
		Community involvement in recovery planning (video)	10
		Discussion (Q&A)	10
		Total	90
Closing Ceremony	Evaluation & wrap-up	Participant feedback	15
		Closing remarks & vote of thanks	05

Total	20
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Module 1: Introduction to Disaster Recovery

Module objective

Describe the long-term recovery and rehabilitation policy and framework.

Contents

1. Nature of disaster recovery
2. Recovery definitions
3. Relevance of disaster recovery planning in overall disaster management cycle
4. Importance of post-disaster damage and needs analysis for recovery planning
5. Frequently used terminology in disaster risk reduction and recovery policy drafting
6. Context of disaster recovery planning in India
7. Long-term recovery and rehabilitation policy and framework

Session objectives

- Develop basic understanding of disaster recovery concepts and its relevance in overall disaster management cycle.
- Introduce to disaster management continuum and recovery planning.
- Familiarise with key terms of disaster risk reduction.
- Introduce to key disaster recovery challenges of India through vulnerability and hazard profiles of India.

Key concepts

- Each disaster recovery context is unique and requires refined approaches.
- Recovery planning should be done well in advance, ideally before the disaster strikes and should be integrated in preparedness planning.
- Basic knowledge and understanding of key disaster risk reduction terms is essential for effective communication and policymaking.
- Vulnerability and hazard profile of India: key reasons for disaster recovery planning

Recommended readings

1. Mihir R. Bhatt, The Global Network of Government Innovators South Asian Regional Forum, 2007
2. Government of Bihar. Resolution: Kosi Calamity: Rehabilitation and Reconstruction Policy.
3. Ministry of Home Affairs, Government of India, Disaster Management in India, 2011
4. UNISDR Terminology on Disaster Risk Reduction, Geneva, Switzerland, May 2009
5. US National Disaster Recovery Framework, Draft, February 5, 2010
6. CWGER, Guidance Note on Early Recovery, 2008
7. NDMA, National Policy on Disaster Management, 2009
8. IRP, UNDP India, "Guidance Note on Recovery Governance"

Module 1: Introduction to Disaster Recovery

Nature of disaster recovery

India is among the most disaster-prone countries in the world. Two-thirds of its States are subject to annual devastation from floods, cyclones and drought. This situation is compounded by further destruction from earthquakes and communal riots. Perpetual exposure to the risk of disaster is the lot of at least one-fifth of India's poor, while about one quarter of its agricultural land is destroyed annually. As a result, an estimated 10% of the population cannot break free from the cycle of poverty. Although India may appear helpless in the face of such seemingly random acts of ferocity on the part of man and nature, it is in fact within the power of Government and civil society to address and manage these risks. What is required is innovative and intelligent policymaking, plus the resources to implement them¹.

The term “recovery” can mean different things to different people. In most cases, the term is used to describe post-disaster rehabilitation and reconstruction, including development post-disaster. Each recovery context is unique and requires a refined approach and novel thinking. Nature of recovery differs from event to event, place to place and time to time.

The damage caused by floods, earthquakes and cyclones is on a much larger scale than other disasters and recovery after these disasters poses a challenge. In disasters like drought, the relief phase is prolonged and since there is no damage to the infrastructure and property, the rehabilitation is confined to restoration of livelihoods which can get subsumed in normal development programmes. Recovery in case of epidemics is more in the form of sanitising the locality against any future recurrence and may also involve counselling of the victims. Industrial disasters being quite varied in nature, the rehabilitation in major ones like the ‘Bhopal Gas Tragedy’ could involve rehabilitation efforts spanning over a generation of victims apart from restoring livelihoods and providing social and psychological assistance. Rehabilitation following disasters such as landslides and avalanches is localised and is of a similar nature as in earthquakes but on a smaller scale. Finding safer sites near such locations often poses challenges and resistance².

A number of definitions of “recovery” are available and presented below. The objective is to help the learner find his/her own meaning of recovery and apply in the given context.

¹ Mihir R. Bhatt, The Global Network of Government Innovators South Asian Regional Forum, 2007
<http://www.innovations.harvard.edu/cache/documents/1398/139811.pdf>

²Source: Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

Recovery definitions

1. The International Strategy for Disaster Reduction (ISDR) defines recovery as the “decisions and actions taken after a disaster with a view to restore or improve the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk”. While emergency response is vital as it is aimed at saving human lives and providing relief, the ultimate objective of any crisis management is restoration of devastated livelihoods. Recovery efforts following rescue and relief in any disaster can be classified into short term and long term. The short-term activities for recovery are debris clearance, providing semi-permanent shelter and ensuring sanitation and restoring lifelines, while the long-term activities involve building a safer and more sustainable livelihood³.
2. According to the Ministry of Home Affairs, Government of India, recovery is about “the restoration and improvement of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors⁴.

The United States National Disaster Recovery Framework⁵ has included four useful definitions on recovery to differentiate and clarify use of recovery terms at different states of operations such as recovery, long-term recovery, short-term recovery and immediate recovery. These terms are explained below.

3. Recovery: The development, coordination and execution of service and site restoration plans, the reconstitution of Government operations and services, individual, private sector, non-governmental and public assistance programmes to provide housing and to promote restoration, long-term care and treatment of affected persons, additional measures for social, environmental and economic restoration, evaluation of the incident to identify lessons learned, post-incident reporting and development of initiatives to mitigate the effects of future incidents.
4. Long-term recovery: Process of recovery that follows a disaster event and may continue for months and years. Examples include the complete redevelopment and revitalisation of the damaged area, which could mean returning the area to conditions set in a long-term recovery plan.
5. Short-term recovery: Phase of recovery in which the scope of damages and needs are assessed, basic infrastructure is restored and recovery organisations and resources are mobilised.

³Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

⁴ UNISDR Terminology on Disaster Risk Reduction, Geneva, Switzerland, May 2009

⁵Source: US National Disaster Recovery Framework, Draft, February 5, 2010

6. Intermediate recovery: Involves returning critical infrastructure and essential Government or commercial services back to a functional, if not pre-disaster state. Such activities are often characterised by temporary actions that provide a bridge to permanent measures.

The term early recovery is widely used for defining and designing recovery framework in ongoing or post-conflict situations.

7. Early recovery: The overall focus of the recovery approach, as defined by UNDP, is to restore the capacity of national institutions and communities to recover from a conflict or a natural disaster, enter transition or 'build back better' and avoid relapses. Early recovery is a multi-dimensional process guided by development principles that begins in a humanitarian setting and seeks to build on humanitarian programmes and catalyse sustainable development opportunities. It aims to generate and/or reinforce nationally owned processes for post-crisis recovery that are resilient and sustainable. It encompasses the restoration of basic services, livelihoods, transitional shelter, governance, security and rule of law, environment and other socio-economic dimensions, including the reintegration of displaced populations. It strengthens human security and aims to begin addressing the underlying causes of the crisis⁶.

Relevance of disaster recovery planning in overall disaster management cycle

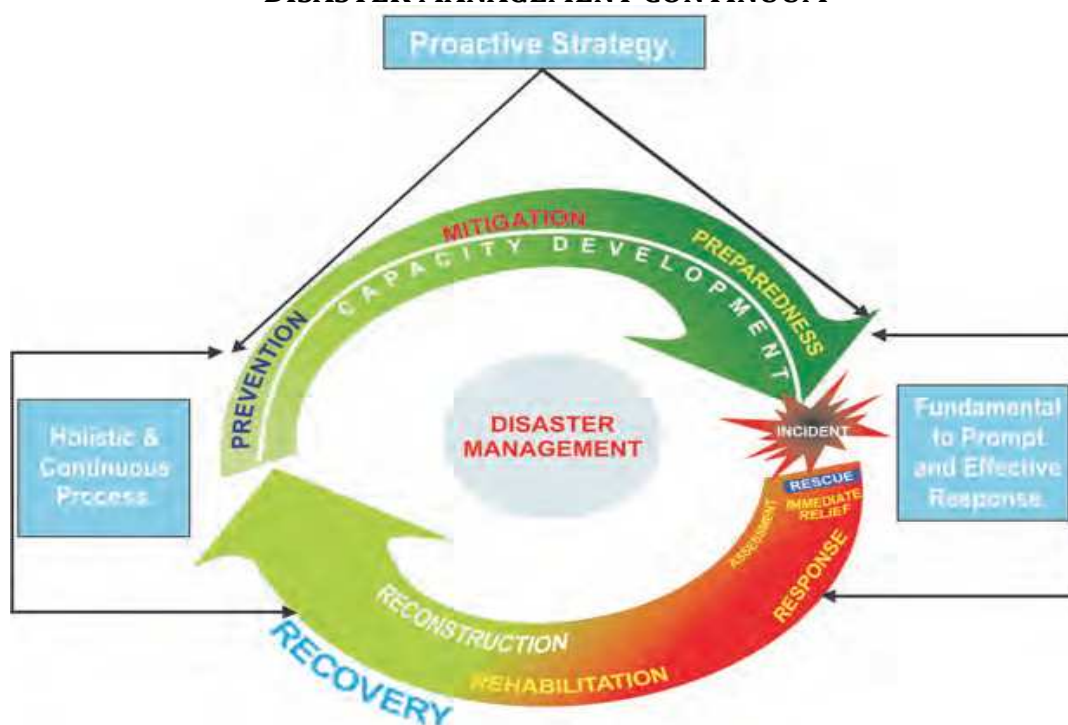
It is clearly emerging and many sources confirm that recovery planning should be done well in advance, ideally before the disaster strikes and should be integrated in preparedness planning. Lack of disaster recovery planning often delays community recovery and development.

India's National Policy on Disaster Management 2009, clearly articulates that "a typical DM continuum comprises six elements; the pre-disaster phase includes prevention, mitigation and preparedness, while the post- disaster phase includes response, rehabilitation, reconstruction and recovery⁷".

⁶CWGER, Guidance Note on Early Recovery, 2008

⁷ NDMA, National Policy on Disaster Management, New Delhi, 2009

DISASTER MANAGEMENT CONTINUUM



Source: NDMA, National Policy on Disaster Management 2009

The US National Disaster Recovery Framework Draft, February 5, 2010, notes that ideally, the recovery continuum begins before a disaster strikes, with preparedness activities such as planning, capability building, exercising and establishing tools and metrics to evaluate progress and success, mitigation planning and actions, economic development planning and vital partnership building, all of which contribute to the community's and the nation's resilience. Post-disaster recovery activities begin in the early stages of the response operations and may last for years. Actions that help recovery, resilience and sustainability should be built into the steady state operations of Governments at all levels.

Similarly, ALNAP with ProVention Consortium noted that agencies need to focus on the recovery phase even from the start of the operation as there is no gap between relief and recovery and recovery is the biggest challenge in sudden on set natural disasters. The distinction between relief and recovery is an artificial one⁸. Thus, disaster recovery should be perceived as an integral part of the overall holistic disaster management and it should be planned well in advance.

The International Recovery Platform and UNDP India has noted in their guidance note on governance that Government agencies from the local to national levels can be quickly overwhelmed by the impacts of a disaster and the demands of recovery. Achieving governance objectives of meeting the needs of society while making the best use of available resources can be an immense challenge. In the post-disaster setting, new and

⁸ ALNAP, ProVention Consortium, "Responding to earthquakes 2008 learning from earthquake relief and recovery operations", 2008

additional skills and resources will be required to 1) rebuild the governance infrastructure, 2) undertake a potentially large and complex recovery initiative and 3) ensure that efforts prove both sustainable and risk-reducing. Identifying the needed resources and building the corresponding capacity in country to accomplish this will not only facilitate a stronger recovery but prepare Governments to manage future disasters more effectively⁹. The guidelines argue that in a more holistic disaster management cycle, recovery is considered not only after a disaster but prior to it as well.

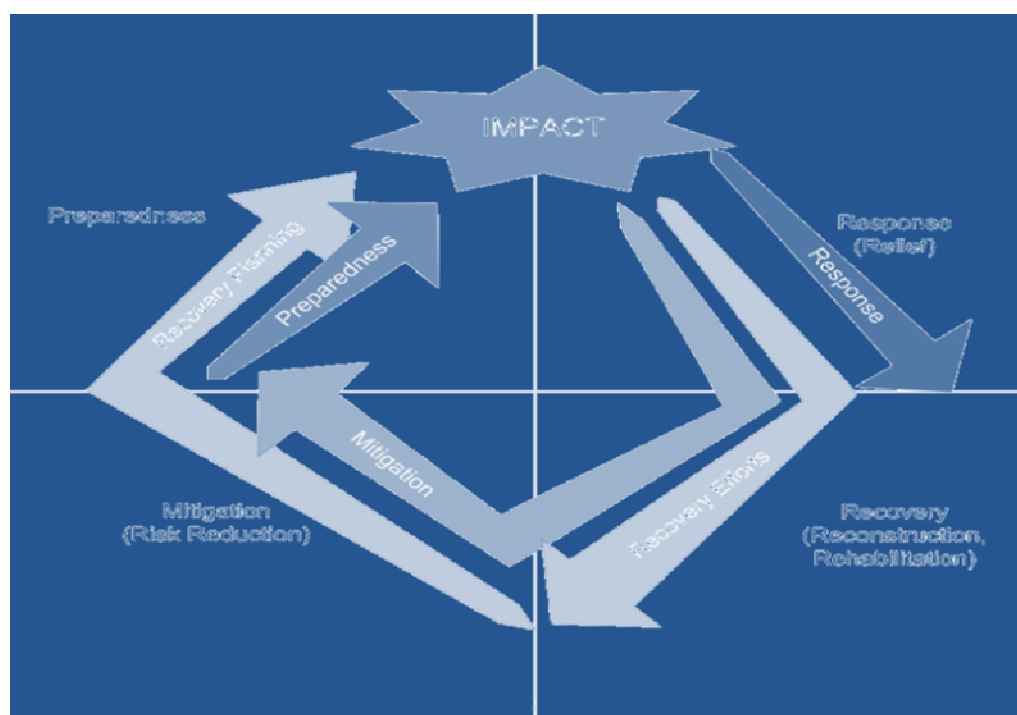
RECOVERY PLANNING AND DISASTER MANAGEMENT CYCLE

The single most effective means of strengthening the capacity to plan and implement sustainable recovery efforts is preparing and planning for disaster recovery before a disaster happens. Integrating recovery planning throughout the entire disaster management process can expedite well-informed decision-making through the:

- ✓ Identification of existing vulnerabilities and capacities;
- ✓ Formulation of a vision and framework for post-disaster planning;
- ✓ Engagement and capacity building of potential partners; and the
- ✓ Development or strengthening of institutions and regulations to facilitate disaster operations.

When Governments do not engage in recovery planning until a disaster occurs, typically the result is:

- X Hasty and reactive decisions that sacrifice relevance and sustainability or
- X Careful but delayed planning that sacrifices the need for urgency and must address potentially conflicting recovery efforts that have taken place in the waiting period.



Source: IRP, UNDP India, "Guidance Note on Recovery: Governance"

⁹IRP, UNDP India, "Guidance Note on Recovery: Governance"

Importance of Post-Disaster Damage and Needs Analysis for Recovery Planning

Understanding of Post-Disaster Damage and Needs Analysis (PDNA) is crucial for planning recovery. Recovery planning could only be effective if detailed PDNA is carried out and made available for policymaking. The primary objective of PDNA is to provide a clear, concise picture of post-disaster situation, to identify relief needs and to develop strategies for recovery. Accurate PDNA facilitates efficient and effective utilisation of existing logistics.

Ideally, an assessment should take into consideration the direct and indirect losses, which have both short- and long-term effects on communities. Most assessments are specifically conducted to assess the physical damage resulting from the disaster. Socio-economic factors and individual needs of survivors are not incorporated into these assessment methods. This leads to an inappropriate and haphazard response, which does not account for the area-specific needs and latent capacities of the victims. This, in turn, wastes valuable resources without alleviating the victim's suffering. Therefore, in order to create a holistic picture and plan out a timely and appropriate response strategy, an assessment method must incorporate both the scale of destruction and the victim's needs.

Also, most assessment methods overlook the impact of a disaster on the livelihood security of the victims. Assessment must identify and review possible options to restore livelihood mechanisms as soon as possible. A livelihood relief intervention sits at the crossroads between disaster and development, which essentially reduces risk. Therefore, a post-disaster damage and needs analysis must carefully assess livelihood needs in consultation with the affected victim on aspects which include: the type of livelihood activity affected, the severity of the damage, potential difficulties in livelihood restoration, livelihood options and the type of support required.

Different types of PDNA and relevant methodologies are discussed below.

Assessment types, features and team composition			
Features	Rapid Assessment	Detailed Assessment	Continual Assessment
Time	About a week	About a month	Information collected regularly throughout the operational period.
Access to information sources	Limited. There is not enough time to visit all locations and talk to all informants or security and/or safety limits	Possible to visit enough locations and interview a full range of informants.	Full access.

	movement and access to people.		
Typical information sources	Secondary information, local services (health, water, etc.), NGOs, Government, affected population/household visits (small sample).	Secondary information, full range of informants.	Secondary information, selected informants, indicators, Red Cross Red Crescent staff and volunteers.
Importance of assumptions	High. Insufficient time to gather full information. Must make assumptions based on previous experience.	Low. Sufficient time to interview full range of informants.	Medium. Assumptions based on indicators and informants, but these can be verified from other sources.
Type of assessment team	Experienced generalist with previous exposure to this type of emergency.	Generalist, possibly supported by specialists.	Red Cross Red Crescent staff (generalist) carrying out normal activities.

Advantages and disadvantages of the three types of team structure

Team Structure	Advantage	Disadvantage
Generalist(s)	- Team can be assembled quickly (because it is not necessary to look for people with specific skills). Hence useful for rapid assessments. - Can provide a good overall analysis of the situation. - Staff from any discipline can do the assessment, hence appropriate for continual assessment.	- Lack of specific skills means that follow-up assessments are needed when technical problems are identified. - Technical problems may be overlooked. - In extreme situations, assessment teams may need to provide assistance (e.g., during conflict).
Specialist(s)	Can quickly identify problems in their area of expertise.	May focus too much on own specialist issues and miss the wider context.
Multidisciplinary	Technical problems can be investigated in detail, thus avoiding need for immediate follow-up.	Difficult to assemble the full range of professions, therefore assessments are not frequent.

- Diverse experiences provide broad basis for analysis.
- May not need all technical specialities. Difficult to coordinate with team (incompatible methodologies, complicated logistics, etc.).
- Large teams can present a security threat and can be intimidating to small communities.

Source: International Committee of the Red Cross and International Federation of Red Cross and Red Crescent Societies, Guidelines for Assessment in Emergencies, March 2008.

Review of PDNA methodologies

Relevant PDNA methodologies for planning long-term recovery	
1.	Community Damage Assessment and Demand Analysis: The Community Damage Assessment and Demand Analysis method is a consolidation of AIDMI's post-disaster experience. It highlights frequently encountered problems, challenges and possible solutions for making timely and accurate assessment. The methodology can be adopted for any disaster type and it applies the Sphere Project and Red Cross Code of Conduct in assessment. Source: AIDMI, Mihir R. Bhatt and Mehul Pandya with Charlotte Murphy, October 2005 http://onerresponse.info/resources/NeedsAssessment/publicdocuments/Community%20Assessment%20and%20Analysis.pdf
2.	Joint Rapid Assessment for Recovery, Reconstruction and Risk Reduction: The method draws on established methodologies – ECLAC's DaLA and PDNA (The United Nations Economic Commission for Latin American and the Caribbean developed the Damage and Loss Assessment (DaLA) in 1972, which was revised in 2003. The Post-Disaster Needs Assessment builds upon DaLA as it stresses the identification of human impacts and recovery needs) and provided an estimate of the value of destroyed assets. It also identified the overall financial needs for post-disaster recovery and reconstruction, as well as long-term disaster risk management. It has quantified damages and losses at the sectoral level. An aggregation of sectoral effects has enabled the quantification of total damage and losses for the entire affected area of the country. Source: The Royal Government of Bhutan, the World Bank and the United Nations, Bhutan Earthquake September 21, 2009, Joint Rapid Assessment for Recovery,

	Reconstruction and Risk Reduction, October 2009 http://gfdrr.org/docs/Bhutan_Rapid_Needs_Assessment_Report_Oct_09.pdf
3.	Damage and Loss Assessment (DaLA): The Damage and Loss Assessment (DaLA) methodology was initially developed by the UN Economic Commission for Latin America and the Caribbean (UN-ECLAC) in 1972. It has since been improved through close cooperation of WHO, PAHO, World Bank, Inter American Development Bank, UNESCO, ILO to capture the closest approximation of damage and losses due to disaster events. It is a flexible tool that can be adapted to specific disaster types and Government ownership requirements. The DaLA methodology bases its assessments on the overall economy of the affected country. It uses the national accounts and statistics of the country Government as baseline data to assess damage and loss. It also factors in the impact of disasters on individual livelihoods and incomes to fully define the needs for recovery and reconstruction. Source: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTURBANDEV/ELOPMENT/EXTDISMGMT/0,,contentMDK:20196047~menuPK:1415429~pagePK:210058~piPK:210062~theSitePK:341015,00.html
4.	Needs Analysis Framework: The Needs Analysis Framework is a tool to help humanitarian coordinators and IASC country teams organise and present existing information on humanitarian needs in a coherent and consistent manner. This will help strengthen the analysis of humanitarian need. The framework is nothing more and nothing less than a structure to document findings and conclusions in a systematic way within countries. It is meant to assist in the collection of information to construct the overall and sectoral needs. Source: IASC CAP SUB-WORKING GROUP, Needs Analysis Framework, April 2007 https://docs.google.com/viewer?a=v&q=cache:IPZtcWAmfnEJ:www.icva.ch/doc0002343.doc+Need+Analysis+Framework:&hl=en&gl=in&pid=bl&srcid=ADGEESiVIda1yzDUI3vK_wp8WKy_OLe7B-rr9BSQadPCwVYfhOPmjfaCCszuDy-AXxl8Al3isEwf9ksoca7oR6zssvgRS5zvJ139K4sZy-1Z_Fd24qv4FgT87SC1zeVB4KruhGvhF4da&sig=AHIEtbRdrTKdJ2_rY1_SUbqvpw7eaf5RnQ&pli=1
5.	Guidelines for Assessment in Emergencies: These guidelines provide advice on how to carry out an assessment. The International Red Cross and Red Crescent Movement (the Movement) is involved in a wide variety of situations. Each assessment is different reflecting this diversity. These guidelines do not explain every activity for every assessment.

	They do, however, provide a framework within which an assessment can be organised. By working through the guidelines, you should be able to cover all the main issues required for a successful assessment. Source: International Committee of the Red Cross and International Federation of Red Cross and Red Crescent Societies, Guidelines for Assessment in Emergencies, March 2008 http://www.ifrc.org/Global/Publications/disasters/guidelines/guidelines-for-emergency-en.pdf
6.	Cost-Benefit Analysis of Community-Based Disaster Risk Reduction: Cost-benefit analysis (CBA) is a process that involves weighing expected project costs against the expected benefits in order to choose the most cost-effective option. It is increasingly being used in the world of DRR, both to design programmes and to demonstrate impact, but it has some limitations as an approach and it is not always the best choice for these purposes. Through a series of case studies, this report emphasises the benefits of CBA while highlighting the need to use it appropriately and the risk of practitioners who are insufficiently skilled producing results that appear robust but are actually invalid. CBA can be an appropriate option but always within a wider emphasis on project planning and monitoring. Source: International Federation of Red Cross and Red Crescent Societies, Cost-Benefit Analysis of Community-Based Disaster Risk Reduction, Geneva, 2010 http://sdc-drr.net/system/files/200400-Cost%20Benefit%20Analysis-EN-LR.pdf
For detailed damage and needs assessment report please refer to the links below. India Post-Tsunami Recovery Programme Preliminary Damage and Needs Assessment, Prepared by Asian Development Bank United Nations and World Bank, New Delhi, India, March 8, 2005 http://www.adb.org/Documents/Reports/Tsunami/india-assessment-full-report.pdf Pakistan 2005 Earthquake, Preliminary Damage and Needs Assessment, Islamabad, Pakistan, November 12, 2005 http://www.adb.org/Documents/Reports/pakistan-damage-needs-assessment.pdf Bangladesh	

Cyclone Sidr in Bangladesh, Damage, Loss and Needs Assessment For Disaster Recovery and Reconstruction. A report prepared by the Government of Bangladesh assisted by the International Development Community with financial support from the European Commission.

http://gfdrr.org/docs/AssessmentReport_Cyclone%20Sidr_Bangladesh_2008.pdf

Institutional and legal arrangements for damage assessment

In the case of calamities of severe nature, inter-ministerial Central teams are deputed to the affected States for assessment of damage caused by the calamity and the amount of relief assistance required. The Inter-Ministerial Group (IMG), headed by the Union Home Secretary, scrutinises the assessment made by the Central teams and recommends the quantum of assistance to be provided to the States from the National Calamity Contingency Fund (NCCF). However, assessment of damages by IMG in respect of drought, hailstorm and pest attack will continue to be headed by the Secretary, Ministry of Agriculture and Cooperation. The HLC comprising the Finance Minister as Chairman and the Home Minister, Agriculture Minister and Deputy Chairman of the Planning Commission as members approves the Central assistance to be provided to the affected States based on the recommendations of the IMG. The constitution and composition of HLC may vary from time to time. The Vice-Chairman, NDMA, will be a special invitee to the HLC¹⁰.

According to the Standard Operating Procedure¹¹ for Responding to Natural Disasters issued by the Ministry of Home Affairs District Disaster Management Authority (DDMA) has to carry out rapid damage assessment using the following checklist.

RAPID ASSESSMENT: Disaster brings in its wake damages to life, property, infrastructure, economy and environment. For adequate and effective response to disasters it is of paramount importance to assess the extent of physical harm to assets, property and infrastructure which render them less valuable or less effective.

The objective of Rapid Assessment is to determine the precise nature and extent of damage so that Rescue and Relief measures are undertaken for the affected people. The following are the major components to be included in the rapid damage assessment:

- (i) Geographical area impacted
- (ii) Structural damage to buildings, housing stocks
- (iii) Damage to roads & bridges, public buildings shops, workshops, stalls, etc

Tools for Rapid Assessment

Aerial surveys
 Photographs, videographs/films of the affected area
 Satellite imagery
 Field reports
 TV/Press coverage
 Visual Inspection Checklist
 o Camera
 o Laptop
 o Notebook

¹⁰ Ministry of Home Affairs, GoI, NDMA, National Policy on Disaster Management, 2009

¹¹ Ministry of Home Affairs, GoI, Standard Operating Procedure for Responding to Natural Disasters, 2010

(iv) Damage to water supply lines, electricity supply lines, public utilities	o GIS Map o GPS
(v) Damage to agricultural crops, livestock, etc	

Detailed Damage Assessment and Preparation of Rehabilitation & Reconstruction Plan

A detailed and objective damage assessment will be done in the affected area in order to size up and prioritise restoration, reconstruction and rehabilitation measures within the shortest possible time. Respective departments will undertake detailed, sectoral damage assessment on priority basis and complete the same within two months of the event at the latest.

Guidelines in this regard will be formulated by the OSDMA with approval of the Govt.

Government vide Revenue Department resolution No.39376 dated 26/8/2000 has decided, “OSDMA will identify the repair/reconstruction works and rehabilitation programmes necessary to be taken up following any natural calamity, in consultation with the Departments of Govt. and draw up a tentative shelf of projects/programmes for implementation. The OSDMA will have full authority to identify the executing agency through which each project/programme will be implemented.”

The self of projects, programmes are to be approved by the Govt. before implementation. The District Collector(s) concerned will prepare a time-bound comprehensive reconstruction and rehabilitation plan. The OSDMA will facilitate the process. The objective of the rehabilitation and recovery plan will be to reduce vulnerability of the people and infrastructure. In the rehabilitation plan, the special needs of the vulnerable groups and areas prone to repeated disasters will be given priority.

Government of Orissa, Revenue Department, State Disaster Management Policy, March 2005

Key issues involved

The States have raised the issue of lack of clarity in the assessment of the quantum of assistance and releases. The Comptroller and Auditor General of India has acknowledged this issue in his performance review of Tsunami relief and has recommended that the Ministry of Home Affairs and the Ministry of Finance in consultation with the State Governments ‘need to put in place a generally acceptable system/mechanism of assessment of the damage and determine at least the general criteria based on which the quantum of assistance would be determined in natural calamities so as to bring in transparency and institute a good management practice’¹².

¹²Report of Thirteenth Finance Commission (2010-2015) of Government of India, Chapter 11

Frequently used terminology in disaster risk reduction and recovery policy drafting

Basic knowledge and understanding of key terminology used in disaster risk reduction sector is essential for effective communication and recovery policymaking. Select UNISDR terminology on disaster risk reduction¹³ is presented below.

Key terms	Definitions
Acceptable risk	The level of potential losses that a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions.
Adaptation	The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
Biological hazard	Process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.
Building code	A set of ordinances or regulations and associated standards intended to control aspects of the design, construction, materials, alteration and occupancy of structures that are necessary to ensure human safety and welfare, including resistance to collapse and damage.
Capacity	The combination of all the strengths, attributes and resources available within a community, society or organisation that can be used to achieve agreed goals.
Capacity development	The process by which people, organisations and society systematically stimulate and develop their capacities over a time to achieve social and economic goals, including through improvement of knowledge, skills, systems and institutions.
Climate change	(a) <i>The Inter-governmental Panel on Climate Change (IPCC) defines climate change as: “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces or to persistent anthropogenic changes in the composition of the atmosphere or in land use”.</i> (b) <i>The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is</i>

¹³UNISDR Terminology on Disaster Risk Reduction, Geneva, Switzerland, May 2009

	attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.
Contingency planning	A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.
Coping capacity	The ability of people, organisations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.
Corrective disaster risk management *	Management activities that address and seek to correct or reduce disaster risks which are already present.
Critical facilities	The primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.
Disaster	A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.
Disaster risk	The potential disaster losses in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.
Disaster risk management	The systematic process of using administrative directives, organisations and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.
Disaster risk reduction	The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment and improved preparedness for adverse events.
Disaster risk reduction plan *	A document prepared by an authority, sector, organisation or enterprise that sets out goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives.
Early warning system	The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organisations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.
Emergency management	The organisation and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.

Emergency services	The set of specialised agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations.
Environmental impact assessment	Process by which the environmental consequences of a proposed project or programme are evaluated, undertaken as an integral part of planning and decision-making processes with a view to limiting or reducing the adverse impacts of the project or programme.
Exposure	People, property, systems or other elements present in hazard zones that are thereby subject to potential losses.
Extensive risk *	The widespread risk associated with the exposure of dispersed populations to repeated or persistent hazard conditions of low or moderate intensity, often of a highly localised nature, which can lead to debilitating cumulative disaster impacts.
Geological hazard	Geological process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.
Greenhouse gases	Gaseous constituents in the atmosphere, both natural and anthropogenic, that absorb and emit radiation of thermal infrared radiation emitted by the Earth's surface, the atmosphere and the clouds.
Hazard	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.
Hydro-meteorological hazard	Process or phenomenon of atmospheric, hydrological or oceanographic nature that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.
Intensive risk *	The risk associated with the exposure of large concentrations of people and economic activities to intense hazard events, which can lead to potentially catastrophic disaster impacts involving high mortality and asset loss.
Land use planning	The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long-term economic, social and environmental objectives and the implications for different communities and interest groups and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses.
Mitigation	The lessening or limitation of the adverse impacts of hazards and related disasters.
Natural hazard	Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.
Preparedness	The knowledge and capacities developed by Governments, professional response and recovery organisations, communities and

	individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current hazard events or conditions.
Prevention	The outright avoidance of adverse impacts of hazards and related disasters.
Prospective disaster risk management *	Management activities that address and seek to avoid the development of new or increased disaster risks.
Recovery	The restoration and improvement of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.
Residual risk	The risk that remains in unmanaged form, even when effective disaster risk reduction measures are in place and for which emergency response and recovery capacities must be maintained.
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.
Response	The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.
Retrofitting	Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.
Risk	The combination of the probability of an event and its negative consequences.
Risk assessment	A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.
Risk management	The systematic approach and practice of managing uncertainty to minimise potential harm and loss.
Risk transfer	The process of formally or informally shifting the financial consequences of particular risks from one party to another whereby a household, community, enterprise or State authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party.
Structural and non-structural measures	<i>Structural measures:</i> Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard resistance and resilience in structures or systems; <i>Non-structural measures:</i> Any measure not involving physical construction that uses knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public

	awareness raising, training and education.
Technological hazard	A hazard originating from technological or industrial conditions, including accidents, dangerous procedures, infrastructure failures or specific human activities, that may cause loss of life, injury, illness or other health impacts, property damage, loss of livelihoods and services, social and economic disruption or environmental damage.
Vulnerability	The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

* Emerging concepts that are not in widespread use but are of growing professional relevance; the definition of these terms remain to be widely consulted upon and may change in future.

Context of disaster recovery planning in India

Given the size of population, levels of poverty and unique geo-climatic conditions, India's disaster recovery planning needs are huge. A brief analysis of India's vulnerability and hazard scenario is presented below.

Risk Profile of India

Vulnerability Profile of India

India has been vulnerable, in varying degrees, to a large number of natural, as well as, human-made disasters on account of its unique geo-climatic and socio-economic conditions. It is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. Out of 35 States and Union Territories in the country, 27 of them are disaster prone. Almost 58.6 per cent of the land mass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent of land) are prone to floods and river erosion; of the 7,516-km-long coastline, close to 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches.

Hazard profile of India

- a. India is one of the 10 worst disaster-prone countries of the world. The country is prone to disasters due to a number of factors, both natural and human induced, including adverse geo-climatic conditions, topographic features, environmental degradation, population growth, urbanisation, industrialisation, non-scientific development practices, etc. The factors either in original or by accelerating the intensity and frequency of disasters are responsible for heavy toll of human lives and disrupting the life supporting system in the country. The basic reason for the high vulnerability of the country to natural disasters is its unique geographical and geological situations. As far as the vulnerability to disaster is concerned, the five distinctive regions of the country i.e. Himalayan region, the alluvial plains, the hilly part of the peninsula and the coastal zone have their specific problems. While on one hand the Himalayan region is prone to disasters like earthquakes and landslides, the plain is affected by floods almost every year. The desert part of the

country is affected by droughts and famine while the coastal zone is susceptible to cyclones and storms.

- b. The natural geological setting of the country is the primary reason for its increased vulnerability. The geo-tectonic features of the Himalayan region and adjacent alluvial plains make the region susceptible to earthquakes, landslides, water erosion, etc. Though peninsular India is considered to be the most stable portions, occasional earthquakes in the region show that geo-tectonic movements are still going on within its depth.
- c. The tectonic features, characteristics of the Himalaya are prevalent in the alluvial plains of Indus, Ganga and Brahmaputra too, as the rocks lying below the alluvial plains are just an extension of the Himalayan ranges only. Thus, this region is also quite prone to seismic activities. As a result of various major river systems flowing from Himalaya and huge quantity of sediment brought by them, the area is also suffering from river channel siltation resulting into frequent floods, especially in the plains of Uttar Pradesh and Bihar.
- d. The western part of the country, including Rajasthan, Gujarat and some parts of Maharashtra are hit very frequently by drought. If monsoon worsens the situation spreads to other parts of the country too. The disturbance in the pressure conditions over oceans results in cyclones in coastal regions. The geo-tectonic movements going on in the ocean floor make the coastal region prone to tsunami disaster too.
- e. The extreme weather conditions, huge quantity of ice and snow stored in the glaciers etc. are other natural factors which make the country prone to various forms of disasters.
- f. Along with the natural factors discussed in the preceding text, various human induced activities like increasing demographic pressure, deteriorating environmental conditions, deforestation, unscientific development, faulty agricultural practices and grazing, unplanned urbanisation, construction of large dams on river channels, etc., are also responsible for accelerated impact and increase in frequency of disasters in the country.

Source: Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

Long-term Recovery and Rehabilitation Policy and Framework

In order to understand a recovery framework in practice, a case example of Kosi Floods Rehabilitation and Reconstruction Policy of Bihar Government is presented below.

Conceptual Framework for Recovery: Kosi Floods, Rehabilitation and Reconstruction Policy, Bihar¹⁴

Purpose

Kosi Rehabilitation and Reconstruction Project is a comprehensive multi-sectoral project, whose main purpose is to reconstruct the houses, to provide community facilities, complete restoration of infrastructure, livelihood support based on the policy of sustained economy and environment, etc. for the people affected by the calamity.

Guiding principles

- Affected people and institutions concerned like the Panchayati Raj institutions and urban local bodies will be included in this new process and outline of schemes will be repaired according to their needs and priorities.
- Implementation system based on cooperation and participation shall be made responsible to strengthen the women groups, non-governmental agencies and Panchayati Raj institution. Along with this, the poor section shall be benefited from fairness and empowerment.
- Making the beneficiaries aware of the new earthquake resistant technology and new means and process of construction, facilities for construction shall be provided to them as per their requirements.
- Private institutions, NGOs and expert institutions shall be encouraged to participate in the implementation of rehabilitation and reconstruction programme.
- For transparency and responsibility in implementation, a process shall be institutionalised.

Key components	Implementation guidelines
• Housing, removal of debris and salvage • Construction of temporary shelter & permanent houses • Repair and reconstruction of public buildings • Generation of livelihood programmes • Infrastructure – physical as well as social • Social and community development • Reconstruction of hospitals/PHCs and Health Sub Centres • Reconstruction of Anganwadi centres and ICDS godowns • Reconstruction and repair of primary, secondary schools, institutions of higher and technical education • Reconstruction of public and private monuments and heritage centres, panchayat bhawan and high-rise shelters	• Quality norms • Involvement of urban local bodies and panchayati raj institutions • Women's empowerment • Social participation and provision for social audit • Hazard-resistant technology • (f) Institutional arrangement for monitoring the progress of implementation.

¹⁴Government of Bihar, Department of Planning and Development. Resolution, Subject: Kosi Calamity: Rehabilitation and Reconstruction Policy, <http://www.disastermgmt.bih.nic.in/Downloads/Kosi-Rehabilitation-Policy.pdf>

Description of key components

Social participation

Adopting the process of implementation of the programmes with social consultation, the suggestions of all the sections of society would be available for the programme of rehabilitation and reconstruction and the beneficiaries shall have the feeling of ownership and satisfaction. Therefore, institutional arrangement is needed for social participation.

Participation of private sector and non-governmental sector

Since the economic development process has been adversely affected due to calamity, it becomes the responsibility of private and non-governmental sectors that, along with the Government effort, they should take part in reconstruction and rehabilitation programme. In democratic society, each of three stakeholders – Government, market and the civil society have their own strengths and limitations. There is a scant possibility of success if these three organisations operate independently. On the other hand, if they act in tandem not only the possibility of success will increase but they shall prove to be more effective.

Financing

A total of 14,808.59 crore rupees has been estimated for Kosi rehabilitation and reconstruction project. Other than calamity relief fund, the components of this project may be executed under various Central sector schemes and State plans. The action may be taken to arrange the multilateral funding for the balance. In addition, some components of the programmes may be executed with the assistance of private sectors and NGOs.

Implementation strategy

Implementation strategy shall be formulated by the Government as per the above mentioned guiding principles. Safety measures of earthquake and keeping in view the need for immediate reconstruction, social participation may also be included in this strategy.

Assessment of damage

A comprehensive assessment of damage to buildings, public assets and infrastructure due to Kosi calamity shall be done by the Government. On the basis of this, the assessment of the need of the rehabilitation and the adoption of engineering and construction strategy shall be finalised. At the village level, rehabilitation and reconstruction plan shall be prepared after the assessment by separate teams. In this process, apart from Government servants, NGOs shall also be included.

Public private partnership

Keeping in view the challenges of quick reconstruction, the Government considers the necessity of engaging the important institutions of civil society in the preparation and implementation of reconstruction plan on the basis of trust, reciprocity and mutuality. For this purpose, necessary guidelines shall be issued.

Reconstruction of private houses

The policy of 'build better' shall be adopted keeping in view the characteristics of the Kosi area. Reconstruction of private houses shall be beneficiary-driven. Land shall be acquired to settle the families of SC and ST having no homestead land. The size of the programmes

for social and mental development shall depend on the status of local knowledge and capacity. The arrangements shall also be made for skill development.

Technique of social participation system

Government considers the need of the participation of society for reconstruction in rural and urban areas with both formal and informal manner. For this, necessary encouragement shall be given according to defined structure and execution shall be ensured with responsibility and honesty.

Propagation of rehabilitation and reconstruction programme

Wide publicity shall be arranged by the Government about the entitlements and various types of assistance. The cooperation of the society is especially important for adoption of the technique of fire-fighting and for active participation in rehabilitation plan. Therefore, elected members at different levels, media and academia shall be engaged in all the programmes of publicity by the Government.

Social development and women empowerment

The social and community development in rehabilitation and reconstruction programme is considered very important by the Government. For this, the empowerment and participation of women are absolutely essential.

Assistance for house construction

The Government shall prepare a comprehensive programme for all sections of people affected by Kosi calamity for reconstruction of houses according to newly developed earthquake-resistant technique and calamity resistant design and shall announce the relief package/packages.

Material bank

Since more than three lakh private houses, public assets and other infrastructure are to be reconstructed, there shall be requirement of massive quantity of cement, iron, bricks and other construction materials. The Government shall ensure that at Panchayat level, these materials are available and a situation of exploitation and profiteering at local level does not arise. To make skilled labours available in a large number, they have to be identified and trained for their skill development.

The protection of women's rights

The registration of houses constructed with the help of Government shall be ensured in the joint name of husband and wife. In the case of widows, the facility concerning house shall be given directly to them and not to the other male members of the family.

Urban area rehabilitation

In urban areas, the reconstruction shall be planned along with the community facilities, keeping in view the protection of the interests of the beneficiaries and the 'build better' principle. The assistance of the local bodies shall be taken in the matter of site selection, inspection, monitoring, etc., for the execution of the schemes. In the case of private houses, the system adopted in rural areas, i.e. beneficiaries-driven construction, shall be followed.

In the same manner, the arrangement shall be made for framing guidelines and technical supervision, etc., for ensuring quality of materials.

Calamity-resistant construction technique

It has been decided by the Government that all the private and public houses shall be reconstructed on the basis of earthquake-resistant design and from the point of view to fight the floods situation in a better manner in the future. For this, institutional arrangements shall be done for promoting the use of calamity-resistant techniques, necessary technical training, retrofitting, publicity of new construction techniques and the arrangement of material. Inspections necessary for ensuring quality of construction shall be arranged from time to time.

Measures for revival of livelihood

The main purpose of rehabilitation programme is revival of the livelihood of the people affected by the calamity. Various kinds of economic programmes shall be launched by the State Government so that masons, entrepreneurs and self-employed people get the maximum benefit. The maximum support shall be given for the revitalisation of dairy, handicraft, handloom and small industries. For this purpose, provision for working capital and the arrangement of other facilities and loan from the financial institutions shall be made.

Revitalisation programmes in agriculture sector

In Kosi, calamity-affected areas, the activities of silt removal, input subsidy, arrangement of shielding, etc., shall immediately be carried out. For the agricultural development of the Kosi area, national-level institutions such as ICAR shall be encouraged for study and preparation of development plan as a long-term strategy. At the regional level, agriculture college situated at Saharsa shall be strengthened. Keeping in the view the potential of fisheries in this area, a special plan shall be prepared for its development. The cooperative institutions attached with agriculture sector shall be strengthened.

Infrastructure

In calamity-affected areas, roads and bridges shall be repaired for immediate traffic. Construction of new roads, renovation and repair of irrigation canals shall be done following calamity-resistant techniques as per the plan of strengthening and revitalising. In rural areas, repair and strengthening of approximately 2000 km roads and constructions of bridges shall be carried out afresh in the coming 2-3 years.

Energy

All sub-stations and public assets pertaining to energy sector shall be repaired and renovated by the Government. As an intermediate measure, all equipment, transmission lines and transformers shall be replaced so that the system gets corrected and works successfully. All these works shall be completed in 3-4 years.

Public buildings

All the offices and public buildings viz., schools and hospitals shall be repaired and retrofitting shall be done as per the needs by the Government. The construction of panchayat bhawan, high-rise shelters, cattle shelters, etc., shall be carried out with the help

of State plan/Central plan/multilateral funding from private sector, in which calamity-resistant techniques shall be adopted.

Water supply

The renovation work plan of water supply system in rural areas shall be taken up immediately so that people of that area could get healthy and pure water supply. As an intermediate measure, the water supply shall be arranged in urban areas and damaged public assets (like tubewells, motor pumps, etc.), shall be repaired. Water storage arrangement at rural level, arrangement of water supply network, establishment of pipe line system in urban and rural areas on a large scale, the arrangement of pumping and captive pumps water system shall be made in the coming 2-3 years.

Social and community development

For reconstruction of services and social and community capital, the programmes of health, education and women development shall be executed in the Kosi calamity-affected area. The focus of all these programmes shall be on women and their empowerment and renovation of livelihood would be made more effective.

Health

The infrastructure services concerning health shall be restarted. There would be the need of running continuous health services for most of the people affected by the calamity. Therefore, there would be the need for strengthening it.

Education

The programme shall be started in calamity-affected areas for making the educational intuitions functional again. Priority shall be given to repair and reconstruction of schools. The buildings of technical intuitions like I.T.I., Polytechnic, etc., shall be repaired and strengthened so that the programme of capacity development can also be executed from these centres.

Participation of Panchayati Raj institutions

The cooperation of panchayati raj institutions in rehabilitation and reconstruction of damaged infrastructures in Kosi calamity areas shall be solicited.

Women's empowerment

The main plank of rehabilitation plan shall be the empowerment of women through the activities of income generation, education and training. For handloom and other economic activities, special training for women shall be organised and supported by Government. The plan on the formation of self-helps groups and through them the organisation of thrift and credit, etc., shall be implemented.

Institutional arrangement for execution of projects

Kosi Rehabilitation and Reconstruction High-Level Committee

The working plan prepared for the reconstruction and other policy decisions shall be approved by the Kosi Rehabilitation and Reconstruction High-Level Committee constituted under the chairmanship of the Chief Minister.

Plan formulation and resources

The Plan shall be formulated by the Department of Planning and Development under the guidance of Development Commissioner. The department shall assess the availability of funds from different sources for rehabilitation and reconstruction plan in a financial year and against the available resources formulate the plans for various sectors and obtain the approval of high-level committee on that.

Kosi Rehabilitation and Reconstruction Plan Empowered Committee

All the schemes under the plans for Kosi Rehabilitation and Reconstruction shall require the approval by the newly constituted empowered committee. The experts could be invited to help the committee constituted under the Chairmanship of the Development Commissioner. After the recommendation of empowered committee, the sanction order shall be issued by the department as per the existing procedure and delegated power. For the approval of the schemes related to Kosi Rehabilitation and Reconstruction, the delegation of power to the department shall be considered modified to that extent.

The schemes under the approved programmes can be executed by the department from its own budget provision or Chief Minister Relief Fund or the funds obtained from Bihar Foundation. From the funds for special schemes obtained from either the Chief Minister Relief Fund or Bihar Foundation, departments, as executing agencies, would be able to execute the schemes. The execution of schemes shall be carried out through the existing arrangement of the department concerned. Monthly monitoring of the schemes shall be done by the empowered committee constituted and referred above.

Under the Chairmanship of Minister in-charge, the district monitoring committee shall be constituted at district level in which local MPs, MLAs, MLCs, representatives of the recognised political parties, Zila Parishad Chairman, Chairman of the district-level local urban body and district-level officers of executing departments and Deputy Development Commissioner shall be the members. District Magistrate shall be the convenor of this committee.

Module 2: Overview of Disaster Management in India: *An Input to Recovery Planning and Policymaking*

Module objective

Introduce systems for disaster management in India and institutions for long-term recovery

Contents

1. Disaster trend in India
2. Institutional framework for disaster management in India
3. Evolving policies, systems and organisations for recovery
4. Performance of legal services: A sign of progressive State policy on disaster recovery

Key objectives

- Explain types, frequency and impact of disasters in India
- Review relevance of India's National Policy on Disaster Management for recovery practices
- Familiarise with institutional framework for disaster management and recovery in India
- Discuss performances of legal services and rights of the victims

Key concepts

Analysis of frequency and impact of disasters and good understanding of overall institutional framework for disaster management is essential for recovery planning and policymaking.

Recommended Readings

1. Lester, R. and Gurenko, E. (2003). "India: Financing Rapid Onset Natural Disasters in India: A Risk Management Approach." World Bank Report No. 26844-IN. New York: World Bank.
2. National Centre for Disaster Management (India). (2002). "Gujarat Earthquake: A Case Study." New Delhi: NCDM.
3. "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net – Université Catholique de Louvain - Brussels - Belgium"
4. NDMA, National Policy on Disaster Management, 2009
5. Ministry of Home Affairs, Government of India, Disaster Management in India,

	2011
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Module 2: Overview of Disaster Management in India: An Input to Recovery Planning and Policymaking

Disaster Trend in India

India is growing rapidly. But this growth is exposed to number of hazards that adversely affect its growth prospect. Each year, India suffers disaster losses of US\$1 billion according to World Bank studies¹⁵. On average, direct natural disaster losses amount to 2% of India's GDP and up to 12% of Central Government revenues¹⁶. These estimates do not fully include losses incurred by informal sector businesses and workers, which constitute a major proportion of the economy in India.

The Calamity Relief Fund of the Government of India spends US\$ 286 million towards providing relief to the victims of disasters. Over the past 35 years, India has suffered direct losses of US\$30 billion; losses are also increasing, US\$9 billion in direct losses were suffered between 1996 and 2000 alone¹⁷. The 2001 Gujarat earthquake alone has been to the tune of US\$2.7 billion¹⁸.

Before 2005, disaster related policies in India focused more on relief and rehabilitation. In 2005, the Disaster Management Act paved the path for setting up Disaster Management Authorities at the national, state, and district levels. Since then India has made remarkable progress in different areas of disaster risk management. In this module, we try to introduce and analyse some key policies, frameworks and system in disaster management that are relevant to recovery planning and policymaking.

Categorisation of disasters for administrative purposes

The Disaster Management Act, 2005, defines disaster as “a catastrophe, mishap, calamity or grave occurrence in any area arising from natural or manmade 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 magnitude as to be beyond the coping capacity of the community of the affected area”. The High Power Committee on Disaster Management constituted in 1999, identified five major categories of disaster and 31 sub-categories of disasters presented below.

Main category

Sub-category

¹⁵Lester, R. and Gurenko, E. (2003). “India: Financing Rapid Onset Natural Disasters in India: A Risk Management Approach.” World Bank Report No. 26844-IN. New York: World Bank.

¹⁶(Lester and Gurenko 2003).

¹⁷(Lester and Gurenko 2003).

¹⁸National Centre for Disaster Management (India). (2002). “Gujarat Earthquake: A Case Study.” New Delhi: NCDM.

Main category	Sub-category
Water- and climate-related disasters	1. Floods and drainage management
	2. Cyclones
	3. Tornadoes and hurricanes
	4. Hailstorm
	5. Cloudburst
	6. Heat wave and cold wave
	7. Snow avalanches
	8. Droughts
	9. Sea erosion
	10. Thunder and lightning
Geological disasters	11. Landslides and mudflows
	12. Earthquakes
	13. Dam failures/ Dam bursts
	14. Minor fires
Chemical, industrial and nuclear disasters	15. Chemical and industrial disasters
	16. Nuclear disasters
Accident-related disasters	17. Forest fires
	18. Urban fires
	19. Mine flooding
	20. Oil spills
	21. Major building collapse
	22. Serial bomb blasts
	23. Festival-related disasters
	24. Electrical disasters and fires
	25. Air, road and rail accidents
	26. Boat capsizing
	27. Village fire
Biological disasters	28. Biological disasters and epidemics
	29. Pest attacks
	30. Cattle epidemics
	31. Food poisoning

Following is a brief summary of impact of natural and technological disasters¹⁹ in India.

¹⁹Situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance (definition considered in EM-DAT); an unforeseen and often sudden event that causes great damage, destruction and human suffering. Though often caused by nature, disasters can have human origins. Wars and civil disturbances that destroy homelands and displace people are included among the causes of disasters. Other causes can be: building collapse, blizzard, drought, epidemic, earthquake, explosion, fire, flood, hazardous material or transportation incident (such as a chemical spill), hurricane, nuclear incident, tornado or volcano ([Disaster Relief](#)).

A. Summarised table of natural disasters in India from 1982 to 2011

Disaster main type	Disaster sub-type	# of Events	Killed	Total affected	Damage (000 US\$)
Drought	Drought	7	320	751,175,000	2,041,122
	ave. per event		45.7	107,310,714.3	291,588.9
Earthquake (seismic activity)	Earthquake (ground shaking)	13	33,200	27,787,844	4,079,500
	ave. per event		2,553.8	2,137,526.5	313,807.7
	Tsunami	1	16,389	654,512	1,022,800
	ave. per event		16,389	654,512	1,022,800
Epidemic	Unspecified	6	293	95,997	-
	ave. per event		48.8	15,999.5	-
	Bacterial Infectious Diseases	15	2,980	61,765	-
	ave. per event		198.7	4,117.7	-
	Parasitic Infectious Diseases	5	3,411	57,135	-
	ave. per event		682.2	11,427	-
	Viral Infectious Diseases	27	7,700	182,909	-
	ave. per event		285.2	6,774.4	-
Extreme temperature	Cold wave	19	3792	25	144,000
	ave. per event		199.6	1.3	7,578.9
	Extreme winter conditions	1	180	-	-
	ave. per event		180	-	-
	Heat wave	16	7,118	225	400,000
	ave. per event		444.9	14.1	25,000
Flood	Unspecified	39	12,704	298,708,321	9,489,700
	ave. per event		325.7	7,659,187.7	243,325.6
	Flash flood	21	2,527	15,931,206	322,000
	ave. per event		120.3	758628.9	15333.3
	General flood	115	21251	308141060	21780929
	ave. per event		184.8	2679487.5	189399.4
	Storm surge/coastal flood	4	569	11500000	275000
	ave. per event		142.3	2875000	68750
Insect infestation	Locust	1	-	-	-
	ave. per event		-	-	-
Mass movement dry	Landslide	1	45	-	-
	ave. per event		45	-	-
Mass movement wet	Avalanche	7	828	10456	50000
	ave. per event		118.3	1493.7	7142.9
	Landslide	26	1839	3823548	4500
	ave. per event		70.7	147059.5	173.1
Storm	Unspecified	15	791	224094	25000
	ave. per event		52.7	14939.6	1666.7
	Local storm	21	1518	552975	2226000
	ave. per event		72.3	26332.1	106000
	Tropical cyclone	51	20048	55285744	7780279
	ave. per event		393.1	1084034.2	152554.5
Wildfire	Forest fire	2	6	-	2000
	ave. per event		3	-	1000

Created on: Dec-12-2011. - Data version: v12.07
 Source: "EM-DAT: The OFDA/CRED International Disaster Database
 www.em-dat.net - UniversitéCatholique de Louvain - Brussels - Belgium"

B. Summarized Table of Technological Disasters in India from 1982 to 2011

Disaster Main Type	Disaster Sub-Type	# of Events	Killed	Total Affected	Damage (000 US\$)
Industrial Accident	Chemical spill	2	2	100460	-
	ave. per event		1	50230	-
	Collapse	8	192	11	-
	ave. per event		24	1.4	-
	Explosion	23	579	4913	228000
	ave. per event		25.2	213.6	9913
	Fire	15	341	125577	470900
	ave. per event		22.7	8371.8	31393.3
	Gas Leak	3	2500	300751	-
	ave. per event		833.3	100250.3	-
	Other	4	129	-	-
	ave. per event		32.3	-	-
	Poisoning	14	980	1743	-
	ave. per event		70	124.5	-
Miscellaneous accident	Collapse	36	1312	903	-
	ave. per event		36.4	25.1	-
	Explosion	10	301	214	-
	ave. per event		30.1	21.4	-
	Fire	28	1426	53447	-
	ave. per event		50.9	1908.8	-
	Other	25	1717	6141	-
	ave. per event		68.7	245.6	-
Transport accident	Air	19	1168	101	36000
	ave. per event		61.5	5.3	1894.7
	Rail	105	4269	6332	-
	ave. per event		40.7	60.3	-
	Road	242	8244	3539	-
	ave. per event		34.1	14.6	-
	Water	79	4128	204	-
	ave. per event		52.3	2.6	-

Created on: Dec-12-2011. - Data version: v12.07
 Source: "EM-DAT: The OFDA/CRED International Disaster Database
 www.em-dat.net - UniversitéCatholique de Louvain - Brussels - Belgium"

For a disaster to be entered into the database at least one of the following criteria must be fulfilled:

- Ten (10) or more people reported killed.
- Hundred (100) or more people reported affected.
- Declaration of a state of emergency.
- Call for international assistance.

What are some key trends in Disaster Risk Management?

The evolution of approaches to Disaster Risk Management can be traced through the following changes in the trend:

From Response to Preparedness: This trend has emerged in the 1990s. It has been acknowledged that it is more cost-effective, both in terms of human lives as well as financial resources, to invest in disaster preparedness and mitigation than response. It was also proved through scientific studies that the financial cost of preparedness and mitigation is lower than that of disaster relief and response. For example, the cost of retrofitting a building to meet earthquake safety standards (mitigation) is on an average between 2 to 5 per cent of the cost of the building. The cost of reconstructing a post earthquake damaged building is 2 to 5 per cent plus the cost of the building.

From Emergency Management to Risk Reduction: This trend too emerged in the 1990s with research studies that exhibited the close link between disasters and development. Stakeholders enlarged their focus of work beyond emergency management to reducing risks through mainstreaming disaster risk concerns in development planning and systems.

Some Emerging Practices in Disaster Risk Management: Disaster Management is advocating for an inclusive and comprehensive approach to risk reduction. Concepts like Total Risk Management, Comprehensive DRM have been advocated for. Some current initiatives include:

- a. Community -Based Disaster Risk Management (CBDRM), presently more often referred to as Local Level Risk Management (LLRM).
- b. Building Institutional and Legislative System (ILS)
- c. Capacity Development for and in DRM
- d. Mainstreaming Disasters Risk Reduction considerations in development plans and policies
- e. Disaster Data, Information and Knowledge Management
- f. Regional cooperation arrangements for DRM in Asia
- g. Insurance and risk transfer mechanisms
- h. Risk mapping at local and national levels
- i. Recovery Planning: pre-disaster recovery plans, cluster approach to early recovery
- j. Exploring links with other thematic areas such as conflicts, environment and climate change, gender and livelihoods.

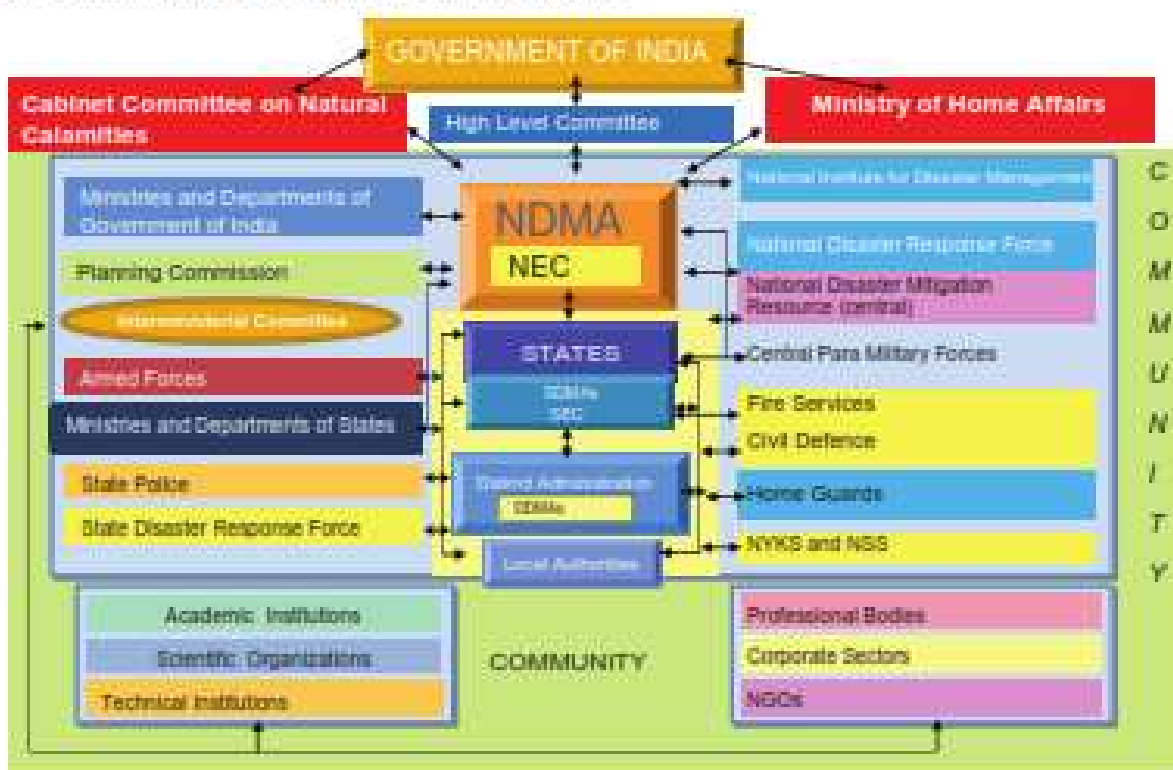
Source: GoI – UNDP Disaster risk Management Programme, A Compendium on Disaster Management, India's Perspective, A Premier for Legislators, 2002-2007

Institutional framework for disaster management in India

National Disaster Management Structure²⁰

According to the Ministry of Home Affairs, Government of India, a permanent and institutionalised set-up began in the decade of 1990s with setting-up of a disaster management cell under the Ministry of Agriculture, following the declaration of the decade of 1990 as the 'International Decade for Natural Disaster Reduction' (IDNDR) by the UN General Assembly. Following series of disasters such as Latur earthquake (1993), Malpa landslide (1994), Orissa super cyclone (1999) and Bhuj earthquake (2001), a high-powered Committee under the Chairmanship of Mr. J.C. Pant, Secretary, Ministry of Agriculture, was constituted for drawing up a systematic, comprehensive and holistic approach towards disasters. There was a shift in policy from an approach of relief through financial aid to a holistic one for addressing disaster management. Consequently, the disaster management division was shifted under the Ministry of Home Affairs in 2002 and a hierarchical structure for disaster management evolved in India.

Figure 2.1: National Disaster Management Structure



A legal institutional framework developed based on the provision of the Act across the country in vertical and horizontal hierarchical and in the federal set-up of country may be seen in the Figure 2.2 for appreciation of response mechanism which has been put in

²⁰Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

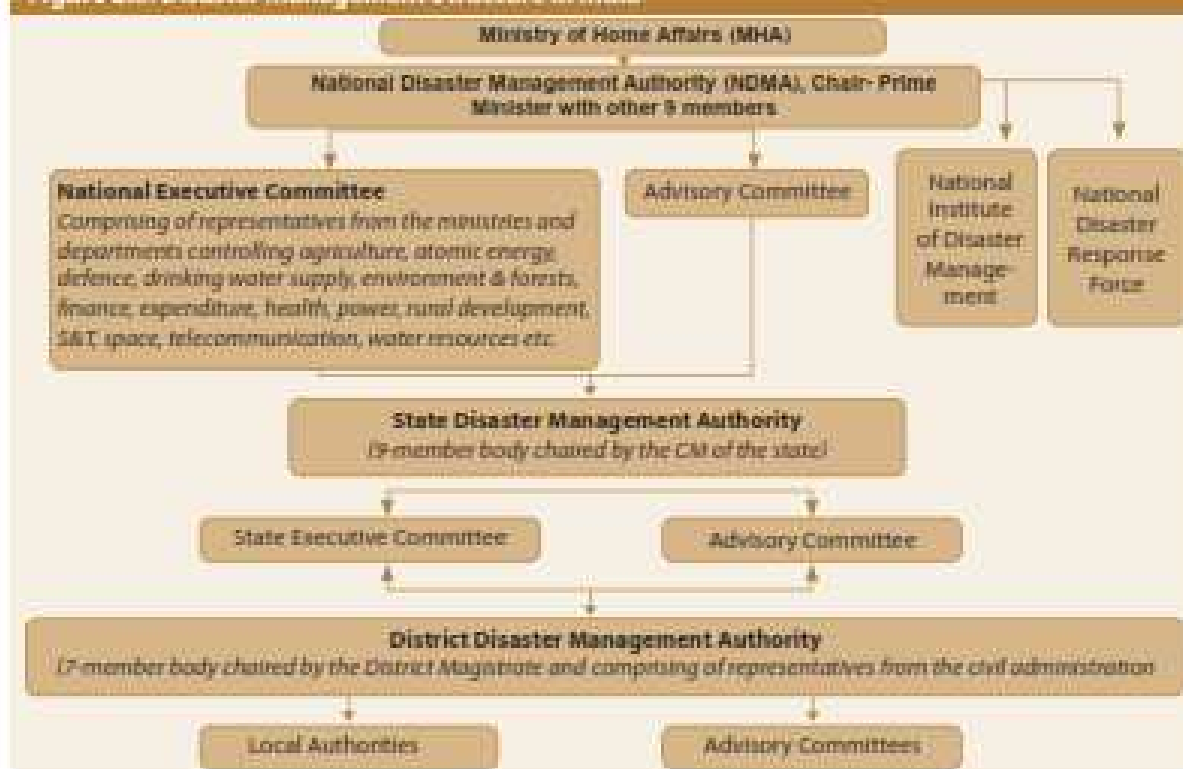
place.



Hierarchical structure of authority and committee

In this structure, National Disaster Management Authority is the authority for formulation of policy and guidelines for all disaster management work in the country. The State authorities further lay down the guidelines for departments of the State and the districts falling in their respective jurisdictions. Similarly, district authorities direct the civil administration, departments and local authorities such as the municipalities, police department and civil administration. The State Executive Committees are responsible for execution of the tasks envisaged by the authorities. The structure thus discussed is summarised in the Figure 2.3.

Figure 2.3: Disaster Management Structure in India



National Plan on Disaster Management

An institutional mechanism for preparation of the National Plan has been put in place, which is under preparation in three parts namely:-

- (i) National Response Plan
- (ii) National Mitigation Plan and
- (iii) National Capacity Building Plan

A Facilitation Committee under the Chairmanship of Secretary (Border Management) in the Ministry of Home Affairs and three sub-committees namely: (i) National Response Plan Committee (ii) National Mitigation Plan Committee and (iii) National Capacity Building Plan Committee have been constituted for preparation of the National Plan on Disaster Management.

The National Mitigation Plans are under preparation by the Nodal Ministries for disasters in respect of which the Nodal Ministries have been identified and designated. The Nodal Officers of the ministries concerned with the disasters are the conveners of the National Mitigation Plan Committees and are required to complete the Mitigation Plan in consultation with the members concerned with the respective disasters in NDMA.

Source: Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

Evolving policies, systems and organisations for disaster recovery

Inclusion of a section on reconstruction and recovery in India's National Policy on Disaster Management shows that the country is gearing up to shape better recovery management policies and organisations as a part of the overall disaster management cycle. Already many States and district plans have included recovery planning in their disaster management plans. Many of these plans received inputs from the massive Government of India and UNDP Disaster Risk Management Programme. Similarly, many State Governments have established State- and district-level authorities in line with the 2005 Disaster Management Act. These organisations and authorities are key recovery organisations available at State and district levels in India and many of them have assumed this role already. One such example of Kullu District of Himachal Pradesh is presented below.

Institutions and system for long-term recovery at the district level: a case of District Disaster Management Authority, Kullu District, Himachal Pradesh

The Kullu District Disaster Management Plan approved by the District Disaster Management Authority of Kullu District, Himachal Pradesh, is a good example of integrating long-term disaster recovery planning in overall disaster management plan. The plan is based on hazard assessment of the district and in line with the guidelines of National Disaster Management Act of 2005. It details institutional and operational mechanism for comprehensive risk management at the district level, including components of recovery and reconstruction planning.

Recovery and Reconstruction Plan²¹

The recovery and reconstruction plan include the following:

- There should be the provision of damage insurance/loans and grants.
- Temporary housing should be provided to the disaster-hit people and affected areas.
- There should be long-term medical care that is to be provided.
- Unemployment insurance is to be made available.
- The public is to be informed regarding the disasters and its repercussions.
- There should be awareness campaigns and health/safety education should be provided.
- The reconstruction work should commence in order to bring normalcy in the locality.
- The NGOs and the community should make sure that regular counselling programmes are conducted.
- Economic impact studies are to be conducted to get a fair idea of the situation.
- Builders/carpenters are to be trained so that there can be speedy reconstruction of the damaged property and infrastructure.

²¹ First Draft approved by the District Disaster Management Authority of Kullu District, Himachal Pradesh, Kullu District Disaster Management Plan 2011 <http://hpkullu.gov.in/disaster/DDMP-2011.pdf>

Phase	Needs and timely actions	Timeline/remark
Phase-I acute emergency phase or early recovery	Search and rescue, first aid, disposal of dead bodies and animal carcasses, damage and needs assessment, relief mobilisation and distribution, temporary shelter, registration, information management, coordination, etc.	1 to 30 days (depending on extent and gravity of disaster). Timely and appropriate response will depend on the preparedness and contingency planning put in place by the Government and NGOs, CBOs and CSOs.
Phase-II care, maintenance and recovery phase	Food, water, sanitation, healthcare, psycho-social care, education, livelihoods, training, coordination	The length of this phase will depend of the type of emergency. In floods, this might not exist while in case of big earthquake it might be a couple of years. This is the phase before affected population can return to normal ways of living. It also called transitional phase.
Phase-III reconstruction and long-term recovery	Durable solution for livelihoods, housing skill building, institution building, coordination, etc.	It may take 2 to 5 years to restore the life back to normal and establish all the institutions and infrastructure 'better than pre-disaster days'.

India's National Policy on Disaster Management: Guidance on Reconstruction and Recovery

Approach

The approach to the reconstruction process has to be comprehensive so as to convert adversity into opportunity. Incorporating disaster resilient features to 'build back better' will be the guiding principle. This phase requires the most patient and painstaking effort by all concerned. The administration, the stakeholders and the communities need to stay focused on the needs of this phase as with the passage of time, the sense of urgency gets diluted. The appropriate choice of technology and project impact assessment needs to be carried out to establish that the projects contemplated do not create any side effects on the physical, socio-cultural or economic environment of the communities in the affected areas or in their neighbourhood. Systems for providing psycho-social support and trauma counselling need to be developed for implementation during the reconstruction and recovery phase.

Owner-driven reconstruction

Reconstruction plans and designing of houses need to be a participatory process involving the Government, affected community, NGOs and the corporate sector. After the planning process is over, while owner-driven construction is a preferred option, participation of the NGOs and corporate sector will be encouraged. Reconstruction programmes will be within

the confines and the qualitative specifications laid down by the Government.

Speedy reconstruction

Essential services, social infrastructure and intermediate shelters/camps will be established in the shortest possible time. For permanent reconstruction, ideally, the work, including the construction of houses must be completed within two to three years. Central Ministries/Departments concerned and the State Governments should create dedicated project teams to speed up the reconstruction process.

Contingency plans for reconstruction in high disaster-prone areas needs to be drawn out during the period of normalcy, which may include architectural and structural designs in consultation with the various stakeholders.

Linking recovery with safe development

Emphasis will be laid on plugging the gaps in the social and economic infrastructure and infirmities in the backward and forward linkages. Efforts will be made to support and enhance the viability of livelihood systems, education, healthcare facilities, care of the elderly, women and children, etc. Other aspects warranting attention will be roads, housing, drinking water sources, provision for sanitary facilities, availability of credit, supply of agricultural inputs, upgradation of technologies in the on-farm and off-farm activities, storage, processing, marketing, etc.

Livelihood restoration

State Governments will have to lay emphasis on the restoration of permanent livelihood of those affected disasters and special attention to the needs of women – headed households, artisans, farmers and people belonging to marginalised and vulnerable sections.

Source: NDMA, National Policy on Disaster Management, 2009

Performance of legal services: a sign of progressive State policy on disaster recovery

Strengthening of legal services to disaster victims is one of the key indicators of any progressive State-level policy on disaster recovery. This aspect of recovery management is often undervalued and overlooked. Even the most well-resourced and powerful rights-based organisations in the country have missed and done very little to strengthen and support India's legal services to serve the poor in the process of long-term recovery.

The Scheme for Legal Services to the Victims of Disasters through Legal Services Authorities

Sub-clause (e) of Section 12 Legal Services Authorities Act, 1987 makes the victims of disasters who are under circumstances of undeserved want as a result of such disaster eligible for free legal services to file or defend a case.

Objective

The objective of the scheme is to provide legal services to the victims of disaster – both manmade and natural – who are under circumstances of undeserved want being victims of mass disaster, ethnic violence, caste atrocities, flood, drought, earthquake or industrial disasters.

The intervention of Legal Services Authorities should be for coordinating the integrated, strategic and sustainable development measures taken by the Government and Disaster management Authorities for reducing the period of crises and for building a platform for early recovery and development. The thrust of the efforts by the State Legal Services Authorities shall be for strengthening the capacity of the victims for managing the disaster at all levels and to coordinate with the Government Departments and non-governmental organisations and also for providing legal aid to the victims.

Strategic intervention by the State Legal Services Authorities

- Ensuring immediate help by Governmental and Non-Governmental Agencies to the victims.
- Coordinating the activities of different departments of the Government and the NGOs for bringing immediate relief.
- Supervising the distribution of relief materials.
- Supervising the construction of temporary shelter or transporting the victims to a safer place.
- Supervising the reunion of families.
- Supervising the healthcare and sanitation of the victims and preventing the spread of epidemics.
- Supervising the needs of women and children.
- Ensuring the availability of food, medicine and drinking water.
- Supervising the reconstruction of damaged dwelling houses.
- Supervising the restoration of cattle and chattel.
- Legal Awareness Programmes in the relief camps on the legal rights of the victims.
- Organising Legal Aid Clinics in the affected areas for assisting in reconstruction of valuable documents.
- Assisting the victims to get the benefits of the promises and assurances announced by the Government and Ministers.
- Assisting in the rehabilitation, care and future education of orphaned children.
- Taking steps for appropriate debt relief measures for the victims.
- Assisting in the rehabilitation of the old and disabled who lost their supporting families.
- Assisting in the problems relating to insurance policies.

- Arranging bank loans for restarting the lost business and avocations.
- Arranging for psychiatrist's help/counselling to the victims who are subjected to physiological shock and depression on account of the disaster.

Machinery for legal services

The State Legal Services Authorities shall establish a Core group in all districts under the control of the District Legal Services Authorities to spring into action in the event of a disaster, whether manmade or natural. The Core group shall consist of a senior judicial officer, young lawyers, including lady lawyers selected in consultation with the local bar association, medical doctors nominated by the local branch of the Indian Medical Association and the NGOs by accredited by the State Legal Services Authority. The Secretary of the District Legal Services Authority shall maintain a Register containing the telephone numbers and the cellphone numbers of the members of the Core group.

Source: National Legal Service Authority,

<http://www.nalsa.gov.in/Schemes/A%20scheme%20for%20disaster%20victims.doc>

Below is an example of scheme already implemented by the State of Odisha.

Scheme for legal services to disaster victims through Legal Services Authorities: Odisha²²

Particulars	Description
Name of the Scheme	Scheme for legal services to Disaster Victims through Legal Services Authorities
Sponsored by	State Government
Funding Pattern	The funding pattern is managed by State Government of Odisha
Ministry/Dept.	Law
Description	The objective of the scheme is to provide legal services to the victims of disaster – both manmade and natural – who are under circumstances of undeserved want being victims of mass disaster, ethnic violence, caste atrocities, flood, drought, earthquake or industrial disasters. The intervention of Legal Services Authorities should be for coordinating the integrated, strategic and sustainable development measures taken by the Government and Disaster Management Authorities for reducing the period of crisis and for building a platform for early recovery and development. The thrust of the efforts by the State Legal Services Authorities shall be for strengthening the capacity of the victims for managing the disaster at all levels and to coordinate with the Government departments and non-governmental organisations and also for providing legal aid to the victims. The State Legal Services Authorities shall establish a Core group in all districts under the control of the District Legal Services Authorities to spring into action in the event

²² <http://india.gov.in/govt/viewscheme.php?schemeid=1718>

	of a disaster, whether manmade or natural. The Core group shall consist of a senior judicial officer, young lawyers, including lady lawyers selected in consultation with the local bar association, Medical Doctors nominated by the local branch of the Indian Medical Association and the NGOs by accredited by the State Legal Services Authority. The Secretary of the District Legal Services Authority shall maintain a register containing the telephone numbers and the cellphone numbers of the members of the Core group.
Beneficiaries	Individual, family
Benefits	
Benefit type	Material
Eligibility criteria	Victims of disaster – both manmade and natural – who are under circumstances of undeserved want being victims of mass disaster, ethnic violence, caste atrocities, flood, drought, earthquake or industrial disasters are eligible for this scheme.
How to avail	To avail this scheme, one can contact the District Legal Service Authority, Department concerned.
Validity of the scheme	
introduced on	01 / 01 / 1998
Valid up to	01 / 01 / 2015

Module 3: Recovery Principles

Module objective

Explain widely recognised and practiced principles in long-term recovery

Contents

1. Importance of recovery principles
2. Good practices in recovery policymaking
3. Commonly used recovery principles in practice
4. Top ten policies for post-disaster recovery

Key objectives

- Introduce to key recovery principles
- Share good practices in recovery policymaking
- Familiarise with commonly used recovery principles based on practice
- Share common policies for post-disaster recovery

Key concepts

- Recovery principles are the values which guide how recovery will take place
- Good recovery principles are evidence-based, realistic, need-based and drawn from previous experiences
- Clear recovery principles are core to good practices in recovery policymaking
- Recovery is an opportunity for better development

Recommended readings

1. IRP, ISDR, Draft Guidance Note on Recovery Pre-disaster Recovery Planning
2. IRP, Knowledge for recovery series infokit governance 2, "Recovery Policy: Good Practices and Lessons
3. United Nations Country Team India, "Recovery Framework in support of Government of India for a post-tsunami rehabilitation and reconstruction programme" March 2005
4. US National Disaster Recovery Framework, Draft, February 5, 2010
5. CWGER, Guidance Note on Early Recovery, 2008
6. UNDP, BCPR – DRU, post-disaster Recovery Guidelines (Version 1)
7. UNDP Regional Centre in Bangkok, Serving Asia and Pacific, Local Governance in Tsunami Recovery: Lessons Learned and Emerging Principles, January 2006
8. IRP, ADRC, ISDR, UNDP, Learning from Disaster Recovery Guidance for Decision Makers, 2007

Module 3: Recovery Principles

Importance of recovery principles

Recovery principles are a set of broad guidelines that direct both design and delivery of recovery outcomes and actions at multiple levels. Recovery principles outline the recovery context and help develop enabling policy environment for different stakeholders to operate effectively within that context. It also expresses level of commitment and thinking of policymakers in driving long-term recovery in a post-disaster context. Knowledge of India's disaster risk profile (vulnerabilities, hazards, capacities and potential impacts of disasters) and disaster management systems in India is essential for setting measurable goals and determining principles of disaster recovery.

Recovery principles are the values which guide how recovery will take place. There is neither a universal prescription for a successful recovery nor a universally applicable set of recovery principles. Different peoples will achieve the same goals by different means²³. Good recovery principles are evidence-based, realistic, need-based and drawn from previous experiences. Context specific and clear recovery principles are the key to driving successful recovery operations.

In this module we try to assess and understand different recovery principles followed by various Governments, UN system and national and international recovery organisations. It will help the learner understand how context specific recovery principles are framed and used to guide recovery processes.

Mr. P. G. Dhar Chakrabarti, Executive Director, National Institute of Disaster Management, gave a presentation on "Towards Development of Comprehensive Framework of Recovery and Reconstruction in South Asia" during the Second India Disaster Management Congress held during November 4-6, 2009. Mr. Chakrabarti elaborated the five basic principles of recovery. These are²⁴:

1. Holistic – to provide housing, infrastructure, education, livelihood, health, psychosocial care, etc.
2. Long term – to provide livelihood support, including development of skill, provisioning of credit and marketing support, etc.
3. 'Build back better' – to ensure that houses and infrastructure constructed after disasters withstand the hazards and risks of nature and the hazards do not become disasters again.
4. Sustainable – to integrate environmental issues, such regeneration of mangroves, conservation of water.

²³ IRP, ISDR, Draft Guidance Note on Recovery Pre-disaster Recovery Planning

²⁴ P. G. Dhar Chakrabarti NDMA, NIDM, Proceedings Second India Disaster Management Congress held during November 4-6, 2009. <http://nidm.gov.in/PDF/Proceeding%20IDMC2.pdf>

5. Inclusive – to care for poor and vulnerable – women, children, aged, physically and mentally-challenged people.

Good practices in recovery policymaking

Below is a brief summary of good practices in recovery policymaking, which clearly articulates importance of recovery principles in shaping recovery policies.

No.	Elements
Good Practice 1	Policy has to demonstrate Government leadership and commitment to disaster risk reduction.
Good Practice 2	Policy has to provide a clear definition of the disaster risk and recovery and an understanding among policymakers and the general public and conveys the often severe and potentially far-reaching economic consequences of natural disasters.
Good Practice 3	Policy has to define disaster management coordination structures at national, local and community levels.
Good Practice 4	Policy has to serve as a basis for sound organisation and clear allocation of roles and responsibilities of various structures as well as accountability channels.
Good Practice 5	Policy has to provide mechanism for the participation of local communities.
Good Practice 6	Policy has to provide overall direction for ensuring optimum utilisation of resources.
Good Practice 7	Policy has to ensure that disaster risk management issues are integrated within overall national development planning.
Good Practice 8	Policy has to promote awareness to ensure that these issues are applied across sectoral, ministerial and jurisdictional lines of interest or responsibility.
Good Practice 9	Policymaking has to be multi-disciplinary in nature and ensures that disaster risk elements are properly included in the design of major development projects across sectors.
Good Practice 10	Policy has to provide a foundation for legislation and related regulations (UNISDR 2004).
Source: IRP, Knowledge for recovery series infokit governance 2, “Recovery Policy: Good Practices and Lessons”	

Commonly used recovery principles in practice

Following are some key examples of commonly used recovery principles in practice for participant review and discussion.

1. United Nations Country Team India

In its response to Indian Ocean Tsunami, the United Nations Country Team India prepared a comprehensive recovery framework to support the Government of India achieve its goals in post-tsunami rehabilitation and reconstruction. Key guiding principles are presented below.

Guiding Principles for Sustainable Recovery and Risk Management

Key guiding principles:

- Nationally and local driven recovery
- Short-term rehabilitation must not hinge on long-term reconstruction packages. An adequate balance between governance and participation
- Respect for cultural diversity and specificities
- Seek greater equity in access rights and the distribution of productive assets.
- Transparent and effective monitoring of the recovery process

Cross-cutting issues:

In moving from post-disaster relief to recovery:

- Protecting the most vulnerable
- Making temporary shelters more liveable

In restoration of livelihoods and upgrading of infrastructure:

- Getting people back to work
- Restoring and upgrading infrastructure and services wherever possible
- Making recovery inclusive and broad based
- Securing livelihoods with greater value addition
- Maximising the use of local procurement in recovery efforts

In prospective risk reduction:

- A healthy environment for long-term security and sustainability
- Prospective risk management for a multi-hazard context
- Organising communities to respond to emergency situations
- Provision of timely information on risk and early warnings that people understand

Source: United Nations Country Team India, "Recovery Framework in support of Government of India for a Post-Tsunami Rehabilitation and Reconstruction Programme" March 2005

2. US National Disaster Recovery Framework

The set of core principles presented in the US National Disaster Recovery Framework is a good example of guiding both pre- and post-disaster recovery planning through policy framing.

Core Principles

- **Individual & family empowerment** – Recovery is not only about restoration of

structures, systems and services – although they are critical. A successful recovery must also be about individuals and families being able to rebound from their losses, and sustain their physical, social and economic well-being. The shared recovery objective should always be to empower people to recover from disaster by assisting with compassion and respect and by providing them the opportunities, tools and resources to meaningfully participate in the recovery process and contribute to their individual, family and overall community-wide recovery. Observing this principle may be especially important for individuals with disabilities, access and functional needs, children, the elderly and members of underserved communities.

- **Leadership & local primacy** – Encourage informed and coordinated leadership throughout all levels of Government, sectors of society and phases of the recovery process through collaboration and communication support. Recognise that tribal, State and local governments have primary responsibility for the recovery of their communities and play the lead role in planning and authority for managing all aspects of community recovery. This is a basic, underlying principle that should not be overlooked by federal, State and other disaster recovery managers in their eagerness to assist. However, the federal Government is a partner and facilitator in recovery and must be prepared to manage when the disaster impacts areas of primary federal jurisdiction or national security and assist should tribal or state and local Governments be overwhelmed by a large-scale or catastrophic event.
- **Preparation for recovery** – Prepare for recovery prior to a disaster to establish a higher state of resilience and speed for recovery planning and assistance delivery. Development of recovery coordination structures and training of recovery personnel are vital to enhancing recovery preparedness. A critical component to preparedness is also pre-disaster recovery planning. Involve all stakeholders to ensure a coordinated and comprehensive planning process, appreciating that all plans evolve during execution but the relationships and understanding developed during the planning process increase the ability for collaboration and unified decision-making. Identify in advance the process and procedures that will be used to make decisions and metrics for monitoring progress.
- **Partnership & inclusiveness** – Promote proactive partnerships and collaboration. Partnerships and inclusiveness are vital for ensuring that all voices are heard from all parties involved in disaster recovery and that the most innovative and relevant solutions are considered. This is especially critical at the community level, where non-governmental partners in the private and non-profit sectors (i.e., local businesses, owners and operators of critical infrastructure and key resources and voluntary, faith-based and community organisations, foundations, philanthropic groups and academic institutions) play a significant role in meeting local needs. Collaboration can drive innovation through fostering and strengthening community relationships with multiple actors as well as multi-jurisdictional coordination. The recovery process should be facilitated through the inclusion of individuals with disabilities and others with access and functional needs, advocates of children, the elderly and members of underserved communities. Cultural competency, diversity, and sensitivity should be addressed and respected at all levels and at all times.

- **Communications** – Promote clear, consistent, culturally-sensitive and frequent communication of critical recovery information through a process that is inclusive of and accessible to the general public and stakeholders, including people with disabilities and with limited English proficiency, manage expectations throughout the process and support the development of local, state and tribal communication plans, ensure stakeholders have a clear understanding of the assistance they are eligible for and the roles and responsibilities they must be accountable for, make clear the actual pace, requirements and time needed to achieve recovery.
- **Unity of effort** – Coordinate and focus all available disaster recovery assistance resources toward an agreed-upon set of recovery processes and priorities developed at the community level. Support a transparent, inclusive and accessible process through which community members, leaders and supporters come together to examine options, debate alternatives, address conflicts and make the decisions necessary to build community consensus and unity on their shared recovery priorities.
- **Timeliness & flexibility** – Uphold the value of timeliness, efficiency and flexibility in coordinating and delivering recovery activities and assistance. Minimise delays and opportunity losses, sequence recovery decisions to promote coordination, avoid potential conflicts, build confidence and ownership of the recovery process among all stakeholders and ensure recovery plans, programmes, policies and practices adaptable to meet any unforeseen, unmet and evolving recovery needs.
- **Resilience & sustainability** – Promote implementation of redevelopment fundamentals and practices that minimise the community's risk to all hazards and strengthen the community's ability to withstand and recover from future disasters. Engage in a rigorous assessment and understanding of risks and vulnerabilities that might endanger the community or pose additional recovery challenges. Promote implementation of the NIPP risk management framework to enhance the resilience and protection of critical infrastructure against the effects of future disasters. Incorporate mitigation strategies, critical infrastructure, environmental and cultural resource protection and sustainability practices not only in reconstructing the built environment such as housing and infrastructures but also in revitalising the economic, social and natural environments.

Source: US National Disaster Recovery Framework, Draft, February 5, 2010

3. CWGER

The set of principles presented below on early recovery is comprehensive and is particularly useful in conflict settings, such as earthquake recovery in Jammu and Kashmir.

Guiding Principles for Early Recovery

Experience of recovery operations suggests that the process should be guided by principles that have been identified as conducive to sustainability and a successful transition. These guiding principles should be adopted throughout the needs assessment, planning,

programming and monitoring and evaluation stages of the early recovery implementation process:

- **Ensure national ownership** of the early recovery process through the fullest possible engagement of national and local authorities in the planning, execution, and monitoring of recovery actions.
- **Promote local and national capacities** by ensuring that external technical assistance complements rather than replaces existing capacities and is seen by national actors as supportive rather than directive.
- **Use and promote participatory practices** to identify needs, build capacities for empowering communities and create the foundations of a sustained, free, active and meaningful participation throughout all phases of the early recovery process. This lays important groundwork, helps ensure that local initiatives, resources and capacities are fully understood and utilised and builds capacity for comprehensive post-crisis needs assessment led by national partners in the recovery period.
- Develop capacities for building constructive and **inclusive working relationships between civil society organisations and Government institutions**.
- Influence how humanitarian and early recovery assistance is provided to ensure that interventions *Primum non nocere* – ‘**first, do no harm**’, as well as take account of longer-term development considerations. External assistance is not neutral but becomes part of the context in which it is delivered and can unintentionally reinforce actual or latent conflict dynamics. Thinking not only about what interventions plan to achieve but also on how to achieve such objectives, including the choice of modalities for implementation, the selection of partners and staff, the time line for implementation, can help to ensure that early recovery efforts ‘do no harm’. Carrying out an environmental impact assessment (EIA) or health impact assessment (HIA) and understanding the root causes of the crisis will assist decision makers to ensure that policies, projects and programmes in all areas lead to improved livelihoods and have no detrimental effects on the rights of the population.
- Maximise synergies among different actors through **efficient coordination** of stakeholders in the early recovery process. This can be achieved by sharing information and promoting integration to avoid duplication and gaps, optimising the resources available for sustainable recovery.
- **Include risk reduction and conflict prevention measures** in the early recovery process by ensuring that key decisions are based on risk assessment. Assessments of hazard, vulnerability and capacity will inform efforts to reduce risk.
- Build capacity to **strengthen accountability systems** so that the population can hold Governments and local authorities to account in the implementation of early recovery

plans and programmes as well as find redress if they have a grievance or a legitimate claim unfulfilled.

- Ground early recovery interventions on a thorough **understanding of the context** in which they take place, including in terms of conflict dynamics that may be unintentionally reinforced by such interventions (see box 6 on using conflict analysis on page 21 of this guidance note).
- Ensure integration of other **cross-cutting issues such as gender, environment, security, human rights and HIV/AIDS in assessment, planning, implementation, and monitoring and evaluation** through the use of appropriate expertise and tools.
- Promote equality and develop local capacities to **prevent discrimination of any kind such as race, colour, sex, ethnicity, age, language, religion, political or other opinion, national or social origin, disability, property, birth or other status**. Early recovery programmes should identify and address the main patterns of discrimination, inequality and exclusion resulting from or being at the origin of the violent conflict. In identifying these patterns and potential negative impacts, programme decisions should be based to the extent possible on disaggregated data and information.
- **Promote gender equality** by assessing particular needs and vulnerabilities in gender analysis. Women's roles in transition and development are profoundly affected by how far early recovery efforts include them and their needs in assessment, planning and programming.
- **Conduct effective assessments** of need and capacity to determine objectives and priorities for early recovery.
- **Monitor, evaluate and learn** through appropriate participatory techniques and mechanisms that allow timely identification of corrective measures and capture the experiences and voices of the target population.
- **Build on and/or reorient ongoing development initiatives** to ensure they contribute to building resilience and capacity in affected communities. As a minimum, review ongoing initiatives to ensure they do not contribute to the further accumulation of vulnerability.

Source: CWGER, Guidance Note on Early Recovery, 2008

4. UNDP, BCPR: Disaster Reduction Unit

Another set of principles for guiding recovery is presented below. This set of guidelines is particularly useful for designing institutional framework for recovery in post-disaster context.

Guiding Principles

1. Mainstreaming disaster risk reduction in the recovery/development process
2. Improving/maintaining coordination
3. Promoting participatory approaches and decentralised planning and programming for recovery
4. Enhancing safety standards and integrating risk reduction in reconstruction and development
5. Improving the living conditions of the affected communities and sectors
6. Building local and national capacities for increased resilience, risk management and sustainable development
7. Taking advantage of ongoing initiatives
8. Gender sensibility
9. Demonstrative effects
10. Monitoring, evaluating and learning

Source: UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)

5. UNDP Regional Centre in Bangkok, Serving Asia and Pacific

This set of principles is quite useful to empower and guide involvement of local authorities in post-disaster recovery.

Emerging Principles for Local Governance in Tsunami Recovery

- The ability of local Governments to play an effective part in the recovery effort will in large part depend on their capacity prior to a disaster.
- It is crucial to understand the legal and institutional framework for decentralisation as this is likely to be an important factor in determining the effectiveness of local Government in the post-disaster recovery phase.
- For local Governments to be effective players in the recovery process, they must have adequate financial resources in addition to capacity.
- Tax bases are typically reduced significantly due to the impact of the disaster on the local economy and reduction of user charges etc. from damaged local Government infrastructure and compensatory mechanisms should be established as early as possible.
- Although there is a trade-off between a quick response to urgent needs and a carefully planned reconstruction process that allows for consultation, participation and capacity development, it is necessary to opt for the latter in order to ensure the effective use of resources to ensure that recovery mirrors the actual demands of the affected

communities and to develop capacity in the long term.

- Local Government should be involved in the planning, design, implementation and monitoring of the recovery process. Involving local Governments at all stages of the process is also an effective way to develop capacity.
- Local Governments are likely to be the best placed to assess the needs of the affected communities.
- Local Governments have a crucial role to play through coordination and facilitation of participatory processes in ensuring that the issue of land and property rights is dealt with in an equitable and timely manner. Whereas land management might not be a devolved responsibility of local Governments, the elected representatives can play an important role as a partner in solving problems related to e.g. ownership and use of land.
- It is crucial to involve communities in the recovery process at all stages. Communities are likely to be the most efficient in restoring some micro-infrastructure. Furthermore, attention should be given to building community-based disaster preparedness.
- In planning for post-disaster recovery, attention should be paid to the opportunity to promote issues such as gender equality, conflict resolution and human rights.
- There is an urgent need to ensure the UN and donor support for early recovery of local governance institutions as well as reconstruction of the infrastructure of local Governments which will allow them to re-establish delivery of economic and social services.

UNDP Regional Centre in Bangkok, Serving Asia and Pacific, Local Governance in Tsunami Recovery: Lessons Learned and Emerging Principles, January 2006

6. IRP, ADRC, ISDR, UNDP

The following elements may be considered as important principles that can define a favourable context for the successful management of recovery:

Principles to Define Favourable Context for Successful Management of Recovery

- Better, more accountable, open and participative Government at all levels of activity.
- An assertion of the importance of ethical standards and professional integrity in public life.
- Officials and government practice setting positive standards through tangible examples of good practice.

- Developing and enforcing an appropriate and realistic set of building by-laws.
- Public involvement, understanding and acceptance of land-use planning controls.
- Enhanced and continuous commitments to education and professional training.
- Readiness to review and as may be required, reform key institutions.
- Encourage well-informed and well-targeted advocacy by civil society on Government.
- Long-term measures to reduce poverty and recognise other forms of inequity within a local society.

Source: IRP, ADRC, ISDR, UNDP, Learning from Disaster Recovery Guidance for Decision Makers, 2007

7. State Government of Tamil Nadu

The following set of strategies is a good example of context specific principles for achieving successful recovery.

India's 10 Successful Strategies

The Government of Tamil Nadu prioritised 10 strategies that particularly helped to ensure equity and comprehensive rehabilitation in the post-Tsunami environment:

- Focused leadership at political/administrative levels, along with constant monitoring
- Complete decentralisation of powers to local district officials
- Comprehensive coverage of all sectors, touching every affected family
- Needs-based relief activities taken up swiftly, including for fishers, farmers, orphans and adolescent girls
- Effective leveraging of resources from all sources
- Risk mitigation and insurance as part of rehabilitation and reconstruction
- Strict building standards and supervisory mechanisms to ensure compliance
- Participation of the community at every level of decision-making
- Extensive use of web technology to enable transparency and communication
- Focus on the conservation of coastal ecology

Source: Tsunami Global Lessons Learned Project Steering Committee, "The Tsunami Legacy Innovation, Breakthroughs and Change, 2009

'Build Back Better' for the Marginalised Irula Tribe

The semi-nomadic Irulas live in Tamil Nadu and Andhra Pradesh in southern India. These tribes made a living by catching rats and snakes but had to give that up after the Government introduced the 1972 Wildlife Protection Act. Some moved toward the coast. When the Tsunami struck, 57 Irula villages were affected and 90 per cent of their livelihoods came to a standstill.

Although they were among the poorest, most Irulas received no immediate post-tsunami support. As inland fisher folk, they were not listed as tsunami victims and also were not declared as Scheduled Tribes, which would have entitled them to specific welfare schemes.

However, the district administration in Cuddalore, Tamil Nadu, took the lead to certify Irulas as Scheduled Tribes and also donated the land they lived on, working out a scheme to provide new permanent housing in collaboration with NGOs. A livelihood programme was introduced to diversify their income, including poultry farming, goat rearing and mud crab rearing. A literacy programme also was started, because nearly all Irulas were illiterate.

In all, this represents an example of a “habitat development” approach, which focuses on fostering a healthy, safe living environment through construction of stronger houses along with the provision of amenities such as drinking water, sanitation, roads, drainage, waste management facilities and community facilities such as schools, child care centres and health centres. This approach also promotes equity, active participation of all parties and linkages with livelihoods, and was widely used by Government and NGOs in post-Tsunami reconstruction.

Source: Tsunami Global Lessons Learned Project Steering Committee, The Tsunami Legacy Innovation, Breakthroughs and Change, Tsunami Global Lessons Learned Project, 2009

Top 10 policies for Post-Disaster Recovery²⁵

Top Ten Policies that States Need to Recover from Disaster

1. Reduce exposure to extreme events
2. Reduce vulnerability to extreme events
3. Build resistance and resiliency into the community
4. Create and maintain capable, effective emergency response systems
5. Establish systems to protect people in harm's way
6. Ensure the availability of adequate capital for rebuilding and recovery
7. Develop disaster recovery strategies and plans in concert with local governments and the private sector
8. Provide for the continuity of local government operations following a disaster
9. Repair or rebuild infrastructure and accelerate programmed infrastructure projects in affected areas
10. Work with local government and the private sector to facilitate economic recovery

Source: www.uschamber.com/bclc/programs/disaster/statepolicyclusters.htm

²⁵ IRP, Knowledge for recovery series infokit governance 2, “Recovery Policy: Good Practices and Lessons”

Conclusion: Recovery is clearly emerging as an opportunity for better development from the analysis of several sets of principles designed to guide recovery.

Module 4: Shelter, Infrastructure and Livelihood Recovery

Module Objective

Describe the issues and challenges of housing, infrastructure and livelihood recovery, including psycho-social aid and gender issues in long-term recovery.

Key Contents

1. Shelter Recovery
2. Infrastructure Recovery
3. Livelihood Recovery
4. Psycho-social Recovery
5. Gender issues in Recovery

Key objectives

- Introduce to key recovery principles
- Share good practices in recovery policymaking
- Familiarise with commonly used recovery principles based on practice
- Share common policies for post-disaster recovery

Recommended readings

1. IRP, Guidance Note on Recovery, Shelter
2. IRP, Guidance Note on Recovery, Gender
3. IRP, Guidance Note on Recovery, Psychosocial
4. Dr. Jennifer Duyne Barenstein. Housing reconstruction in post-earthquake Gujarat. 2006. A Comparative Analysis, HPN.
5. IRP, Guidance Note on Recovery, Infrastructure
6. IRP, Guidance Note on Recovery, Livelihoods
7. Ministry of Home Affairs, Government of India, Disaster Management in India, 2011
8. NDMA. 2009. National Disaster Management Guidelines.
9. ProVention Consortium and ALNAP. Flood Disasters Learning from

Key concepts

- Housing and infrastructure recovery is a key element in closing the gap between emergency relief and sustainable recovery. It restores people's sense of normalcy and is a first step towards reactivating the productive economy.
- Livelihoods approaches in disaster recovery are away of thinking about the objectives, scope and priorities for development.
- Psycho-social recovery and

engendering recovery initiatives are key for mobilising community participation and resources.	Previous Relief and Recovery Operation. 10. UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)
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Module 4: Shelter, Infrastructure and Livelihood Recovery

In this module we try to understand key recovery themes, their importance in Indian context and key challenges faced in designing recovery schemes. The recovery themes discussed in this module are shelter, infrastructure, livelihoods, gender and psycho-social recovery.

Shelter recovery

Shelter is one of the most visible and immediate needs in post-crisis settings. Relief efforts are often focused on providing shelter quickly, without taking into account the impact of short-term shelter strategies. Long-term shelter strategies help not only to focus on determination and implementation of realistic and permanent reconstruction plans for the affected communities but are also concerned with rebuilding community confidence and support structure for civic responsibility and urban governance through participatory planning of reconstruction. The development of disaster resistant housing is a major factor in reducing vulnerability to disasters. However, shelter issues in mitigation go beyond the structural aspects. Rights to ownership and security of tenure make an enormous difference to the maintenance, management and development of shelter, particularly in urban areas²⁶.

Human settlements/housing rehabilitation/reconstruction is a key element in closing the gap between emergency relief and sustainable recovery. It restores people's sense of normalcy and is a first step towards reactivating the productive economy. Building the capacity of local authorities to promote, supervise and guide planning and construction processes – within preventive land use regulations – is key to a successful and sustainable reconstruction process. Local authorities should be enabled to set up legislative and regulatory frameworks to promote local initiatives and local involvement in planning and construction issues²⁷.

Shelter in the recovery context is the function through which individuals and households are provided with or are facilitated in the self-provision of housing solutions that are:

- Permanent
- Sustainable
- Hazard resilient
- Culturally acceptable

²⁶ Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

²⁷ UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)

- Environmentally friendly

Guiding principles in shelter recovery

1. **Permanence:** Displaced victims are able to return to or otherwise secure permanent housing.
2. **Risk reduction:** Housing units that are repaired or replaced adequately account for future hazard risk in design, construction and materials.
3. **Viability:** The housing solution is one that ensures access to appropriate wraparound services required by occupants to lead a practical and practicable living (e.g. access to livelihoods, availability of food and water, access to markets, utilities and transportation, access to religion and religious facilities, existence of a community).
4. **Independence:** Housed victims are able to achieve self-reliance.
5. **Cultural sensitivity:** The culture of the affected population is protected.
6. **Community input and acceptance:** The wishes of the affected population are heard, understood, respected and incorporated.
7. **Environmental Soundness:** Housing solutions do not have a negative effect on the natural environment or address any environmental impacts that are caused.
8. **Cost-effectiveness:** Housing solutions should not put Governments, communities or individual residents in crippling financial circumstances.
9. **Progressive:** Ongoing long-term development progress is maintained and long-term community goals are not sacrificed for short-term individual benefits.

Source: IRP, Guidance note on Recovery Shelter

Shelter recovery can be broadly viewed as temporary or transitional and permanent.

Types of transitional shelter

Type 1: Upgradable

While being inhabited, the transitional shelter is improved over time to become a permanent shelter. This is achieved through maintenance, extension or by replacing original materials with more durable alternatives.

See the case study in section A.4, Kenya in 'Shelter Projects 2008' (IASC Emergency Shelter Cluster, 2008)

Families in Kenya were displaced by election violence but could later return to their homes, although these had been largely destroyed. Families were provided with wooden transitional shelters with corrugated galvanised iron roofing and plastic sheeting and incrementally upgraded these using locally available materials and methods that they were familiar with. As the families had land rights, it was possible for them to make their shelters permanent. Adobe cladding, brick or cement was used to upgrade the walls and cement was used for the floor. The families could then remain permanently settled in a house that was comparable to their original dwelling.

Type 2: Reusable

See the case study in section B.6, Yogyakarta in 'Shelter Projects 2008' (IASC Emergency Shelter Cluster, 2008)

In Yogyakarta, Indonesia, families were displaced from homes damaged by the tsunami. The local community was trained to construct bamboo transitional shelters, which had been designed and tested in the months before implementation. The project targeted the vulnerable in urban and rural areas. In urban areas, the shelters were demolished after permanent housing was built. In rural areas, the shelters were reused for other purposes – commonly as barns for livestock, storage sheds or restaurants.

Type 3: Re-sellable

The transitional shelter is inhabited while parallel reconstruction activities are taking place. Once reconstruction is complete, the transitional shelter is dismantled and its materials are used as a resource to sell. Therefore, materials need to be selected for their suitability for resale after the shelter is dismantled.

See the example in 'Preliminary Impact Evaluation of the Tsunami Shelter Programme in Aceh Province, Indonesia' (International Federation of Red Cross and Red Crescent Societies, 2007)

Families in Aceh Province were provided with transitional shelter after the Tsunami. Most families upgraded their shelter to some extent but securing the financial resources to do so remained a problem. This lack of resources meant that after two years some families saw that there was value in selling the shelters once permanent reconstruction was complete.

Type 4: Recyclable

The transitional shelter is inhabited while parallel reconstruction activities are taking place. The transitional shelter is gradually dismantled during the reconstruction process and the materials from the transitional shelter are used in the construction of a durable

home.

See the case study in section B.10, Pakistan in 'Shelter Projects 2008' (IASC Emergency Shelter Cluster, 2008)

Following the Kashmir earthquake, families could no longer inhabit their houses, which had been destroyed or damaged. Materials for transitional shelter were distributed for a self-build programme. The shelters were built from polypropylene sandbags to be filled with soil for the walls, corrugated iron for roofing and timber for the frames, supplemented by reclaimed timber. Two years after the construction of the transitional shelters, many families had used materials from the shelters in the construction of longer-term housing. The elements most commonly recycled were the corrugated-iron sheeting and timber.

Source: Shelter Centre. 2010. Case Study Number 5. Transitional Shelter: Understanding transitional shelter from the emergency through reconstruction and beyond. ALNAP innovations.

Appropriate selection of one or combination of few approaches is key to the success of overall housing recovery process. Below is a summary of different housing reconstruction approaches employed in 2001 earthquake, Gujarat.

Five Different Housing Reconstruction Approaches Employed in Gujarat

1. The owner-driven approach. It enables communities to undertake building work themselves, with external financial, material and technical assistance. Owner-driven reconstruction does not necessarily imply that owners build the house on their own but that within given building codes, they retain full control over the housing reconstruction process. This approach was used by the Government of Gujarat within the framework of the GEERP. Under the GEERP, almost 200,000 houses – some 87% of destroyed homes – were rebuilt by their owners with financial and technical assistance from the Government.
2. The subsidiary housing approach. Under the subsidiary housing approach, agencies do not engage directly in housing reconstruction. Instead, they adopt a facilitatory role providing additional material and technical help within the framework of Government assistance.
3. The participatory housing approach. Under this approach, agencies assume a leading role in housing reconstruction while involving home owners in the planning, design and reconstruction of the house.
4. The contractor-driven approach *in situ*. This approach involves tasking a professional building contractor to design and build the houses. By *in situ*, we mean that houses are rebuilt on the same sites occupied before the disaster. Typically, designs, materials and expertise are imported from outside the target community.

5. The contractor-driven approach *ex nihilo*. As above, this approach uses professional building contractors. The difference between the *in situ* and *ex nihilo* approaches is that, in the latter, the entire village is rebuilt on a new site.

Source: Dr. Jennifer Duyne Barenstein, Housing reconstruction in post-earthquake Gujarat, A Comparative Analysis, HPN, 2006

Infrastructure recovery

The rapid rehabilitation of primary infrastructure such as primary roads, bridges, water supply and sanitation systems, primary power generation and distribution facilities, irrigation and agricultural facilities, health, education and other social facilities, can contribute to a swift restoration and development of the affected region. The key for an effective rehabilitation programme is an accurate and thorough damage assessment, which will provide the necessary information on why this infrastructure was damaged or destroyed and will determine the modality of including risk reduction in their rehabilitation and reconstruction²⁸.

Infrastructure in the long-term recovery context includes the repair, replacement and reestablishment of infrastructure components upon which society depends upon to function. Infrastructure components that might be addressed in this effort include²⁹:

- Transportation (road, air, sea, track, riverine)
- Communication (telephone, internet, radio)
- Energy (mines and extraction, refineries, generation, transportation, transmission)
- Water (treatment, distribution)
- Sanitation
- Commerce (Finance, banking, ports)
- Governance
- Education
- Health (clinics, hospitals) and public health
- Agriculture and food

Guiding Principles in Infrastructure Recovery

1. **Accessibility:** Infrastructure components and services supported by the recovery effort should be accessible to all populations affected, respective to their physical location and irrespective of their economic, ethnic, religious or other background.
2. **Hazard risk resilience:** Infrastructure solutions must be constructed such that there is a significant if not full reduction in the hazard risk vulnerability factor that led to the original damages. While this is likely to increase construction costs, practice shows that every \$1 spent on hazard risk reduction ultimately results in a \$7 reduction in future

²⁸ UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)

²⁹ IRP, Guidance Note on Recovery, Infrastructure

reconstruction costs.

3. **Sustainability:** Infrastructure solutions must adequately account for the climate, geography, financial and technical capacity and projected growth of the communities served.
4. **Scalability:** Infrastructure recovery will differ from community to community throughout the region affected by the disaster given not only the damage inflicted, but also the geographic size, urbanisation, population density and other social characteristics. Infrastructure recovery planning must be able to address the needs of each and every community irrespective of size if inappropriate solutions are to be avoided.
5. **Maintainability:** In addition to the upfront cost of construction, all infrastructure carries associated maintenance costs measured in technical and financial commitment. Communities must be spared the situation where they are equipped with systems and structures for which they have no expertise or economic capacity to maintain them.
6. **Community input and acceptance:** The wishes of the affected population must be heard, understood, respected and incorporated, thereby ensuring the most appropriate solutions are delivered.
7. **Environmental soundness:** Infrastructure solutions should have no negative effect on the natural environment, ensuring that any collateral impacts are resolved.
8. **Cost-effectiveness:** Reconstruction efforts should not put Governments, communities or individual residents in crippling financial circumstances and must be commiserate with the overall development trajectory of the affected region.
9. **Progressiveness:** Ongoing long-term development progress must be maintained with no sacrifice of long-term community goals for short-term individual benefits.

Source: IRP, Guidance Note on Recovery Infrastructure

Livelihoods recovery

Livelihoods approaches in disaster recovery are a way of thinking about the objectives, scope and priorities for development. They place people and their priorities at the centre of development. They focus poverty reduction interventions on empowering the poor to build on their own opportunities, supporting their access to assets and developing an enabling policy and institutional environment. It is important to have intervention of livelihood approach in the steps of relief and recovery to ensure the knowledge transference for disaster preparedness and risk reduction. (NivaranDuryog2009)

More importantly, disaster affected populations have overwhelmingly identified livelihoods as their greatest recovery priority. An evaluation of the Disasters Emergency Committee involvement in the 2001, Gujarat recovery effort noted that, “People constantly emphasised the need to restore livelihoods rather than receive relief and expressed some frustration that outsiders did not listen to them on this point” (Humanitarian Initiatives UK, 2001, p.16). Similar findings in Indonesia (CDA, 2006), Nicaragua (Delaney & Shrader, 2000), Iran (Fallahi, 2007) and Haiti (Oxfam, 2010) affirm at a global scale the importance people give to restoring their capacity to earn a living³⁰.

Recovery programmes should contribute to improve the living conditions of the affected population. Specific issues that may need addressing³¹:

- Agriculture and livestock production through the provision of seeds, tools, micro-credits and other means.
- Small business through the provision of credits or other means.
- Recovery and improvement of productive social infrastructure such as roads, markets, etc., which will support the economic activities.
- The reconstruction of the housing sector using local technologies, construction materials, local know-how, to ensure that construction activities will have a direct positive impact upon the local economy.
- Consideration of short-term gender sensitive alternative employment generation to compensate lost livelihoods in the immediate post-disaster period.

In order to frame the stories and ensuing discussion, it is useful to introduce the operational framework by which livelihood interventions are most commonly planned and implemented. Within this framework, livelihood interventions are loosely categorised into three overlapping phases that roughly correspond to the immediate, short- and long-term needs of affected populations. These phases are livelihood provisioning, livelihood protection and livelihood promotion³². Below is the summary of these phases based on IRP’s Guidance Note on Livelihood Recovery.

³⁰ IRP, Guidance note on recovery, Livelihoods

³¹ UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)

³² IRP, UNDP India, NDMA, ISDR, Guidance Note on Recovery, Livelihood, 2011

Category	Explanation		Typical Activities
Livelihood provisioning	Livelihood provisioning is a set of relief-based interventions that involve providing food and meeting other essential needs for households to maintain nutritional levels and save lives.	Interventions of this type usually entail food and health relief for people in an emergency or people who are chronically vulnerable.	• Cash and material assistance • Cash grants (community/individual) • Cash for work initiatives • Public works employment schemes
Livelihood protection	Livelihood protection is a set of interventions that involve protecting household livelihood systems to prevent an erosion of productive assets and replacing or rebuilding productive assets.	These types of interventions entail timely food and income transfers, infrastructure repair, rehabilitation and improvements, carried out through food or cash-for-work or some other means and replacement of assets such as tools, boats and seeds.	• Microfinance promotion (individual/SHGs) • Savings, credit, insurance, remittances, etc. • Capacity building (community/MFIs)
Livelihood promotion	Livelihood promotion is a set of development based interventions that involve improving the resilience of household livelihoods so that food and other basic needs can be met on a sustainable basis.	Interventions of this type entail strategies such as diversifying livelihoods strategies, creating alternative income-generating activities, providing financial services such as loans and insurances and strengthening markets.	• Supporting SMEs • Developing collective capacity of market actors • Improving access to markets for low-income communities

Adapted from: The Household Livelihood Security Concept, Retrieved from <ftp://ftp.fao.org/docrep/fao/X0051t/X0051t05.pdf>

Select Case Examples of Livelihood Recovery Interventions³³

Livelihood Relief Fund (Material Assistance)

The Livelihood Relief Fund (LRF) is a demand-driven asset replacement service provided by the All India Disaster Mitigation Institute (AIDMI) to serve survivors of floods, earthquakes, tsunamis as well as civil strife. LRF staff initiates the process by visiting affected communities and raising awareness of the fund and the eligibility requirements.

AIDMI focuses its assistance on the most vulnerable of populations, particularly those which are often excluded from assistance. Hence, LRF recipients must provide both pre- and post-disaster livelihood information and proof that they have not received other relief assistance. Recipients identify the particular assets they need and along with LRF staff, consult several vendors to identify the best price. AIDMI purchases the goods and turns them over to the recipient. A series of monitoring visits and a second needs assessment are carried out to verify if further assistance is required. If so, recipients are eligible for a second round of assistance through the LRF. Although staff intensive and time-consuming, this individualised approach to livelihood protection has been highly successful, serving over 10,000 low income women, social minorities and informal sector workers.

Source: Transferring risk through microinsurance, microcredit and livelihood relief: Best Practice Case Studies, Retrieved from

http://www.proventionconsortium.org/themes/default/pdfs/AIDMI_bestpractice_casestudies.pdf

Labour-based road construction programmes in Nias (Public works employment schemes)

In partnership with the BRR (Agency for Rehabilitation and Reconstruction of Aceh and Nias), the provincial and district Governments of Aceh and Nias, the Multi-Donor Fund for Aceh and Nias (MDF) and district Governments, the ILO and UNDP implemented an employment intensive infrastructure project to rebuild almost 200km of rural roads.

The initiative focused on building the capacity of district public works officials and small-scale contractors to manage, supervise and implement road rehabilitation employment projects. The project provided the necessary techniques, standards, systems and strategies necessary to undertake the road rehabilitation and conducted a training of trainers for select district public works officers. These officers, in turn trained over 70% of district public works staff and small-scale contractors in 'public works employment' approach, including contract administration, site supervision and use of standard approaches in engaging communities in road works. Additionally, Kecamatan Development Programme (KDP) facilitators and community supervisors

³³ IRP, UNDP India, NDMA, ISDR, Guidance Note on Recovery, Livelihood, 2011

also received training in road work supervision. As the project progressed, district public works across the island gave recognition to contractors who had taken training. This served to give them a competitive advantage while increasing the incentive to propagate the approach.

A mid-term evaluation of the project found that the newly-rehabilitated roads were of superior quality and cost 10-50% less than those rehabilitated through more traditional approaches. Over 400,000 worker days have been generated through the road rehabilitation project with women making up 30% of the labour force. Moreover, the district public works and KDP have strengthened their collaboration in village road rehabilitation and maintenance management. This collaboration has resulted in the implementation of new pavement techniques that address environmental protection and worker and community health issues.

Source: Evaluation: Creating Jobs: Capacity building for local resource-based road works in selected district in NAD and Nias, Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_mas/---eval/documents/publication/wcms_099778.pdf

Providing insurance to the poorest populations in Gujarat (microfinance)

SEWA, the Self Employed Women's Association has taken an innovative approach to provide insurance to some of the most vulnerable members of disaster affected communities in India, following the Gujarat Earthquake of 2001.

SEWA, through its large network of members throughout the region, set up village development committees. One of SEWA's goals was to provide small loans to the poorest village women. This has enabled them to diversify their livelihood base, gain regular income and enhance their ability to manage risk. To reduce their vulnerability to future shocks, SEWA provides an integrated microfinance package that includes microinsurance. Realising both the need for insurance and for an effective intermediary between insurance companies and the poor, SEWA established SEWA Insurance, an intermediary for formal insurance companies. This innovative product offers life, health and asset insurance within one policy.

SEWA is promoting this product through an integrated approach that combines savings, credit and insurance. The poorest often even have difficulty paying the minimal Rs. 100 premium for an individual policy in a lump sum, therefore members can save for their insurance premium through small monthly instalments. At the end of the year when the policy is due for renewal or when new policies are to be purchased the full premium amount is withdrawn from the account and members who were not able to contribute the full amount are still insured with the balance of their premium treated as a loan.

By linking insurance with savings these women are provided insurance for the first time. As the microfinance package is managed by the village development committees, information and enforcement problems are reduced as members enter into multiple and repeated relationships with each other and SEWA. The experience of SEWA has shown that microfinance can significantly reduce the vulnerability of the poor in hazard-prone areas, particularly when coupled with institution building and training.

Source: The Experiences of SEWA, Retrieved from

http://www.unisdr.org/eng/public_aware/world_camp/2005/docs/case-study-4-Microfinance-and-Disaster-Mitigation-sewa.pdf

A Second Incarnation of the Cash for Work Programme: Flood-affected Kheda (Cash for Work)

When the July 2005 floods struck the slum community of Indiranagar in the Kheda region of Gujarat, the All India Disaster Management Institute (AIDMI) was able to respond quickly, using its 'Cash for Work' experience in southern India. In addition to the repair of flood damage to property, infrastructure and livelihoods, perhaps one of the most significant benefits of the programme is the opportunity it has given to construct a new drainage system. The first-of-its-kind in the region, it will make dramatic improvements to public health, sanitation and disaster mitigation in the community and would have been unattainable had it not been for the Cash for Work programme since it would cost around Rs. 60,000. There is a sense of enormous pride apparent as they proudly display the drainage canal system. It has given the community a renewed sense of optimism and members have expressed that they feel a little more secure now that these measures are in place.

Source: Humanitarian Policies: Disaster Mitigation at the Institutional Level. 2nd International Workshop on Disaster Mitigation: Potential of Micro Finance for Tsunami Recovery, Retrieved from http://www.preventionweb.net/files/2060_VL108401.pdf

Business development services in post-tsunami Thailand (SMEs)

The 2004 Indian Ocean Tsunami devastated many coastal industries in the provinces of Phuket and Phang-Nga, particularly in tourism and fishing. Prior to the Tsunami, GTZ operated a programme to promote small and medium enterprise competitiveness in Thailand. Programme staff mobilised within two weeks of the disaster to address the needs of small and medium enterprises (SMEs) affected by the disaster. The project's main objective was to assist SMEs to restart their businesses as soon as possible following the disaster via access to credit and training in business management and planning. The RESTART project established business centres in the two provinces in partnership with the Ministry of Industry. The centres were staffed with local ministry staff and 25 local business consultants.

RESTART services began with a motivational group counselling programme to help entrepreneurs develop goals for restarting their business. After in-depth discussions of their pre-tsunami business activities, beneficiaries received business development training and intensive individual consultations to create business plans. These carefully devised plans aimed to help SMEs to re-establish or restructure existing businesses and start up new enterprises.

The project worked closely with several local banks so as to link its business development services with potential business loans for the participating SMEs. The business plans, accompanied with letters of reference by RESTART were used to apply for loans.

Key characteristics of the RESTART project included:

- RESTART staff members were all experienced small-enterprise development specialists who attended GTZ's CEFE (Competency-based Economies through Formation of Enterprise) entrepreneurship training courses.

- Rather than trying to create something new, the RESTART project acted as a broker, scanning the environment to identify the most appropriate support packages to fit the needs of the SME clients.
- The RESTART team reported to the provincial industrial officers in Phuket and Pang Nga, who had administrative responsibility for coordinating all ministry of industry assistance to Tsunami-affected enterprises. This integration ensured that all branches of the ministry of industry concerned understood the aims and objectives of the project.

Sources:

<http://www.mmw4p.org/dyn/bds/docs/532/GTZ%20Thai%20Restart%20Final%20Report%2005.pdf> and

<http://www.businessgrowthinitiative.org/KeyPracticeAreas/Documents/Market%20Development%20in%20Crisis-Affected%20Environments.pdf>

Psycho-social Recovery

According to the NDMA, psycho-social support in the context of disasters refers to comprehensive interventions aimed at addressing a wide range of psycho-social and mental health problems arising in the aftermath of disasters. These interventions help individuals, families and groups to build human capacities, restore social cohesion and infrastructure along with maintaining their independence, dignity and cultural integrity. Psycho-social support helps in reducing the level of actual and perceived stress and in preventing adverse psychological and social consequences amongst disaster-affected community.

The area of disaster mental health has evolved during the last two decades. From a mental disorder-based approach after the Bhopal gas disaster, the approach has been modified into mental health integrated with public health after the Latur earthquake and further broadened to psycho-social and mental healthcare in the Orissa super cyclone, Gujarat earthquake, Tsunami and Kashmir earthquake. The purely clinic-/hospital-based planning and delivery of services have given way to community-based services with active utilisation of community resources. The nature of manpower involved in service delivery has also undergone a significant change. Earlier, only psychiatrists were visible but now all mental health professionals, including clinical psychologists, psychiatric social workers, etc., to professionals, para-professionals and trained community-level workers (CLWs) and volunteers can be seen as service providers.

Human resources are the most valuable asset of a mental health service provision. In resource-rich countries, like USA, UK and Australia, the proportion of available manpower in mental health is far higher than in comparison to a country like India as shown in the table below.

Status of Global Mental Health Manpower

Professionals per 100,000	WORLD	USA	UK	AUSTRALIA	INDIA
Number of Psychiatrists	1.20	13.7	11	14	0.2

Number of Psychologists	0.60	31.1	9	5	0.03
Number of Social Workers	0.40	35.3	58	5	0.03
Number of Psychiatric Nurses	2.0	6.5	104	53	0.05

Ref. Mental Health Atlas, 2005

Source: National Disaster Management Guidelines, Psycho-social Support and Mental Health Services in Disasters, NDMA, New Delhi, December 2009

It has been recognised that most of the disaster-affected persons experience stress and emotional reactions after a disaster as a 'normal response to an abnormal situation'. While some of the survivors would be able to cope by themselves, a significant proportion of them may not be able to do so effectively. In the absence of appropriate and adequate support, these survivors experience emotional distress and decline in social functioning, thereby requiring psycho-social support and mental health services³⁴. Statistics indicate that at the end of the first year, over two-thirds of the affected population recover, leaving one-third having significant symptoms that disable them.

There is strong evidence that the experiences of the people subsequent to the disaster have direct relevance to recovery. The more the problems and life difficulties the survivors experience during the recovery phase, the more persistent will be their emotional reactions. This warrants appropriate interventions in accordance with the phase of recovery of the affected population with the diminished social supports being built for speedy recovery³⁵.

It is estimated that nearly 90% of survivors undergo these emotional reactions immediately after the disaster. However, it reduces to 30% over a period of time with psychological reactions to stress, leading to a change in behaviour, relationships and physical or psycho-social situations. Continuation of the situation leads to an abnormal pattern and long-term mental illness among the survivors, if not attended to³⁶.

³⁴ National Disaster Management Guidelines, Psycho-social Support and Mental Health Services in Disasters, NDMA, New Delhi, December 2009

³⁵ Sujata Satapathy, Psychosocial Care in Disaster Management, NIDM, New Delhi, 2009

³⁶ National Disaster Management Guidelines, Psycho-social Support and Mental Health Services in Disasters, NDMA, New Delhi, December 2009

Disaster Case Study: Fire in Sabarmati Express and Subsequent Gujarat Communal Riots 2002

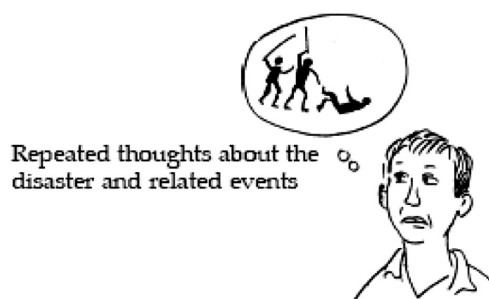
Physical impact

Stomach-aches, Diarrohea, Headaches, Body aches, Burns (heat, acid), Physical impairments (limbs, sight, voice, hearing), Injuries (bullet, sharp objects and others), Fever, Cough and Cold, Miscarriage, Physical Assault.



Emotional reactions

Anger, Betrayal, Irritability, Revenge-seeking, Fear, Anxiety, Depression, Withdrawal, Grief, Addiction to pan masala, cigarette, beedi, Drug abuse.

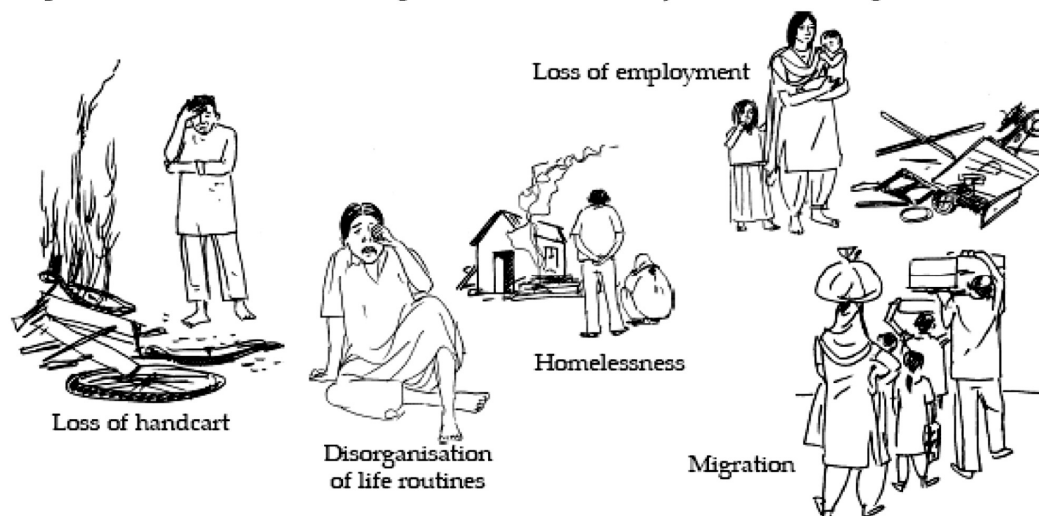


Repeated thoughts about the disaster and related events



Socio-economic impact

Loss of trust between communities, Lack of privacy, Single parent families, Widows, Orphan state with loss of both parents, Discontinuity in educational plans.



Source: Sujata Satapathy, Psychosocial Care in Disaster Management, NIDM, New Delhi, 2009

Key concepts of disaster mental health

The report “Developing Cultural Competence in Disaster Mental Health Programmes: Guiding Principles and Recommendations” notes:

The following concepts should be adopted by all disaster mental health providers, including those serving culturally diverse survivors. The concepts can also help administrators and service providers set programme priorities. The concepts deviate in some ways from those on which mental health work has traditionally been based. However, their validity has been confirmed again and again in disasters of various types that have affected a broad range of populations (DHHS, 2000a).

- No one who sees a disaster is untouched by it.
- There are two types of disaster trauma—individual and community.
- Most people pull together and function adequately during and after a disaster but their effectiveness is diminished by the effects of the event.
- Stress and grief in disasters are normal reactions to abnormal situations.
- Many emotional reactions of disaster survivors stem from problems of daily living brought about by the disaster.
- Disaster relief assistance may be confusing to some survivors. They may experience frustration, anger, and feelings of helplessness related to Federal, State and private sector disaster assistance programmes.
- Most people do not see themselves as needing mental health services following a disaster and will not seek such services.
- Survivors may reject disaster assistance of all types.
- Disaster mental health assistance is often more practical than psychological in nature.
- Disaster mental health services must be tailored to the culture of communities where they are provided.
- Mental health workers should set aside traditional methods, avoid mental health labels and use an active outreach approach to intervene successfully in disaster.
- Survivors respond to active, genuine interest and concern.
- Interventions must be appropriate to the phase of the disaster.
- Social support systems are crucial to recovery.

(Source: Box 3 - Jean Athey; Jean Moody-Williams. Developing Cultural Competence in Disaster Mental Health Programmes: Guiding Principles and Recommendations. 2003. http://www.diversitypreparedness.org/Topic/Subtopic/Record-Detail/18/audienceld_15872/resourceId_16080/)

Impact on children of NGO efforts, Indian Ocean Tsunami, 2004

Topic: Helping children

The psychological impact of a disaster is harder to see than the physical effect, yet recovery from it often takes longer. Along with the unbearable feeling of loss, there is guilt at having survived, at not having been able to help more. The simplest of human

gestures — a hug, a listening ear, words of support — provide comfort. Yet, it is essentially difficult for children to understand what happened. They suffer nightmares, they react with tears. For these children, life will never be the same.

The Tsunami killed one or both of their parents and “home” is now the Anna Satya Orphanage in Nagappatanam. Run by the Indian Government, the centre provides food and healthcare for 135 children. In Hambatota, many children lost their parents at the Sunday fair in the centre of town which was swept away by the Tsunami. The Sri Lanka and Danish Red Cross Societies provide psychosocial support to these new orphans. Most of them want to say something. Some try to. Some cannot. They are scared of the sea and of the dark. “These children will need time, understanding and a lot of love,” says a Red Cross counsellor. (Source: “Tsunami: A Tribute”, 2005, IFRC and Red Crescent Societies, p.59-62.)

Source: IRP, UNDP, ISDR, Guidance Note on Recovery, Psycho-social, 2010

Common psycho-social and mental health consequences of disasters

A. Psycho-social consequences

1. Exacerbation of pre-existing (pre-disaster) social problems (e.g. extreme poverty, belonging to a group that is discriminated against or marginalised).
2. Disaster induced social problems (e.g. family separation; disruption of social network, destruction of the community structure, resources and trust, unemployment, homelessness, increased gender-based violence).
3. Humanitarian aid-induced social problems (e.g. undermining of the community structure or traditional support mechanism).

B. Mental health consequences

1. Exacerbation of pre-existing problems (e.g. severe mental disorder, alcohol abuse).
2. Disaster-induced problems (e.g. grief, non-pathological distress, depression and anxiety-related disorders like post-traumatic stress disorder (PTSD)).
3. Humanitarian aid-related problems (e.g. anxiety due to lack of information about food distribution).

It should be noted that mental health and psycho-social problems in disasters encompass far more than the experience of PTSD.

Source: Inter-Agency Standing Committee Guidelines on Mental Health and Psycho-Social Support in Emergency Settings, Geneva, (2007)

The recovery, rehabilitation and reconstruction phases in disaster could stretch for a few years depending upon the magnitude of the disaster and its effects on the community. Therefore, PSSMHS efforts shall not be limited to psycho-social first-aid only but will extend for a longer period during the recovery and rehabilitation to cater to long-term efforts of psycho-social trauma. Such efforts will aim at enhancing individual and

community capability for a better development at personal and community levels to bring back normalcy in the affected community to a maximum level as well as to provide intensive support to the high-risk groups³⁷.

Provision of holistic care is most crucial for fast and appropriate rehabilitation and recovery of the disaster survivors. The most important step in psycho-social care and recovery process is to recognise that psycho-social care is essential for the entire population experiencing a disaster³⁸.

The following summary of basic issues in psychosocial care, principles for providing psycho-social support and techniques of disaster psycho-social care is based on the Training of Trainers Module on Psycho-social Care in Disaster Management by NIDM, New Delhi, 2009.

- | | | |
|--|---|---|
| • Compensation Claims | 1. No one who experiences or witnesses the event is untouched by it | • Ventilation |
| • Paralegal aid | 2. Disaster stress and grief reactions are normal responses to an abnormal situation | • Empathy |
| • Psycho-social support | 3. Disaster results in two types of trauma (individual and collective/physical and mental) | • Active listening |
| • Education of children/social service | 4. Disaster mental health services must be tailored to the needs of specific communities to be served | • Social support |
| • Self-care | 5. Interventions must be appropriate to the phase of disaster | • Externalisation of interests |
| • Means for livelihood | 6. Support systems are crucial for recovery | • The value of relaxation |
| • Housing & habitat aid | 7. Attitude of the caregiver | • Turning towards religion and spirituality |
| • Medical care | | |

In the post-Tsunami phase in India, the WHO along with the Department of Social Welfare, United Nations Team for Recovery Support (UNTRS) and partners has developed a model for providing sustained, low-cost community-based volunteer-provided support systems. Community-level workers who are the anchors for this programme are selected from various categories of people, including teachers, health workers and members of self-help groups, etc., who have volunteered for this purpose. A cascading system of training was developed and in Tamil Nadu, 2813 Community-Level Workers (CLWs) were trained in the 11 affected districts. They were able to support more than 30,000 families and 150,000 individuals³⁹.

³⁷National Disaster Management Guidelines, Psycho-social Support and Mental Health Services in Disasters, NDMA, New Delhi, December 2009

³⁸Sujata Satapathy, Psychosocial Care in Disaster Management, NIDM, New Delhi, 2009

³⁹Sujata Satapathy, Psychosocial Care in Disaster Management, NIDM, New Delhi, 2009

Well-regarded even before the Tsunami for blending Buddhist values, gender equality and counselling principles in an innovative approach to mental health, the psychologists, psychiatrists and counsellors with the Damrivi Foundation in Colombo, Sri Lanka, saw a gap in trauma counselling to Tsunami-affected individuals and set out to address it. With UNIFEM support, they developed a compressed but rigorous training programme to certify counsellors for work in affected areas but with a difference: the young women students who were accepted for skills training in this free course were themselves Tsunami-affected and able to work well with women. They returned directly to their own communities to offer vital counselling informed by fundamental Buddhist principles. The Foundation also worked with affected children and developed gender-sensitive guidelines on mental health as well as on violence against women.

Source: Tsunami Global Lessons Learned Project Steering Committee, The Tsunami Legacy Innovation, Breakthroughs and Change, Tsunami Global Lessons Learned Project, 2009

According to the NDMA following PSSMHS activities should be conducted during recovery, rehabilitation and reconstruction phases. (NDMA Guidelines, 2009)

- i. The rehabilitation and reconstruction interventions need to be flexible and based on affected community and community assessment needs. Periodic assessment of mental health and psycho-social needs shall be carried out to define physical, social and economic factors and factors which perpetuate mental health disorders. Based on the assessment, special attention and care will be given to more vulnerable and high-risk groups in the community.
- ii. The effective service delivery of PSSMHS during this phase shall require proper inter-sectoral coordination and networking among the Government, non-government organisations and civil society. The authorities concerned at the State and the district levels shall coordinate with the organisations working on livelihood-generating activities and vocational training to ensure the integration of PSSMHS with general recovery and health.
- iii. For long-term follow-up, the district authorities shall ensure a development of Standard Operating Procedures (SOP) so that a proper rapport is established between care providers and survivors in the community.
- iv. The PSSMHS support services shall be strengthened to the extent that appropriate outreach services can also be provided to those who are suffering from mental illness. It would be necessary to activate the services to adopt self-care methods at the individual, family and community levels.
- v. The premise of PSSMHS is to strengthen the coordination and to streamline the efforts of institutions providing PSSMHS. Appropriate outreach services should be planned and implemented to identify those in need of mental health services. A structured needs assessment is to be done on individual, family and work aspects of the caregivers to provide holistic care.
- vi. All the activities related to PSSMHS both by Government and non-government organisations need to focus on the larger development of the community to improve the quality of life (QoL) after disasters.
- vii. Stress due to life events subsequent to the disaster needs to be taken into consideration during the recovery phase. The PSSMHS teams need to be sensitive on these dimensions while planning interventions for the survivors and their families.
- viii. Special attention shall be given to the effect of the life events subsequent to disaster and

lifestyle changes that may occur subsequent to disasters. Increased uses of alcohol, substance abuse, family violence are some of the issues that shall be addressed by PSSMHS during this phase.

- ix. The rights of the children among survivors as well as the international convention stipulations for this vulnerable group shall be taken into consideration. Child trafficking and violence against children need to be tackled.
- x. Caring for the orphan children and semi-orphan children needs to be given priority and the emotional and behavioural issues arising among the children need to be addressed by the PSSMHS professionals available at the district level.
- xi. The cultural sensitivity is a crucial component of PSSMHS intervention. While providing intervention, the organisations as well as the care giver need to be sensitised towards the individual, family and community cultural sensitivity.
- xii. Ensuring care to the caregivers must be part of the intervention plan. The help and support must start from day one of the intervention and must be continued throughout rescue, relief and rehabilitation and recovery phases.
- xiii. Monitoring and evaluation of PSSMHS are essential to track the progress of the intervention. The district authorities will work out a well-structured mechanism in collaboration with the national and zonal nodal agencies for technical inputs for developing well-structured measures. The developed mechanism shall be rehearsed during the mock drills and simulation exercises.
- xiv. Human rights needs of the disaster survivors shall be adequately taken care of during the recovery and rehabilitation phases of disaster at macro level. A code of conduct to preserve human rights while providing intervention shall be formulated as part of response plans by Government and non-government organisations. Cultural sensitivity being a crucial component of PSSMHS intervention, the organisation with caregivers shall be sensitised towards individual, family and communities accordingly.

Gender issues in recovery

Unfortunately, current experience and research point to the fact that the majority of recovery efforts to date reflect traditional gender stereotypes that largely prioritise the needs and contributions of men. Male-biased perspectives dominate policies and intervention processes, often excluding women from equitable compensation and assistance and subsequently placing them at even greater risk of future harm of hazards and disasters. Damage, needs and vulnerability assessments too often fail to capture the different impacts of disasters and disaster response on men and women. Additionally, the immense contributions women make to recovery too often go unrecognised, while the marginalisation of their skills and knowledge limits their opportunities to play a greater role in building back better⁴⁰.

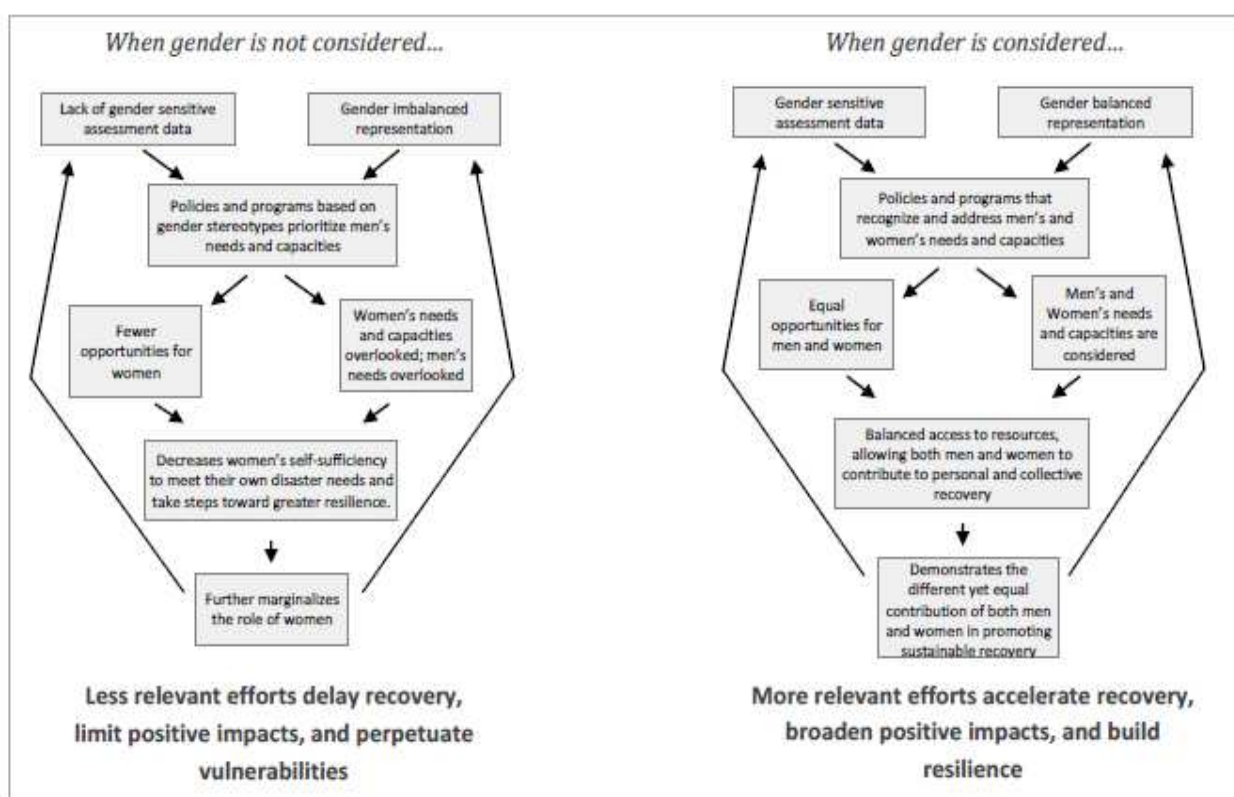
Building back better encompasses a number of dimensions with gender-specific implications, beyond the erection of strengthened physical infrastructure. It involves paying attention to a range of issues from compensating women for the losses of their tools and assets that is often overlooked, through providing childcare for fathers and mothers, to supporting the formation of men and women groups and strengthening human

⁴⁰ IRP, UNDP, ISDR, Guidance Note on Recovery Gender, 2010

development. Mainstreaming gender into reconstruction provides for faster and deeper recovery, in addition to the benefits gained in promoting gender equality and addressing gender-based vulnerabilities (WBI, 2009)⁴¹.

Gender influence on the recovery process

Gender issues pervade every aspect of disaster recovery, cutting across all the traditional sectors of common recovery initiatives. How temporary or permanent housing is designed and built, what health services are provided and how and the type of livelihood assistance provided and to whom are all issues which affect men and women differently and to which each can contribute. Gender perceptions also directly influence the vulnerability of populations to future disasters. Unless addressed both in recovery efforts and longer term development goals, recovery programmes may simply perpetuate the same gender inequalities and corresponding disaster vulnerabilities.



Six principles for engendered relief and reconstruction⁴²

⁴¹ IRP, Knowledge for Recovery Series info kit 1

⁴² IRP, Knowledge for Recovery Series info kit 1

1. Think big

Gender equality and risk reduction principles must guide all aspects of disaster mitigation, response and reconstruction. The “window of opportunity” for change and political organisation closes very quickly. Plan now to:

- Respond in ways that empower women and local communities.
- Rebuild in ways that address the root causes of vulnerability, including gender and social inequalities.
- Create meaningful opportunities for women participation and leadership.
- Fully engage local women in hazard mitigation and vulnerability assessment projects.
- Ensure that women benefit from economic recovery and income support programmes, e.g. access, fair wages, non-traditional skills training, childcare/social support.
- Give priority to social services, children’s support systems, women centres, women “corners” in camps and other safe spaces.
- Take practical steps to empower women, among others:
 - consult fully with women in design and operation of emergency shelter
 - deed newly constructed houses in both names
 - include women in housing design as well as construction
 - promote land rights for women
 - provide income generation projects that build non-traditional skills
 - fund women’s groups to monitor disaster recovery projects

2. Get the facts

Gender analysis is not optional or divisive but imperative to direct aid and plan for full and equitable recovery. Nothing in disaster work is “gender neutral.” Plan now to:

- Collect and solicit gender specific data.
- Train and employ women in community-based assessment and follow-up research.
- Tap women’s knowledge of environmental resources and community complexity.
- Identify and assess sex-specific needs, e.g. for home-based women workers, men’s mental health, displaced and migrating women vs. men.
- Track the (explicit/implicit) gender budgeting of relief and response funds.
- Track the distribution of goods, services, opportunities to women and men.
- Assess the short- and long-term impacts on women/men of all disaster initiatives, monitor change over time and in different contexts.

3. Work with grassroots women

Women community organisations have insight, information, experience, network and resources vital to increasing disaster resilience. Work with and develop the capacities of existing women groups such as:

- Women groups experienced in disasters.
- Women and development NGOs; women environmental action groups.
- Advocacy groups with a focus on girls and women, e.g. peace activists.
- Women neighbourhood groups.
- Faith-based and service organisations.
- Professional women, e.g. educators, scientists, emergency managers

4. Resist stereotypes

Base all initiatives on knowledge of difference and specific cultural, economic, political and sexual contexts, not on false generalities:

- Women survivors are vital first responders and rebuilders, not passive victims.
- Mothers, grandmothers and other women are vital to children's survival and recovery but women's needs may differ from children's.
- Not all women are mothers or live with men.
- Women-led households are not necessarily the poorest or most vulnerable.
- Women are not economic dependents but producers, community workers and earners.
- Gender norms put boys and men at risk too, e.g. mental health, risk-taking, accident.
- Targeting women for services is not always effective or desirable but can produce backlash or violence.
- Marginalised women (e.g. undocumented, HIV/AIDS, low caste, indigenous, sex workers) have unique perspectives and capacities.
- No "one size fits all": culturally specific needs and desires must be respected, e.g. women's traditional religious practices, clothing, personal hygiene, privacy norms.

5. Take a human rights approach

Democratic and participatory initiatives serve women and girls best. Women and men alike must be assured of the conditions of life needed to enjoy their fundamental human rights, as well as simply survive. Girls and women in crisis are at increased risk of:

- Sexual harassment and rape.
- Abuse by intimate partners, e.g. in the months and year following a major disaster.
- Exploitation by traffickers, e.g. into domestic, agricultural and sex work.
- Erosion or loss of existing land rights.
- Early/forced marriages.
- Forced migration.
- Reduced or lost access to reproductive healthcare services.

- Male control over economic recovery resources.

6. Respect and develop the capacities of women

Avoid overburdening women with already heavy workloads and family responsibilities likely to increase.

- Identify and support women's contributions to informal early warning systems, school.
- And home preparedness, community solidarity, socio-emotional recovery, extended family care.
- Materially compensate the time, energy and skill of grassroots women who are able and willing to partner with disaster organisations.
- Provide childcare, transportation and other support as needed to enable women's full and equal participation in planning a more disaster resilient future.

Adapted from Gender And Disaster Network January 2005

HIV and AIDS awareness incorporated into recovery efforts

In India, the Tsunami-affected States were already reeling from a long-term battle with HIV and AIDS. In fact, the prevalence rates there, as the National AIDS Control Society pointed out, were the highest in the country. Taking this fact as their point of departure, the United Nations Tsunami Framework in India, decided to integrate HIV and AIDS components into their recovery and rehabilitation work, in as much as possible. With the Government's inclusive and equitable approach in mind, UN and partners wanted to ensure that the benefits of recovery would reach this vulnerable group.

Since HIV and AIDS programmes are traditionally difficult to socialise and risk exacerbating stigmas attached with the diseases, the ability to mainstream them in the wider Tsunami recovery effort provided a unique opportunity to improve the impact and reach of programming related to the diseases. HIV and AIDS elements were incorporated across the board in Tsunami programmes in India. In addition, partners ensured that HIV and AIDS patients had access to Tsunami relief projects and were not excluded from vital services.

Critically, the efforts were in line with the Indian Government's own campaign to address HIV/AIDS issues and therefore saw enthusiastic participation from a host of NGOs and civil society organisations as well. As detailed in the national plans, the affected States faced an urgent need to prevent further spread of the epidemic and to increase HIV/ AIDS awareness among the affected population. Health information available today indicates that the new approach – using the recovery as a conduit through which to expand ongoing programmes – bore fruit. The infection rate in affected States dropped dramatically, in some places down by several percentage points.

Source: Tsunami Global Lessons Learned Project Steering Committee, The Tsunami Legacy Innovation, Breakthroughs and Change, Tsunami Global Lessons Learned Project, 2009

Flood Disasters learning from previous relief and recovery operations⁴³

LESSON 1 – FLOOD RISK REDUCTION

Structural measures for flood control: Integrated flood management activities, not stand-alone approaches, are required. One of the key reasons why projects go wrong is that they are approved on the basis of technical information alone, rather than based on both technical information and local wisdom (ActionAid, 2005).

Community preparedness against flood: Creating functional groups, developing organisational capacities and enabling them to link with the national disaster management mechanisms are effective ways of strengthening preparedness at the community level.

Early warning: Early warning has little relevance if people do not have the ability to respond to warnings in terms of taking decisions on preventive actions and evacuation.

Search and rescue: Initial search and rescue measures depend largely on the local community and authorities, so strengthening local capacities is an effective disaster mitigation measure.

Living with floods: The core idea is to address people's critical vulnerabilities to floods and to ensure that the gap between demand and supply of key services (i.e. clean water, sanitation, early warning, food and health) is met through sustained preparedness and contingency planning.

LESSON 2–BUILDING OWNERSHIP AND ENGAGING WITH LOCAL CAPACITY

Effective flood responses are those that are build on people's existing ways of dealing with floods and complement their coping mechanisms, resources and social capital.

Participation: Unless affected people are involved – and not merely consulted – in determining their needs and in participating in project design and management, the impact of emergency or long-term interventions is likely to be limited.

The right to information: Information is a right that enables people to claim other rights. Access to information allows a community's own recovery plan to drive the recovery process. It is essential, therefore, that an affected population can receive useful information (IFRC, 2005).

LESSON 3–NEEDS ASSESSMENT FOR RELIEF AND REHABILITATION

Conditions on the ground, not artificial programme cycles, should inform programme phases.

Flood response generally better meets requirements where **assessment is an ongoing process** and is responsive to changing conditions.

People's needs and the flood's impact are not linked solely to the level of water and **the conditions of their lives and livelihoods do not necessarily improve when the water recedes.**

Assessment should go beyond current needs to assess structural causes of vulnerability.

LESSON 4–TARGETING AND MONITORING

A targeting strategy that is flexible enough to adapt to different phases and interventions is the most **effective way to reach the most vulnerable people**. Ensuring such flexibility requires a monitoring process that uses data categorised by gender, age and vulnerability (DEC, 2001a),

⁴³Khurshid Alam with support from Maurice Herson and Ian O'Donnell, "Flood Disasters learning from previous relief and recovery operations" ALNAP, ProVention, 2008.

reviews changes in need and can manage the emergence of new categories of people needing assistance.

People whose houses are not inundated may be left out of flood response interventions even though the flood may adversely disrupt their livelihoods.

Targeting criteria for development programmes may not be appropriate in relation to vulnerabilities to disaster.

LESSON 5–LIVELIHOODS RECOVERY

Quick and effective recovery from the impact of floods depends significantly on how quickly livelihoods are restored.

Asset protection: Helping people to protect their assets during and after a flood not only makes it easier for them to recover quickly but also reduces future vulnerability and poverty.

Household food security: How floods affect food security is a complex matter to which there is no straightforward response. Floods destroy standing crops. Prolonged flooding often limits people's ability to earn money and replant quickly after floodwaters recede because either the cropping season is over or agricultural support is not available. Vulnerable people should be given various financial and material options so that they can choose what works best for them.

Agricultural rehabilitation: Many flood-prone areas are also rich agricultural lands. Assistance in the form of tools, seeds, fertiliser, capital and training, for example, can help people restore their agriculture.

LESSON 6–LOCAL ECONOMY AND MARKET

Floods affect not only household livelihoods but also **the local economy** within which household livelihoods operate.

LESSON 7–WATER, SANITATION AND HEALTH

Good understanding of water and sanitation conditions, disease surveillance, speedy response to warning and above all, preparedness of health agencies are the preconditions to reduce the spread of diseases and preserve the quality of the environment during and after flooding.

LESSON 8–SHELTER AND HOUSING

Quick provision of temporary shelter reduces exposure, can help to limit the outbreak of disease and allows people to move quickly out of community shelters, which may be needed for schooling or other community facilities. Reconstructing permanent housing in large-scale disasters may take a long time. In such cases, temporary or transitional shelter should have adequate facilities (for water and sanitation and cooking) (SCF, 2005) and a system should be in place to monitor conditions of shelter (AIDMI, 2005).

Preferences in housing vary by sex and age. An effective owner-driven approach means that key decisions are taken by the owners and that NGOs and the Government support their decisions with resources and technical inputs (AIDMI, 2007). After the Tsunami, in Aceh, participation helped to integrate important aspects such as water and sanitation in the design of houses (Oxfam 2006).

If a housing strategy is to be successful, materials should be chosen with care to ensure that they have multiple uses, can protect people from climatic conditions and do not adversely affect the local environment (Oxfam, 2006; AIDMI, 2005; ECHO, 2002).

LESSON 9–MANAGING NATIONWIDE RESPONSE AND COORDINATION

A pluralistic institutional environment and decentralised capacity with horizontal and vertical coordination and information flow have worked well in responding to large-scale floods in Africa and South and Southeast Asia. Coordination at both national and local levels is absolutely necessary for nationwide coordination to be effective (DEC, 2000a; World Bank, 2005a).

Module 5: Key Role of Policymakers in Driving Recovery

Module objective

Explain damage assessment process and strategies for financing reconstruction and long-term recovery, including 'building back better' practices from past disaster recovery experiences.

Contents

1. Long-term Recovery Continuum
2. Launching Emergency Response and Establishing Effective Coordination Mechanism
3. Guiding Damage Assessments and Prioritising Recovery Needs
4. Establishing New and Strengthen Existing Recovery Organisation(s)
5. Develop Reconstruction and Rehabilitation Policies and plans
6. Linking Recovery Efforts with Mainstream Development Activities
7. Financing Recovery

Key objectives

- Explain long-term recovery continuum
- Familiarise with key roles of policymakers in recovery process
- Share requirements of effective recovery
- Explain damage assessment process and strategies for financing recovery

Key concepts

- The post-disaster recovery phase provides a 'window of opportunity' for disaster risk reduction
- Accurate post-disaster damage

Recommended readings

1. Finance Commission. Report of Thirteenth Finance Commission, Government of India
2. Finance Commission. Report of Thirteenth Finance Commission 2010-15
3. Ian Davis, Visiting Professor, Cranfield, Coventry and Kyoto Universities, Key Note Speech (<http://www.recoveryplatform.org/>)
4. IASC Cap Sub-working Group. 2007. Needs Analysis Framework. Strengthening the analysis and presentation of humanitarian needs in the Cap
5. ICRC. 2008. Guidelines for assessment in emergencies. International Reduction of Red Cross and Red Crescent Societies

assessment and need analysis facilitates efficient and effective utilisation of existing logistics • Capacity of nodal recovery organisation is key in guiding other Government line departments, local civil society organisations, international agencies and donors and most importantly the victims	6. ISDR and IRP. 2007. Learning from Disaster Recovery Guidance for Decision Makers 7. Ministry of Home Affairs, Government of India, Disaster Management in India, 2011 8. Ministry of Home Affairs. 2010. Standard Operating Procedure for Responding to Natural Disasters. Government of India 9. NDMA. 2009. National Policy on Disaster Management 2009. Government of India. 10. ProVention Consortium. 2009. Practice Review on Innovations in Finance for Disaster Risk Management. 11. Tsunami Global Lessons Learned. The Tsunami Legacy. Innovation, Breakthroughs and Change. 12. The Royal Government of Bhutan, World Bank and United Nations. 2009. Joint Rapid Assessment for Recovery, Reconstruction and Risk Reduction. Bhutan Earthquake. 13. UNDP, IRD and ISDR. Guidance Note on Governance. 14. UNDP. Post-Disaster Recovery Guideline. Version 1. 15. UNDP, IRC and ISDR. Guidance Note on Recovery Infrastructure. 16. US National Disaster Recovery Framework, Draft, February 5, 2010
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Module 5: Key Role of Policymakers in Driving Recovery

Long-term recovery continuum

In this module, we try to understand key role of policymakers in recovery process. Key activities in long-term recovery as narrated in the US Disaster Recovery Framework are presented below to introduce the scope of post-disaster recovery.

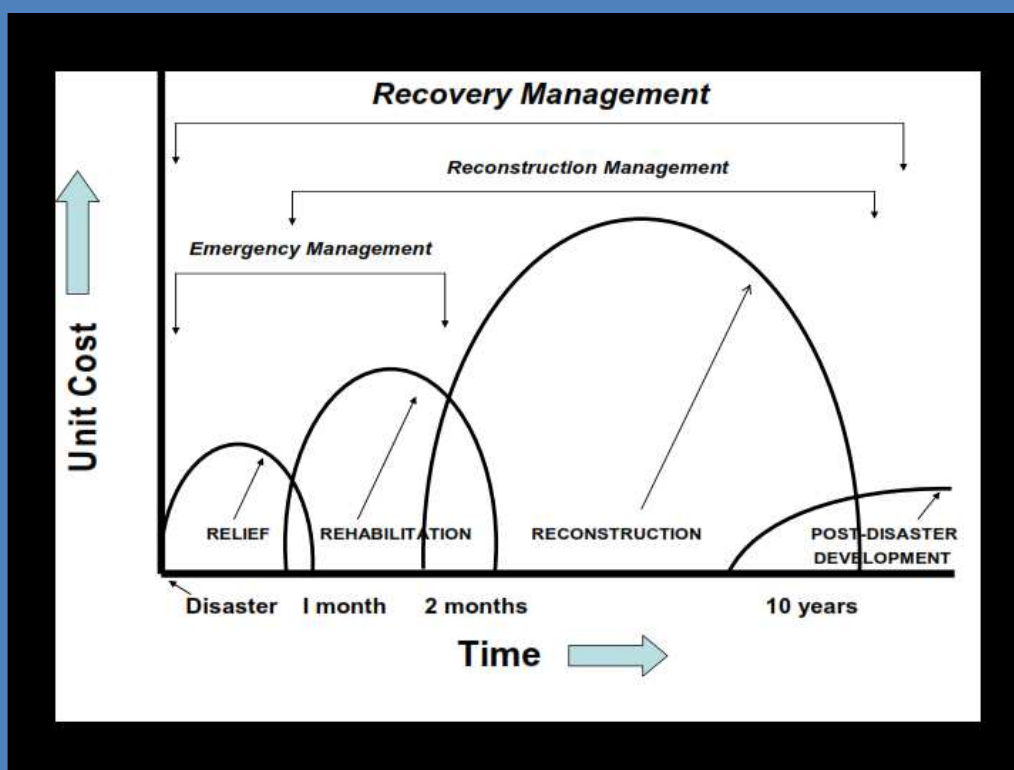
Long-term recovery is the phase of recovery that follows intermediate recovery and may continue for months to years. Examples include the complete redevelopment and revitalisation of the damaged area. It is the process of rebuilding or relocating damaged or destroyed social, economic, natural and built environments in a community to conditions set in a long-term recovery plan. The goal underlying long-term redevelopment is the impacted community moving towards self-sufficiency, sustainability and resilience. Activities may continue for years depending on the severity and extent of the disaster damages as well as the availability of resources and include the following:

- Identifying of risks that affect long-term community sustenance and vitality.
- Developing and implementing disaster recovery processes and plans such as a long-term recovery plan and/or reflecting recovery planning and mitigation measures in the community's land use planning and management, comprehensive plans, master plans and zoning regulations.
- Rebuilding to appropriate resilience standards in recognition of hazards and threats.
- Addressing recovery needs across all sectors of the economy and community and addressing individual and family recovery activities and unmet needs.
- Rebuilding educational, social and other human services and facilities according to standards for accessible design.
- Re-establishing medical, public health, behavioural health and human services systems.
- Reconfiguring elements of the community in light of changed needs and opportunities for "smart planning" to increase energy efficiency, enhance business and job diversity and promote the preservation of natural resources.
- Implementing mitigation strategies, plans and projects.
- Implementing permanent housing strategies.
- Reconstructing and/or relocating, consolidating permanent facilities.
- Implementing economic and business revitalisation strategies.
- Implementing recovery strategies that integrate holistic community needs.
- Implementing plans to address long-term environmental and cultural resource recovery.
- Ensuring there is an ongoing and coordinated effort among local, State, tribal and federal entities to deter and detect waste, fraud and abuse.
- Identifying milestones for the conclusion of recovery for some or all non-local entities.

Source: US National Disaster Recovery Framework, Draft, February 5, 2010

Fifteen requirements of effective disaster recovery⁴⁴

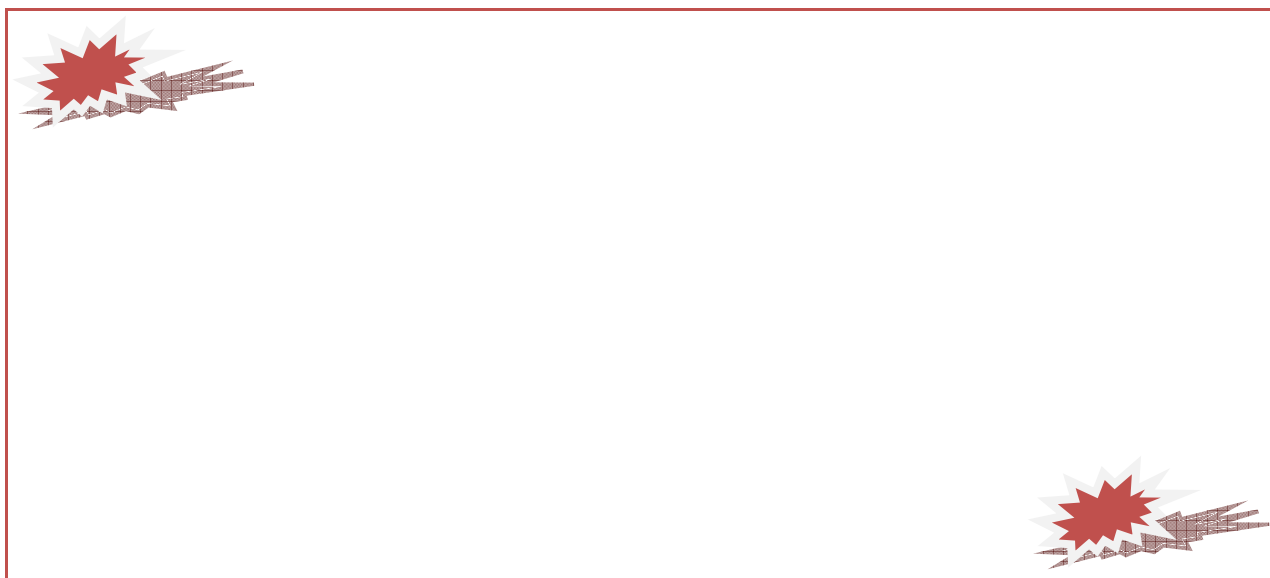
1. The need to learn lessons from the experience of recovery experiences and apply them in new operations.
2. The need to secure goals of Hyogo Framework of Action.
3. The need for an integrated and comprehensive risk reduction strategy, made up of structural and non-structural measures.
4. The need for Business Continuity Planning (BPC) to ensure that economic recovery is both rapid and effective.
5. The need to build a 'Safety Culture' that relates to all aspects of a given society.
6. The need to create resilient communities, resilient environments and resilient economies.
7. The need to build capacities at all levels of societies.
8. The need for recovery organisation to be close to the apex political power, without removing responsibility from key line departments.
9. The need for all bodies assisting in recovery to become accountable in both 'downward' and 'upward' directions.
10. The need for rapid housing recovery that minimises discomfort and avoids wasting resources.
11. The need to resolve key dilemmas faced in recovery management such as speed vs. many conflicting factors.
12. The need to understand different elements of disaster management and how these expand and contract in different phases of a typical timeline.



⁴⁴ Source: Ian Davis, Visiting Professor, Cranfield, Coventry and Kyoto Universities, Key Note Speech (<http://www.recoveryplatform.org/>)

13. The need to recognise importance of gender factors in recovery management.
14. The need to establish a 'Disaster Recovery Management Information System' (DRMIS).

The following concept is developed to explain how effective policymaking can help accelerate recovery efforts of both Government and communities.



Launching emergency response and establishing effective coordination mechanism

Key success factor in any emergency response is pre-disaster preparedness and agile local administration. Policymakers have key role in both pre-disasters response planning and guiding post-disaster responses. Coordination with different stakeholders is the key and it continues process throughout the recovery process.

Following any major disaster, a number of players arrive on the scene and as already stated, ensuring proper coordination amongst them becomes very important. Recovery activities are taken up by Government agencies, local bodies, international agencies, voluntary organisations and others through separate, overlapping and uncoordinated interventions. This leads to imbalances in the scale of operations, duplication of efforts in some areas, gaps in others and leakage and misuse of resources. Therefore, establishing a framework for coordination is necessary for effective recovery. The role of voluntary organisations, including international ones like the Red Cross, is extremely useful for mitigating the impact of disaster⁴⁵.

⁴⁵ Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

In the last decade or so India and its neighbouring countries have witnessed number of innovative coordination mechanism established to guide recovery processes. For example post-Tsunami, Tamil Nadu Tsunami Resource Centre (TNTRC) was established to coordinate post-Tsunami recovery operations in India.

The administration is also required to set up a voluntary organisations' coordination centre to coordinate the relief and rehabilitation activities of the multiple organisations so that they are not concentrated in a few pockets. It is often observed that post-disaster recovery efforts tend to focus on rapid and visible solutions to restore normalcy at the cost of sustainable development. The post-disaster recovery phase provides a 'window of opportunity' for disaster risk reduction. Risk reduction aspects should therefore be built into the redevelopment process⁴⁶.

Guiding damage assessments and prioritising recovery needs

When disaster occurs, in the rush to plan and execute a response, it is inevitable that the real needs and capacities of the victims to help themselves are overlooked. Policymakers have key role in guiding appropriate PDNA activities and base their policies on accurate estimates and evidences from such assessments.

The first step after stabilising the situation by providing sufficient relief is to assess the damage. A meticulously executed assessment exercise would provide an ideal base for the rehabilitation efforts. This exercise is best carried out through multi-disciplinary teams which go into all aspects of damage (social, economical, psychological) in participation with the local community. Based on the assessment of the damage and the needs, a recovery strategy has to be formulated. The strategy should include all interventions – economic, social, political and psychological. The resources should be identified and the roles and responsibilities of all concerned should be defined.

Source: Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

Establishing new and strengthen existing recovery organisation(s)

Capacity of nodal recovery organisation is the key in guiding other Government line departments, local civil society organisations, international agencies and donors and most importantly the victims. The nodal recovery organisation should be selected or evolved depending upon the situation and should be empowered to manage recovery operations. The Gujarat model of recovery led by GSDMA has been largely successful in managing recovery and is an example to recovery organisation evolved post disaster.

⁴⁶Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

A system of accountability needs to be evolved during the relief and rehabilitation phase. This system should ensure that the relief material reaches the target groups and that the funds are being utilised efficiently and optimally. A grievance redressal mechanism should also be put in place⁴⁷.

Five examples of organisational models for the management of disaster recovery follow⁴⁸.

1. No existing prior management structure for disaster recovery

This is not as unusual as it may seem as there are circumstances in which the primary and immediate pressures of emergency response can forestall earlier consideration of managing recovery activities. This tendency may be prevalent within a country, either because of a poorly developed disaster preparedness and management capability, the previous existence of few emergency situations in recent history or the costly result from divisive or un-reconciled questions of various Government authorities or jurisdiction. Alternately there may be the unexamined assumption that the "disaster emergency services", howsoever they may be defined or professionally equipped, are "naturally" suited to attend to responsibilities of managing the recovery process. This has seldom proven to be the case and is even rarer for such a management structure to conduct a successful recovery programme. Should such an obvious gap exist in the analysis of any country's disaster and risk management capabilities, an "early recovery" strategy can be a useful and motivating initiative.

2. Work within existing Governmental structures

Considering the relative scale of a disaster, Governments may seek to organise a recovery strategy by using the normal line ministries and related service departments or agencies of Government without any significant organisational changes. Mozambique applied this combined management and operational model in the recovery process following the floods of 2000 and 2001. This structure may be appropriate where there has been significant prior experience of recovery management, or where there are strong disaster management systems in place. Its success is very much dependent upon there being a high level of preliminary planning or well-practised administrative and operational procedures. Arrangements equally need to be in place to ensure additional capacity in Government departments to cope with the increased demands, which may stretch over a considerable time period.

⁴⁷ Ministry of Home Affairs, Government of India, Disaster Management in India, 2011

⁴⁸ IRP, ADRC, ISDR, UNDP, Learning from Disaster Recovery Guidance for Decision Makers, May 2007

3. Form a new recovery task force or "special" commission

A tendency which frequently occurs as an "initial idea" is for a Government to form an ad hoc task force or special Government commission to manage the recovery process. Occasionally, multiple or separate ad hoc task forces or commissions are called for simultaneously by different branches of Government. When an *ad hoc* commission is more thoroughly considered or initiated to manage the recovery process, it is typically composed of designated representatives from existing ministries or Government agencies led by a senior Government official. This pattern is often followed at first but its inherent capabilities can be overwhelmed by the scale and complexity of the task that it is called upon to manage. In such a situation, the task force or commission may evolve into a modified form or new organisation, reconfigured to address evident problems that have emerged.

This model was used following the Mexico City earthquake in 1985. The President of Mexico created two emergency commissions that were not part of the existing National Emergency Plan. One commission was designated to address issues at the national level of responsibilities while the other could concentrate on the specific requirements in the city itself. Multiple task forces were created after the Baguio earthquake in the Philippines in 1989, when the Office of the President, Parliament, the Armed Services and the National Disaster Management Agency all sought to act "urgently and decisively". Two years later, following the volcanic eruption of Mount Pinatubo in the Philippines, an initial task force dedicated to coordinating the more immediate emergency responsibilities evolved into a Mount Pinatubo Rehabilitation Commission to manage the ongoing disaster consequences over a longer time period following the eruption as well as into the recovery process.

More recently, a task force was the initial approach adopted in Sri Lanka following the Tsunami but experienced some difficulties in being able to take timely decisions at some distance from the local level of activities.

4. Create a new recovery organisation

Creating a new, purpose-designed management organisation within Government is an easily identified but not uncomplicated option. In extraordinary circumstances, there can be a rationale for such a new organisation for the following reasons:

- To cope with the magnitude of resources being allocated and managed, especially in cases that require the careful and complex administration of international grants and loans.
- To balance and manage effectively the multiple and often unprecedented demands that cross various sectoral, ministerial and jurisdictional interests.
- Much of the work associated with recovery is additional to the existing workload of Government departments, also bearing in mind the continuing responsibilities of

Government in other areas of the country that may not have been directly affected by the disaster.

- In disaster-affected countries with already fragile Governments or a turbulent society, a degree of unified continuity is essential if any extent of recovery is to succeed. Purpose-designed organisations dedicated to the recovery tasks that may invite non-partisan commitment can serve a wider cause by firmly establishing a basis for disaster and risk management through recovery practice.

If such a distinctive management organisation is considered to be appropriate, then it should be placed at the apex of political power and authority as within the Office of the Prime Minister or President but with the maintenance of key and senior-level linkages to all of the needed implementation ministries. This may be preferable to locating the authority within an individual ministry as the work of recovery can benefit greatly from the broad perspectives of the Central authority, especially in the early stages of recovery. Such a body may be established with legislative authority and the expression of either priority or limited responsibilities. It also may be given a specific target date to complete the recovery programme, although some of the previous examples suggest that such a pre-determined expectation may be unwise and be better served during the course of ongoing monitoring and evaluation recommendations.

Experience also suggests that the vital coordination of line ministries in recovery planning and management is more likely to be effective when it is under an over-arching authority, rather than extending from within a specific ministry or department. While operational capacities remain within the various line ministries, it is important to emphasise that key officials and politicians concerned with the recovery need to be drawn from existing line ministries. This is crucial to avoid potential conflicts, duplication or inappropriate sectoral competition for resources.

A dedicated disaster management organisation has to cope with a "scaling-up" to cope with the expansion of resource flows and the workload. This process requires the prioritisation of tasks. Within the organisation, new mechanisms will be needed and new resources will be required to make things happen. Both the financial implications of creating a new organisation, as well as long-term political concerns figure prominently as potential drawbacks. There can also be numerous other measures to get "quickly right" in such an organisation as to relative size, scope, political prerogatives, balance between Central, provincial/State and local authorities in decision-making, etc. There is a limited margin for error in both the political arena and the public eye, not least in striking an effective balance between policy expediency and practical implementation that is able to meet the fundamental recovery needs of the people concerned.

The approach can work well and there are favourable lessons as can be obtained from the recovery process following the earthquake in Gujarat, India, in 2001. Variations of this model were also applied and adjusted to local needs and conditions in both Sri Lanka and Indonesia during their respective Tsunami recovery operations. As Bill Clinton commented when he was the UN Secretary General's Special Representative for Tsunami-Affected Countries:

"But let's start with the good news. I applaud Indonesia's and Sri Lanka's decisions to create dedicated recovery institutions empowered to make the right decisions and the leaders selected are able and off to a good start. They have direct reporting lines to their chief executives which is good. And we can already see the benefits in some of these areas." Clinton (2006)

While experience shows that it is best to mount the recovery and reconstruction effort on existing institutional frameworks, if a new structure is to be put in place, it should have the major objective of achieving a strong level of cohesion, coordination and consensus amongst different stakeholders, around:

- Definition of recovery/development policies, priorities and strategic guidelines.
- Formulation/implementation/oversight of recovery proposals.
- Monitoring of progress.
- Establishing a permanent dialogue and consensus space with civil society, opposition parties, private sector, international cooperation agencies, donors and lending agencies.
- Maintain transparency, accountability and good governance in the process as well as a strategic communications and information campaign.

Specific recommendations on institutional arrangements of recovery and reconstruction, based on prior experience, include:

- 1) Any new structure should be very small with clear roles and responsibilities shared politically and socially.
- 2) It should be inserted in the current Government structure and using existing capacities.
- 3) An exit or assimilation strategy should be defined from the start to allow the smooth transition between recovery, reconstruction and development.
- 4) A coordination mechanism should not substitute stakeholder participation. Recovery stakeholders are development stakeholders and it is important to keep the development mentality with a fast-track implementation mechanism.
- 5) *Ad hoc* recovery bodies should be focused on developing coordination, monitoring and evaluation functions. Recovery programmes should be implemented through line ministries and public agencies, although with faster mechanisms.
- 6) The governing body should include Cabinet members, line ministries and representatives of political stakeholders.
- 7) A technical body should also be established, acting as a secretariat of the recovery and reconstruction structure. Line ministries and national implementing institutions should be represented in the secretariat, whose functions will be the technical oversight of the recovery/reconstruction activities.

The main challenge in devising an institutional arrangement for recovery and reconstruction is to combine a rapid implementation mechanism that does not undermine the existing institutional framework or affect the ongoing good governance mechanisms.

Source: UNDP, BCPR – DRU, Post-disaster Recovery Guidelines (Version 1)

5. Create a new recovery organisation that evolves into a permanent body

New organisations charged with managing recovery can evolve into a permanent body with reconfigured disaster and risk management or other related preparedness functions. This is what transpired following the Popayan earthquake in Colombia in 1983. Ten years later, the organisation responsible for managing the recovery process evolved into a regional environmental body. Where this happens, a well-conceived or broadly-defined national disaster management authority may be lacking. This form of evolution may not always be suited to the particular needs of a country but it does offer some insight into the dynamic management and organisational needs of disaster and risk management in various country circumstances.

Develop reconstruction and rehabilitation policies and plans

Select case examples of key governance issues in recovery⁴⁹

Inadequate Government leadership in the wake of Hurricane Mitch (Ownership)

Following are extracts from a multi-sector evaluation of the Honduran recovery from the disaster unleashed by Hurricane Mitch in 1998. The evaluation was prepared by the ProVention Consortium and the World Bank. Hurricane Mitch was an exceptional event. It hit Honduras (and other areas of Central America, especially Nicaragua) from October 25 to November 1, 1998. The hurricane remained static over the isthmus for days, resulting in the largest natural disaster experienced in Honduras in recent memory. Honduras was particularly vulnerable to its effects because of environmental degradation (such as deforestation), rapid population growth, inadequate infrastructure (especially for flood management), and massive disparities in the distribution of wealth, which resulted in extremely vulnerable living conditions for the poorest. Economic losses were estimated at some US\$ 4 billion.

A policy of “all aid is welcome” was adopted. This resulted in a supply-driven recovery phase (i.e., the recovery was driven largely by what was offered) rather than a demand-driven process (i.e., that Honduras would plan clearly what should and should not be done and provided). No clear criteria existed to determine who was affected by Mitch, to what degree and therefore who might be eligible for what state and/or international assistance. Without such a basic requirement, coherent, nationwide strategies and programmes could not be established. This was compounded by the fact that the public at large did not receive regular, clear and unequivocal information on their entitlements to assistance and how to access support.

⁴⁹ IRP, UNDP, ISDR, Guidance Note on Recovery, Governance, 2010

Nonetheless, coordination in the group was mainly limited to bilateral donors and competition and duplication was evident among many international agencies. International recovery efforts worked best where international agencies already had a presence in the country, since they knew partners and the local context. Some international organisations arrived with little or no prior experience in the country, and with staff unable to speak Spanish.

Donors implemented construction projects directly as well as through NGOs and municipal offices. Many bilateral donors funded companies from their own countries. Similar to NGOs, donors “adopted” municipalities. Direct implementation was often favoured due to a perceived shortage of national capacity (a perception shared by some Government officials), a desire to retain financial control and a desire to benefit from both the visibility and from the return of a portion of their investment to their own economies. It also reflects a broader international trend to move away from multilateral channels and mechanisms in all phases of international aid. A considerable opportunity to boost national capacity, which in itself would have contributed to transformation, has thus been lost. (p. 20)

The State was unprepared in terms of policies, systems and resources for rapid recovery. Government leadership, organisation and overall capacity were inadequate. Occasionally, individual leadership capacities compensated somewhat for an absence of preparedness. The municipal and community-level help was key in the recovery phase. However, the capacities of municipalities varied widely. While most were chronically weak, some displayed greater capacity and were able to respond in the absence of external assistance.

Participatory housing project in El Salvador (Participation)

On January 13, 2001, an earthquake of magnitude 7.6 on the Richter scale shook El Salvador. About 3,000 homes were completely destroyed in the municipality of Lamaria and 13,440 people were affected. A project, called La Hermandad, was launched as a participatory housing reconstruction project in which 50 eligible families would receive food for the work involved in constructing the houses. The families chosen earned no more than two minimum salaries and had never have owned a house or a plot of land in their life.

Overall, the participants’ input in project design was limited to endorsing the housing design proposed by the NGO but with one extra demand: to add a wall around each individual plot of land. One adult per nuclear family had to work 150 hours per month, family members were to reside full-time on the construction site and they had to respect a series of regulations. In order to have access to a new anti-seismic house, 80% of the beneficiaries had to abandon their other remunerated activities in order to comply with the mandatory working hours and receive the food aid. This entailed a major or total loss of income for the entire duration of the reconstruction process. Due to various problems such as an overall increase in physical fatigue and health problems, partially due to

irregularity in food distribution and an unbalanced diet, project completion was delayed by several months.

The project also included a social component -- the creation of six “social committees” organised by a social worker. The purpose of this component was to foster a sense of community in La Hermandad, an objective which was regularly insisted upon during the monthly general assemblies, where project supervisors would encourage beneficiaries to get along better, work harder (as the project was lagging behind) and realise that they were now forming part of a “new community”.

This communitarian ideal, a standard in both development and reconstruction projects, remained precisely that, an ideal. With little decision-making authority, the social committees remained ineffective, divisions between beneficiaries increased over time as lack of income and physical exhaustion became difficult to endure, while at the same time workers were asked to perform harder and faster. Furthermore, project leaders banned a participant’s initiative to form a local representative body with official legal status, so long as the construction process was still underway. In other words, they did not wish to see their authority undermined by an initiative, which could have indeed enhanced a sense of social cohesion among the beneficiaries.

Sources: Truths and myths about community participation in post-disaster housing projects, Retrieved from <http://www.cbr.tulane.edu/PDFs/davidsonetal2006.pdf>

Facilitating coordination through information systems in Aceh (Communication/coordination)

To collect and analyse data on reconstruction projects implemented by delivery partners, the Recovery of Aceh and Nias (RAN) Database, a relatively low-tech, robust ICT system was designed. The information held in RAN database was intended to assist the BRR to coordinate more effectively, pinpoint gaps and overlaps in the recovery process and work to resolve bottlenecks and issues that are holding agencies back. The online system also enabled partner organisations to enter and access data themselves.

Data entry was initiated through a project concept note (PCN), which each implementing partner was obligated to submit for approval before initiating a recovery project. From these notes, critical information on key performance indicators, funding source, sector, location and budget allocation was registered into the RAN database. The RAN database system automatically captured all data as supplied by PCNs to the database. It contained information on approval and progress of all projects based on the BRR PCN approval system, as well as monitoring data based on key performance indicators.

To facilitate its use and to answer questions regarding all reporting obligations, an outreach team was established within BRR and a focal point assigned to each organisation. To raise awareness in the recovery community, presentations were made by the outreach team at each of the main recovery forums to emphasise the key dates of

data collection and the message of mandatory submission. An awareness leaflet regarding the process of data submission was also circulated and additional Q&A sessions provided across the islands.

Over 1,100 donor and implementing partners participated in this online data sharing, directly providing up-to-date, transparent and accountable information on the progress of reconstruction works. With the RAN database, BRR, the involved organisations and the general public had access to a real-time information base to support the overall reconstruction process by: measuring progress, identifying gaps, addressing implementation problems and improving the planning of interventions.

Sources: UNDP Emergency Response and Transitional Recovery Report, Retrieved from <http://www.undp.or.id/pubs/docs/ERTR%20Annual%20Report%20251205.pdf>

OCHA Situation Report, retrieved from [http://www.reliefweb.int/rw/RWFiles2005.nsf/FilesByRWDocUnidFilename/EVOD-6HQDBW-ocha-idn-31oct.pdf/\\$File/ocha-idn-31oct.pdf](http://www.reliefweb.int/rw/RWFiles2005.nsf/FilesByRWDocUnidFilename/EVOD-6HQDBW-ocha-idn-31oct.pdf/$File/ocha-idn-31oct.pdf)

Information flow and coordination mechanisms in rehabilitation work in Aceh: An overview of the FAO Role, retrieved from <http://www.fao.org/docrep/010/ag116e/AG116E16.htm>

Twinning cities for surge capacity in China (Capacity strengthening)

Following the 2008 Sichuan earthquake, the Government of China implemented a strategy to provide additional resources to affected populations throughout the relief and recovery phases. The strategy, called 'twinning', linked several badly impacted counties and cities with other Chinese provinces and municipalities. These partnerships aimed to assist affected areas with resources, personnel and moral support for recovery. Teams of doctors, public health professionals and sanitation and disease control experts were immediately dispatched to the affected partner country, a reported 1–3% of the annual gross domestic product of sponsor provinces was pledged towards long-term recovery efforts in the affected county for at least three years. For example, Wenchuan County, the epicentre of the earthquake, was paired with wealthy Guangdong Province for long-term reconstruction assistance, including the provision of medical personnel to replace staff lost in the earthquake and the training of Wenchuan-based staff in teaching hospitals in Guangdong

Source: Lessons from the Sichuan Earthquake, retrieved from <http://www.odihpn.org/report.asp?id=3008>

Financial tracking system to improve coordination and increase accountability in Haiti (Accountability)

The Haitian Government, in partnership with UNDP, launched an online portal to promote the efficient use of the more than \$9 billion pledged by donors to help the country recover from devastating earthquake in January 2010. This database, called

"The Haitian Platform for Public Investment" is intended to help the Haitian Government to:

1. Track funds pledged by over 60 donors;
2. Hold donors to their promised pledges and
3. Ensure the transparency and accountability of the use of the funds.

The system was tailored to the context-specific needs of the Haitian Government while addressing the conditions of the many donors. The online portal was developed by the same authors responsible for the Development Assistance Database and has incorporated changes based on lessons learned from use in over 25 countries. The system tracks the money from pledge to impact, showing how funds are planned and actually spent by whom and for what. It also includes contributions and support from non-governmental organisations (NGOs) as well as the private sector.

The system which incorporates data from the Post-Disaster Needs Assessment and the Reconstruction Plan will assist decision-makers to match pledges with needs based on empirical data and using advanced analytics. The system will provide details on past and current projects as well as any gaps that might exist in areas of development and humanitarian assistance. Publicly accessible, the portal will allow people of Haiti as well as the national and international media to monitor the use of the funds, report on the progress and hold their elected representatives and other recovery actors accountable for how those funds are spent.

The site can be accessed at <http://www.refondation.ht/>

Source: UNDP, retrieved from <http://content.undp.org/go/newsroom/2010/april/new-online-portal-to-promote-efficient-use-of-aid-in-haitian-earthquake-recovery.en;jsessionid=a0RZO5p59eca>

Linking recovery efforts with mainstream development activities

Various employment generation schemes, especially those such as the National Rural Employment Guarantee Scheme (NREGS) assure financial relief to needy families in drought-affected areas. They can be easily integrated with relief programmes to increase the availability of funds for relief expenditure. Another scheme that has been effectively dovetailed with calamity relief is the Indira Awas Yojana (IAY), which has accomplished useful relief work in terms of providing housing to the affected families. Ten per cent of the annual allocation under IAY is earmarked for this purpose. Similar allocation (5 per cent) is also made under the Accelerated Rural Water Supply Programme (ARWSP)⁵⁰.

Long-term recovery case studies

Case study: Orissa Super Cyclone 1999

A report on Orissa Super Cyclone 1999 recovery titled as “Evaluation Study of Rehabilitation & Reconstruction Process in Post Super Cyclone, Orissa” is included in the reading materials and is also available on http://planningcommission.nic.in/reports/sereport/ser/study_of_reh.pdf.

This report was prepared in 2007 by the GRAMIN VIKAS SEWA SANSTHAN and submitted to the Planning Commission, Government of India. The study aims at evaluating the degree of success in relief, rehabilitation and reconstruction activities undertaken after the super cyclone and ascertaining the achievements and the progress from the perceptions of the affected people. The study covered ten districts of Orissa badly affected by the super cyclone of 1999. The study was conducted in 100 villages, 10 in each of 10 selected districts of Orissa hit by the super cyclone of 1999.

Case study: 2001 Gujarat Earthquake and 2004 India Ocean Tsunami

Comprehensive case studies on 2011 Gujarat Earthquake and 2004 India Ocean Tsunami are documented in “The role of the affected State in humanitarian action: A case study on India” by Gareth Price and Mihir Bhatt, Humanitarian Policy Group, Overseas Development Institute, April 2009. The document is included in the reading material and is also available on <http://www.odi.org.uk/resources/docs/4281.pdf>.

It aims to describe the essential elements of approach to disaster management as seen in its response to the 2001 Gujarat earthquake and the 2004 Indian Ocean Tsunami. The

⁵⁰ Thirteenth Finance Commission (2010-2015) of Government of India

study also analyses policy trends in India's disaster response, focusing on the 2005 Disaster Management Act⁵¹.

Financing recovery

This section of the module is drawn mainly from the Report of Thirteenth Finance Commission (2010-2015) of the Government of India. Relevant experiences on financing recovery are added from review of available literature on the topic from various national and international organisations to provide better understanding on the topic.

Considering that the assistance provided by the Government for rescue, relief, rehabilitation and reconstruction needs cannot compensate for massive losses on account of disasters, new financial tools such as catastrophe risk financing, risk insurance, catastrophe bonds, microfinance and insurance, etc., will be promoted with innovative fiscal incentives to cover such losses of individuals, communities and the corporate sector. In this regard, the Environmental Relief Fund under the Public Liability Insurance Act, 1991, enacted for providing relief to chemical accident victims is worth mentioning. Some financial practices such as disaster risk insurance, microfinance and micro-insurance, warranty on newly constructed houses and structures and linking safe construction with home loans will be considered for adoption⁵².

Existing system

The existing system of financing relief expenditure, mainly revolves around the Calamity Relief Fund (CRFs) maintained at the State level and the National Calamity Contingency Fund (NCCF) at the Central level. Both these funds target immediate relief measures and exclude measures for mitigation or post-calamity reconstruction. The CRF is a resource available to the States to meet the expenses of relief operations for a range of specified calamities. The NCCF is a national fund to provide assistance to States for calamities of rare severity, beyond the coping capacities of the States' CRFs. While the total amount of assistance for the CRFs is decided by Finance Commissions on the revealed needs of individual States, the NCCF has a dedicated source of funding through a special duty on selected items.

1. Calamity Relief Funds

The Calamity Relief Funds, as in operation today, are broadly based on the recommendation of FC-IX. They are used to meet the expenditure for providing immediate relief to victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst and

2. National Calamity Contingency Fund

The National Calamity Contingency Fund is operated under the broad framework laid down by FC-XI. It has a core corpus of Rs. 500 crore and is replenished through the National

⁵¹ HPG, ODI, "The role of the affected state in humanitarian action: A case study on India," Gareth Price and Mihir Bhatt, April 2009

⁵² Ministry of Home Affairs, Gol, NDMA, National Policy on Disaster Management, 2009

pest attack. The essential features of the CRFs are as follows: - The fund is maintained in the public account of the State. - Seventy-five per cent of the fund is financed by the Centre and 25 per cent by the respective States. - The Centre's share is paid in two instalments, the second instalment to be released only after receipt of the Annual Report on Natural Calamities giving the details of expenditure incurred on relief. - The fund is administered by a State-Level Committee (SLC) headed by the Chief Secretary of the State. - Unspent balances in the fund are to be invested from time to time and the interest earned accrued to the fund. - The Ministry of Home Affairs is the nodal ministry for overseeing the relief operations for all natural calamities other than drought, hailstorm and pest attack for which the Department of Agriculture and Cooperation is the nodal department. - The unspent balances in the CRFs at the end of FC-XII award period can be used to finance the State plans if FC-XIII recommends the discontinuation of the scheme. The Ministry of Home Affairs has issued detailed guidelines on the items and norms of expenditure for assistance from the CRF. The Central Government has released Rs. 12,208 crore under the CRF in the four-year period 2005-09 against the Rs. 12,547 crore share recommended by FC-XII for the same period.	Calamity Contingent Duty imposed on cigarettes, pan masala, beedis, other tobacco products and cellular phones. Its other features are: - It is maintained in the public account of the Government of India. - It is administered by a high-level committee comprising the Agriculture Minister, Home Minister, Finance Minister and the Deputy Chairman of the Planning Commission. - The claim on the NCCF is made through a memorandum submitted by the State Government, which is assessed by a Central team deputed for the purpose. The report of the team is assessed by an inter-ministerial group, which makes recommendations to the high-level committee for release. - The assistance from the NCCF is only for immediate relief and rehabilitation and not for any reconstruction of assets or restoration of damaged infrastructure. Over the period 2005-09, the Central Government has released Rs. 7677 crore to States for various calamities.
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3. Additional Central Assistance

In order to finance post-disaster reconstruction which is not covered under the NCCF, Additional Central Assistance (ACA) has been given to States in recent years, particularly for the Gujarat earthquake of 2001, the Indian Ocean Tsunami of 2004, the Kashmir earthquake of 2005 and the Kosi floods of 2008 in Bihar. In the year 2008-09, Rs. 645 crore has been released to 10 States under ACA for long-term reconstruction of assets,

including Rs. 180 crore to Arunachal Pradesh, Rs. 98 crore to Gujarat, Rs. 92 crore to Himachal Pradesh, Rs. 73 crore to Andhra Pradesh and Rs. 65 crore to Tamil Nadu.

4. Convergence with Centrally-sponsored schemes

Various employment generation schemes, especially those such as the National Rural Employment Guarantee Scheme (NREGS) assure financial relief to needy families in drought-affected areas. They can be easily integrated with relief programmes to increase the availability of funds for relief expenditure. Another scheme that has been effectively dovetailed with calamity relief is the Indira Awas Yojana (IAY), which has accomplished useful relief work in terms of providing housing to the affected families. Ten per cent of the annual allocation under IAY is earmarked for this purpose. Similar allocation (5 per cent) is also made under the Accelerated Rural Water Supply Programme (ARWSP).

5. Disaster Management Act, 2005

The Act provides for a Disaster Response Fund (DRF) and a Disaster Mitigation Fund (DMF), each at the national, State and district levels. The National Disaster Response Fund (NDRF) shall be administered by the NEC to meet the expenses for emergency response, relief and rehabilitation in accordance with the guidelines laid down by the Central Government in consultation with the NDMA. The National Disaster Mitigation Fund is to fund projects exclusively for the purpose of mitigation and is to be administered by the NDMA. Similar provisions have been made for the State and District Disaster Response and Mitigation Funds.

The Act states that both the national funds shall be credited an amount which the Central Government may provide after due appropriation made by Parliament by law. The NDRF may receive any grants that may be made by any person or institution for the purpose of disaster management. However, there is no analogous provision for the State and district funds.

Review of the existing schemes: summary of key findings

- The current schemes of the CRF and the NCCF have served their purpose well.
- With the Disaster Management Act, 2005 coming into force and the funds envisaged constituted (NDRF and DMF), after notification of the relevant sections of the Act, co-existence of the CRF/NCCF and the funds envisaged under the Act would, in our opinion, be an unnecessary overlap.
- While earlier Commissions had recommended creation of a high-level committee and State-Level Committees at the Central and State levels, respectively, the Act provides for clear administrative structures from the Central to the district level in terms of disaster management authorities and executive committees. In view of the specific statutory provisions in the Act, we feel it would be necessary to ensure that there is no duplication of administrative structures as a result of the transition.
- While the vulnerability of various parts of the country to disasters is high, the current

level of insurance penetration in India is less than one per cent across the country. Pooling of risk of disaster at the individual level is therefore a big challenge. Insurance schemes do not provide an adequate alternative to Government funding for disaster relief.

Summary of key recommendations

With the introduction of the Disaster Management Act, 2005, the entire spectrum of disaster management will have to undergo a revamp in accordance with the provisions of the Act.

Financing arrangements

We, therefore, recommend that the existing NCCF be merged into the NDRF proposed under the Act with effect from 1 April 2010 and that the balances in the NCCF at the end of 2009-10 be transferred to the NDRF. As far as financing of the NDRF is concerned, as per the Act it should be credited with amounts that the Central Government may provide after due appropriations made by Parliament. FC-XI had recommended a corpus of Rs. 500 crore for the NCCF. Experience shows that the appropriations from the budget to the fund have consistently been of a much higher order. Hence, we recommend that while making the appropriations, past trends of outflows from the NCCF/NDRF be taken into account to ensure availability of adequate funds for calamities of a severe nature. Since, with the introduction of Goods and Services Tax (GST) all cesses are expected to be subsumed in the tax structure, alternative sources of financing shall have to be identified and necessary budgetary provisions made, linked to the expenditure from the NDRF in the previous year.

Similarly, it is our view that the CRFs may be merged into the SDRFs constituted under the Act as on April 1, 2010, and that the balances in the CRF as at the end of 2009-10 be transferred to the SDRFs. Although some States have suggested that unspent balances in the CRF be allowed to be used for plan financing, we feel that using these as an opening balance in the SDRFs would provide a cushion to the States in terms of financing relief expenditure. This will also bring about the required continuity in the existing scheme of relief financing. Regarding financing of the SDRF in the future, in view of the experience with the CRF, it is essential that Central and State Governments jointly contribute to this fund.

With the DM Act coming into force, the primary responsibility of disaster relief has been cast upon the States. The Act is silent on the source of funding of the SDRFs. However, in our opinion it may not be prudent to assume that the entire requirement for relief can be met out of the States' resources. The existing system of CRF has proved to be beneficial and has had a wide degree of acceptance among the State Governments. Any radical departure from this dispensation may not be desirable. There is, therefore, a sound case for examining the issue of Central funding for the SDRFs.

International experience indicates that the practice that is broadly followed, even in

countries where disaster management is the primary responsibility of the State/Provincial Governments, is that there are in place schemes/programmes of the Federal/Central Government for providing financial assistance to sub-national units in relief works. We, therefore, recommend that for general category States, the SDRFs should be funded by the Central and State Governments in the ratio of 75:25 respectively as in case of the CRF. However, since funding of their 25 per cent share may overstretch the fiscal capacity of the special category States, we recommend the funding of the SDRFs in the ratio of 90:10 by the Central and State Governments, respectively, for the special category States.

Disaster mitigation

As far as disaster mitigation is concerned, we believe that it should be a part of the plan process and that the expenditure therein should be met out of the plan resources of the respective ministries of the Union and the States. This is also advisable as there are already schemes at the Central as well as State levels that are targeted towards mitigation, in areas such as drought-proofing, flood and water management, soil erosion and promotion of earthquake-resistant structures. While we realise that the current levels of funding of these schemes may not be adequate, it is our view that this aspect is best left to be decided by the Planning Commission and the NDMA.

The Eleventh Five-Year Plan document emphasises the necessity of mainstreaming disaster management into development planning. It mentions that every development plan of a ministry/department should incorporate elements of impact assessment, risk reduction and the 'do no harm' approach. It further states that the State Governments need to give priority to hazard identification and risk assessment in their plans and schemes. On financing, it states that a portion of plan funds should be earmarked for efforts that, directly or indirectly, help in disaster management. It suggests that every project should provide adequately for disaster mitigation and management.

Allocations for the SDRFs

We are aware that, ideally, the best methodology to assess the requirement of the SDRF would be to base it upon the Hazard-Vulnerability-Risk profile of the States, as it would be a good indicator of the disasters that a State may face. However, we have found that there is no reliable exercise that maps the States on such a scale. Since the DM Act mandates the preparation of Disaster Management Plans at the national, State and district levels, we recognise that it would be both possible and useful to take up such an exercise in the future.

In the absence of any such reliable indicator at present, we have continued to adopt an expenditure-based approach, in line with the practice of the previous Commissions. We recommend the aggregate size of all SDRFs as Rs. 33,581 crore. As a prerequisite to this, the States should create the State Disaster Relief Fund in their respective public accounts (under interest bearing deposits) and transfer the balances under the CRF as on 31 March

2010 to the SDRF.

In our opinion, the provision to mandatorily constitute DDRFs under the DM Act merits a review. If DDRFs were to be maintained in the manner of the NDRF or the SDRF, States would lose the flexibility of pooling of resources for calamity relief and such an approach would only lead to fragmentation of resources without any tangible benefit. Hence, it may be left to the States to decide on whether they should constitute DDRFs or whether funds could be effectively routed to each district with the approval of SECs from the SDRF in the manner currently being followed under the CRF. Section 48(1) of the DM Act may, therefore, need to be amended to provide for such an option to the States.

List of calamities

In our opinion, as far as the SDRFs are concerned, the existing list of natural disasters adopted by the Finance Commissions has covered the needs of the States to a very large extent. The list covers most of the prevalent events. However, for very specific events that could even be manmade and require very high level of funding, but may have low chance of occurrence, financing of relief arrangements should best be left out of the SDRFs. The Government of India may consider financing disaster relief in respect of such manmade disasters out of the NDRF, after the list of eligible disasters has been drawn and the norms for funding carefully stipulated. If such manmade disasters are to be included, adequate additional budgetary allocations may have to be provided.

The Public Liability Insurance (PLI) Act, 1991, notified presently for specified quantities of 179 explosive, toxic and highly reactive chemicals, establishes the principle of liability for enterprises engaged in hazardous activities. Setting-up of the Environment Relief Fund (ERF) under the Act in 2008 has further strengthened its provisions. As on March 31, 2009, the ERF has a corpus of Rs. 285 crore. The legal framework, therefore, provides another source of relief for financing manmade disasters. The PLI Act needs to be strengthened by appropriate inflation indexation of the amount of relief provided in the schedule and by expanding the list of chemicals covered under the Act.

Capacity building

Effective disaster response requires trained manpower to deal with complex situations where effective and speedy handling can reduce the impact of a disaster on human life and property. It is necessary to continuously undertake measures to build capacity amongst those handling response and creating awareness amongst people. An additional grant of Rs. 525 crore is being recommended on the basis of the overall size of the SDRF of a State, wherein the allocated amount has been fixed at Rs. 5 crore, Rs. 15 crore, Rs. 20 crore and Rs. 25 crore if the average annual allocation for the concerned State is less than Rs. 50 crore, Rs. 100 crore, Rs. 200 crore and Rs. 500 crore respectively and at Rs. 30 crore if the allocation is more than Rs. 500 crore. This amount may be used for taking up activities for building capacity in the administrative machinery for better handling of disaster response and for preparation of district and State level disaster management

plans as envisaged in the DM Act.

Fund for pooled procurement

The role of the recently-created National Disaster Response Force is crucial in responding to disasters that are of a severe nature and require immediate relief to the affected. Our discussion with the NDMA and the State Governments highlighted the fact that procurement of relief material on short notice often comes with an associated premium in pricing and could adversely impact quality. It is suggested that a national inventory of equipment and material is maintained for providing immediate relief. It is also advisable to keep ready an inventory of items such as life saving equipment and tents, etc., with the National Disaster Response Force. We, therefore, propose that an initial grant of Rs. 250 crore, in the form of a revolving fund, be provided to the National Disaster Response Force for the purpose. Whenever these articles are used for responding to a calamity, the cost (or rent for those items that can be reused) should be booked to the overall cost of relief operations incurred by the State Government concerned and the inventory replenished on a regular basis.

Risk pooling and insurance

In our view, for high-frequency low-intensity disaster events, it would indeed be cheaper for the State Governments to directly provide disaster relief, as is being done presently, instead of going through an insurance intermediary. For low-frequency high-impact disasters, financing through insurance mechanisms is certainly a feasible option. However, given the low level of insurance penetration in India, insurance products covering disaster events may only materialise sometime in the future.

Administrative mechanism

The administrative mechanism envisaged in the DM Act needs to be put in place, clearly spelling out the powers and responsibilities at each level of the structure. The NDRF may be operated by the National Executive Committee, as provided in the Act, under the overall directions of the NDMA. Further, the SDRFs, including the grant, as recommended by the Commission, along with the State's share, may be operated by the State Executive Committee, as provided under the Act, under the overall directions of the SDMA. Currently, while the administrative aspects are dealt with by the Ministry of Home Affairs (other than a few disasters, as mentioned earlier), the financial matters are handled by the Ministry of Finance. We feel that this mechanism should be continued for the administration of the NDRF as well as the SDRF under the overall structure mandated by the DM Act.

Source: Report of Thirteenth Finance Commission (2010-2015) of Government of India, Chapter 11

International experience

Australia

In Australia, Emergency Management Australia (EMA) is the nodal agency for disaster management at the federal level. Natural disaster management is constitutionally a responsibility of the State or territory and EMA offers various programmes for effectively mitigating, responding to and recovering from their natural disasters. The Australian Government provides funding through the Natural Disaster Relief and Recovery Arrangement (NDRRA), which is administered by EMA on its behalf. Under the arrangement, a State or territory may claim NDRRA funding, if it has spent more than \$240,000 on relief and recovery expenditure in case of a natural disaster. The amount of NDRRA funding would depend on a pre-defined threshold derived on the State's revenue. The NDRRA applies to natural disasters like flood, storm, earthquake, cyclone, landslide, tsunami and the likes but does not apply to 'other unspecified events like drought, frost, heat wave, epidemic, etc.

The Australian Government also has a Natural Disaster Mitigation Programme which is aimed at identifying and addressing natural disasters in order of risk priority across the nation. Under this scheme, the Federal Government generally contributes up to one-third of the costs of the project, other than certain specific projects like installation of flood warning systems, infrastructure upgrades, etc., where it bears half the cost. Fifty per cent of the Central share is paid in advance by the Australian Government and the remaining 50 per cent is paid out in quarterly instalments on receipt of claims from the States.

United States of America

In the United States of America, the Federal Emergency Management Agency (FEMA), Department of Homeland Security, is the nodal agency for disaster management. FEMA administers various programmes for disaster mitigation response and recovery under the public assistance (PA) grant programme. Assistance is provided to States and tribal local bodies to enable communities to quickly respond to and recover from major disasters or emergency declared by the President. Under this programme, assistance is provided for debris removal, emergency protection measures, as well as repair, replacement or restoration of disaster-damaged, publicly-owned facilities. The federal share of assistance is not less than 75 per cent of the eligible cost for emergency majors and permanent restoration. FEMA also implements many disaster-specific assistance programmes like fire management assistance grant programme, flood mitigation assistance programme, national earthquake hazards reduction programme and repetitive flood claims programme.

FEMA also implements mitigation programmes like the Hazard Mitigation Grant Programme (HMGP) that provides grants to States and local Governments to implement long-term hazard mitigation measures after declaration of a major disaster. The purpose of the HMGP is to reduce loss of life and property due to natural disasters and to enable

mitigation measures to be implemented during immediate recovery from the disaster.

Canada

Public Safety (PS) Canada is the nodal agency for disaster management in Canada. In the event of a large natural disaster, the Government of Canada provides financial assistance to provincial and territorial Governments through the Disaster Financial Assistance Arrangements (DFAA), which is administered by PS Canada. The Government of Canada bears up to 90 per cent of the relief expenditure on a graded basis. Under this arrangement, the Government supports evacuation operations, restoration of public works and infrastructure, replacement or repair of basic essential personal property of individuals, etc. The Emergency Act of Canada has been put in place to strengthen the emergency management activities in the country. It sets out clear rules and responses for all federal ministries across the full spectrum of emergency management.

South Africa

The Disaster Management Act, 2002, of South Africa provides for national, provincial, and municipal disaster management centres. The primary responsibility of disaster management lies with the local and the provincial Governments. However, depending upon the intensity of the disaster, the National Government may intervene and provide adequate financial assistance (the Act provides for declaration of a disaster as local, provincial or national disaster). For the purpose of immediate relief, it maintains a Disaster and Emergency Fund, which is used to supplement the efforts of the local and provincial Governments and is operated by the Central Cabinet.

Activities relating to post-disaster reconstruction are funded from a national reserve established in line with budgetary requirements under the medium-term expenditure framework to provide contingency funds for a range of situations. The Act only deals with preparedness, response and recovery and leaves mitigation to be taken up by the respective ministries from their budgeted grants.

Japan

In Japan, the basic framework of disaster management is provided by the Disasters Countermeasures Basic Act, 1961. The Government provides various grants and loans to the Prefectural and Municipal Governments for their effort in meeting response and recovery expenditure.

Brazil

In Brazil, the nodal agency for disaster management is the National Civil Defence Secretariat. The Secretariat works in coordination with the State and Municipal Governments in case of activities relating to civil defence. These activities are funded, at the Central level, out of the Civil Defence Action Programme of the Union Budget. The

respective States and municipalities have similar budgetary provisions to meet the expenditure on disaster management.

Source: Report of Thirteenth Finance Commission (2010-2015) of Government of India, Chapter 11

Recovery planners must attempt to develop and convey an ideal projected reconstruction time frame that guides the scheduling and commitment of resources and ensures that the affected population has a realistic understanding of what lay ahead. After the occurrence of a disaster, for instance, it may take three to six months just to arrange the necessary financing and to finalise major planning decisions upon which reconstruction will be guided⁵³.

The States have also raised the issue of lack of clarity in the assessment of the quantum of assistance and releases. The Comptroller and Auditor General of India has acknowledged this issue in his performance review of Tsunami relief and has recommended that the Ministry of Home Affairs and the Ministry of Finance, in consultation with the State Governments, 'need to put in place a generally acceptable system/mechanism of assessment of the damage and determine at least the general criteria based on which the quantum of assistance would be determined in natural calamities so as to bring in transparency and institute a good management practice'.

⁵³ IRP, UNDP, ISDR, Guidance Note on Recovery, Infrastructure, 2010

Innovations in Finance for Disaster Risk Management

The tools

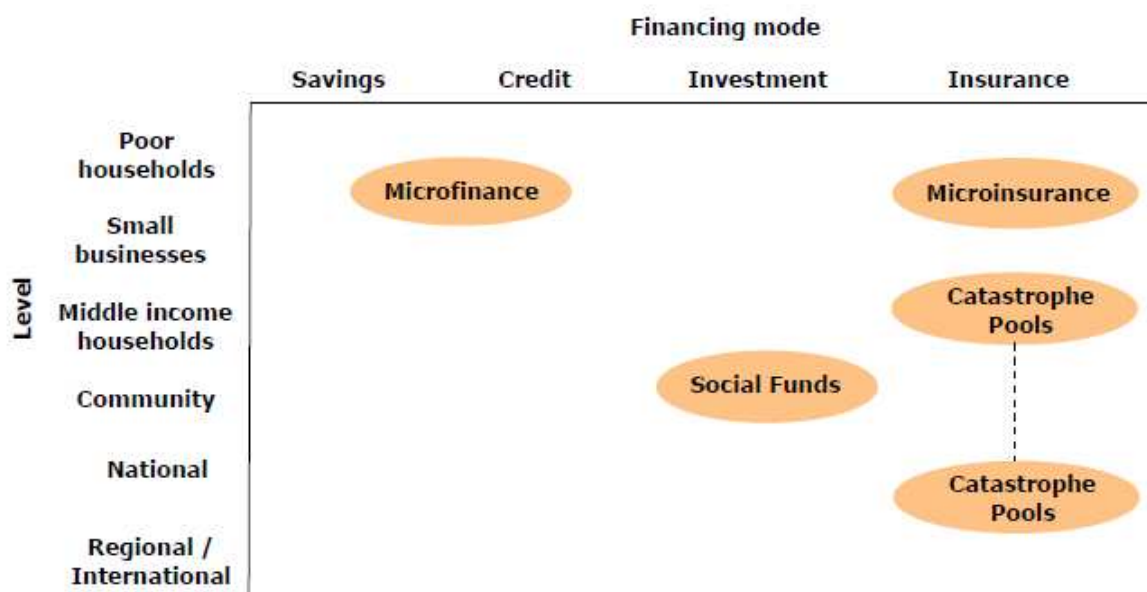


Figure 2. Mapping of key risk financing tools by social/geographic relevance and targeted financing modes.

Microfinance and Micro-insurance

It is often the case that microfinance and micro-insurance have been combined in packages of bundled financial services to poor communities. Such programmes often target the same communities and can benefit from economies of scale in distribution and administration networks at local levels. Microfinance and micro-insurance can also be quite complementary in meeting the financing needs of the poor for effective disaster risk management. While insurance can be effective for covering less frequent, larger shocks, other forms of financing such as savings and credit may be more flexible and efficient for addressing smaller shocks that occur on a more frequent and regular basis [Churchill 2006].

Case example: Microfinance in disaster recovery in Sri Lanka

Sri Lanka has a long tradition of microfinance and wide diversity in providers, including the national Government, commercial banks and finance companies, cooperatives, NGOs, and informal providers such as money lenders and shopkeepers. The CGAP Country-Level Effectiveness and Accountability Review (CLEAR) in Sri Lanka in October 2005 found that MFIs in Sri Lanka had achieved impressive outreach with more 15 million deposit accounts and two million outstanding micro-loans among a population of 20 million. The Indian Ocean

Tsunami significantly impacted MFIs operating in the affected coastal areas as many lost staff and clients in addition to critical materials such as client records.

Many clients had lost livelihood assets and income sources and most transactions involved withdrawals rather than deposits. However, despite the early setbacks MFIs ultimately proved to be a very valuable resource to bolster the resilience and speed the recovery of both existing and new clients. Early on in the response, many MFIs supported their clients by helping to distribute relief items and there was tremendous interest from many donors to build on the distribution networks that MFIs had previously established in the affected communities. However, this often led to confusion among clients between humanitarian grants and normal financial services which risked undermining the MFIs' efforts to sustainably provide market-based financial services over the long term. The high level of donor interest also led to imbalances between the supply of capital funds and the funding available for capacity building and ultimately to an over funding of poor performing credit institutions. Other MFIs avoided the call to involve themselves directly in relief activities and instead sought to maintain their focus on income generation and rebuilding.

One of the priorities for MFIs was to understand how their clients had been impacted, looking at whether the borrower or primary income earner had died or was disabled, whether business assets were lost, whether the client's house was damaged and whether the market for the business was significantly affected. The MFIs then restructured loans on a case-by-case basis for clients, generally only writing off loans in the case where the borrower had been killed or permanently disabled. Since the Tsunami, a number of MFIs have instituted reforms to offer their clients more protection in future disasters, including revamping group-lending structures to reduce situations where one person's default can pull the entire group into default and developing new products such as emergency loans or reconstruction loans to help clients cope.

Source: Aheeyar 2006, CGAP 2006, Women's World Banking 2005

Case example: Client impact study of micro-insurance schemes in South Asia

The All India Disaster Mitigation Institute (AIDMI), International Institute for Applied Systems Analysis (IIASA) and the ProVention Consortium facilitated a multi-partner review of existing micro-insurance schemes to examine the performance of micro-insurance in enabling and catalysing effective disaster risk management in poor communities. The review involved five micro-insurance organisations in South Asia to identify how the insurance may or may not have affected their client's resilience to disasters in terms of savings levels, debt loads, perceptions of risk and undertaking of prevention or mitigation measures.

Please include summary of findings + box on AfatVimo. Thank you.

Source: AIDMI

Social Funds

Social funds are not a risk financing mechanism per se but a grant funding mechanism for supporting community driven development that can and have been used to finance risk management measures. Social funds have been used for a variety of purposes to strengthen local infrastructure and services, including the establishment of microfinance and micro-insurance initiatives. By supporting community decision-making, social funds offer enhanced opportunities to link risk governance and development, market activity, and individual initiative at local levels. However, social fund investments in infrastructure and community facilities must also be protected by appropriate levels of insurance to ensure ongoing delivery of services.

Case example: Kecamatan Development Program (KDP), Indonesia

The Kecamatan Development Programme (KDP), implemented by the Government of Indonesia with support from the World Bank, provides block grants directly to kecamatan (administrative sub-districts) and villages for small-scale infrastructure, social and economic activities. The Urban Poverty Project (UPP) is a similar programme for urban areas. Prior to the Indian Ocean Tsunami the KDP had been initiated as part of post-conflict reconstruction efforts in Aceh. After the Tsunami this programme was scaled up and redirected to respond to recovery needs, taking advantage of the capacity building efforts and programme infrastructure that had already been developed.

Initially assessment information gathered by KDP programme facilitators and community leaders helped to inform local recovery planning as well as to develop priorities for additional KDP and UPP projects specifically to support recovery. Additional KDP and UPP funds were brought “on-budget” within the Government recovery programme approved in June 2005. Many villages emphasized capacity building and local employment generation rather than using outside labour for infrastructure development. While both of these steps delayed implementation, they benefited communities through increased employment and an increased sense of ownership necessary to maintain the investments in infrastructure facilities. Overall implementation proceeded more quickly than in many similar projects undertaken in other recovery programmes. By 2007 more than 1,500 projects have been initiated through the KDP and UPP as part of the recovery in Aceh and Nias, including reconstruction or new development of roads, bridges, schools, houses, water/sanitation systems, street lights, health clinics and waste disposal systems.

Scaling up the programme introduced a number of challenges. Campeau points out that there was insufficient coordination between community planning and priority-setting within the process of “village visioning” within KDP and the establishment of broader Government priorities for reconstruction. In Aceh, there were also challenges in scaling up the existing programme, particularly in developing systems to monitor the wide range of project activities across numerous villages that were now being implemented under the programme.

Source: Campeau 2007

Catastrophe pools and catastrophe bonds

Catastrophe pools tend to operate at national levels often times through public-private partnerships that bring together State interests and private sector insurance and reinsurance companies. While they may provide coverage to households and small businesses or to Governments directly, the pools are designed to effectively pool risks at national or regional levels to reduce the cost of coverage for their ultimate beneficiaries.

Case example: Addressing private risks – the Turkey Catastrophe Insurance Pool (TCIP)

The TCIP is an insurance pool which seeks to provide affordable insurance to homeowners, especially those in urban residential areas, and to reduce the fiscal exposure of the Turkish Government by accumulating funds for future disasters, sharing portions of risk within the country, and transferring other portions of the risk to international reinsurance and capital markets. The scheme is modelled on the California Earthquake Authority and the New Zealand Earthquake Commission, although adapted to local circumstances. Proof of participation in the scheme is compulsory for land registry transactions such as when houses are sold; however, additional intended sanctions and incentives have not yet been implemented (in part due to the enabling law's status as a decree law rather than a parliamentary law which would have the possibility of sanctions for non-compliance).

The TCIP started offering policies in September 2000. At that time, the Turkish Government also changed sections of its disaster law to remove the Government's commitment to provide post-disaster reconstruction assistance for housing lost to natural disasters, thus putting much of the responsibility back on home owners.

The TCIP is managed as a private insurance company under the strategic guidance of the Turkish Treasury and with a major input from private sector insurance companies that distribute TCIP's insurance policies. During the first 5 years of the pool's operations, the World Bank also provided a contingent credit layer that would have provided financial resources to the TCIP to meet claims if needed. Marketing and distribution of policies has been facilitated by a state-of-the-art Internet-based information system that has produced significant cost efficiencies in underwriting new policies. The policies are sold by private insurance companies who are paid a standard commission.

As of July 2008, TCIP covered 2.8 million households, approximately 21% of the target market overall in Turkey and 31% in the Marmara region surrounding Istanbul. While efforts to keep costs low have made the insurance more affordable, uptake of policies in areas outside of Istanbul, Ankara, and the western coast has been hampered by lower awareness of risk and lower levels of household income.

Source: World Bank 2006, www.dask.gov.tr

Case example: Addressing public/sovereign risks – the Caribbean Catastrophe Risk Insurance Facility (CCRIF)

The CCRIF is a regional insurance facility owned and operated by 16 Caribbean Governments. The facility insures the Governments against the impacts of catastrophic hurricanes and earthquakes and allows them to access liquidity on short notice using parametric triggers. For earthquakes the triggers are based on USGS data on the location, intensity, and likelihood of damage to the member countries. For hurricanes the triggers are based on data from the U.S National Hurricane Centre on hurricane paths and wind intensity.

Start-up activities have been supported by the World Bank and the Caribbean Development Bank and the Governments of Canada, France, and the UK. By pooling their risk the Governments have managed to reduce their individual insurance premium by up to 40%. As of the end of 2008 the CCRIF made two payouts of US\$ 418,976 to the St. Lucian Government and US\$ 528,021 to the Dominican Government as a result of the magnitude 7.4 earthquake close to Martinique in November 2007 and US \$6.3 million to the Government of the Turks and Caicos Islands after Hurricane Ike in September 2008.

Source: www.ccrif.org

Case example: Mexico's Cat Bond

The Government of Mexico has pioneered the transfer of risk to international capital markets through its FONDEN programme, placing the first sovereign disaster risk cat bond in 2006. This bond covers the period 2007-2009 and serves as reinsurance for the FONDEN programme which insures expenditures for public relief and emergency infrastructure reconstruction due to earthquakes. The bond is intended to smooth the expenditures paid from the FONDEN fund on a yearly basis which otherwise have been quite volatile. The bond required a US\$ 26 million premium and provides cover of US\$ 450 million over the duration of the contract period.

The bond is parametric and has two basic criteria as triggers:

- An earthquake in excess of a specified magnitude and depth occurs with its epicentre location within the boundary of a zone specified in the bond documentation.
- Official declaration of the disaster by the Ministry of the Interior of Mexico.

This programme has demonstrated that securitising Government risk is possible and that there is a demand in financial markets for such risk. However, challenges include the limitation of the coverage to only earthquakes – and not hurricanes or climate risks – and the extensive and costly requirement for risk analysis data to initiate the bond.

Source: Linnerooth-Bayer and Mechler 2007

Source: ProVention Consortium with contributions from Christian Aid, AIDMI, and UN/ISDR, 20, March, 2009, Practice Review on Innovations in Finance for Disaster Risk Management, A Contribution to the 2009 ISDR Global Assessment Report on Disaster Risk Reduction

Other financing tools for disaster risk management

Conditional cash transfers

Cash transfers and public works have also been used to effectively bolster safety nets and promote holistic social risk management. By providing assistance in the form of cash grants, agencies have supported local choice and self-management in driving recovery and prioritising investments for livelihoods development and resilience. There has been considerable interest over the last several years in conditional cash transfers which have been used in particular to protect children's school enrolment from being affected by adverse risk coping when their families are hit by disasters or other shocks. The income guarantees underlying these programmes can help poor households to avoid risk coping strategies that may have irreversible consequences, such as the sale of assets, foregoing of health expenditures, or withdrawal of children from school [Vakis 2006, de Janvry 2006]. Similarly public works programmes have been used to strengthen labour markets to protect against the risk of unemployment and also to support public investments that can link to prevention strategies.

Cash for Work programmes are also often used post-disaster. These are basic employment programmes with the work targeted toward social or community objectives. Such programmes help to restore earning capacity and livelihoods, repair and reconstruct disaster damage, and contribute to long-term development [AIDMI 2005].

After the Indian Ocean Tsunami in 2004, a number of agencies established cash grant programmes to support the housing reconstruction. In Sri Lanka, the Government-organized owner-driven housing recovery programme played an instrumental role in requiring that houses reconstructed under the programme be built on reinforced concrete pillars to reduce damage in future tsunamis. Many organisations also provided further technical assistance for reconstruction and provided grants in tranches to ensure that houses are being reconstructed according to safe standards. This combination of technical assistance and cash grants was used effectively for the transitional shelter programme organised by the IFRC in Yogyakarta after the earthquake in 2006.

Alternative currencies

Complementary or local currencies have been used in a number of locations to stimulate local economic activity by issuing a scrip currency to facilitate the exchange of local services in areas where availability of the national currency is limited (as it might be in poor communities). These types of alternative currencies have been used to support local development, including in post-disaster recovery contexts. For more information see <http://www.appropriate-economics.org/>.

Venture capital

CARE Canada has initiated an innovative Social Venture Fund to incubate and catalyse small- and medium-sized social enterprises. "Through the provision of patient investment capital

and business advisory support, the Fund helps enterprises generate both economic and social value for the underserved in the developing countries.”

[<http://www.care.ca/main/?en&homeSVF>]

Insurance for disaster reserves for private companies

The United Nations Environment Programme Finance Initiative (UNEP FI) is currently exploring a programme that would offer insurance to companies in lieu of maintaining reserves for responding to disaster events, thus allowing those companies to invest much of the funds that would have been put in these reserves in other ways.

Contingent credit

In contingent credit arrangements, Governments or private sector companies obtain the right to take out a pre-specified post-disaster loan that is repaid on fixed terms, providing immediate liquidity after a disaster. Such credit might be offered as part of a development aid package to Governments or in exchange for an annual fee.

Source: ProVention Consortium with contributions from Christian Aid, AIDMI, and UN/ISDR, 20, March, 2009, Practice Review on Innovations in Finance for Disaster Risk Management, A Contribution to the 2009 ISDR Global Assessment Report on Disaster Risk Reduction

Module 6: Recovery Planning

Module Objective

Describe components long-term recovery planning

Content

1. Overview of Recovery Planning Process
2. Pre- and Post-disaster Recovery Planning Cycle
3. Capacity considerations in recovery planning and the disaster management cycle
4. Lessons from previous long-term recovery experiences for recovery planning

Key Objectives

- Introduce key concepts of pre-disaster recovery planning
- Explain how pre-disaster response planning fits in to disaster management cycle and pre-disaster preparedness planning
- Share key components of pre-disaster recovery planning

Key Concepts

- Ideally, recovery plans should be appended to preparedness plans.
- The pre-disaster recovery planning process integrates logically within the disaster management cycle. It strengthens efforts within each phase and facilitates the transitions between relief, recovery and development.
- The Concept of pre-disaster recovery planning is not new but it requires foresight and experience and most importantly political will.

Recommended Readings

1. IRP, Guidance Note on Recovery, Pre-Disaster Recovery Planning
2. US National Disaster Recovery Framework, Draft, February 5, 2010
3. UNDP, IRP and ISDR. Guidance Note on Recovery Governance.
4. Tsunami Global Lessons Learned Project Steering Committee, The Tsunami Legacy Innovation, Breakthroughs and Change, Tsunami Global Lessons Learned Project, 2009
5. Anindya Kumar Sarkar, Ramachandra Panda, Manoranjan Sahoo, under guidance of Dr. Reuben Samuel, UNDP, Evolving Strategies for Long-term Rehabilitation on Shelter & Habitat Development in the Tsunami-Affected Areas of Tamil Nadu
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8. Gareth Price and Mihir Bhatt, HPG Working Paper, The role of the affected State in humanitarian action: A case study on India April 2009
 9. Gujarat Earthquake Reconstruction and Rehabilitation Policy, Government of Gujarat, 2011
 10. A Joint Report by the World Bank and the Asian Development Bank To the Governments of Gujarat and India, Gujarat Earthquake Recovery Programme, Assessment Report, March 14 2001
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 12. GRAMIN VIKAS SEWA SANSTHA 24 Paragana (North) West Bengal Draft Report Evaluation study of Rehabilitation & Reconstruction Process in Post Super Cyclone, Orissa To Planning Commission SER Division Government of India, New Delhi.
 13. Disaster Management and Relief Department, Government of Rajasthan, Disaster Management Guidelines
 14. John Cosgrave, "Responding to earthquakes 2008 Learning from earthquake relief and recovery operations" ALNAP, ProVention, 2008.

Module 6: Recovery Planning

In this last and final module we try to understand key components of recovery planning.

Achieving Disaster Recovery

Each community will define successful recovery outcome differently based on its circumstances, challenges, recovery visions and priorities. One community may characterise success as the return of its economy to pre-disaster conditions; while another may see success as the opening of new economic opportunities. Although no single definition of a successful recovery can fit all situations, successful recoveries do share a common condition in which:

The community successfully meets its priorities to overcome the impacts of the disaster, re-establishes an economic and social base that instils confidence in the local citizens and businesses regarding the community viability, and rebuilds the community to be more resilient from future disasters.

Recovery cannot be defined simply by the community's return to pre-disaster circumstances when these circumstances are no longer sustainable, competitive, or functional to the post-disaster community. In this light, the impacted community should be informed and evaluate all alternatives and options, and avoid simple restoration of an area that may not be sustainable.

Source: US National Disaster Recovery Framework, Draft, February 5, 2010

Overview of Recovery Planning Process

Disaster recovery starts from the day one of disaster impact. Disaster victims and non-affected neighbouring communities are the first responders to any disaster. Recovery activities may continue for many months and years depending on the severity of damage. Disaster recovery offers number of opportunities for reducing risk and enhances preparedness by building back better and safer. Ideally, recovery plans should be appended to preparedness plans.

What is pre-disaster recovery planning?⁵⁴

Pre Disaster Recovery Planning (PDRP) is any planned attempt to strengthen disaster recovery plans, initiatives, and outcomes – before a disaster occurs. The concept of PDRP is built on the recognition that much can be done before a disaster happens to facilitate recovery planning after a disaster and improve recovery outcomes. PDRP consists of a series of decisions and actions to be taken both before and after a disaster, in order to:

⁵⁴IRP, ISDR, Guidance Note on Recovery, Pre-Disaster Recovery Planning

- identify and establish shared recovery goals, objectives, and strategies - to guide post-disaster decision-making, ensure that relief and recovery activities align with long-term development goals, address actual needs, and enhance resilience to future disasters.
- develop and have ready the capacity to plan, initiate and manage - an efficient, adaptive, and well-coordinated recovery effort that progresses towards the recovery goals.

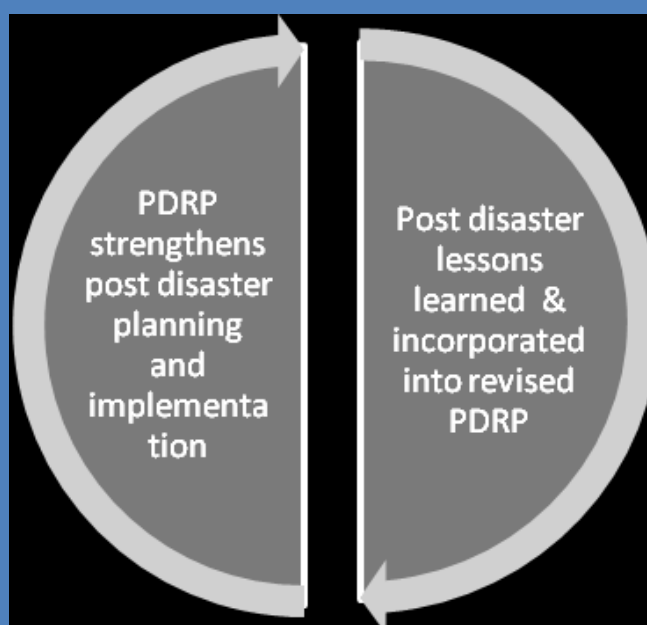
Operationally, PDRP is made up of three main components.

1. Developing goals, objectives, and strategies for post disaster recovery based on informed disaster scenarios.
2. Creating a recovery organisational structure that assigns post disaster roles and responsibilities.
3. Planning and implementing pre-disaster actions that will expedite and strengthen post-disaster planning and implementation.

Pre-disaster planning does not replace post-disaster planning. The unpredictable impacts of even seasonal hazards, such as monsoon flooding, make post disaster planning essential. Rather, the process of pre-planning is part of a recovery planning cycle.

PDRP facilitates quick yet informed decision-making and action in the demanding post-disaster environment. In a cyclical fashion, PDRP then serves as a conduit to incorporate post-disaster lessons learned into planning for future hazard events.

Recovery Planning Cycle



Pre-disaster planning offers number of benefits such as clarity of roles, accuracy, speeds and optimal use of available resources. In order to be effective, the pre-disaster recovery planning should be carried out at national, State, district and sub-district levels. It should involve various Government line-departments, authorities, CSOs and most importantly communities at risk.

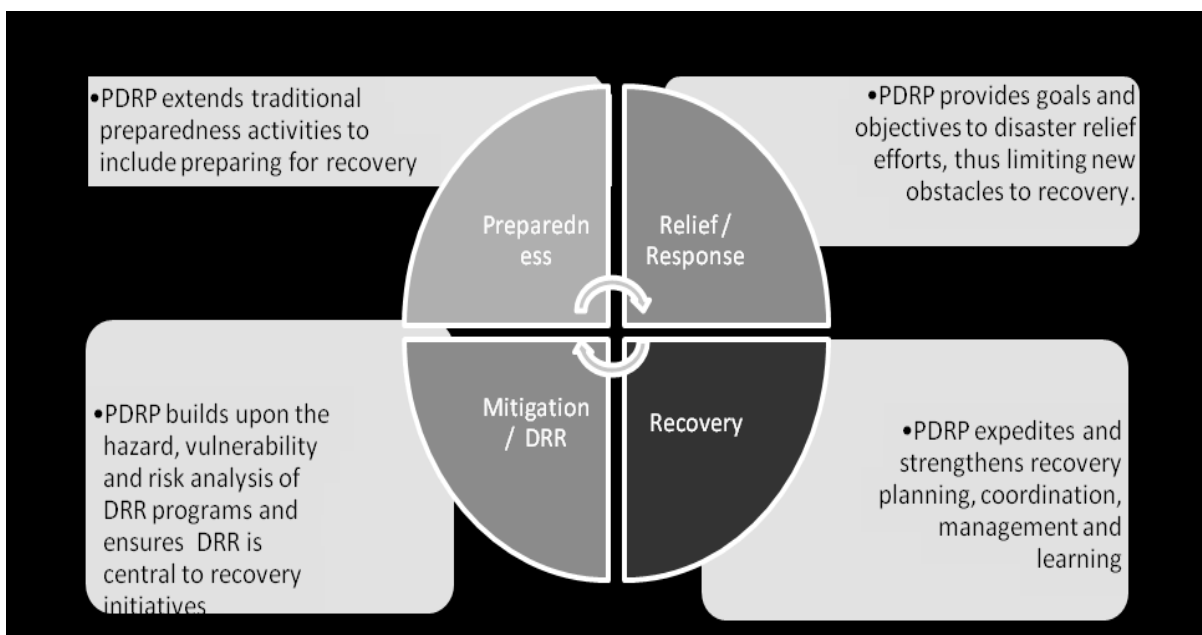
How does Pre-Disaster Response Planning fit within the disaster management cycle?⁵⁵

The pre-disaster recovery planning process integrates logically within the disaster management cycle. It strengthens efforts within each phase and facilitates the transitions between relief, recovery and development.

DRR and pre-disaster recovery planning fit hand in hand. The resources, strategies, and ongoing activities of disaster risk management bodies lay the foundation for planning a risk-reducing recovery. The crucial information they collect, concerning hazard types and characteristics as well as existing and potential vulnerabilities, allows recovery planners to develop the post-disaster scenarios which guide the PDRP process. Furthermore, existing DRR plans and experts can facilitate the integration of appropriate mitigation measures into recovery action plans.

Likewise, PDRP benefits the mandate of those engaged in DRR planning and implementation. Collaboration with DRR planners ensures that their pre-disaster mitigation goals, plans and initiatives are sustained in the post-disaster period when the needed political will and public acceptance increases.

PDRP and the disaster management phases



⁵⁵IRP, ISDR, Guidance Note on Recovery, Pre-Disaster Recovery Planning

Sample Education-related issue and strategies

Issue	The extended disruption of schooling
Post-disaster recovery strategy	To ensure school services are restored within a one month period
Pre-disaster recovery strategies or actions	• Make arrangements between neighbouring schools to absorb the affected student population • Identify transitional facilities and make agreements to secure them • Develop contingency plans to maintain and support school administrators and teachers • Make pre-contractual agreements with local businesses to provide teaching and learning materials

Pre-disaster recovery planning differs from most other types of planning in that plans are made based on an informed scenario rather than actual conditions. By anticipating potential hazards and identifying pre-existing vulnerabilities, one can paint a picture of post-disaster conditions and successively develop goals, strategies and actions to be taken. For example, a particular geographic area may rest in a known seismic zone. With both scientific and historic information, one can estimate the magnitude and likelihood of a future earthquake. Correlating this information with the state of building stock in the area can provide planners with a likely damage scenario. With this information, they can design strategies to remove the debris, determine how to provide temporary shelter, and/or define how the rebuilding will take place. As mentioned earlier, these plans would require refinement following a disaster. Yet, the work involved would be considerably less than developing a plan from the scratch. Moreover, developing a clear organisational structure and assigning post-disaster roles and responsibilities will allow the Government to act quickly.

In addition to specifying what is to be done after a disaster, PDRP also defines strategies and tasks to accomplish during the steady state, or, before a disaster. These planning outcomes are intended to facilitate quicker and more deliberate planning in the aftermath. Referring back to the example above, a PDRP strategy could be defined which identifies appropriate damage and loss assessment tools and trains a team of individuals to use them. A Government might choose to update its building code to meet earthquake standards and enact laws to enforce them. This would help to ensure that houses to be built and rebuilt are more resistant to future earthquakes. Additionally, potential sites can be chosen for temporary shelter or debris removal. These are just a few examples, yet they clearly illustrate how much time can be saved when recovery issues are addressed both before and after a disaster.

Pre- and Post-disaster Recovery Planning Cycle

The concept of pre-disaster recovery planning is not new but it requires foresight and experience and most importantly political will.



Source: AIDMI, 2011

Post-Disaster Community Recovery Planning

Communities impacted by disaster should develop a process for optimally managing their recovery effort and resources when necessary. Post-disaster community recovery planning serves to integrate the range of complex decisions in the context of the disaster and works as the foundation for allocating resources. The planning process provides the benchmark to measure progress toward a successful outcome by the affected community.

Key Elements of Post-Disaster Planning

All disaster-impacted communities can benefit by engaging in disaster recovery planning and creating plans that are meaningful to multiple audiences, including potential fund providers, nearby tribal nations, State- and Federal-level agencies, and members of the community. The following elements play a key role in the post-disaster planning process:

- Organising recovery priorities and tasks through the use of a planning process by:
 - Assessing risk.
 - Evaluating the conditions and needs after a disaster.
 - Setting goals and objectives.
 - Identifying opportunities to build in future resilience through mitigation.
 - Identifying specific projects in areas of critical importance to the community's overall recovery.

- Using a process that is community-driven and locally-managed, designed to promote local decision-making and ownership of the recovery planning and implementation effort.
- Promoting inclusive and accessible outreach, working collaboratively with and through groups of people affiliated by geographic proximity, common interest, or similar situations to address issues affecting the well-being of those people. Public involvement is critical to the recovery plan and process.
- Incorporating considerations that include the concept of “growing smarter” as long-term recovery unfolds. This includes compliance with standards for accessible design and construction.
- Building partnerships among local agencies, jurisdictions, the State, tribal and Federal Governments.
- Providing well-defined activities and outcomes aimed at achieving recovery with schedule and milestones.
- Developing tools and metrics for evaluating progress against set goals, objectives, and milestones.

Planning for the complex needs of the full community and bringing all stakeholders to a common planning table, with a commitment to physical, programmatic and communications accessibility helps create a successful post-disaster recovery process. The greatest challenge of post-disaster recovery planning is the inherent struggle in getting a plan developed quickly enough to meet the needs of residents and businesses. The post-disaster planning process must operate on a much faster timeline than traditional, or pre-disaster planning processes. However, one of the basic goals of the process is to develop the relationships and inter-agency cooperation that will continue to serve the recovery process once the planning is complete.

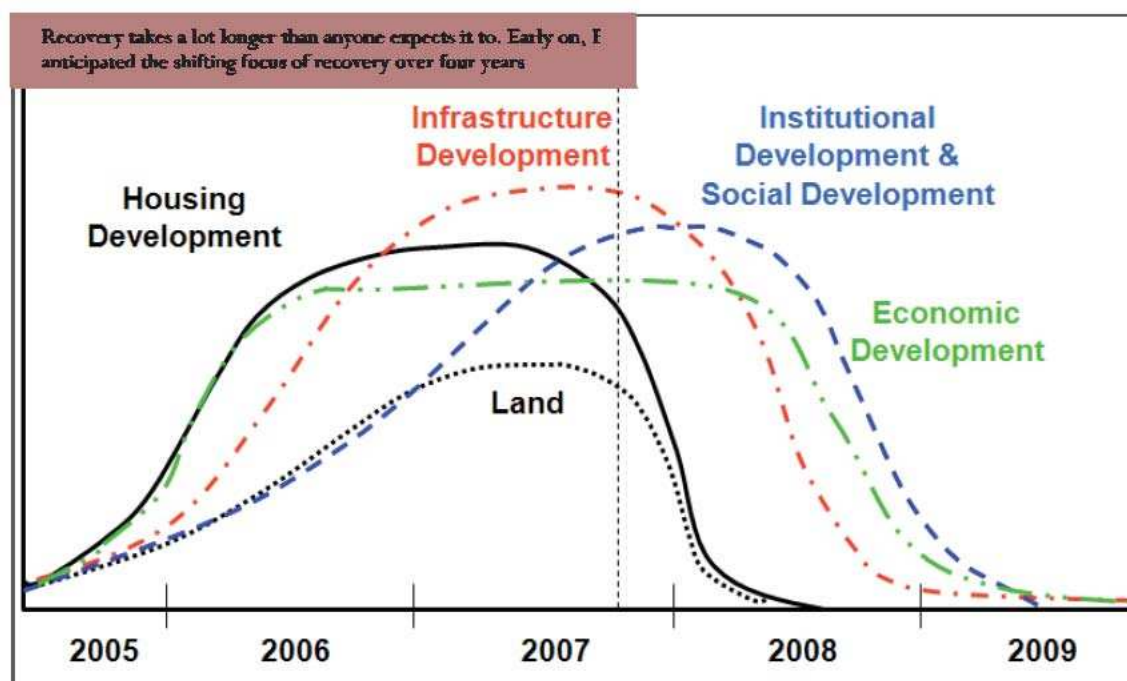
Source: Source: US National Disaster Recovery Framework, Draft, February 5, 2010

Responding to the Challenges: The Indonesian Experiment

The Indonesian Government responded to the complex set of challenges by establishing through legislation the Badan Rehabilitasi dan Rekonstruksi (BRR), the Aceh-Nias Rehabilitation and Reconstruction Agency, in April 2005. In line with Government Decree in Lieu of Law No. 2 of 2005, BRR was given a four-year timeframe to lead coordination of all recovery projects regardless of funding sources and to implement all “on-budget” projects, where funds were funnelled through the Government.

Importantly, BRR was given full authority to manage all aspects of the Tsunami recovery in Aceh on behalf of the Central Government, which allowed for a much smoother coordination process, devoid of any potential inter-ministry politics and bureaucracy. This necessary autonomy was hard won by Dr. Kuntoro Mangkusubroto (or Pak Kuntoro as he is popularly known), the Minister appointed as Director of BRR, who proved that making the right staffing decisions, including at the top, was critical. Pak Kuntoro brought to the role extensive experience in organisational management, project supervision and corporate restructuring, as well as a distinguished track record in Government, the State enterprise sector and academia. According to Bill Nicol, who began working with Pak Kuntoro as a senior advisor even before BRR was established: “He undoubtedly saw the endgame more clearly than anyone else.”

Significantly, BRR Headquarters was in Banda Aceh, the provincial capital, and not in the national capital Jakarta: this was the equivalent of bringing Central Government to the centre of the action, a model that worked extremely well in Aceh and ought to be considered as a model for other complex disaster contexts. Thus from the start, BRR was equipped with a mandate and a Master Plan outlining rehabilitation and reconstruction needs, as a dedicated Government ministry with a powerful mandate to innovate and reform that enabled it to operate beyond normal bureaucratic restrictions while remaining very much part of the internal Indonesian Government structure. In addition to implementing over 5,000 of its own reconstruction projects, BRR coordinated more than 12,500 other projects involving over 60 bilateral donors and multilateral agencies as well as around 700 NGOs.



Source: Tsunami Global Lessons Learned Project Steering Committee, The Tsunami Legacy Innovation, Breakthroughs and Change, Tsunami Global Lessons Learned Project, 2009

Pre-planning for post-earthquake rebuilding in Los Angeles⁵⁶

In 1987 William E. Spangle and Associates released a study, Pre-Earthquake Planning for Post-Earthquake Rebuilding, (PEPPER) which is the theoretical foundation for the City of Los Angeles recovery and reconstruction planning effort. This study documented research on the feasibility and practical limits of pre-earthquake planning for rebuilding. The authors of the study concluded the high annual probability of a damaging earthquake in Los Angeles requires a continuing programme of pre-earthquake planning for post-earthquake recovery. They recommended that the planning process include periodic re-evaluations of anticipated problems and necessary responses, and development of policies and procedures for post earthquake land use planning and rebuilding. The

⁵⁶ IRP, UNDP, ISDR, Guidance Note on Recovery, Governance, 2010

authors also recommended that the City establish a Rebuilding/Recovery Team to be activated immediately following a major disaster. To function effectively, this Team would require a well-defined role, responsibility and authority for rebuilding and restoration, and pre-established guidelines to follow. A model earthquake recovery programme was offered, as well as a model ordinance for a rebuilding and recovery organisation to be established prior to an earthquake.

The City of Los Angeles adopted many of the recommendations contained in the PEPPER study. Upon the release of the PEPPER Report, a Recovery and Reconstruction Subcommittee was established within the EOO. This Subcommittee was charged with developing a work programme to address the major recovery and reconstruction problems following a damaging earthquake. These problems include:

1. Organisation and Authority
2. Residential, Commercial and Industrial Rehabilitation
3. Public Sector Services
4. Economic Recovery
5. Land Use/Re-use
6. Psychological Rehabilitation
7. Vital Records

These seven issue areas formed the basis for the City draft Recovery and Reconstruction Plan. Under each topic, policies and action or implementation programmes are defined. The “lead” and other agencies responsible for each of the action programmes are also noted.

The draft Recovery and Reconstruction Plan continues to be refined and expanded. Various areas of the draft Plan still contain unresolved issues. City studies of the recovery process of other disaster impacted communities and the lessons learned from their own recovery experiences and training exercises also contribute to regular updating and revision of the plan. Following the Loma Prieta Earthquake, for example, the following new sections were developed for the Plan:

8. Inter-Jurisdictional Issues
9. Traffic Mitigation
10. Public Information Plans

Source: City of Los Angeles Emergency Operations Organization Recovery and Reconstruction Plan, Retrieved from http://www.emergency.lacity.org/pdf/epa/Recovery_and_Reconstruction_Annex.pdf

Capacity considerations in recovery planning and the disaster management cycle

Work within existing Governmental structures	Appropriate where there has been significant prior experience of recovery management, or where there are strong disaster management systems in place. Its success is very much dependent upon there being a high level of preliminary planning or well-practised administrative and operational procedures. Arrangements equally need to be in place to ensure additional capacity in Government departments to cope with the increased demands, which may stretch over a considerable time period.	Mozambique Floods, 2000 - 2001
Form a new recovery task force or "special" commission	Typically composed of designated representatives from existing ministries or Government agencies led by a senior Government official. This pattern is often followed at first, but its inherent capabilities can be overwhelmed by the scale and complexity of the task. In such a situation, the task force or commission may evolve into a modified form or new organisation. This model can provide greater latitude for participation by civil society or private sector organisations as task forces tend to be more flexible than permanent Government structures.	Mexico earthquake 1995 Philippines volcano 1991 (became organisation) Sri Lanka Tsunami 2004 (became organisation)
Create a new interim recovery organisation	Requires significant pre-existing capacity to establish an effective and efficient body. There is a limited margin for error in both the political arena and the public eye to meet recovery needs. Therefore, it is best placed at the apex of political power and authority but with strong representation from the implementation ministries. Maybe a good option if few resources can be drawn from ongoing Government operations. Presents a unified continuity particularly if it can draw non-partisan support. One noted challenge is the difficulty in drawing support from other ministries or departments when new organisations are created. This can reduce the sustainability of efforts in the long-term that require input from many different "sectors" within Government.	Indonesia Tsunami 2004

Create a new recovery organisation that evolves into a permanent body

Similar capacity requirements and risks as above, however this model can capitalise on capacity building gains to improve future recovery efforts. Once temporary task forces or organisations have dissolved, too often the experience and learning is lost, forcing Governments to reinvent the wheel with each new disaster. Transforming organisations into permanent bodies can help Governments learn from past recoveries, develop stronger disaster risk management practice, and improve future recovery efforts.

Columbia earthquake 1983 (became regional environmental body)
Gujarat earthquake 2001 (became State disaster management authority)

Source: IRP, UNDP, ISDR, Guidance Note on Recovery, Governance, 2010

Compiled from Learning from disaster recovery, retrieved from

http://www.unisdr.org/eng/about_isdr/isdr-publications/irp/Learning-From-Disaster-Recovery.pdf

Lessons from Previous Long-term Recovery Experiences for Recovery Planning

Case study: Tsunami Recovery in Tamil Nadu, India

Impact

A very severe earthquake measuring magnitude of 8.9 on Richter scale struck northern Sumatra, Indonesia at 00:58:50 UTC or 06:28 AM IST. The earthquake was also felt widely along the east coast of India. These earthquakes triggered off the Tsunami. In India the Tsunami caused massive destruction and casualties in the coastal regions of Tamil Nadu, Andhra Pradesh, Kerala and the Union Territories of Andaman & Nicobar Islands and Pondicherry. Tamil Nadu was one of the worst affected States⁵⁷. According to Government reports, 10,881 people in India lost their lives and 5,792 persons were reported missing with 6,913 injured⁵⁸.

Assessment

At the request of the Government of India (GOI), the Asian Development Bank, the United Nations and the World Bank put together a joint team which undertook an assessment of the socioeconomic and environmental impact of the December 26, 2004, Tsunami in the States of Andhra Pradesh, Kerala and Tamil Nadu and the Union Territory (UT) of

⁵⁷Anindya Kumar Sarkar, Ramachandra Panda, Manoranjan Sahoo, under guidance of Dr. Reuben Samuel, UNDP, Evolving Strategies for Long-term Rehabilitation on Shelter & Habitat Development in the Tsunami-Affected Areas of Tamil Nadu

⁵⁸The human toll data are taken from the United Nations Disaster Management Team (UNDMT) Situation Report dated February 11, 2005 which is based on Government reports. (Source: ADB, UN, WB, Preliminary Damage and Needs Assessment, 2005)

Pondicherry⁵⁹. The assessment estimated US\$1.2 billion as overall rehabilitation and reconstruction needs.

Post-Tsunami Reconstruction in Tamil Nadu

An estimated 53,290 homes were destroyed and 11,694 houses damaged in Tamil Nadu. The entire physical infrastructure, though sparing along the coast, was also destroyed, including facilities for fishing and related occupations. The damage was estimated at US\$ 880 million. Multilateral organisations, donors, NGOs, religious organisations, civil societies, and corporations provided phenomenal logistic, monetary and technical support for housing reconstruction⁶⁰.

Primary Recovery Organisation

The Revenue Administration Disaster Management and Mitigation Department of the State Government was given the primary responsibility of managing the recovery.

(Key Features of) Long-term Rehabilitation and Reconstruction Policy⁶¹

1. Those living very close to seashore and wishing to be relocated were shifted to safer sites.
2. The affected were provided not only housing but also a community hall, cyclone shelters, proper roads, sanitation, children's park, etc.
3. Different sewage treatment systems were proposed for different locations depending on their size, number of houses, type of soil, gradient, water table etc.
4. Forest Department proposed to create an eco-friendly atmosphere by planting more trees.
5. Certain areas were identified for potential sea-erosion and rubble-mound wall-construction was also proposed.
6. Disaster-resistant houses with built-in basic amenities were proposed.
7. A good communication network would decrease the response time to a disaster.
8. Awareness would be generated on the dos and don'ts for different hazards.

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 aftermath⁶².

Case Study: Earthquake Recovery in Gujarat, India

Impact

On January 26, the Republic day, in 2001, an extremely severe earthquake struck Gujarat. The earthquake, which measured 6.9 on Richter Scale (India Meteorological Department's

⁵⁹ ADB, UN, WB, India Post-Tsunami Recovery Programme, Preliminary Damage and Needs Assessment, New Delhi, India, March 8, 2005

⁶⁰ Government of Tamil Nadu, Tiding over Tsunami, Part 2, 2008

⁶¹ Government of Tamil Nadu, Tiding over Tsunami, Part 2, 2008

⁶² Gareth Price and Mihir Bhatt, HPG Working Paper, The role of the affected state in humanitarian action: A case study on India April 2009

estimate) and MW 7.7 (US Geological Survey's estimate), had its epicentre at latitude 23.40N and longitude 70.28E, located to the north of Bhachau, about 250 km west of Ahmedabad, and a depth of 25 km. The loss of lives caused by the earthquake was colossal. About 13,800 people died, and approximately 1,67,000 suffered injury. With destruction and damage to more than 1.2 million houses by the earthquake, the people have lost their shelter and security. All the civic facilities -- schools, hospitals, health centres, and public buildings -- suffered massive destruction. The utility infrastructure, which included water supply, electricity and telecommunications, were also completely disrupted⁶³.

Assessment

The report was prepared by a joint assessment team from the World Bank and the Asian Development Bank, in collaboration with the Government of Gujarat and the Government of India. The economic impact of the earthquake includes: (a) asset losses (direct damage); (b) output losses (indirect damage); and (c) fiscal costs (secondary effects). Destruction of private assets in the affected districts has been massive. Of the estimated Rs. 9,900 crore (US\$2.1 billion) total asset losses, Rs. 7,400 crore (US\$1.6 billion) are private assets. While the impact of the earthquake on India's gross domestic product is insignificant, in the areas where it struck, the earthquake devastated lives, social infrastructure, and economic foundations. Preliminary estimates total Rs. 9,900 crore (US\$2.1 billion) in asset losses and Rs. 10,600 crore (US\$2.3 billion) in improved-standard reconstruction costs⁶⁴.

Primary Recovery Organisation

The Gujarat State Disaster Management Authority was constituted by the Government of Gujarat (GoG) by the GAD's Resolution dated 8th February 2001. The Authority has been created as a permanent arrangement to handle the natural calamities.

Key Highlights of Gujarat Recovery

To address one of the worst earthquakes in the last 180 years⁶⁵, GoG announced an earthquake reconstruction and rehabilitation policy⁶⁶ and four reconstruction and economic rehabilitation packages totalling nearly US\$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 reconstructed⁶⁷. 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

⁶³Gujarat Earthquake Reconstruction and Rehabilitation Policy, Government of Gujarat, 2011

⁶⁴A Joint Report by the World Bank and the Asian Development Bank To the Governments of Gujarat and India, Gujarat Earthquake Recovery Programme, Assessment Report, March 14 2001

⁶⁵Kishore, R. 2006. Build Back Better: Earthquake Reconstruction in Gujarat. Presentation December 19, 2006.

⁶⁶Gujarat Earthquake Reconstruction and Rehabilitation Policy, Government of Gujarat, 2011

⁶⁷Rediff News. 2004. Three Years after Killer quake, Gujarat Emerges Stronger.

shelter reconstruction as well as multi-sector rebuilding of social, economic and physical infrastructure to revive the economy and provide the basis for economic recovery⁶⁸.

GSDMA was awarded the prestigious UN Sasakawa award 2003 for outstanding work in the field of disaster management and risk reduction. While the legacy of destruction reverberates today, the Gujarat earthquake marked a turning point in India's disaster response⁶⁹.

Case Study: Recovery from Orissa Super Cyclone, India

Impact

The Super Cyclone that swept the Orissa coast on 29th and 30th October 1999 was perhaps one of the most ravaging natural disasters that mankind has experienced in modern times. The death and destruction that it left in its trail was not only an appalling shock to the whole world, but was also a traumatic experience, that will continue to haunt the people of Orissa for generations to come. The super cyclone ravaged the Orissa coast on 29th and 30th, and devastated 12 districts viz., Jagatsinghpur, Kendrapara, Cuttack, Puri, Khurda, Nayagarh, Jajpur, Bhadrak, Balasore, Mayurbhanj, Keonjhar and Dhenkanal. The Super Cyclone, unprecedented in its sweep and ferocity, killed 9,885 people. Besides causing destruction on a gigantic scale, the Super Cyclone traumatised millions of people who survived its wrath. Over 15 million people were affected by this Super Cyclone. Houses were destroyed, infrastructure ravaged, environment denuded, livelihoods imperilled and economy shattered⁷⁰.

Primary Recovery Organisation

Orissa State Disaster Mitigation Authority (OSDMA) came into existence, in the immediate aftermath of the Super Cyclone in 1999. It is registered under Society Registration Act of 1860 to operate as an autonomous organisation. OSDMA is entrusted with the task of restoring livelihood, reconstructing damaged infrastructure and enhancing preparedness measures of the State to face calamities in future. It is mandated to undertake and coordinate the restoration, reconstruction and rehabilitation works and programmes in response to disasters⁷¹.

Super-cyclone rehab efforts in Orissa make hardly any progress ⁷²

The financially bankrupt State of Orissa has received only Rs 2,000-odd crore to offset

⁶⁸Gareth Price and Mihir Bhatt, HPG Working Paper, The role of the affected state in humanitarian action: A case study on India April 2009

⁶⁹Gareth Price and Mihir Bhatt, HPG Working Paper, The role of the affected state in humanitarian action: A case study on India April 2009

⁷⁰By GRAMIN VIKAS SEWA SANSTHA 24 Paragana (North) West Bengal Draft Report Evaluation study of Rehabilitation & Reconstruction Process in Post Super Cyclone, Orissa To Planning Commission SER Division Government of India, New Delhi.

⁷¹planningcommission.nic.in/plans/stateplan/sdr_orissa/sdr_orich14.doc

⁷²<http://infochangeindia.org/disasters/news-scan/supercyclone-rehab-efforts-in-orissa-make-hardly-any-progress.html>

damage estimated at Rs 20,000 crore. The coastal district of Jagatsinghpur in Orissa was one of the worst hit areas in 1999's super cyclone, when winds of up to 260 kmph wiped out 35 of its 200 villages. Eighty per cent of the 10,000 dead in the State were from this district. Three years on, and after some initial steps at reconstruction, Orissa's efforts to rebuild itself are as much of a disaster as the natural calamity itself. The World Bank has not disbursed the Rs 500 crore promised to the state. And the British Government's Department for International Development has so far given only Rs 13 crore of the Rs 250 crore promised for rehabilitation. The financially bankrupt State of Orissa has received only Rs 2,000-odd crore to offset damage estimated at Rs 20,000 crore.

Although the State Government set up the Orissa State Disaster Mitigation Authority (OSDMA) to spearhead a disaster management campaign, the organisation was beset with problems. It had no full-time managing director for a full year as four managing directors came and went. There have been seven special relief commissioners since 2000. This lack of administrative continuity has taken its toll on the rehabilitation efforts. In the post-cyclone tragedy the worst hit is the State's disaster preparedness programme. Only 12 of the 30 district collectors have been given satellite phones; civil VHF sets have been made available in only 22 blocks -- more than 200 have to be covered; only 10 of the 24 vulnerable coastal blocks have worked out any community preparedness plans; and of the required 512 cyclone shelters there are funds for only 60.

Scarce resources are being needlessly squandered. Road repair worth Rs 6 lakh in Kendrapara district was billed at Rs 60 lakh. Eighteen lakh rupees were spent on repairing the official bungalow of a high court judge. The money came from the National Fund for Calamity Relief. So far, Rs 29 crore of the Rs 107 crore cyclone fund have been used by the bankrupt State Government to pay its employees' salaries.

Source: India Today, May 27, 2002

State Authored Guidelines for Damage Assessment as an input Recovery Planning

Disaster Management Guidelines, Disaster Management and Relief Department, Government of Rajasthan⁷³

Immediately after the disaster there is an urgent need of damage assessment in terms of loss of life, injury and loss of property. The objectives of damage assessment are to mobilise resources for better rescue and relief, to have detailed information of damage extent and severity of disaster and to develop strategies for reconstruction and restoration facilities.

Damage is assessed with regard to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations, etc. In damage assessment of building stock, generally three types of flags are used: green, yellow and red. The green colour is given to the buildings that are safe and require 2-3 days to return to their original function. Yellow flags depict the considerable damage to the buildings and considered to be unsafe for living, as they require proper structural repairs and careful investigation. The red flag is assigned to buildings that are partially or

⁷³ Disaster Management and Relief Department, Government of Rajasthan, Disaster Management Guidelines [http://www.rajrelief.nic.in/dmdata/DM%20Code/DM_Manual\(1\).doc](http://www.rajrelief.nic.in/dmdata/DM%20Code/DM_Manual(1).doc)

completely collapsed. Immediately after a disaster event, damage assessment will be conducted in 2 phases, viz., Rapid Damage Assessment and Detailed Damage Assessment.

Rapid Damage Assessment (RDA)

Rapid Damage Assessment shall emphasise on a rapid appraisal of the situation and extent of damage to provide resources for effective relief and rescue. Rapid Damage Assessment (RDA) will be conducted at the local level, where the disaster has occurred. The RDA team will be headed by the local Incident Commander and will comprise the Patwari, CMO of the Sub-Division Hospital, Junior Engineer (PWD), and some prominent local persons may be involved at the discretion of the local Incident Commander. The RDA team will report to the District Collector its assessment of the damage. The RDA will be conducted according to a pro forma/format developed by the State Disaster Management Authority.

Detailed Damage Assessment (DDA)

Detailed Damage Assessment will be done at the district level during the recovery stage involving skilled personnel. The aim of this assessment is to estimate economical and financial aspects of damage, the detailed building damage, agricultural damage and property damage and also to propose retrofitting or strengthening. The DDA team will be headed by the District Collector and will comprise the District Relief Officer, Executive Engineer (PWD), Chief Medical Officer of the affected district, members of prominent NGOs working in the district and any other expert at the discretion of the District Collector. The DDA team will also have two external observers from the State Disaster Management Authority and DMC Cell of the State ATI respectively. The team will assess the damage on the basis of the format developed in advance by the State Disaster Management Authority in consultation with the DMC Cell of the State ATI and eminent experts in the field.

Responding to earthquakes 2008: Learning from earthquake relief and recovery operations ⁷⁴

RECOVERY FIRST

Recovery is the overriding challenge. Agencies need to focus on the recovery phase even from the start of the operation as there is no gap between relief and recovery, and recovery is the biggest challenge in sudden-onset natural disasters.

Set realistic time-frames for recovery. Affected Governments, donors and agency managers need to set realistic time-frames for funding for the recovery phase coherent with the context of the disaster. Planners need to allow for time over-runs in their plans. The recovery phase is likely to last at least three to five years for a major disaster. The greater the impact of the disaster on livelihoods, and the weaker the resilience of the community, and the less effective the recovery effort, the longer recovery will take.

Avoid compromising recovery. When considering relief interventions, agencies should also consider the likely impact of an intervention on recovery, and whether a different approach might be better for recovery. In general terms, the use of cash and local procurement are to be preferred whenever there are working local markets (subject to considerations of the likely impact on

⁷⁴John Cosgrave, "Responding to earthquakes 2008 Learning from earthquake relief and recovery operations" ALNAP, ProVention, 2008.

general prices). Agencies should pay close attention to the likely and actual impact of their actions on local markets.

Don't prolong the relief phase. Agency planning should not overstate the need for relief, and should quickly move into recovery activities. Agencies should provide good information to the affected community on their plans, so that affected families can plan their own recovery strategies.

Advocacy and engagement are vital tools for response. Agencies need to advocate for good policies to promote rapid recovery. Agencies' views of 'good' policies need to be based on dialogue with the community. Agencies need to engage fully with the Government and with coordination mechanisms to promote better policies.

Recovery is not neutral. Agencies should analyse relief and recovery policies to determine their impact on men and women, on privileged and disadvantaged groups and on the distribution of resources within a society.

Disaster response is no magic bullet. Agencies can take advantage of the opportunity for social change introduced by major disasters. However, a single disaster response cannot undo decades of underdevelopment. Agencies should plan for their work in a realistic environment and not on the assumption that the disaster has removed all previous constraints.

Include measures to reduce disaster risk. Disaster risk reduction is a long-term investment. The immediate post-disaster context provides fertile ground for planting the seeds of risk-reduction strategies. However, these strategies must reflect the full range of hazards and risks, rather than focusing on just one of them. The time for introducing a more hazard-aware approach is limited, and this must be done from the start rather than as a later add-on.

RELIEF ISSUES

Disease is unlikely. Agencies should not overstate the risk of disease, as this leads to the misallocation of resources, and promotes needless fear in an already traumatised population. This does not mean that precautionary measures such as water disinfection or disease surveillance are not necessary, but simply that the risk of epidemics, though real, is quite low.

The ratio of dead to injured varies widely. There is no simple way of predicting the ratio of dead to injured. This ratio can vary widely. Agencies should base their response on an initial assessment rather than on rules of thumb about casualty ratios.

Let the living bury the dead. In dealing with the dead, agencies should give priority to the needs of the living. De Ville de Goyet (2004, pp. 297-298) notes that the real disease risk posed by dead bodies after natural disasters is not epidemic disease but the risk of mental illness caused by the lack of closure over the missing. Agencies should deal with the dead in accordance with the current guidelines for best practice (ICRC, 2004; Morgan et al., 2006a).

Prevent further asset erosion. Agencies should provide assistance quickly and flexibly to prevent asset erosion. Cash support for households can be effective at preventing distress sales of productive assets.

Pay people to clear rubble. Pay people to clear rubble, but be aware of the possible impact on community self-help mechanisms. Protect the property rights of the owners of the rubble, provide appropriate protective equipment for the workers and deal with hazardous material responsibly.

Flexibility is the key. With time, agencies should provide assistance in increasingly flexible ways to match the growing diversity of needs as households pursue their individual recovery strategies.

MANAGING AID

Use existing social capital. Agencies can support social capital and local networks. The support may be as simple as providing people with the means to contact other members of the network, or it may consist of strengthening such networks by asking for their assistance in the response and providing them with some additional resources.

Ask recipients if your assistance is appropriate. Cultural awareness helps to prevent errors at

the very start of an operation. However, as needs become more complex, agencies need to check that their aid is appropriate by asking the affected population, and by setting up channels for affected people to raise their concerns about assistance.

LIVELIHOODS AND SHELTER

Livelihoods are closely tied to shelter. Agencies need to link their livelihood and shelter approaches.

Livelihoods are the key to recovery. Agencies should give the same priority to livelihoods as does the affected population. This implies that agencies should consult affected people about their priorities.

Allow for complex livelihoods. Agencies should provide support as flexibly as possible, reflecting the complexity of real livelihoods rather than the simplicity of imagined ones. Agencies should be clear whether their actions are intended to provide a temporary livelihood, or to support the development of sustainable livelihoods. Consider subsidised credit for supporting livelihoods where large investments are needed.

Don't recreate unsustainable livelihoods. Agencies should not attempt to restore particular livelihoods unless these livelihoods are probably going to be viable in the changed circumstances after the disaster.

A single asset does not make a livelihood. Agencies need to consider the complexity of livelihood strategies, and that interventions may be needed on a number of levels, and not just at the level of own-account producers, to restore destroyed livelihoods.

Be cautious about planning restrictions. Planning restrictions on land use, well-intentioned or otherwise, are common after natural disasters. However, settlement patterns are not arbitrary, but are dictated by social and economic factors. Quite often the affected population is expected to bear the economic cost of such regulations without compensation and the history of such regulations is poor.

Limit relocation to what is essential for safety. Agencies should, if at all possible, support people's desire to remain near their homes, as relocation damages social networks. However, some families may need to be resettled away from the hazard zone for safety reasons, or because they have been traumatised by the disaster.

Don't rebuild vulnerability. Any new construction should be designed and built to resist the likely major hazards. Agencies should consider the environmental impact of their reconstruction programmes.

Shelter is complex and needs special skills. Shelter is always a problem area in humanitarian response. Agencies need to support the construction of hazard-resistant shelter, and flexible shelter solutions that meet the needs of the affected population. Agencies that engage in shelter provision need to invest in the resources to deal with the complexity of the sector.

Transitional shelter – only when appropriate. Agency policies on transitional shelter should be based on a needs assessment and pragmatic considerations rather than a doctrinaire position. Transitional shelter works best when it is integrated with the permanent shelter solution.

Gear up for land-ownership issues. Agencies should be aware of the difficulties around land ownership and prepared to support the land rights of the poor. Agencies should also advocate for accelerated procedures for resolving property disputes and for fair rules on property title. Title to new housing for families should be joint, except where the household is headed by a single parent. Agencies may need to recruit specialist staff to address this area adequately.

Use shelter grants or advocate for them. Because of the complexity and uniqueness of livelihood strategies, different households have very different shelter needs. If possible or appropriate, agencies should use (or advocate for) grants for shelter coupled with advice and technical support. Even where grants are being disbursed by the Government there is still a role for agencies in ensuring the vulnerable have access to the grants and that everyone has access to

good information on earthquake-resistant construction.

Facilitator's Guide: Two and Five Days Trainings on Long-term Recovery for Policymakers

Introduction:

Although the most effective trainers are able to address the emerging needs of trainees in a flexible manner, the following notes offer basic guidelines that facilitators may use to lead trainings. To prepare for training, facilitators may find it useful to:

Suggestions for Facilitators Prior to Training

- Review the Module Learning Objectives
- Review the Suggested Methods and Activities
- Assess the anticipated knowledge needs, interests and constraints of trainees
- Identify additional potentially effective activities suitable for their particular trainees
- Review-related background literature on long-term recovery; this can include but is not limited to the resource material listed at the end of this document and the modules
 - ✓ Prepare your own notes so that you may convey the relevant information in a way that is comfortable for you.
 - ✓ Do not feel constrained by the information presented in the method section—they are merely a guide and you may adapted them for your needs
- Prepare materials for the training, including:
 - ✓ PowerPoint or other presentation materials such as videos, etc.
 - ✓ Print-outs or any other necessary handouts
 - ✓ Tools and props needed for activities
 - ✓ Rewards or treats to encourage involvement and participation
- Ensure that all arrangements regarding the venue are prepared
- Ensure that the training duration is appropriate for material to be covered
- Items and materials needed:
 - Projection equipment, whiteboard and marker or blackboard and chalk, module materials, facilitator's guide, pens and notepads for participants, your own notes
 - Arrival and Introduction
 - ✓ Arrive with plenty of time available to prepare the room and make sure all materials are ready.

- ✓ When the group is small, many trainers find that arranging the seating in a circle is conducive to open and equal communication.
- ✓ As the participants arrive, ensure that each has the necessary materials, including module(s) and supplies for note-taking.
- ✓ When participants have arrived, or at the appropriate time, open the session with an introduction of yourself. You may wish to share your relevant work and life experiences and connection with long-term recovery initiatives.
- ✓ Help them feel comfortable with you, in the environment, with the other trainees by showing that attentive participation and questions are a valuable aspect of the training package. If one trainee has a question, it is likely that someone else has the same question.

Next, give a brief overview of the course, especially including the module objectives. You may use the first slides of the presentation for this. A clear understanding of the objectives will help participants know what to expect from the training. You may also want to hint at the types of activities planned.

A full guide for implementing two days and five days training programmes is presented below. It provides information on:

- Training Design (two days and five days schedule)
- Preparation required in advance
- Session Objectives
- Materials/resources needed
- Suggested methods
- Indication of time required
- Guidance on using videos/documentaries
- Suggested readings (resource material)

Facilitator's Guide: Two Days Training Schedule for Policymakers

09:30-10:00 Registration (Training packs distributed)

10:00-10:20	Inauguration	Need/aims	Invited guest (s)	Training Brochure	20min	Lecture/key note speech (s)
10:20-10:30	Break	Display materials				
10:30-11:30	Introductory	Know each other & explain overview of the course content and schedule	Flipcharts (5) Markers Sticky tape LCD Projector Laptop	Training schedule PPT (max 10 slides)	60min	10min: Form 4 groups of 5 people and ask them to introduce themselves within the group for 10 minutes (name, org, expectation, experience, interest, etc.) 10min: Ask groups to prepare brief presentations on flipcharts to introduce themselves (encourage innovations) 20min: Ask groups to introduce themselves one by one. Stick flipcharts on a nearby wall. 15min: Make a brief presentation on overview of the course content and run through the schedule with participants. 05min: Facilitate doubts and clarifications (Q&A)
11:30-13:00	Introduction to Disaster Recovery and PDNA	Basics of disaster recovery and importance of PDNA	20 key terms and definitions printed on A4 size paper in bold and	Module 1. PPT 1. Terms & Definition (max 40 slides) PPT 2. Introduction	90min	30min: Stick 20 terms on a wall and distribute corresponding definitions one each to all participants. Ask all participants to identify the correct term (of the definition that they are holding) on the wall and stand near the term. Run the PPT, show correct definition

			large fonts Sticky tape Projector Laptop	to Disaster Recovery (max 20 slides) Building Back Better (video)		one by one and ask participants to read them loudly. 40min: Make a brief presentation on introduction of disaster recovery and PDNA. 10min: Play ISDR video on building back better. 10min: Encourage participants to share their experiences and ask questions. (comments, experience sharing, Q&A)
13:00-14:00	Break	Display materials				
14:00-14:15	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them the opportunity to entertain the group. 04: Play video on types of disasters by Karnataka Fire Service 20min: Ask participants to open Module 2 and analyse table titled 'Summarised Table of Natural Disasters in India from 1982 to 2011.' Ask each participant to draw a conclusion as an input to recovery planning from their analysis and note down all response on a flipchart to summarise the exercise. 40min: Make a brief presentation on overview of DM in India 06: Play video on India statement during the Global Platform 11 10min: Discussion (Q &A)
14:15-15:45	Overview of DM in India: An Input to Recovery Policymaking	Familiarise participants with DM systems/institutions in India	Flipchart Markers Sticky tape Projector Laptop	Module 2. PPT on overview of DM system in India (max 20 slides) India: Disaster Risk Reduction Statement at GP11 (video)	90min	
15:45-16:00	Break	Display materials				
16:00-17:30	Recovery Principles	Draft context specific recovery	Flipchart Markers	Module 3. PPT on	90min	30min: Make a brief PPT on recovery principles to clarify concepts.

		principles	Sticky tape Projector Laptop	recovery principles Video on making DRR everybody's business		10min: Briefly mention importance of recovery principles and form 4 groups of 5 participants each and give each group the task of drafting recovery goal and principles for a specific disaster recovery (floods, earthquake, drought and cyclone). 20min: Let the groups work and prepare their responses on flipcharts. 10min: Ask groups to make a brief presentation on the outcome. Identify commonality & differences and conclude the exercise. 10min: Play ISDR video on making DRR everybody's business 10min: Discussion. Q&A. Identify 5 volunteers to review the day and prepare debrief of day1.
17:30-17:45	Host Team				15min	
Recovery Day 2						
09:30-09:45	Debrief Day 1.					15min: Ask the host team to present the summary of Day 1 15min: Briefly introduce the topic and form 3 groups and give each group the task of identifying key issues and challenges faced in shelter, livelihoods and infrastructure recovery and write them on the walls. Summarise group responses and conclude the exercise. 50min: Make presentation of cases focused on good practices. 15min: Play video on Triumph of First
09:45-11:15	Key Recovery Themes	Understand issues, priorities, challenges and key lessons learned in disaster recovery	Flipchart Markers Sticky tape Projector Laptop	Module 4. PPT on key recovery themes Triumph of First Step (video)	90min	

11:15-11:30	Break	Display materials				Step by AIDMI. 10min: Discussion. Q&A.
11:30-13:00	Key Role of Policymakers in Driving Recovery	Understand key roles and responsibilities of different stakeholders in disaster recovery	Flipchart Markers Sticky tape Projector Laptop	Module 5. PPT on key role of policymakers in driving recovery Documentary on 10 years of Gujarat Earthquake Recovery (video) OR Module 5. PPT by MoH PPT by NDMA PPT by UNDP Documentary on 10 years of Gujarat Earthquake Recovery (video)	90min	30min: Make a brief PPT on key role of policymakers in driving recovery to introduce the topic. 05min: Form 4 groups (MoH, NDMA, State Government and UN) and give each group the task of identifying key decision to be made in post-disaster recovery context in a phased manner (response, relief, rehabilitation, reconstruction and development). 15min: Let the groups work and prepare their responses on flipcharts. 20 min: Ask groups to make a brief presentation on the outcome. 10min: Play documentary on 10 years of Gujarat Earthquake Recovery by BBC. 10min: Summarise group responses and conclude the exercise. OR 70min: Panel discussion, PPTs by MoH/NDMA, UNDP and INGO 10min: Play documentary on 10 years of Gujarat Earthquake Recovery by BBC. 10min: Discussion Q&A
13:00-14:00	Break	Display materials				
14:00-14:15	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them the

14:15-15:45	Recovery Planning	Mainstream recovery planning in DM and development plans	Flipchart Markers Sticky tape Projector Laptop	Module 6. PPT on recovery planning Community participation in recovery (video)	90min	opportunity to entertain the group. 20 min: Make a brief PPT on recovery planning to introduce the topic. 10min: Form 4 groups and give each group the task of preparing an outline of recovery planning based on key components of disaster recovery planning presented in module 6. 20min: Let the groups work and prepare their responses on flipcharts. 20 min: Ask groups to make a brief presentation on the outcome. 10min: Play video on community participation in recovery (Bihar Koshi floods 2008) by AIDMI 10min: Summarise group responses and conclude the exercise.
15:45-16:00	Break	Display materials				
16:00-16:10	Course End Evaluation	Feedback	Feedback forms	Training schedule	10min	10min: Distribute feedback forms and collect all of them when done. 15min: Participants' feedback & certificate distribution.
16:10-16:30	Closing Ceremony	Wrap-up	Participant certificates	Contact details	20min	05min: Concluding remarks & vote of thanks. Do not forget to distribute contact details.

Facilitator's Guide: Five Days Training Schedule for Policymakers

09:30-10:00 Registration (Training packs distributed)						
10:00-10:20	Inauguration	Need/aims	Invited guest (s)	Training Brochure	20min	Lecture/key note speech (s)
10:20-10:30	Break	Display materials				
10:30-11:30	Introductory	Know each other & explain overview of the course content and schedule	Flipcharts (5) Markers Sticky tape LCD Projector Laptop	Training schedule PPT (max 10 slides)	60min	10min: Form 4 groups of 5 people and ask them to introduce themselves within the group for 10 minutes (name, org, expectation, experience, interest, etc.) 10min: Ask groups to prepare brief presentations on flipcharts to introduce themselves (encourage innovations) 20min: Ask groups to introduce themselves one by one. Stick flipcharts on nearby wall. 15min: Make a brief presentation on overview of the course content and run through the schedule with participants. 05min: Facilitate doubts and clarifications (Q&A) 30min: Stick 20 terms on a wall and distribute corresponding definitions one each to all participants. Ask all participants to identify the correct term (of the definition that they are holding) on the wall and stand near the term. Run the PPT, show correct
11:30-13:00	Introduction to Disaster Recovery	Basics of disaster recovery and its relevance in overall disaster management cycle	20 key terms and definitions printed on A4 size paper in bold and	Module 1. PPT 1. Terms & Definition (max 40 slides) PPT 2. Introduction	90min	

			large fonts Sticky tape Projector Laptop	to Disaster Recovery (max 20 slides) Building Back Better (video)		definition one by one and ask participants to read them loudly. 40min: Make a brief presentation on introduction of disaster recovery. 10min: Play ISDR video on building back better. 10min: Encourage participants to share their experiences and ask questions. (comments, experience sharing, Q&A)
13:00-14:00	Break	Display materials				
14:00-14:15	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them the opportunity to entertain the group.
14:15-15:15	DM Continuum and relevance of PDNA for recovery planning	Understand disaster management cycle and importance of PDNA in planning recovery	Projector Laptop	Modul1 1. PPT on DM Continuum	60min	50min: Make a brief presentation on DM Continuum and PDNA 10min: Discussion (Q &A)
15:15-15:30	Break	Display materials				
15:30-17:00	Overview of DM in India: An Input to Recovery Policymaking	Familiarise participants with DM systems/institutions in India	Flipchart Markers Sticky tape Projector Laptop	Module 2. PPT on overview of DM system in India (max 20 slides) India: Disaster Risk	90min	04: Play video on types of disasters by Karnataka Fire Service 20min: Ask participants to open Module 2 and analyse table titled 'Summarised Table of Natural Disasters in India from 1982 to 2011.' Ask each participant to draw a conclusion as an input to recovery

				Reduction Statement at GP11 (video)		planning from their analysis and note down all responses on a flipchart to summarise the exercise. 40min: Make a brief presentation on overview of DM in India 06: Play video on India statement during the Global Platform 11 10min: Discussion (Q &A) Identify 5 volunteers to review the day and prepare debrief of day one.
17:00-17:15	Host Team				15min	
Recovery Day 2						
09:45-10:00	Debrief Day 1.					15min: Ask the host team to present the summary of Day 1
10:00-11:30	Disaster Situation in India	Analyse disaster context of India	Projector Laptop	Module 2. PPT on disaster situation in India 2008 Floods in India (video)	90min	70min: Make a comprehensive PPT on Disaster situation in India 10min: Play IFRC video on 2008 Floods in India 10min: Discussion (Q&A)
11:30-11:45	Break	Display materials				
11:45-13:15	Recovery Principles	Draft context specific recovery principles	Flipchart Markers Sticky tape Projector Laptop	Module 3. PPT on recovery principles Video on making DRR Everybody's Business	90min	30min: Make a brief PPT on recovery principles to clarify concepts. 10min: Briefly mention importance of recovery principles and form 4 groups of 5 participants each and give each group the task of drafting recovery goal and principles for a specific disaster recovery (floods, earthquake, drought and cyclone).

13:15-14:15	Break	Display materials				20min: Let the groups work and prepare their responses on flipcharts. 10min: Ask groups to make a brief presentation on the outcome. Identify commonality & differences and conclude the exercise. 10min: Play ISDR video on making DRR everybody's business 10min: Discussion. Q&A.
14:15-14:30	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them the opportunity to entertain the group. 10min: Briefly introduce the topic and form 4 groups and give each group the task of enlisting key issues in shelter and infrastructure recovery, livelihoods, psycho-social aid and gender on flipcharts. 25min: Make a brief PPT on shelter and infrastructure recovery. 10min: Discussion Q & A
14:30-15:15	Shelter & Infrastructure Recovery	Understand issues, priorities, challenges in shelter and infrastructure recovery, including lessons learned.	Flipchart Markers Sticky tape Projector Laptop	Module 4. PPT on key recovery themes	45min	30min: Make a brief PPT on livelihoods issues in recovery. 10min: Discussion Q & A 05min: Summarise the session.
15:15-16:00	Livelihoods Recovery	Understand issues, priorities, challenges in livelihoods recovery, including lessons learned.	Projector Laptop	Module 4. PPT on livelihoods recovery	45min	30min: Make a brief PPT on psycho-social issues in recovery. 10min: Discussion Q & A
16:00-16:15	Break	Display materials				
16:15-17:00	Psycho-social Recovery	Understand issues, priorities, challenges in psycho-social	Projector Laptop	Module 4. PPT on psycho-social	45min	30min: Make a brief PPT on psycho-social issues in recovery. 10min: Discussion Q & A

17:00-17:45	Engendering Recovery	recovery, including lessons learned. Understand key gender issues in recovery, including lessons learned.	Projector Laptop	recovery Module 4. PPT on gender issues in recovery	45min	05min: Summarise the session. 30min: Make a brief PPT on gender issues in recovery. 10min: Discussion Q & A 05min: Summarise the session.
17:45-18:00	Field Visit Planning	Understand ground realities	Projector Laptop	Field visit schedule	15min	15min: Explain the group the location, visit schedule and stakeholders of field visit on day 3.
18:00-18:15	Host Team				15min	Identify 5 volunteers to review the day and prepare debrief of day2.
Recovery Day 3						
07:00-19:00	Field Visit	Field exposure	As planned.	Field visit schedule	Full day	Recovery site visit: meeting with Government, NGOs, and communities. Sectoral coverage: shelter, livelihoods, infrastructure, etc.
Recovery Day 4						
09:30-10:00	Debrief Day 2 & 3.					30min: Ask the host team to present the summary of Day 2 & 3.
10:00-11:30	Key Role of Policymakers in Driving Recovery	Understand key roles and responsibilities of different stakeholders in disaster recovery	Flipchart Markers Sticky tape Projector Laptop	Module 5. PPT on key role of policymakers in driving recovery Documentary on 10 years of Gujarat Earthquake	90min	30min: Make a brief PPT on key role of policymakers in driving recovery to introduce the topic. 05min: Form 4 groups (MoH, NDMA, State Government and UN) and give each group the task of identifying key decision to be made in post-disaster recovery context in a phased manner (response, relief, rehabilitation, reconstruction and development).

				Recovery (video)		15min: Let the groups work and prepare their responses on flipcharts. 20 min: Ask groups to make a brief presentation on the outcome. 10min: Play documentary on 10 years of Gujarat Earthquake Recovery by BBC. 10min: Summarise group responses and conclude the exercise.
				OR		
				Module 5. PPT by MoH PPT by NDMA PPT by UNDP Documentary on 10 years of Gujarat Earthquake Recovery (video)		OR
						70min: Panel discussion, PPTs by MoH/NDMA, UNDP and INGO 10min: Play documentary on 10 years of Gujarat Earthquake Recovery by BBC. 10min: Discussion Q&A
11:30-11:45	Break					
11:45-12:30	Damage Assessment	Share experiences of PDNA	Projector Laptop	Module 5 PPT on Damage Assessment	45min	30min: Encourage participants to identify and share their experiences on PDNA 05min: Summarise the session.
12:30-13:30	Financing Recovery	Understand options for financing recovery	Projector Laptop	Module 5 PPT on Financing Recovery Disaster and Debt (video)	60min	35min: Make a brief PPT on Financing Recovery 15min: Play video on Disaster and Debt by The Guardian 10min: Discussion Q & A
13:30-14:30	Break	Display materials				
14:30-14:45	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them

						the opportunity to entertain the group.
14:45-15:45	Building Back Better: Case Study 1. Gujarat EQ	Understand recovery of Gujarat Post EQ	Projector Laptop	Module 5. PPT on Gujarat Recovery Experience From Rubble to Recovery (video)	60min	40min: Make a brief PPT on Gujarat Recovery Experience 10min: Play video on 2001 Gujarat Earthquake Recovery, From Rubble to Recovery by BBC 10min: Discussion (Q&A)
15:45-16:00	Break	Display materials				
16:00-17:00	Building Back Better: Case Study 2. Tsunami Recovery	Understand Tsunami Recovery in TN	Projector Laptop	Module 5. PPT on Tsunami Recovery Tamil Nadu five years after the Tsunami (video)	60min	40min: Make a brief PPT on NT Tsunami Recovery Experience 10min: Play video on Tamil Nadu five years after the Tsunami by The World Bank/GFDRR 10min: Discussion (Q&A)
17:00-17:15	Host team				15min	Identify 5 volunteers to review the day and prepare debrief of day2.
Recovery Day 5						
09:45-10:00	Debrief Day 4.					15min: Ask the host team to present the summary of Day 4.
10:00-11:00	Building Back Better: Case Study 3. Orissa Recovery	Understand Orissa Recovery	Projector Laptop	Module 5. PPT on Orissa Super Cyclone Recovery	60min	60min: Make a brief PPT on Orissa Super Cyclone Recovery Experience

11:00-11:15	Break	Display materials				
11:15-12:15	Organisational Models for the Management of Disaster Recovery	Understand key governance issues and various models of recovery organisations	Projector Laptop	Module 5. PPT on recovery organisations. Local Development Academy on DRR (video)	60min	35min: Make a brief PPT on various models of recovery organisations. 15min: Play the "The Humble Fighters" video by AIDMI 10min: Discussion Q & A 05: Summarise the session.
12:15-13:00	Development Trends	Understand factors that may negatively/positively impact recovery & recovery planning, including adverse impacts of disasters in India	White board Marker	Module 6.	45min	45min: Ask the group to create a mind-map of various trends that may negatively/positively impact recovery & recovery planning, including adverse impacts of disasters in India. For example, population growth, economic slowdown, high number of youth etc. Summarize the exercise by showing links to recovery planning.
13:00-14:00	Break	Display materials				
14:00-14:15	Icebreaker				15min	Remember participants are the greatest source of icebreakers. They do want to perform. Give one of them the opportunity to entertain the group.
14:15-15:45	Recovery Planning	Mainstream recovery planning in DM and development plans	Flipchart Markers Sticky tape Projector Laptop	Module 6. PPT on recovery planning Community participation in recovery (video)	90min	20 min: Make a brief PPT on recovery planning to introduce the topic. 10min: Form 4 groups and give each group the task of preparing an outline of recovery planning based on key components of disaster-recovery planning presented in module 6. 20min: Let the groups work and

15:45-16:00	Break	Display materials				prepare their responses on flipcharts. 20 min: Ask groups to make a brief presentation on the outcome. 10min: Play video on community participation in recovery (Bihar Kosi floods 2008) by AIDMI 10min: Summarise group responses and conclude the exercise.
16:00-16:10	Course End Evaluation	Feedback	Feedback forms	Training schedule	10min	10min: Distribute feedback forms and collect all of them when done. 15min: Participant feedback & certificate distribution.
16:10-16:30	Closing Ceremony	Wrap-up	Participant certificates	Contact details	20min	05min: Concluding remarks & vote of thanks. Do not forget to distribute contact details.

Video Guide: Two and Five Days Trainings on Long-term Recovery for Policymakers

Video Guide: Two Days Training Schedule for Policymakers

Recovery Day 1

Introduction to Disaster Recovery

Title: Building Back Better - Disaster risk reduction and the recovery opportunity

Duration: 10:04

Agency: IRP/ISDR

Brief Description: Recovery efforts should systematically strengthen disaster related agencies.

http://www.youtube.com/watch?v=0jrVD-iP8pQ&feature=player_embedded

Title: Disaster Management

Duration: 03:18

Agency: Karnataka Fire Service

Brief Description: Overview of disasters and Disaster Management response in context of India

<http://www.youtube.com/watch?v=Kt-C8WCIWrg>

Overview of DM in India: An Input to Recovery Policymaking

Title: India: Disaster Risk Reduction Statement at GP11

Duration: 05:56

Agency: UNISDR

Brief Description: A video statement made by Mr. A.E. Ahmed, Secretary, Ministry of Home Affairs, India at the Third Session of the Global Platform for Disaster Risk Reduction in Geneva, May 2011.

<http://www.youtube.com/watch?v=l1Y1FtTjlk4>

Title: Everybody's Business

Duration: 09:02

Agency: ISDR

Recovery Principles

Brief Description: Disaster reduction should be an integral part of everyday decision making. Choosing how we farm, where we build health centres, where we educate our children and how we plan our cities. Each decision can either make us more vulnerable or more resilient.

http://www.youtube.com/watch?v=OR733gGfDA&list=PLA7B28E61E657A2AA&index=9&feature=plpp_video

Recovery Day 2

Key Recovery Themes	Title: Triumph of First Step Duration: 14:00 Agency: AIDMI Brief Description: With objectives to demonstrate the climate change and disaster risk impact on community in Asia during the May Day Network Summit, 2009 on Climate Change and Encourage the development and implementation of climate change adaptation strategies for Asian Commonwealth countries, All India Disaster Mitigation Institute (AIDMI) has prepared the documentary "Climate Change and Disaster Impacts on vulnerable Community" on the demand of Business in the Community (BITC), UK. This documentary shows the impact of climate change on the livelihood of the coastal communities and the adaptation measures taken by local communities Commonwealth Foundation supported this initiative. http://www.youtube.com/watch?v=QE-m1ht7rPI
Key Role of Policymakers in Driving Recovery	Title: The Gujarat Earthquake – From Rubble to Recovery Duration: 09:59 Agency: BBC Brief Description: Documentary on 10 years of Gujarat Earthquake Recovery. http://www.youtube.com/watch?v=VuHoq5kG_GA
Recovery Planning	Title: Bihar Kosi floods 2008 Duration: 09:09 Agency: AIDMI Brief Description: This video describes the floods that hit Bihar's Kosi in 2008. It explains how the communities were involved in the assessment and relief operations and the long-term recovery efforts, building resilience of the communities to disasters. http://www.preventionweb.net/english/professional/multimedia/v.php?id=20845

Video Guide: Five Days Training Schedule for Policymakers

Recovery Day 1

Introduction to Disaster Recovery

Title: Building Back Better - Disaster risk reduction and the recovery opportunity
 Duration: 10:04
 Agency: IRP/ISDR
 Brief Description: Recovery efforts should systematically strengthen disaster related agencies.
http://www.youtube.com/watch?v=0jrVD-iP8pQ&feature=player_embedded

Overview of DM in India: An Input to Recovery Policymaking

Title: Disaster Management
 Duration: 03:18
 Agency: Karnataka Fire Service
 Brief Description: Overview of disasters and Disaster Management response in context of India
<http://www.youtube.com/watch?v=Kt-C8WCIWrg>
 Title: India: Disaster Risk Reduction Statement at GP11
 Duration: 05:56
 Agency: UNISDR
 Brief Description: A video statement made by Mr. A.E. Ahmed, Secretary, Ministry of Home Affairs, India at the third session of the Global Platform for Disaster Risk Reduction in Geneva, May 2011.
<http://www.youtube.com/watch?v=I1Y1FtTjlk4>

Recovery Day 2

Disaster Situation in India

Title: 2008 Floods in India
 Duration: 07:54
 Agency: IFRC
 Brief Description: The year 2008 saw a series of floods in various States of India during the 2008 monsoon season. In total seven States were affected which included Assam, Andhra Pradesh, Bihar, Maharashtra, Uttar Pradesh, West Bengal and Orissa.
<http://www.youtube.com/watch?v=rRInEClrjVg>

Recovery Principles

Title: Everybody's Business
 Duration: 09:02
 Agency: ISDR
 Brief Description: Disaster reduction should be an integral part of everyday decision making. Choosing how we farm, where we build health centres, where we educate our children and how we plan our cities. Each decision can either

make us more vulnerable or more resilient.

http://www.youtube.com/watch?v=OR733gGIFdA&list=PLA7B28E61E657A2AA&index=9&feature=plpp_video

Recovery Day 3 (Field Visit)

Recovery Day 4

Key Role of Policymakers in Driving Recovery

Title: Tsunami: A New Beginning

Duration: 13:00

Agency: AIDMI

Brief Description: This video describes tsunami recovery efforts of AIDMI team.

Title: Disaster and Debt: India's Dalit Community Fight Back

Duration: 11:59

Agency: The Guardian

Financing Recovery

Brief Description: India's east coast communities suffered from the Boxing Day Tsunami of 2004. Less well covered in the news are the annual cyclones which hit this coast, when the lives and homes of the most vulnerable have to be rebuilt each year. This video is one of a series of investigative documentaries about poverty, commissioned and editorially controlled by Guardian Films, produced in association with Christian Aid. Go to <http://www.guardian.co.uk/poverty-over> for more details.

<http://www.youtube.com/watch?v=OwtHiDtQmys>

Building Back Better: Case Study 1. Gujarat EQ

Title: The Gujarat Earthquake – From Rubble to Recovery

Duration: 09:59

Agency: BBC

Brief Description: Documentary on 10 years of Gujarat Earthquake Recovery.

http://www.youtube.com/watch?v=VuHoq5kG_GA

Building Back Better: Case Study 2. Tsunami Recovery

Title: Vulnerability Reduction of Coastal Communities in Tamil Nadu

Duration: 06:48

Agency: The World Bank/GFDRR

Brief Description: This 7-minute mini documentary shows life in the Nagapattinam district of Tamil Nadu five years after the Tsunami. The Vulnerability Reduction of Coastal Communities (VRCC) programme was prepared with the support of GFDDR and demonstrates a major shift from reactive to proactive disaster risk management in India.

<http://www.youtube.com/watch?v=8o800KmhA-g>

Recovery Day 5

Organisational Models for the Management of Disaster Recovery

Title: "The Humble Fighters"

Duration: 11:59

Agency: AIDMI

Brief Description: The Local Development Academy on Community Based Disaster Risk Reduction (CBDRR) is a collaborative initiative of the All India Disaster Mitigation Institute (AIDMI), National Institute of Disaster Management (NIDM), UNDP-India, the Self Employed Women's Association (SEWA), SNEHA (Chennai) and the Special Unit for

Recovery Planning

South-South Cooperation in United Nations Development Programme, Regional Centre in Bangkok. This documentary captures CSO and community responses on 2001 Gujarat earthquake recovery.

<http://www.youtube.com/watch?v=7DIY9tysKL0>

Title: Bihar Kosi floods 2008

Duration: 09:09

Agency: AIDMI

Brief Description: This video describes the floods that hit Bihar's Kosi in 2008. It explains how the communities were involved in the assessment and relief operations and the long-term recovery efforts, building resilience of the communities to disasters.

<http://www.preventionweb.net/english/professional/multimedia/v.php?id=20845>

Title: Safer School Campaign

Duration: 13:18

Agency: AIDMI

Brief Description: The video describes AIDMI's journey of safer schools campaign since 2001 Gujarat Earthquake.

<http://www.preventionweb.net/english/professional/multimedia/v.php?id=20276>

Title: The Bhopal Chemical Disaster: Twenty Years Without Justice

Duration: 16:09

Agency: Sanford Lewis

Brief Description: The case of Bhopal Chemical Disaster questioning recovery of communities.

<http://www.youtube.com/watch?v=0csW97x8d24>

Title: We are Prepared!

Duration: 27:00

Agency: AIDMI

Brief Description: This documentary captures the process of the Write Shop, which documents Case Studies and Processes used during the recovery efforts for 2007 flood victims. A range of DRR tools were used by different organisations in a range of villages and districts.

<http://www.youtube.com/watch?v=jSSFtpsyNY>

<http://www.youtube.com/watch?v=HepO-xX8Dzk>

Title: Saviours of The Earth

Duration: 18:00

Agency: AIDMI

Brief Description:

Resource Materials

Sources and Reference Material

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