



# Post Disaster Needs Assessment for Long-term Recovery

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# What is a PDNA: Objectives

The PDNA is a mechanism for **joint assessment and recovery planning** after a disaster

The joint assessment analyses the **damage, economic loss, effects and impact** of the disaster and identifies **recovery needs** across identified sectors

The assessment also highlights the **macro-economic and human** impacts of the disaster

The recovery needs identified helps to **mobilize resources** and develop a comprehensive **recovery strategy**

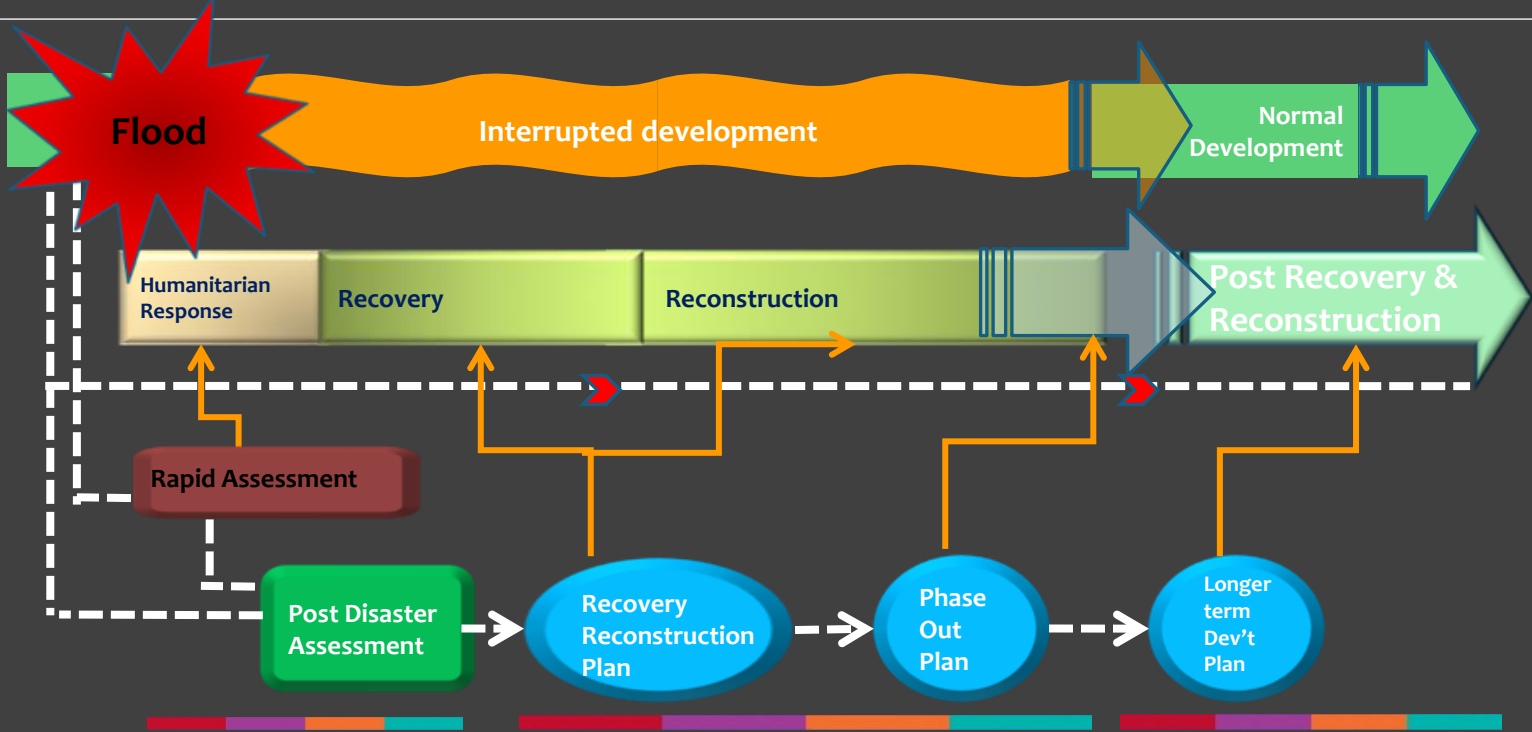
# Why conduct a PDNA: Rationale

The PDNA is envisaged as a **national/state owned and led process**. It **is conducted by the government with** support from national/international agencies and other stakeholders

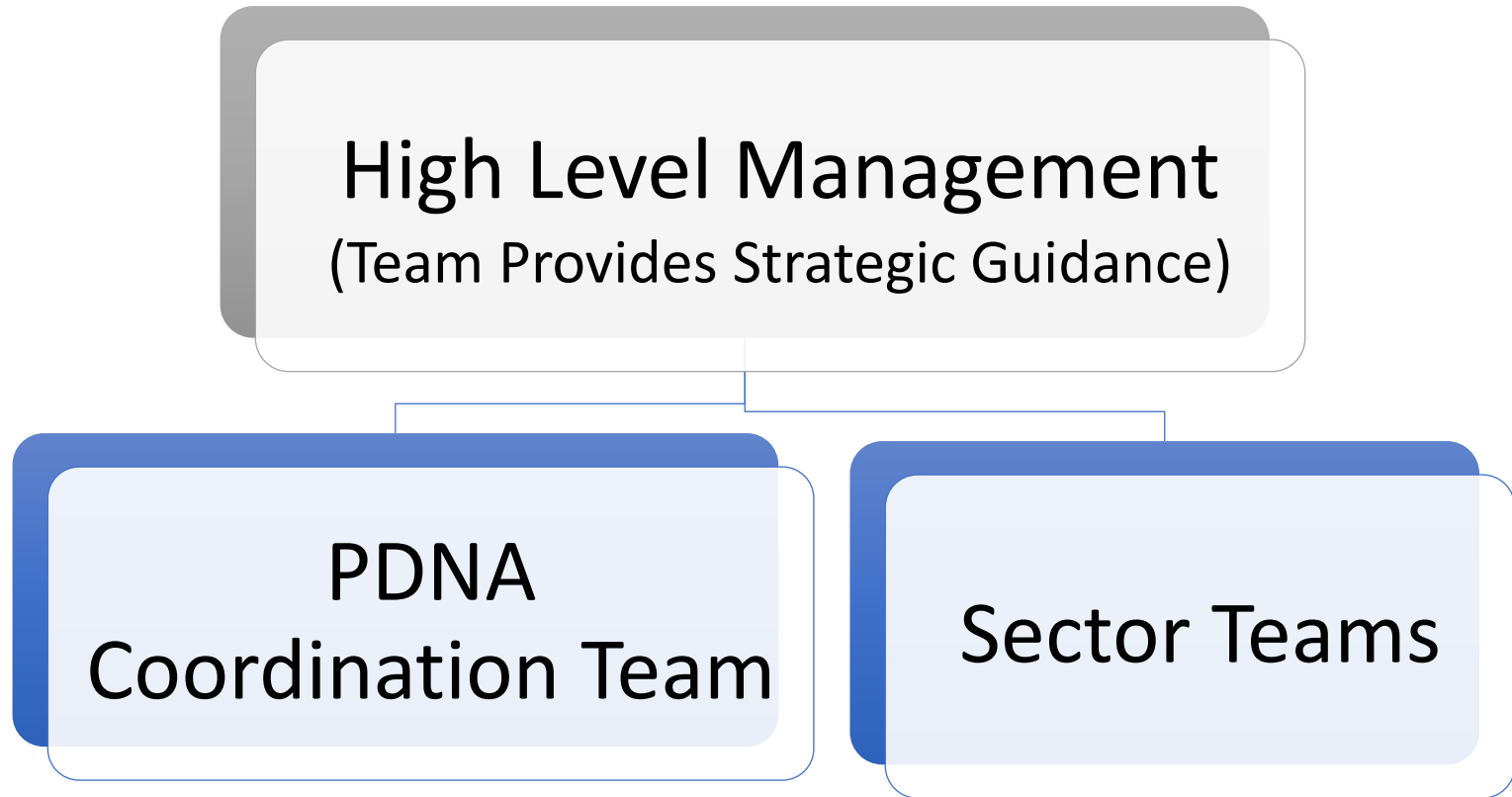
By bringing together key stakeholders engaged in recovery, the PDNA aims to **avoid duplication and harmonize assessment** efforts

The multi-stakeholder approach leads to the development of a single PDNA report that can be used as a **tool for planning and programming recovery**, as well for **resource mobilization**

# Post-Disaster Interventions



# PDNA Coordination Structure



# Typical Sectors and Subsectors






## PRODUCTIVE

-  Agriculture
-  Commerce
-  Industry
-  Tourism

## SOCIAL

-  Housing
-  Education
-  Health
-  Culture

## INFRASTRUCTURE

-  Water & Sanitation
-  Community infrastructure
-  Energy
-  Transport
-  Telecommunications

## CROSS-CUTTING

**GENDER**

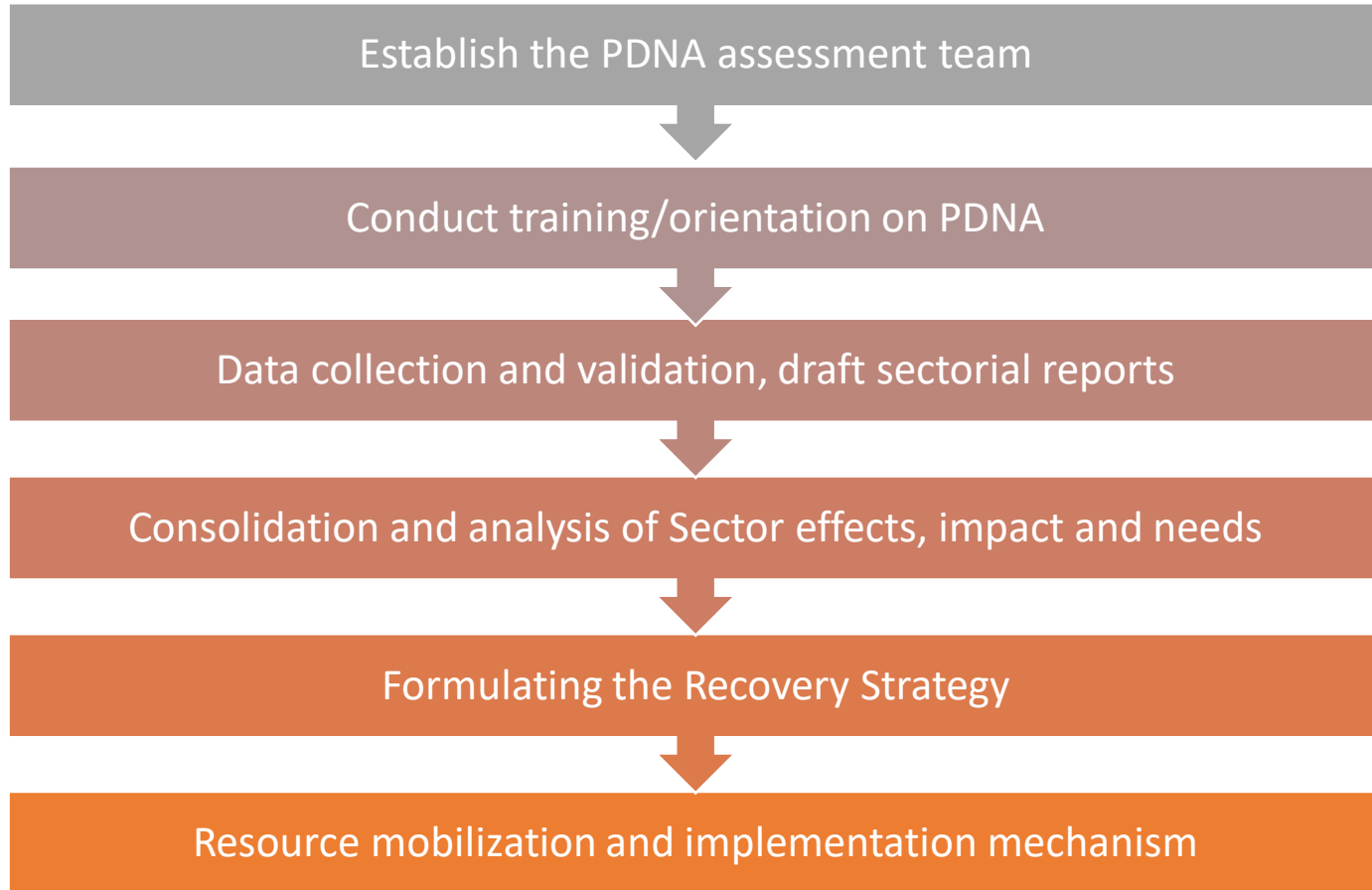
**GOVERNANCE**

**ENVIRONMENT**

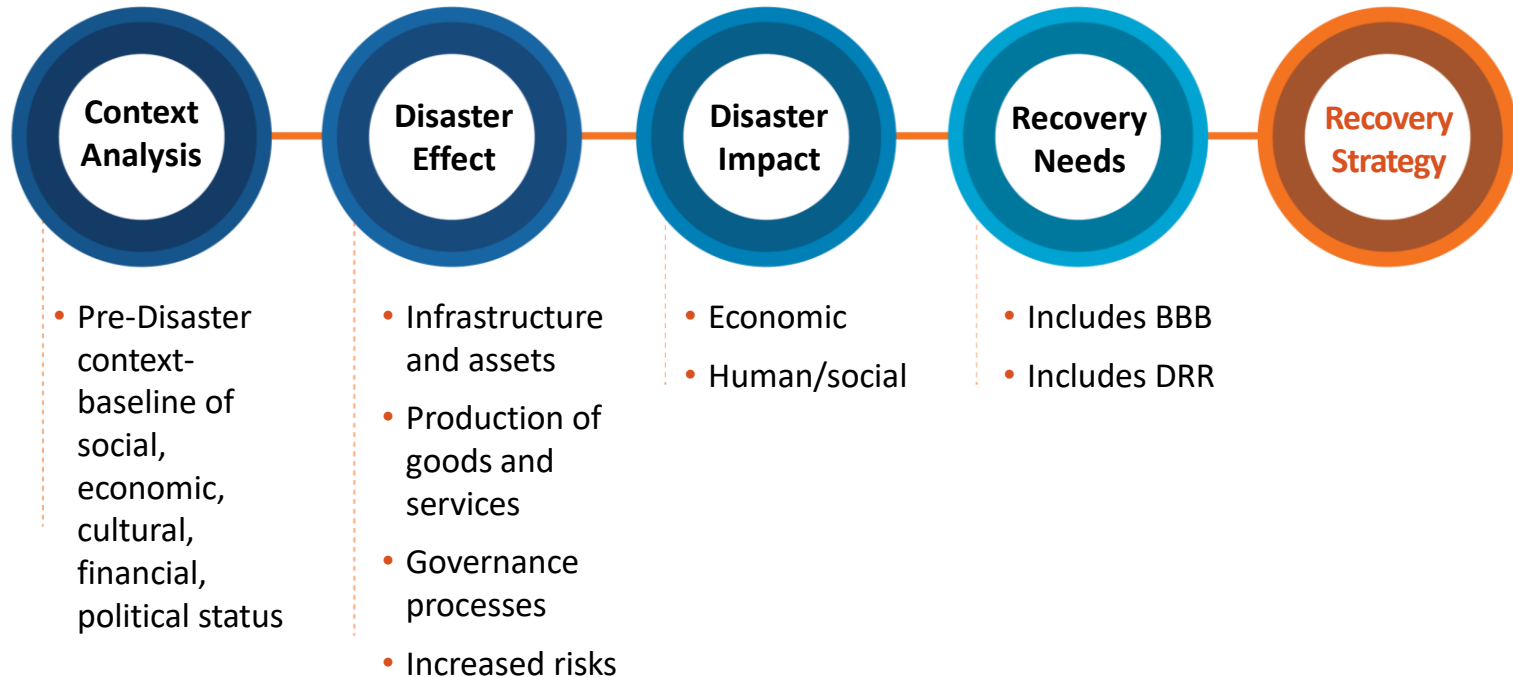
**DISASTER  
RISK  
REDUCTION**

**EMPLOYMENT  
AND LIVELIHOODS**

# PDNA implementation process

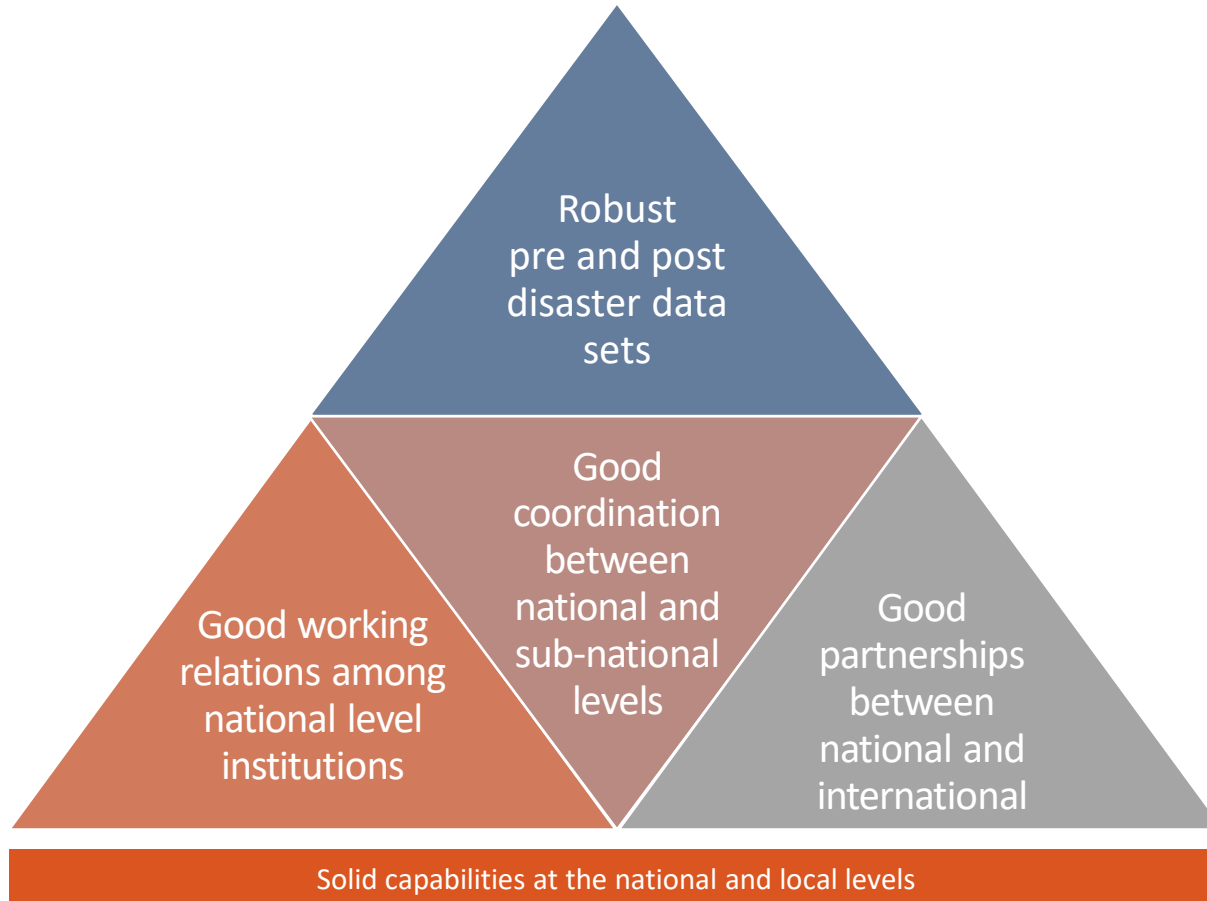


# The PDNA Methodology



**This method of analysis is undertaken for each sector of interest.**

# Enabling conditions for a successful PDNA



# PDNA Deliverables



## **Consolidated Assessment Report**

based on sector reports that present disaster effect and impact, recovery needs, and impact on cross-cutting concerns.



## **Recovery Strategy**

including the vision for national recovery, prioritized sector-specific recovery interventions, costs, timelines and potential actors.



**Basis for Mobilizing (Financial) Resources**  
through allocation of local, national and international sources.



**Outline for Implementation Mechanism**  
led by the affected country for implementing the recovery strategy.

# Post-Disaster Terms to Know

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1. **Damage**
2. **Loss**
3. **Effects**
4. **Impacts**
5. **Needs**

# 1-DAMAGES

□ **Damages:** effects on assets or stock valued as:  
*the cost, in pre-disaster prices,* of:

1. **Repair of *partially damaged*** structures, equipment other assets up to their pre-disaster condition.
  2. **Replacement of *totally destroyed*** structures, equipment and other assets, valued at pre-disaster levels. The valuation can be estimated by:
    - ✓ the market value assets before they were destroyed
    - ✓ acquisition cost less depreciation
    - ✓ Insurance valuation
- **Cost of bringing back the affected structures, equipment , machinery and other assets up to their pre-disaster state**

# 2-LOSSES (1)

□ **Loss** – changes in economic (production) flows which can extend beyond the year the disaster occurred.

**Losses = Pre-disaster minus post-disaster estimates**

Valued as the amount in pre-disaster prices, of:

## 1. Foregone income opportunities

*Private:*

- total loss of crops or reduction in farm output
- income reduction from businesses, rent, etc.

*Public*

- Income losses from public facilities and firms like airports, ports, state-owned enterprises, etc.

# 2-LOSSES (2)

❑ **Loss** – changes in economic (production) flows. Valued as cost of:

## 2. Higher operating costs

- additional expenses to produce same output of goods and/or services during the recovery phase e.g.
  - Cost of replanting new crops
  - Cost of temporary power and/or water supply; rent of temporary offices firms

## 3. Unexpected expenses

- cleaning up of debris
- unexpected expenses on temporary shelters, water supply, medicines, food supply, etc. for the government.

# Examples of Damage and Loss

Damage	Loss
<i>Cost of repair OR replacement of affected assets like:</i>	<i>Value of:</i>
<ul style="list-style-type: none"><li>• Taxi</li></ul>	<ul style="list-style-type: none"><li>• Lost income</li></ul>
<ul style="list-style-type: none"><li>• Buildings, houses and contents</li></ul>	<ul style="list-style-type: none"><li>• Lost income from rent</li></ul>
<ul style="list-style-type: none"><li>• Airport structure and/or equipment</li></ul>	<ul style="list-style-type: none"><li>• Lost income</li><li>• Cost of cleaning</li></ul>
<ul style="list-style-type: none"><li>• Roads and bridges</li></ul>	<ul style="list-style-type: none"><li>• Construction of temporary bridges</li></ul>
<ul style="list-style-type: none"><li>• Hospital buildings and equipment</li></ul>	<ul style="list-style-type: none"><li>• Income losses</li></ul>

# 3 - Some Examples of Disaster Effects

## DESTRUCTION OF ASSETS (DAMAGES)

Housing units and their contents  
Hospitals and schools, and their contents  
Roads and bridges  
Ports & airports  
Vehicles  
Water & sanitation systems  
Etcetera

## CHANGES IN PRODUCTION FLOWS (LOSSES)

Temporary decline and higher production costs in all productive sectors (agriculture, industry, commerce, et cetera)

Temporary decline in revenues and higher costs of operation in services sectors (education, health, water, electricity, transport, etc.)

# Setting the Priorities for Recovery

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PDNAs highlight the recovery needs:

- short-term needs
- medium-term needs
- Long-term needs

PDNAs highlight the sectors where recovery is most needed

These considerations determine the contour of recovery policy

# Estimating Recovery Needs (4 dimensions)

## RECONSTRUCTION

Of infrastructure  
and physical  
assets



## RESUMPTION

Of the production of  
goods and services  
and access to goods  
and services



## RESTORATION OF

Governance and  
Decision-Making  
Processes



## RISK REDUCTION

and Building  
Back Better -  
BBB



# Recovery Needs ( from estimates of damage)

## RECONSTRUCTION OF INFRASTRUCTURE AND PHYSICAL ASSETS

- Value of Damage + Cost of (Quality improvement + Technological modernization + Relocation, when needed + DRR features + Multi-annual inflation)

# Recovery Needs (from estimates of losses)

## RESUMPTION OF PRODUCTION OF GOODS AND SERVICES & ACCESS TO G&S

The additional costs to service providers to restore basic services

The additional costs to provide access to services to the affected communities, as well as equitable and affordable services to vulnerable groups. BBB concepts also applies

## RESTORATION OF GOVERNANCE AND DECISION-MAKING PROCESSES

Cost for additional human resources with improved technical skills and to undertake the recovery

Cost of replacing lost records and upgrading documents of the various public services

Cost of addressing governance and social cohesion issues if disrupted

## RISK REDUCTION

Cost for addressing immediate risks and for upgrading preparedness measures in each sector

Costs to facilitate implementation of building back better approaches.

Costs for specific measures to strengthen DRR

# Examples of Recovery Needs

- Repair of roofs damaged by a hurricane with wind resistant characteristics.
- Temporary shelter scheme and housing rehabilitation program.
- Income generation (Cash for Work) schemes for most affected groups
- Cash grants to micro-enterprises
- Facilitation of construction permits to minimize delays in mitigate impacts on macro-economy, sectors and individuals
- Rehabilitation of basic services (Water/Sanitation, Electricity and Transport)
- Provision of soft term financing to re-start production activities for MSM enterprises.

# Example:

## Recovery Needs - Housing Sector

Activity or program component	How to estimate needs
<b>Short to Medium run</b>	
Provision of household goods	From average value of household goods from lower income housing
Provision of construction materials	From damage figure (rule of thumb take 30% for lower income housing)
Provision of technical assistance on improved/resilient construction	Professional associations to estimate value of such program
Demonstration scheme of improved housing standards	Same as above
Temporary shelter program	From expected duration of scheme, ascertain costs to be met
<b>Medium to Long run</b>	
Soft-term credit lines for house reconstruction	From damage value of medium to high cost housing, include inflation, relocation when needed
Same for house retrofitting for resiliency	Separate estimate to be done by Habitat
<b>Long Term Risk Management</b>	
Relocation of human settlements to safe areas	Reconstruction costs plus

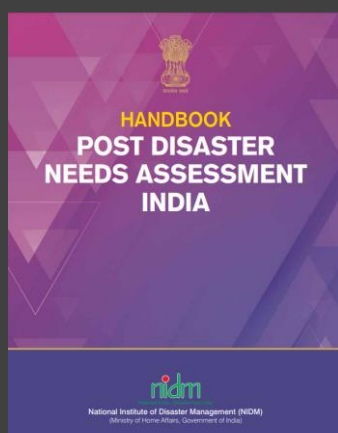
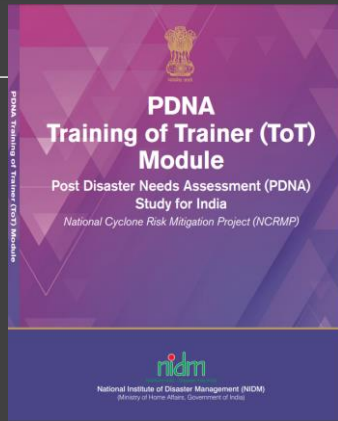
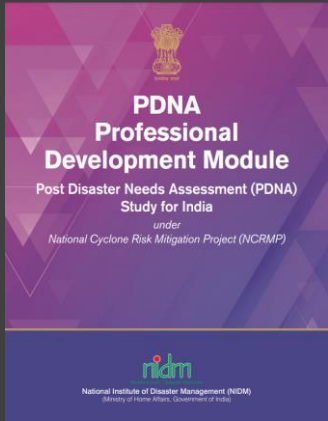
# Prioritization criteria

- The most **urgent needs expressed by the affected population**
- Sequencing of needs: from the short-term to the medium and long term
- Restoring to pre-disaster levels - followed by improvements with **BBB**
- Actions that can yield **early results** effectively
- **Geographic areas** with most urgent needs
- Recovery initiatives **contributing to normalcy/stability** where relevant

# Formulating the Sector Recovery Strategy

- Once priority needs have been identified for each one of the sectors, the required interventions, expected outputs and costs could be estimated.
- The sector team will then discuss how this interventions would be implemented, including the leading entities/ministries, potential synergies with different stakeholders, alignment to existing programs and projects etc.
- Those considerations should be briefly stated as part of the sector recovery strategy.

# PDNA Manual



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Thank You