DISASTER RISK REDUCTION ROADMAP (2015-2030)
(DISASTER MANAGEMENT DEPARTMENT)

ROADMAP DEVELOPMENT PROCESS, STRUCTURE & CONTENT

Vyas Ji, IAS (Retd.)
Vice Chairman,
Bihar State Disaster Management Authority
1. Process of Roadmap Development
   a. Drafting of Roadmap
   b. Validation workshop 8-9 January 2016
2. Roadmap Structure
   a. Evolution of Disaster Management landscape in Bihar
   b. Disaster Risk Profile of Bihar
3. Foundational Element of the Roadmap
   a. Resilience: the organising principle
4. Targets & Milestone
5. Specific Action
   a. Resilient Village
   b. Resilient livelihood
   C. Resilient Basic Services
   d. Resilient Critical Infrastructure
   e. Resilient Cities
6. Enabling policy structure
7. Implementation arrangement
8. Monitoring and evaluation
9. Reflection of Elements of the DRR Roadmap in Bihar development mission
1. Process of Roadmap development - Phase I

- 3rd World Conference on Disaster Risk Reduction, Sendai
- Adaptation of Sendai Framework for Disaster Risk Reduction
- Decision for Bihar Conference on Disaster Risk Reduction (BCDRR)
- Constitution of Organising Committee
- First BCDRR
- Drafting Committee formed

- 14th-18th March 2015
- Mar-Apr-May, 2015
- 13th-14th May, 2015
- 18th May 2015

Contd. ....
Four targets (1-4) has been adapted in Bihar DRR Roadmap.
Hon. Chief Minister of Bihar inaugurated the conference and released a ‘Status Paper’ on DM in Bihar

84 panellists and 550 participants discussed the issues and specific actions for Roadmap in 17 thematic sessions, which were anchored by 10 agencies from Bihar

18 papers submitted by experts and compiled as a compendium

‘Patna Declaration’ released by the Hon. Minister for Disaster Management
Process of Roadmap development- Phase II

- Drafting of Roadmap: May-Jun-Jul, 2015
- Roadmap shared with panellist, PSs, DMs, DCs* for Review: August, 2015
- Peer Review Workshop: Sep. – Oct., 2015
- Budgeting workshop with line dept.: Nov., 2015
- Roadmap Validation Workshop: 8-9 Jan., 2016
- Finalisation of Roadmap: Jan-March 2016

PS: Principal Secretary, DM: District Magistrate, DC: Divisional Commissioners
1 (a) DRAFTING OF ROADMAP

• The Drafting Committee, comprising members from DMD, BSDMA, UN Agencies, and Civil Society, met 15 times for deliberations on the Roadmap structure, framework, and content.

• Contributions were solicited and received from:
  ▪ Newspaper advertisements,
  ▪ Disaster Risk Management (DRM) Solutions Exchange community,
  ▪ Panellists and Experts from BCDRR,
  ▪ CSOs working in Bihar,
  ▪ 18 Thematic Papers, and
  ▪ Village Communities

• Drawing out learning from BCDRR sessions through analysis of session videos, session notes, and workshop report.

• Review of pertinent policy and research documents in the state (MMV, Agriculture and Health Roadmaps, SDMP amongst others) and other relevant documents (such as Sri Lanka DRM Roadmap amongst others).
Objective: To review the key chapters of the DRR Roadmap and provide specific changes for finalization of the Roadmap.

Inauguration by Hon’ble Chief Minister.

Valedictory by Hon’ble Minister, Disaster Management Department, GoB.

CONTRIBUTERS TO THE ROADMAP

- Panellists and experts
- Members of the Civil Society
- Members of UN Agencies
- Practitioners of DRM
- Officials from Government of Bihar
- Village Communities
- Citizens of Bihar
2. ROADMAP STRUCTURE

1. INTRODUCTION

2. EVOLUTION OF DISASTER MANAGEMENT LANDSCAPE IN BIHAR

3. DISASTER RISK PROFILE OF BIHAR: A SNAPSHOT

4. FOUNDATIONAL ELEMENTS OF THE ROADMAP

5. TARGETS AND MILESTONES

6. SPECIFIC ACTIONS

7. ENABLING POLICY ARCHITECTURE

8. ROADMAP IMPLEMENTATION ARRANGEMENTS

9. MONITORING AND EVALUATION ASPECTS

10. BUDGETARY IMPLICATIONS OF THE ROADMAP

11. ANNEXURES
2 (a) EVOLUTION OF DISASTER MANAGEMENT LANDSCAPE IN BIHAR

Policies and Programmes

- Separate Department for Disaster Relief
- IAG Informally Constituted
- National DM Act adopted by Bihar state
- SEC Constituted; BAPEPS formed; Relief, Response, Reconstruction and DRR programmes launched by many national and international civil society organisations
- FMISC Constituted
- BSDMA Constituted (notified in 2007)
- SDRF Constituted
- Safety Weeks Initiated
- SOPs for MCM and Drought being formulated
- Refined Building Code and By-laws passed
- 1st BCDRR; SOP for Drought approved; Earthquake Safety Clinic and Centre started; MSSP launched with 1st School Suraksha Pathkwa

1st SDMP finalised; State Disaster Mitigation Fund created; SOP for AES, Fire and Hospital Safety, Mass Casualty Management and Flood Management (WRD) approved

Norms of assistance passed SOP for Flood Disaster Management approved Directives regarding fire, cold wave, hail storm and lightening related losses issued


- Munger Earthquake (1934)
- Large-Scale Floods & Earthquake
- Large-scale floods in 18 districts, drought in 20 districts
- Drought
- Large-Scale Floods
- Kusaha Breach leading to large scale floods
- Drought
- Drought
- 434 houses were destroyed in fire incidences across the state
- Earthquakes in Nepal and Aftershocks; Hailstorm and Cyclonic Storm
- Large-Scale Floods Unmanageable by Single Actors
2.(b) DISASTER RISK PROFILE OF BIHAR

• The hazard profile of the state makes it literally the House of Hazards → Multi-hazard prone

➤ the whole of State is earthquake prone → Seismic Zone III, IV, V
➤ over 70% of the area flood prone → Rivers originating in Nepal & India criss-crossing Bihar
➤ over 30% of the area drought prone and
➤ High speed wind prone, Cyclonic storm prone, fire incident prone & gale/hailstorm prone.
➤ Boat tragedies/ drowning

Contd. ....
**Earthquake**

- Total 21.1% area of Bihar in Zone IV
- Total 63.7% area of Bihar in Zone IV
- Total 15.2% area of Bihar in Zone V

**Flood—Most Vulnerable:** 15 districts
Drought — Most Vulnerable Districts: Gaya, Nawada, Jamui, Nalanda, Lakhisarai. Prone District: Jahanabad, Arwal, Aurangabad, Kaimur, Bhojpur, Buxar, Rohtas, Banka

High Speed Wind — Around 86% of area of Bihar prone to cyclone of 47 m/s /Gale /Hail Storm intensity — Around 14% of area of Bihar prone to Cyclone of lesser intensity
DISASTER RISK PROFILE OF BIHAR: A SNAPSHOT
3. FOUNDATIONAL ELEMENTS OF THE ROADMAP

• 15 Guiding Principles
  • Primacy of rights of at-risk communities
  • Partnerships
  • Participation, Inclusion
  • Resilience in Development

• Approach of Implementation
  • Multi-hazard focus
  • Phasing

• Framework
  • Resilience as the organising principle, goal and means
  • FIVE components – communities and systems
3(a) Resilience : the organising principle

Challenge: How should the specific actions be organised in the DRR Roadmap?

<table>
<thead>
<tr>
<th>Hazard-wise</th>
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<tbody>
<tr>
<td>SFDRR 7 Targets and/or 4 Priorities</td>
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<tr>
<td>Stages of DRM – Preparedness, Response, Mitigation, Recovery, Rehabilitation</td>
</tr>
<tr>
<td>Nature of Action – Policy, Capacity Building, Public Education etc.</td>
</tr>
<tr>
<td>Actors and levels of action</td>
</tr>
<tr>
<td>Sector/ life aspect impacted by disasters – Health, Education etc.</td>
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<tr>
<td>Geography, Temporal (short term, medium term, long term)</td>
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</tbody>
</table>

Resilient Entities

Which entities would have to be resilient to achieve the goal of resilient Bihar?

Contd. ....
4. TARGETS AND MILESTONES

4 TARGETS

1. Lives lost due to natural disasters in Bihar would be reduced by 75% of the baseline level by 2030.

2. Lives lost due to transportation related disasters (viz. road, rail and boat accidents) in Bihar would be substantially reduced over baseline level by 2030.

3. People affected by disasters in Bihar would be reduced by 50% of the baseline level by 2030.

4. Economic loss due to disasters in Bihar would be reduced by 50% of the baseline level by 2030.

17 MILESTONES

• Short term (2020), Medium term (2025) and Long term (2030)
• Planning-related, Policy-related, Systems-related, Risk analysis-related
5. SPECIFIC ACTIONS

• FIVE Components
• Conceptualisation
• Characteristics
• Actions: Levels and Types

Resilient Village and Resilient Cities
Risk Recognition, Analysis and Risk-Informed Planning
Risk Reduction Measures (Hazard Specific)
Preparedness for Effective Response
Capacity Building
Communication & Awareness

Resilient Livelihood, Resilient Basic Services and Resilient Critical Infrastructure
Overarching
Service Delivery Continuity Plans
Preparedness, Response Recovery
Capacity Building
Communication & Awareness
5 (a) RESILIENT VILLAGE

**Conceptualisation:** Dynamic and proactive social unit capable to assess, address and recover from disasters

**Major Characteristics**

1. Individuals, groups and communities are aware and recognize the risk.
2. Safe behaviours and practices
3. DRR is mainstreamed in GP plans
4. Vibrant community institutions for risk analysis, communication, preparedness, response and reduction
5. Ability to manage small-scale disasters
6. Access to early warning and emergency services
5 (b) RESILIENT LIVELIHOODS

**Conceptualisation:** interplay of means, activities and entitlements by which livelihood practitioners anticipate, cope and recover from disasters and Climate Change

**Major Characteristics**

1. Sustainable, risk-informed livelihood choices and context-specific production practices
2. Diverse sources of income coming from a wider livelihood basket
3. Capacities and opportunities to recover from shocks and stresses
4. Plan for ensuring the continuity of markets, supply chains, pertinent financial products, and temporary sources of income in case of disasters
5. Access to raw materials/inputs, financial inclusion, backward and forward linkages, and means for processing and marketing for quick recovery
6. Migration is only by choice, is safe and not forced
7. Safeguarding the livelihoods of marginalised group
Conceptualisation: 7 services (WASH, Food & Nutrition, Health, Education, Housing, School Safety Programme, Emergency Support Function) which are capable of efficacy in non-disaster times, effective during disasters and recover from disasters through BBB.

Major Characteristics

1. Rights and duties of citizens and line departments
2. Risk-informed annual plans
3. Service Delivery Continuity Plans
4. Pre-positioning
5. Capacities
6. Flexibility in policies and programmes for differential planning
Conceptualisation: 6 bundles (Roads and Bridges, Telecommunications, Power, Dams and Embankments, Transport Systems and Hazardous Industries) which are capable of efficacy in non-disaster, effective during disasters and recover from disasters through BBB

Major Characteristics

1. Rights and duties of line departments, services providers and users
2. Risk-informed annual plans
3. Construction of CI does not create/worsen disaster risks
4. Business continuity plans (BCPs)
5. Capacities
5 (e) RESILIENT CITIES

**Conceptualisation:** Dynamic and proactive social unit capable to assess, address and recover from disasters

**Major Characteristics**

1. Citizens’ and communities’ rights and duties
2. Land zoning and urban planning is risk-informed
3. Safe behaviours and practices
4. DRR is mainstreamed in ULB plans
5. Vibrant community institutions for DRR
6. Ability to manage small-scale disasters
7. Access to early warning and emergency services
6. ENABLING POLICY ARCHITECTURE

DRR Roadmap aims to steer the policy architecture of the state further towards strengthening DRR by creating an enabling environment of funds, functions and functionaries for DRR as well as mainstreaming DRR in development through:

- Legal Amendments
- Development of Policies
- Directives for planning and resource allocation
- Guidelines and Manuals
- Norms
- SOPs
- Programmes
7. IMPLEMENTATION ARRANGEMENTS

- Existing Institutions
- Proposed Institutions/mechanisms
- Personnel
- Programmes and Systems
## 8. MONITORING AND EVALUATION

<table>
<thead>
<tr>
<th>Institution</th>
<th>Focus and means of monitoring</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>CMG, headed by CS</td>
<td>- Strategic Review (Line Departments’ presentations)</td>
<td>Annual</td>
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</table>
| Special Task Force, headed by PS-DMD | - Annual Resilience Report Card  
- Progress review of Resilient Village and City Programmes  
- On-site stock-taking of select key interventions (for e.g. actions related to capacity building, resilient village and cities programmes, school safety, risk analyses, GP & ULB planning, risk proofing livelihoods, and departments’ risk reduction measures) by the team  
- Review of SOPs and guidelines  
- Sharing of progress through BCDRR  
- First mid-term Evaluations of Roadmap Implementation  
- Second mid-term Evaluations of Roadmap Implementation  
- End-term Evaluation | Annual  
- 6 monthly  
- 6 monthly  
- Post-event  
- Biennial  
- 2022-23  
- 2026-27  
- 2030 |
| Line Departments, headed by respective PS’ | - Review of plans for: risk analysis, risk-informed actions and Service Delivery / Infrastructure Continuity Planning (SDCP / ICP)  
- Appraisal of implementation of risk-informed developmental planning and related actions and additional risk reduction initiatives undertaken from the Roadmap  
- Review of SDCP / ICP | Before approval of plans  
- As part of routine monitoring  
- Post-event |
| Roadmap Implementation Support Unit (RISU) | - Development of baseline for targets  
- Tracking the progress against the baseline  
- Management of data of the roadmap implementation  
- On-site monitoring of specific actions  
- Development and sharing of analytical reports | 2015-16  
- Ongoing  
- Ongoing  
- Quarterly  
- Half-yearly |
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<tr>
<th>Role</th>
<th>Activity</th>
<th>Frequency</th>
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<tr>
<td>DDMA, headed by DM</td>
<td>Review of district plans of departments for: risk analysis, risk-informed actions and BCP</td>
<td>Annual</td>
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<td></td>
<td>Review of DDMP</td>
<td>Annual and Post-event</td>
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<td></td>
<td>Review of Resilient Village and City Programmes</td>
<td>6 monthly</td>
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<tr>
<td></td>
<td>District Resilience Report Card</td>
<td>Annual</td>
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<tr>
<td>BDO and SDM</td>
<td>Review of Resilient Village and City Programmes</td>
<td>Quarterly</td>
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<tr>
<td>GP / ULB</td>
<td>Review of plans for risk analysis and risk-informed actions</td>
<td>Quarterly</td>
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<td>Assessment of implementation of risk-informed actions</td>
<td>Bi-annual</td>
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<td>additional risk reduction initiatives undertaken from the Roadmap</td>
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<td>Social audit of the DRR actions by Gram Sabha / ULB general body meeting</td>
<td>Annual</td>
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<tr>
<td>CSOs</td>
<td>Participation of CSOs in all the above mentioned monitoring and evaluation activities</td>
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<tr>
<td>Experts / Agencies</td>
<td>Participation in the periodic review and evaluations of this DRR Roadmap</td>
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10. ELEMENTS OF THE DRR ROADMAP IN BIHAR DEVELOPMENT MISSION

• The Government of Bihar has notified “Bihar Development Mission” to accelerated the development process through fast track decision making processes in time bound manner.
• Mission has seven resolves and seven submission to be implemented in mission mode to ensure faster execution of seven resolves of the government in next five years

**Seven Resolves (SAAT NISHCHAY)**

1. Empower the youth of Bihar and make them self-sufficient
2. Women empowerment and to make them more self-reliant
3. Electricity connection is secured for each household.
4. Piped water would be made available to all homes
5. All weather roads reach each and every doorstep
6. Each household would be equipped with a toilet
7. Expand the opportunities for technical and higher education in the state
• Seven sub-missions focusing on

✓ Youth
✓ Drinking water sanitation, Development of villages and cities
✓ Human Development
✓ Agriculture
✓ Industries and occupation
✓ Infrastructure
✓ Communication and Brand Bihar

The operational leadership for the implementation of this Roadmap would proactively engage with the operational leadership of flagship initiatives in the state like the Bihar Development Mission (BDM) that has been initiated for fulfilment of the State Government “Seven Resolves” (Saat Nischay).
THANK YOU ....