Multi-Hazard DDMP
Gaya, Jehanabad, Aurangabad, Arwal
Review & Consultation Workshop

Presentation by
Global Rescue Consultants Pvt Ltd (GRCPL)
for
Bihar State Disaster Management Authority (BSDMA)

6-7 January 2016
At Patna
Status of Progress in the Process of Making DDMP
The Methodology

Step-1: Planning Workshop

Step-2: Ground Work

Step-3: HRVCA Workshop

Step-4: Department Wise Meeting

Step-5: Preparation & Testing of SOPs

Step-6: Dev. of Preparedness & Response Plan

Step-7: Development of Mitigation Plan

Step-8: Drafting of DDMP

Step-9: Final Consultation on Draft DDMP

Step-10: Revision of DDMP & Submission to BSDMA/DDMA

Step-11: Handholding of DDMP
<table>
<thead>
<tr>
<th>Step</th>
<th>Methodology Step</th>
<th>Status</th>
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<tbody>
<tr>
<td>1</td>
<td>Planning Workshop (distt level)</td>
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<tr>
<td>2</td>
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<td>3</td>
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<td>Preparation &amp; Testing of SOPs</td>
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<td>6</td>
<td>Dev. of Preparedness &amp; Response Plan</td>
<td>Started</td>
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<td>7</td>
<td>Development of Mitigation Plan</td>
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<td>8</td>
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<td>9</td>
<td>Final Consultation on Draft DDMP</td>
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<tr>
<td>10</td>
<td>Revision of DDMP &amp; Submission to BSDMA/DDMA</td>
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</tr>
<tr>
<td>11</td>
<td>Handholding of DDMP</td>
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Stakeholders Consultations Held in Districts
## Stakeholders Consultations

<table>
<thead>
<tr>
<th>Sr</th>
<th>District</th>
<th>Chaired BY</th>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Gaya</td>
<td>ADM</td>
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<tr>
<td>2</td>
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<tr>
<td>3</td>
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<td>4</td>
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### Distt Level Progress & HRV Workshop

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<td>DM</td>
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## Stakeholders Consultations

### Gaya Sub-Division Level Progress & HRV Workshop

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<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>Sherghati</td>
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<tr>
<td>3</td>
<td>Neemchak Bathani</td>
<td>18 Dec 2015</td>
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<td>4</td>
<td>Gaya Sadar</td>
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## Stakeholders Consultations

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<tr>
<td></td>
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<td>Jehanabad</td>
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<td>3</td>
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<td>Completed</td>
</tr>
<tr>
<td>4</td>
<td>Arwal</td>
<td>Completed</td>
</tr>
</tbody>
</table>

**Departments Covered:**
Departments Covered

- Cooperative Dept.
- Lead District Manager, Banking
- Road Construction
- Rural Work Dept.
- Building Dept.
- Police Dept.
<table>
<thead>
<tr>
<th>Sr</th>
<th>Distttt</th>
<th>Status</th>
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<tbody>
<tr>
<td>1</td>
<td>NCC</td>
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<td>2</td>
<td>Scout &amp; Guides</td>
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<tr>
<td>3</td>
<td>NGO’s</td>
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<td>5</td>
<td>Schools</td>
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<td>6</td>
<td>Hospitals</td>
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<td>7</td>
<td>Business Associations</td>
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Reach to Blocks, PRIs & ULBs
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<tr>
<th>Sr</th>
<th>Disttt</th>
<th>Covered</th>
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<tr>
<td>1</td>
<td>Gaya</td>
<td>4 Wards (29,30,50,51) and 9 villages</td>
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<tr>
<td>2</td>
<td>Aurangabad</td>
<td>12 villages</td>
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<td>3</td>
<td>Arwal</td>
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<tr>
<td>4</td>
<td>Jehanabad</td>
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<table>
<thead>
<tr>
<th>Sr</th>
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<th>Total Blocks</th>
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<tr>
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<td>24</td>
<td>19</td>
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<tr>
<td>2</td>
<td>Aurangabad</td>
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<td>3</td>
<td>Arwal</td>
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</tr>
<tr>
<td>4</td>
<td>Jehanabad</td>
<td>7</td>
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Highlights of the DDMPs: Process & Content
### District Coordinators

- **Gaya**: Belal Anwar (Masters in D.M. TISS)
- **Jehanabad**: Kunal Sharma (Pursuing PhD in Indl Chemical D.M.)
- **Aurangabad**: Parveen Saroha (Masters in D.M. TISS)
- **Arwal**: Prathmesh Baviskar (Masters in D.M. TISS)
Highlights: Process

Guiding Principle

- **Ownership Building**
  - Involvement of D.M., ADM, SDC
  - Office Space at District HQ
  - Involvement of Line Deptts, COs, BDOs
  - Involvement of Mukhiyas
  - Involvement of other stakeholders

- DDMP should connect with the people

- Workable DDMP
Highlights: Process

- Planning Meeting at New Delhi Office
- Ground Work Planning based upon the Inputs in Planning Workshop at Distt Level
- Secondary Data Collection from Line Departments
- Initial Analysis of Secondary Data & then Revised Planning for Field Visits
- Use of Feedback form in Planning Workshop
- Improvement in consultation workshops’ approach based upon Resource Persons’ feedback
- Open Discussions in Planning Workshop on pre-defined questions
- Review meeting at BSDMA with team
Highlights: Process

Ground Work divided into 6 Major Exercises

1. District profile
2. HRV Analysis
3. Capacity Analysis
4. Mitigation
5. Response
6. Preparedness

Comprising more than 40 forms
Highlights: Process

- Review Planning Workshop at New Delhi
- Study of HRVA methodology adopted by various agencies in the past and selection of tools relevant for our working
- Development of Checklist to monitor & assess ground work progress
- HRVC workshop: Open discussion guided through pre-defined questions
- Visit to Each block & Vulnerable Panchayats
  - Gaya: Sub-Division Level workshops
  - PRA Exercises
Highlights: Process

- Planning Workshop at Gaya Chaired by ADM on 24th August 2015
Highlights: Process

- Planning Workshop at Gaya Chaired by ADM on 24th August 2015
Highlights: Process

- Planning Workshop at Arwal Chaired by ADM on 21\textsuperscript{th} August 2015
Highlights: Process

- Planning Workshop at Jehanabad Chaired by DM on 22nd August 2015
Highlights: Process

➤ Progress & HRVA Workshop at Aurangabad

On 28th Dec 2015
Highlights: Process

- Sub-Division Level Progress & HRVA Workshop at Gaya During 16 to 19 Dec 2015
Highlights: Process

- Sub-Division Level Progress & HRVA Workshop at Khijarsarai, Gaya During 16 to 19 Dec 2015
Highlights: Process

- Sub-Division Level Progress & HRVA Workshop at Tekari, Gaya During 16 to 19 Dec 2015
Highlights: Process

What are the hazards (disasters) your district is prone to?

What is the existing role/work of your department/organization (or your) in the disaster management?

During disaster management what are the interdependency of your department with other departments?
What are your expectations from the District Disaster Management Plan?

What were the problems faced by you (your department) in the past during Disaster Management at district level?

What are the gaps in the present disaster management system at district level?
"disaster" means

- 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 nature or magnitude as to be beyond the coping capacity of the community of the affected area;

आपदा का मतलब है

- किसी क्षेत्र में तबाही, दुर्घटना, विपत्ति, गंभीर हादसा
- प्रकृति या मानव जनित
- बड़े पैमाने का जान माल, वातावरण का नुकसान या मानवीय पीड़ा
- स्थानीय जनता और प्रशासन की क्षमता से बाहर
Disaster आपदा (as per HPC)

Water and Climate related disasters

1. Floods and Drainage Management
2. Cyclones
3. Tornadoes and Hurricanes
4. Hailstorm
5. Cloud Burst
6. Heat Wave and Cold Wave
7. Snow Avalanches
8. Droughts
9. Sea Erosion
10. Thunder and Lightning

पानी और जलवायु सम्बंधित आपदाएं

1. बाढ़ और जलनिकास प्रबंधन
2. चक्रवात
3. बांधर और तूफान
4. मूसलधार बारिश
5. बादल फटना
6. लू और शीत लहरी
7. हिमस्खलन
8. सुखाड़
9. समुद्र कटाव
10. गरज और बिजली गिरना
Disaster आपदा (as per HPC)

Geologically related disasters

1. Landslides and Mudflows
2. Earthquakes
3. Dam Failures/ Dam Bursts
4. Mine Fires

भौगोलिक सम्बंधित आपदाएं

1. भूस्खलन और कीचड़ प्रवाह
2. भूकम्प
3. बांध विफलता/ बाँध फटना
4. खदानों की आग
Chemical, Industrial and Nuclear related disasters

1. Chemical and Industrial Disasters
2. Nuclear Disasters

1. रासायनिक और औद्योगिक आपदाएँ
2. नामिकीय आपदाएँ
Disaster आपदा (as per HPC)

Accident related disasters
1. Forest Fires
2. Urban Fires
3. Mine Flooding
4. Oil Spill
5. Major Building Collapse
6. Serial Bomb Blasts
7. Festival related disasters
8. Electrical Disasters and Fires
9. Air, Road and Rail Accidents
10. Boat Capsizing
11. Village Fire
Disaster आपदा (as per HPC)

Biologically related disasters जैविक आपदाएं
1. Biological Disasters and Epidemics
2. Pest Attacks
3. Cattle Epidemics
4. Food Poisoning
Introductory Remarks on DDMP
Purpose of Planning Workshop?

डीडीएमपी पर परिचयात्मक टिप्पणी
योजना कार्यशाला का उद्देश्य
Ownership Building स्वामित्व का बोध

- For You, By You
- It is your Plan
- At the Time of Disaster, You are Part of It
- REMEMBER: Its For Me

- आपके लिए , आपके द्वारा
- यह आपका प्लान है
- आपदा के समय आप इस पर निर्भर रहेंगे
- हमेशा याद रखिये-प्लान मेरे लिए है
Purpose of Planning Workshop
योजना कार्यशाला का उद्देश्य

- Consensus Building
  मतैक्य (आम सहमति)
- Participation of all stakeholders
  (Participatory Approach)

सभी हितधारकों की भागीदारी
Purpose of Planning Workshop
योजना कार्यशाला का उद्देश्य

- Interactive Process
- (Your Feedback on ongoing practices, gaps)
- Plan will not be prepared by us

- इंटरैक्टिव प्रक्रिया (परस्पर संवाद)
- चल रहे तरीकों और कमियों पर आपकी प्रतिक्रिया
- प्लान आप बनाएंगे - हम नहीं
Questions asked by the D.M. and other participants

- How many DDMPs have been prepared in India so far?
- **Will the plan be prepared by taking inputs from D.M.?**
- What is the probability of earthquake in Arwal i.e. Arwal’s earthquake zonation and risk?
- Will the DDMP prepared by the agency or the DM office has to make it?
- **How will you manage and make plan for old infrastructures and buildings in the district?**
- Will this plan have provisions to enforce building codes & guidelines or retrofitting of old structures?
- How much practical & workable will the DDMP be and what is the plan to ensure the same?
Highlights: Process

Planning Workshop at Arwal, Chaired by D.M. (21 August 2015)

Questions asked by the D.M. and other participants

- Is school safety aspect being covered by DDMP or not?
- What are the formats that the line departments have to fill to give their inputs?
- Will DDMP cover disaster due to lightning?
- Is Civil Unrest also in the scope of DDMP?
- Are you also going to include panchayat level issues in D.M. plan?
- What are the provisions in DDMP for heat wave or cold wave?
- Will DDMP include fire problem due to high voltage electric wires that fall on crops?
- What are the provisions for private institutions like schools in DDMP.
- What is broad definition of disaster?
Highlights: Process

Planning Workshop at Arwal, Chaired by D.M. (21 August 2015)

Inputs/Feedback from D.M. and other participants

• Ensure that the formats for data and inputs collection are in Hindi and also that the executives involved in the collection of data are well versed with the relevance of the data required in the DDMP preparation.

• Lower areas along the Sone river are prone to flood hazard?

• Include fire evacuation plan in DDMP.

• Display board on disaster awareness should be placed in schools and hospitals.

• IEC material (Posters etc) should be provided and provision/plan for the same should be highlighted in DDMP.

• Detailed evaluation of the learning from the past disasters should be done.

• There should not be any short cuts while preparing the DDMP.
Inputs/Feedback from D.M. and other participants

- District Coordinator or facilitator of the agency should help the DM office and line departments to get thorough knowledge about the idea behind the whole DDMP process.
- District coordinator should be well versed with the questionnaire to ensure efficient and better data mining.
- Use of satellite phones for line departments during disaster response.
- Include Rihant dam on Sone river in DDMP for Arwal.
- Provision for enforcement of building bylaws in DDMP.
- Detailed mitigation plan should be there in DDMP.
- DDMP should help initiate training in all line departments.
Highlights: Process

Planning Workshop at Arwal, Chaired by D.M. (21 August 2015)

Inputs/Feedback from D.M. and other participants

- Separate response plan for single storey and multi storey building should be there in DDMP.
- Mock drill provisions in DDMP.
- Disasters created due to tin sheets during strong winds/cyclone should be included in DDMP.
- Bomb blasts should be taken care of in the DDMP.
- Train accidents which occur due to pedestrian crossing of railways track should also be included in DDMP.
- Mid day meal in schools which causes health issues should also be included in DDMP.
HiLights: Process

Planning Workshop at Arwal, Chaired by D.M. (21 August 2015)

Inputs/Feedback from D.M. and other participants

• **Human resource management during response** of disaster should be included in the DDMP.
• Fire management provisions up to block level.
• SOPs development for all departments.
• DDMP should be simple to understand and operate.
• Response plan should be like DEMP (District Election Management Plan).
• All departments and stakeholders should be apprised with the HPC list of 31 types of disasters.
• Clarity on inter department issues in DDMP.
• Proper and synchronized planning between all line departments.
Highlights: Process

Planning Workshop at Aurangabad, Chaired by A.D.M. (1 Sep 2015)

Inputs/Feedback from participants

– Road accident at NH2 is very frequent. Special focus on highway accidents. District Aapda Prabhari herself had faced road accident.
– Fire in villages due to cigarette or bidi or other negligence especially during March to June.
– Land mines blast is a serious issue in Madanpur block.
– Heat waves should be dealt in DDMP.
– Food poisoning should be covered in DDMP.
– Tractor and heavy vehicles driven by children is a serious road hazard.
– Lightening is a serious problem (in Dev area).
– Crowd Management in Dev area especially in Sun Temple.
– Neelgai attack problem should be dealt in DDMP.
– Insects attack (Obra Thana and nearby areas of Haidari river) especially mosquitoes is a serious problem.
– Village level plan should be included in DDMP.
– Vulnerability based plan.
Highlights: Process

Planning Workshop at Aurangabad, Chaired by A.D.M. (1 Sep 2015)

Inputs/Feedback from participants

- **DDMP** should be sensitive to local needs.
- **Crowd management in hospitals** along with proper safety/security arrangements of officials who work in relief operations during disaster.
- Staff availability should be increased for disaster management.
- **A Trauma centre** should be opened in Aurangabad.
- Fogging machine and other helpful machines in relief operations should be kept at panchayat level.
- Well equipped fire stations at strategic locations are required.
Highlights: Process

Planning Workshop at Aurangabad, Chaired by A.D.M. (1 Sep 2015)

Inputs/Feedback from participants
- Proper canal management is required.
- Roads and divider management.
- Provision for earthquake resistant buildings should be in DDMP.
- Lack of information technology for disaster management should be taken care of in DDMP.
- No proper training is provided to officials to deal with the after effects of disasters.
- Transport department should be well defined for their role in quick & easy recovery.
- Role of media and public representatives during and after disaster should be dealt in DDMP.
Highlights: Process

Planning Workshop at Gaya, Chaired by A.D.M. (24 Aug 2015)

- Inputs/Feedback from participants
  - Fire prone areas and Road accident prone areas should be included in DDMP.
  - Flash Flood in Dobhi Block should be taken care of in DDMP.
  - Heat wave (Sunstroke) should be dealt in DDMP.
  - Lightening disaster is a major issue which should be included in DDMP.
  - **Children and cattle falling in bore well** should be included in DDMP. At the moment there is no guideline to rescue bore well related accidents/issues.
  - Logistics problem during disaster response should be included in DDMP.
  - No proper response system is present at the moment.
  - **Response Team deployment should be very quick.**
Planning Workshop at Gaya, Chaired by A.D.M. (24 Aug 2015)

Inputs/Feedback from participants
- A dedicated team only for disaster management should be in the district.
- No proper technique to slow down village fire. This should be dealt in DDMP.
- Non availability of fire brigades at block level.
- Awareness generation programs (like nukkad nataks etc) should be included in DDMP.
- Rail accident related response mechanism & capacity building should be included in the DDMP.
- Village level disaster management teams should be formed.
- Non availability of even small rescue equipments like fawda, gaiti etc is observed during response.
- **Health management in village should be included in DDMP.**
- Non availability or huge scarcity of medicines during disasters is observed.
Highlights: Process

Planning Workshop at Gaya, Chaired by A.D.M. (24 Aug 2015)

- Inputs/Feedback from participants
  - 18 to 25 year old persons should be trained for diving & flood relief at village level.
  - Awareness generation on time & relief management in villages during disaster.
  - There should be sufficient number of boats & life jackets at Village/block level.
  - Identification, training & listing of physically robust persons at village level to work for response during disaster.
  - Divers from fishermen community should be given preferences.
  - Proper crowd management plan should be included in DDMP.
  - **Proper evacuation of animals during disaster should be dealt in DDMP.**
  - Villages should have ponds for water harvesting to ensure availability of water during summer/drought phase.
  - **Availability of feeder points at village level for fire brigade to fight fire.**
  - Financial management system for disaster management should be incorporated in DDMP.
  - **Advance fund for disaster response should be provided to every line departments and COs.**
Highlights: Process

Planning Workshop at Gaya, Chaired by A.D.M. (24 Aug 2015)

• Inputs/Feedback from participants

  – Good quality lightening arrester use for lightening should be encouraged in villages.
  – Resource management should be included in DDMP.
  – Boats carrying capacity should be mentioned on each boat prominently.
  – District disaster response fund should be included in DDMP.
  – Administrative process during disaster should be efficient and minimized.
  – Response Volunteers awareness, training and their lodging/boarding (care of care givers) should also be taken care of in DDMP.
  – Proper distribution system & policy for distribution of relief materials should be included in DDMP.
  – Proper identification of disaster prone areas should be done.
  – Focus on making separate units for disaster management at each level.
  – Government officials’ capacity building should be taken into consideration.
  – There should not be any political interference of any kind during disaster response & relief and system should work as per DDMP.
Planning Workshop at Jehanabad, Chaired by D.M. (22 Aug 2015)

Questions asked by the D.M. and other participants

– What is zone 3 for earthquake and what may be the damages?
– How Disaster Management could be done at village level without resources in villages?
– Will you be covering death of cattle due to lightening in DDMP?
– What about knowledge management in rural areas?
– How will DDMP solve problem of non-standard constructions in rural areas?
– How will villagers come to know that whether a building is earthquake resistant or not?
– Will you be getting base data from district or from the field?
Highlights: Process

Planning Workshop at Jehanabad, Chaired by D.M. (22 Aug 2015)

- Inputs/Feedback from D.M. and other participants
  - Contact details of GRCPL’s district coordinator should be provided to all persons to receive proper feedback from them.
  - There should be a Toll free number for disasters (Disaster Helpline Number).
  - Crowd management in Barabar Caves and Shiv Temple especially during Sunday & Saturday.
  - Make separate plan for Barabar Shiv Temple.
  - Local administration is not trained for any disaster response properly.
  - Kako Block Sun Temple crowd management should be covered in DDMP.
  - Fire in villages mostly occurs due to use of Bamboo sticks for erecting electrical lines.
  - Remedy from Snake bites should be covered in DDMP.
  - Drowning cases should be taken care of in DDMP.
  - No proper resource (fund) management at the moment for disasters.
  - Water logging issues in cultivable fields for a long duration.
  - Proper training should be given to mukhiyas so that they could train their subordinates in disaster response & mitigation.
Highlights: Process

Planning Workshop at Jehanabad, Chaired by D.M. (22 Aug 2015)

- Inputs/Feedback from D.M. and other participants
  - During such workshop some reading material on disasters management should be distributed to participants.
  - Post and pre disaster mitigation exercises should be done regularly.
  - Vulnerable locations and hazard hotspots should be identified at village level.
  - **Local area representatives should be involved in DDMP process.**
  - Time bound feedback system from ground level should be included in DDMP.
  - Participants and stakeholders should give honest feedback.
  - One to one meeting with stakeholders should be done to get feedback and other data/information.
  - There is huge scarcity of knowledge and funds for managing disasters. DDMP should address this issue.
  - No early warning system is available for disasters.
  - Special emphasis should be given on lightening cases in DDMP (Lakhi Sarai Area)
  - **DDMP should include framework for Mock drill and awareness generation.**
  - Response of line departments is very slow during crises.
  - Water distribution system of Mohrar river should be included in DDMP.
Highlights: Process

Planning Workshop at Jehanabad, Chaired by D.M. (22 Aug 2015)

Inputs/Feedback from D.M. and other participants

- Height and leveling problem in Mohrar River area.
- Loose erection of electricity poles in villages is a major problem.
- Habitation is not at right place.
- Rural electrification should be included in DDMP.
- Transformer maintenance system in DDMP.
- Death due to cold waves should be taken care of in DDMP.
- Loss of crops due to animals like Neelgai should be taken care of in DDMP.
- Tourist management plan should be included in DDMP.
- Water resource management to be included in DDMP.
- Habitation management in DDMP.
- Standard operating procedure should be included in DDMP.
- Base data collection system from village level should be developed & included in DDMP for continuous modification of DDMP as well as future mitigation and response planning.
Activities Undertaken to cover Important Aspects
Activities Undertaken to cover Important Aspects

HRVCA

• Review of literature and secondary data resources to understand the district profile
• Meeting and discussion and with DM, different departments officials (stakeholders) to understand the hazard profile of the district.
• Interaction with community members for repo building and to understand hazard perspective on the ground
• Transect walk with key informants to vulnerable areas
• Structured and informal interviews with key personnel
• Focussed group discussion with different stakeholders
• Participatory rural appraisal for resource mapping
• Preparation of hazard risk assessment matrix based on above activities
Activities Undertaken to cover Important Aspects

**HRVCA**

- Priority ranking of hazard based on matrix prepared
- Seasonality analysis of each hazard and differentiating it into high, medium and low probability
- Historical analysis of hazard
- Identification of vulnerable areas w.r.t. to each hazard and mapping of elements at risk (human, livestock, environment, agriculture, infrastructure etc.)
- Mapping of vulnerable sites, structures, housing conditions in the area (based on primary and secondary sources of information, census data 2011)
- Mapping of resources available in the district for capacity analysis
Activities Undertaken to cover Important Aspects

Environment & CCA

• Understanding the ecosystem of the district, the extent to which it has degraded, land use and land cover change, its capacity to respond at the onset of natural calamities like drought and flood
• Rainfall and temperature analysis to map the climatic variations
• Literature survey for various ecosystem services
• Groundwater problem
Activities Undertaken to cover Important Aspects

**Prevention**

- Stakeholder meeting and analysis
- Meeting with different line department
- Sectoral analysis

**Preparedness**

- Stakeholder analysis at various level – Gram panchayat, Block and district level for understanding the institutional mechanisms present at ground level,
- One to one interaction with line departments to understand the resources available, their plan pre, during and post disaster
- Gap analysis – lack of training and mock drills, trained disaster professionals, DDMC
- Preparing plan to address these gaps
Activities Undertaken to cover Important Aspects

Mitigation
• Sector wise vulnerability reduction measures-irrigation department, revenue department, health, water and sanitation
• Structural and non structural mitigation measures
• Short term and long term measures

Response
• Developing Incident Command System (ICS) for pre, during and post disaster event
• Mapping of NGOs and voluntary organization for search and rescue operation, shelter management etc.
• Developing department wise early warning and dissemination mechanism for pre, during and post disaster
• Standard operating procedure for round the disaster management cycle
• Role of media
Activities Undertaken to cover Important Aspects

Relief
• Identification of various relief camps-block wise

Recovery (Short, Medium, Long Term)
• Literature survey on sustainable recovery framework
• Developing framework and guidelines for restoration of basic infrastructure, social infrastructure, livelihoods and psycho-social intervention.
Activities Undertaken to cover Important Aspects

Rehabilitation

- Recommendations analysed to avoid making major financial decisions during the early recovery period.
- Studied provisions to provide psychological counselling to help deal with the trauma.
- Points are identified to provide insurance help through any insurance company or govt organisation as most of the peoples are somehow insured via various insurance policies.
- Awareness strategies on creating list of damaged or lost items for insurance or financial assistance purposes.
- Pointed out effects of considering photography of the damage where it occurred and watsapp it by any people in vulnerable place to get proper rehabilitation.
Activities Undertaken to cover Important Aspects

Cross –Cutting Issues

Training & Capacity Building
• Training needs analysis in the district
• Identification of resource person, institutions

Gender
• Women involvement at every stage of planning (gender mainstreaming)
• SHGs, civil society and NGOs role in women empowerment
Highlights: Content

- Multi-Hazard DDMP (HPC List)
- 2 volumes
- D.M.Act: Definition & Scope
- Use of 2011 census data
- Use of Latest SECC Report-2011 data
- Strengthen DDMAs-Framework & executable system/plan for the same
- Sleek/crisp Response Plan
- Climate Sensitive
Highlights: Content

- Response plan considering worst case scenario (L1, L2, L3 categorization as per HPC to be considered)
- Detailed planning for EOC, IDRN.
- Preparedness Plan: Immediate as well as Long Term
  - Gender concern
- School & Hospital Safety
- Multi-Layer, Multi-Sector and Multi-Hazard
- Planning for enforcing existing codes
- Land use planning
Alignment of National Guidelines

Indigenous knowledge to be used for Response & Mitigation plan

Animal Disaster Management provision

Cross Cutting Issues: Gender, Special Needs, Child issues, Training & Capacity Building etc

Effective Review & updation framework and system

Specific & Time Bound Capacity Building measures
Highlights: Content

- Provision & Approach for Linking Block & panchayat level DM plans with DDMP
- Historical & Heritage sites safety
- Crowd Management plan
- Mainstreaming DRR with development plans of district
- GIS Based Resource Mapping
<table>
<thead>
<tr>
<th>Sr</th>
<th>Points Highlighted by Hon’ble VC/BSDMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multi Hazard will be the key word for the DDMP.</td>
</tr>
<tr>
<td>2</td>
<td>DDMP should strengthen DDMAs-Framework &amp; executable system/plan for the same is to be incorporated in the DDMP.</td>
</tr>
<tr>
<td>3</td>
<td>Overall framework of DDMP will be as per DM Act-2005 (especially Section 31)</td>
</tr>
<tr>
<td>4</td>
<td>Sleek/crisp Response Plan.</td>
</tr>
<tr>
<td>6</td>
<td>Commonly used dialect in DDMP</td>
</tr>
<tr>
<td>7</td>
<td>HRVC depth to be defined clearly by agencies.</td>
</tr>
<tr>
<td>8</td>
<td>Pro-poor Plan</td>
</tr>
<tr>
<td>9</td>
<td>Consider Underlying Risk Factors</td>
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<tr>
<td>10</td>
<td>Disaster Definition as per the D.M. Act-2005 to be followed</td>
</tr>
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<td>Sr</td>
<td>Points Highlighted by Hon’ble VC/BSDMA</td>
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<td>----</td>
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<tr>
<td>11</td>
<td>HPC report’s 31 disasters to be considered while making multi-hazard DDMP</td>
</tr>
<tr>
<td>12</td>
<td>2011 census data to be used</td>
</tr>
<tr>
<td>13</td>
<td>Climate Sensitive DDMP</td>
</tr>
<tr>
<td>14</td>
<td>Response plan to be developed considering worst case scenario (L1, L2, L3 categorization as per HPC may be considered)</td>
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<td>15</td>
<td>It should have detailed planning for EOC, IDRN.</td>
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<tr>
<td>16</td>
<td>Preparedness Plan: Immediate as well as Long Term</td>
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<tr>
<td>17</td>
<td>Mitigation Plan: Non-structural within the structure and beyond the structure. Structural Mitigation.</td>
</tr>
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<td>18</td>
<td>System for mainstreaming</td>
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<tr>
<td>19</td>
<td>Should also focus on Block &amp; Panchayat level</td>
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<tr>
<td>20</td>
<td>Gender concern to be addressed</td>
</tr>
<tr>
<td>21</td>
<td>Communication plan</td>
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### Issues Highlighted during inception Workshop

<table>
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<tr>
<th>Sr</th>
<th>Points Highlighted by Hon’ble VC/BSDMA</th>
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<tbody>
<tr>
<td>22</td>
<td>GIS based mapping</td>
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<tr>
<td>23</td>
<td>DDMP should be Multi-Layer, Multi-Sector and Multi-Hazard</td>
</tr>
<tr>
<td>24</td>
<td>Planning for enforcing existing codes</td>
</tr>
<tr>
<td>25</td>
<td>Land use planning</td>
</tr>
<tr>
<td>26</td>
<td>Defining threshold for each disaster</td>
</tr>
<tr>
<td>27</td>
<td>School Safety &amp; Hospital Safety aspect to be dealt in detail</td>
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<tr>
<td>28</td>
<td>Samastipur DDMP may also be referred</td>
</tr>
<tr>
<td>29</td>
<td>Alignment of National Guidelines</td>
</tr>
<tr>
<td>30</td>
<td>Indigenous knowledge to be used for Response &amp; Mitigation plan</td>
</tr>
<tr>
<td>31</td>
<td>DDMP should connect with the people</td>
</tr>
<tr>
<td>32</td>
<td>Animal Disaster Management provision in DDMP</td>
</tr>
<tr>
<td>Sr</td>
<td>Points Highlighted by Hon’ble Member/NDMA, Sh. Kamal Kishor</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Participatory Approach (but keeping in view the rationale as well as the cost factor)</td>
</tr>
<tr>
<td>2</td>
<td>Incorporate the lessons/experiences of response, Relief &amp; recovery &amp; reconstruction phases of past major disasters</td>
</tr>
<tr>
<td>3</td>
<td>Rationalization of Risk Assessment. What to cover and up to what level?</td>
</tr>
<tr>
<td>4</td>
<td>Effective Review &amp; updation framework and system</td>
</tr>
<tr>
<td>5</td>
<td>Monitoring of effectiveness of DRR measures</td>
</tr>
<tr>
<td>6</td>
<td>Integration of District Development Plans with the DDMP</td>
</tr>
<tr>
<td>7</td>
<td>Recovery System Chapter in DDMP should be water tight (most effective and practical by drawing experiences from past disasters)</td>
</tr>
<tr>
<td>8</td>
<td>Impact assessment: retrospective as well prospective</td>
</tr>
<tr>
<td>9</td>
<td>Trends of risk to be studied</td>
</tr>
<tr>
<td>10</td>
<td>Logic of risk reduction: what is to be achieved in a time bound manner (say within next 5 yrs or so; on capacity building)? Questionnaire may be based on these aspects.</td>
</tr>
<tr>
<td>11</td>
<td>Consequence of DDMP on adjoining districts/areas</td>
</tr>
<tr>
<td>12</td>
<td>Bottoms-up approach: sensible plan based upon ground level facts &amp; gaps</td>
</tr>
<tr>
<td>13</td>
<td>Practical ways for DRR planning (Corrective risk reduction as well as prospective risk reduction)</td>
</tr>
</tbody>
</table>
### Issues Highlighted during inception Workshop

<table>
<thead>
<tr>
<th>Sr</th>
<th>Points Highlighted by DG-FS &amp; HG, Sh.P.N.Rai</th>
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<tbody>
<tr>
<td>1</td>
<td>Practical &amp; Executable DDMP</td>
</tr>
<tr>
<td>2</td>
<td>IRS based Response Plan</td>
</tr>
<tr>
<td>3</td>
<td>Panchayat Representatives to be involved in entire process</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr</th>
<th>Points Highlighted by Director/NDMA, Sh R.K.Singh</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>In Mitigation planning, capacity building should be the focus area</td>
</tr>
<tr>
<td>2</td>
<td>Static part of DDMP may be hard bound and Dynamic Part may be spiral bound for ease of modification/updation</td>
</tr>
<tr>
<td>3</td>
<td>Lessons learnt during the entire process and also the usefulness of the DDMP guidelines of the NDMA may be documented and shared with NDMA for future DDMPs</td>
</tr>
</tbody>
</table>
Inclusion of Environment & Climate Change Related Issues in DDMP
Issues and findings relating to Environment and CCA

Issues & Findings

• Rainfall data of last 15 years in Jehanabad, Aurangabad & Arwal. In Gaya it's for 12 years.

• Temperature data for past years is not available at district level.

• Deforestation in districts Aurangabad (Madanpur & Nabinagar), Gaya (Moahnpur, Wazirganj, Bankey Bazar) and Jehanabad (Makhdumpur).

• Increase in the river catchment area (due to soil erosion) in all four districts which has affected adjacent villages.
Focus on Religious Gathering, Crowd Management, Historical Monuments, Heritage Buildings & Industrial Establishments
Focus on Religious Gathering, Historical Monuments, Heritage Buildings & Industrial Establishments

- Prior art search of incidents and mass gathering at Pitra Pakshh Mela, Vishnupad Mandir Gaya, Mahabodhi Temple Bodh Gaya etc.
- Analyzed role of district administration during Melas like Shrawani mela & Chhat melas at various religious places in all four districts like Dev Temple Mela, Kako Sun temple, Barabar Caves Jehanabad, Pret Shila etc.
- Complete evaluation of Barabar Caves temple route in Jehanabad to identify hazard hot spots.
- Shree Cement in Aurangabad (to be studied).
# Cross Cutting Issues

<table>
<thead>
<tr>
<th>Sr</th>
<th>Issue</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender/MISP</td>
<td>Under Study</td>
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<tr>
<td>2</td>
<td>Child Centric issues</td>
<td>Under Study</td>
</tr>
<tr>
<td>3</td>
<td>Differently Abled</td>
<td>To be done</td>
</tr>
<tr>
<td>4</td>
<td>Issues relating to Livestock</td>
<td>Completed</td>
</tr>
<tr>
<td>5</td>
<td>Governance in disaster management</td>
<td>Completed</td>
</tr>
<tr>
<td>6</td>
<td>Training &amp; Capacity Building</td>
<td>Under Progress</td>
</tr>
<tr>
<td>7</td>
<td>Environment Related issues</td>
<td>Under Progress</td>
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</table>
HRVC Analysis
Process & Outcome
<table>
<thead>
<tr>
<th>Frequency of Occurrence</th>
<th>4 Catastrophic</th>
<th>3 Critical</th>
<th>2 Marginal</th>
<th>1 Negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Frequent</td>
<td>Drought</td>
<td>Flood, Neelgai menace</td>
<td>Hailstorm</td>
<td></td>
</tr>
<tr>
<td>4 Probable</td>
<td>Stone disease</td>
<td>Earthquake</td>
<td>Fire</td>
<td></td>
</tr>
<tr>
<td>3 Occasional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Rare</td>
<td></td>
<td></td>
<td>Lightning, drowning, Electric shock</td>
<td></td>
</tr>
<tr>
<td>1 Improbable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of risk</td>
<td>Hazard</td>
<td>Major elements at risk</td>
<td>Vulnerable areas</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td></td>
</tr>
<tr>
<td>High risk hazard (score 20-15)</td>
<td>Drought</td>
<td>Human, livestock, agriculture, fishery, environment</td>
<td>Entire district</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stone disease</td>
<td>Human</td>
<td>Entire district</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flood</td>
<td>Human, livestock, agriculture, fishery, houses, infrastructure, environment</td>
<td>Ratni, Makdumupur, Modanganj</td>
<td></td>
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<tr>
<td></td>
<td>Nilgai menace</td>
<td>Human, livestock, agriculture, environment</td>
<td>Entire district</td>
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<tr>
<td>Medium risk hazard (score 14-9)</td>
<td>Hailstorm</td>
<td>Homeless population, people living in poor housing conditions, cattle and crops</td>
<td>Kako</td>
<td></td>
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<tr>
<td></td>
<td>Earthquake</td>
<td>Human, livestock, agriculture, fishery, houses, infrastructure, environment</td>
<td>Entire district</td>
<td></td>
</tr>
<tr>
<td>Low risk hazard (Score 8-4)</td>
<td>Snake bite</td>
<td>Human</td>
<td>Block Ratni</td>
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<tr>
<td></td>
<td>Fire</td>
<td>Human, cattle, agricultural produce, kutcha houses, property</td>
<td>Ratni, Kako, Makhdumpur, Hulasganj</td>
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<tr>
<td></td>
<td>Lightening</td>
<td>Human, cattle, agricultural produce, kutcha houses, property</td>
<td>Ratni</td>
<td></td>
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<tr>
<td></td>
<td>Electric shock</td>
<td>Human, cattle, agricultural produce, kutcha houses, property</td>
<td>Ratni, Makdumupur</td>
<td></td>
</tr>
<tr>
<td></td>
<td>drowning</td>
<td>Human</td>
<td>Makdumupur</td>
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</table>
Gahuan dam, Ratni
Present Condition Of Dam
Baldai River, Pandaul
Kachnama Dam, Makhdumpur
Uderasthan Dam
Uderasthan Dam
Neelgai spotted in the agricultural field
Earthquake Impact Ghoshi Block
Mukhiya Ji on Bridge
Truck Fall & Gathering
Travelling on roof of buses
Road condition in Jam
Arwal
# HRVC Matrix, Arwal.

<table>
<thead>
<tr>
<th>Probability of Occurrence</th>
<th>Severity</th>
<th>Frequency of Occurrence</th>
<th>Danger</th>
<th>Danger</th>
<th>Danger</th>
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</thead>
<tbody>
<tr>
<td>5 Frequent</td>
<td>4</td>
<td>Catastrophic</td>
<td>Drought, Road Accidents, Social Unrest</td>
<td>Flooding,</td>
<td></td>
</tr>
<tr>
<td>4 Probable</td>
<td>3</td>
<td>Critical</td>
<td>Fire</td>
<td>Neelgai menace, Cold wave</td>
<td>Lightning,</td>
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<tr>
<td>3 Occasional</td>
<td>2</td>
<td>Marginal</td>
<td>Earthquake</td>
<td>Heat wave, Epidemics</td>
<td></td>
</tr>
<tr>
<td>2 Rare</td>
<td>1</td>
<td>Negligible</td>
<td>Electric shock</td>
<td>drowning, Cyclone</td>
<td></td>
</tr>
<tr>
<td>1 Improbable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cracks in building</td>
</tr>
<tr>
<td>Level of risk</td>
<td>Hazard</td>
<td>Major elements at risk</td>
<td>Vulnerable areas</td>
<td></td>
<td></td>
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<td>-----------------------------</td>
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<td>-----------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High risk hazard (score 20-15)</strong></td>
<td>Drought</td>
<td>Human, livestock, agriculture, fishery, environment</td>
<td>Entire district</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social unrest</td>
<td>Human</td>
<td>Entire district</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flood</td>
<td>Human, livestock, agriculture, fishery, houses, infrastructure, environment</td>
<td>Arwal, Kurtha, Sonbhadra- suryapur Bansi</td>
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<tr>
<td></td>
<td>Fire</td>
<td>Human, Livestock, Agriculture, environment, infrastructure</td>
<td>Entire district (Specially Karpi and Bansi Block)</td>
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<tr>
<td><strong>Medium risk hazard (score 14-9)</strong></td>
<td>Lightning</td>
<td>Homeless population, people living in poor housing conditions, cattle and crops</td>
<td>Entire district</td>
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<td></td>
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<tr>
<td></td>
<td>Cold wave</td>
<td>Human, Livestock</td>
<td>Entire district</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Earthquake</td>
<td>Human, livestock, agriculture, fishery, houses, infrastructure, environment</td>
<td>Entire district</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Nilgai menace</td>
<td>livestock, agriculture, environment</td>
<td>Entire district</td>
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<tr>
<td><strong>Low risk hazard (Score 8-4)</strong></td>
<td>Heat wave</td>
<td>Human, Livestock</td>
<td>Entire district</td>
<td></td>
<td></td>
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<td></td>
<td>Electric shock</td>
<td>Human, cattle, agricultural produce, kutcha houses, property,</td>
<td>Entire district</td>
<td></td>
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<tr>
<td></td>
<td>Drowning</td>
<td>Human, Livestock</td>
<td>Arwal, Kurtha and Bansi (specially animals)</td>
<td></td>
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</table>
‘Madansingh ka tola’ flood affected area and school in the area
Draught affected area in ‘Karpi’ block
Flood affected area of sakri panchayat Arwal
Flood affected area of Kurtha block
Flood affected area of kurtha block
Situation of houses in the district
Aurangabad
## HRVC- Matrix, Aurangabad

<table>
<thead>
<tr>
<th>Probability of Occurrence</th>
<th>SEVERITY</th>
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<tbody>
<tr>
<td></td>
<td>4 Catastrophic</td>
</tr>
<tr>
<td>5 Frequent</td>
<td>Drought, Road Accident</td>
</tr>
<tr>
<td>4 Probable</td>
<td>Heat waves, Fire, Flood</td>
</tr>
<tr>
<td>3 Occasional</td>
<td>Earthquake</td>
</tr>
<tr>
<td>2 Rare</td>
<td>Electric shock</td>
</tr>
<tr>
<td>1 Improbable</td>
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<tr>
<td>Level of risk</td>
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<tr>
<td>High risk hazard (score 20-15)</td>
<td>Drought</td>
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<tr>
<td>Road Accident</td>
<td>Human</td>
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<tr>
<td>Nilgai menace</td>
<td>Human, livestock, agriculture, environment</td>
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<tr>
<td>Medium risk hazard (score 14-9)</td>
<td>Flood</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Electric shock</td>
<td>Human, cattle, agricultural produce, kutcha houses, property,</td>
</tr>
<tr>
<td>Snake bite</td>
<td>Human</td>
</tr>
<tr>
<td>Electric shock</td>
<td>Human</td>
</tr>
<tr>
<td>Fire</td>
<td>Human, cattle, agricultural produce, kutcha houses, property,</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Human, livestock, agriculture, fishery, houses, infrastructure, environment</td>
</tr>
<tr>
<td>Low risk hazard (Score 8-4)</td>
<td>Hailstorm</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Cold waves</td>
<td>Human and livestock</td>
</tr>
<tr>
<td>Lightening</td>
<td>Human, cattle, agricultural produce, kutcha houses, property,</td>
</tr>
<tr>
<td>landmines</td>
<td>Human</td>
</tr>
<tr>
<td>drowning</td>
<td>Human</td>
</tr>
</tbody>
</table>
Damaged Bridge for Parta Panchayat
House Damaged by High velocity of Wind
Village Road
Earthquake affected house
Aaganwadi on the Adri river bank
Shamshan Ghat near the Aaganwadi
Dev Kund (Dev Surya Mandir)
Road construction (Bhartholi shariff) Aurangabad.
Son Canal
Bridge on Adri River
Wall damaged
Nabinagar:-Goshandhi (Tengo Panchayat)
Drought in Nabinagar
Gaya
<table>
<thead>
<tr>
<th>Probability of Occurrence</th>
<th>Severity</th>
<th>Events</th>
</tr>
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<tbody>
<tr>
<td>5 Frequent</td>
<td>4 Catastrophic</td>
<td>Drought, Civil Unrest, Fire, Road Accident, Heat Wave, Cold Wave</td>
</tr>
<tr>
<td>4 Probable</td>
<td>3 Critical</td>
<td>Lightening &amp; Thunderstorm, Biological Disasters and Epidemics, Neelgai Menace, Snake bites, Earthquake, Animal Diseases &amp; Cattle Epidemics, Festival Related Disasters, Serial Bomb Blasts &amp; Terrorist Attack</td>
</tr>
<tr>
<td>3 Occasional</td>
<td>2 Marginal</td>
<td>Floods, Pest Attacks, Rail Accident</td>
</tr>
<tr>
<td>2 Rare</td>
<td>1 Negligible</td>
<td>Drowning, Soil Erosion</td>
</tr>
<tr>
<td>1 Improbable</td>
<td></td>
<td>Air Accident, Cyclone, Landslide</td>
</tr>
<tr>
<td>Level of Risk</td>
<td>Hazard</td>
<td>Major Elements at Risk</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>-------------------------------------------------------------</td>
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<tr>
<td>High Risk Hazards (Score 20-15)</td>
<td>Drought</td>
<td>Human, Livestock, Agriculture, Fishery, Environment, Livelihood</td>
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<tr>
<td></td>
<td>Civil Unrest</td>
<td>Human, Livestock, Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Fire</td>
<td>Human, Livestock, Agriculture, Environment, Livelihood</td>
</tr>
<tr>
<td></td>
<td>Road Accident</td>
<td>Human, Livestock</td>
</tr>
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<td></td>
<td>Heat Wave</td>
<td>Human, Agriculture, Livestock, Environment</td>
</tr>
<tr>
<td></td>
<td>Cold Wave</td>
<td>Human especially homeless Population, People living in Poor Housing Conditions, Cattle and Crops, Environment</td>
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<tr>
<td>Level of Risk</td>
<td>Hazard</td>
<td>Major Elements at Risk</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Medium Risk</td>
<td>Lightening &amp; Thunderstorm</td>
<td>Human, Livestock, Agriculture, Environment, Property &amp; Infrastructure</td>
</tr>
<tr>
<td>Hazards (Score 14-9)</td>
<td>Biological Disasters and Epidemics</td>
<td>Human, Environment</td>
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<td></td>
<td><strong>Neelgai Menace</strong></td>
<td>Human, Environment, Agriculture</td>
</tr>
<tr>
<td></td>
<td>Snake Bites</td>
<td>Human, Livestock</td>
</tr>
<tr>
<td></td>
<td>Earthquake</td>
<td>Human, Livestock, Agriculture, Infrastructure, Environment, Livelihood</td>
</tr>
<tr>
<td></td>
<td>Hailstorm</td>
<td>Homeless Population, People living in Poor Housing Conditions, Cattle and Crops, Environment</td>
</tr>
<tr>
<td>Level of Risk</td>
<td>Hazard</td>
<td>Major Elements at Risk</td>
</tr>
<tr>
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<td>---------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Medium Risk</td>
<td>Animal Diseases &amp; Cattle Epidemics</td>
<td>Livestock, Livelihood, Environment</td>
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<tr>
<td>Hazards (Score 14-9)</td>
<td>Festival Related Disasters</td>
<td>Human</td>
</tr>
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<td></td>
<td>Serial Bomb Blasts &amp; Terrorist Attacks</td>
<td>Human, Livestock, Infrastructure, Environment</td>
</tr>
<tr>
<td></td>
<td>Floods</td>
<td>Human, Livestock, Agriculture, Environment</td>
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<tr>
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<td>Pest Attacks</td>
<td>Agriculture, Livelihood, Environment</td>
</tr>
<tr>
<td></td>
<td>Rail Accidents</td>
<td>Human</td>
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<tr>
<td>Low Risk Hazards (Score 8-4)</td>
<td>Drowning</td>
<td>Human</td>
</tr>
<tr>
<td></td>
<td>Soil Erosion</td>
<td>Environment</td>
</tr>
<tr>
<td></td>
<td>Air Accident</td>
<td>Human, Environment</td>
</tr>
<tr>
<td></td>
<td>Cyclone</td>
<td>Human, Livestock, Agriculture, Environment</td>
</tr>
<tr>
<td></td>
<td>Landslides</td>
<td>Human, Infrastructure, Environment</td>
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</tbody>
</table>
Water-Logged Area
Drainage System
Water Logged Area
Status of Solid Waste Management
Fluoride Affected Village
Fluoride Affected
Condition of the Houses
Status of Bridge
Improper Traffic System
Road Connectivity to Dumaria Block
Drainage Water Flowing into Payin
Present Status of Payin
Water Logged Area in Ward 50 (Manpur)
Status of Pole due to Accident
Status of Bridge on NH-2
Status of Nagar Nigam Building
Crowd during *Pitra Pakshh*
Crowd during *Pitra Pakshh*
Water Source in distant Fields
Availability of Water through Tanker
Carrying of Water to their Houses
PRA Exercise in Pahadpur Village
Road Connectivity in Remote Area
Connectivity to the Last Miles
Accessibility to Water
Thankyou!

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