

INCEPTION REPORT

Nawada

**Preparation of District Disaster Management Plan (DDMP)**

Centre for Development and Disaster Management Support Services (CDDMASS)

Bihar State Disaster Management Authority

#

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## Executive Summary and Introduction

National Disaster management Act, 2005 mandates for development of comprehensive and holistic District Disaster Management Plan (DDMP) to negate the impact of disasters on the communities, to facilitate timely and effective response to the disasters, and to facilitate holistic disaster management through integration of mitigation, preparedness and DRR measures into development. The guiding principles for the preparation of the Plan at state and district level has been to draft the Plan in a participatory approach with the preparatory process essentially strengthening the communities, elected local bodies and administration's response and preparedness. NDMA and BSDMA envisage an ideal Disaster Management Plan that ensures local ownership, addresses local needs, and promotes volunteerism and mutual help to prevent and minimize damage.

The model district disaster management plan of Madhubani was developed by the District Disaster Management Authority, Madhubani with active support from NDMA, BSDMA, Sphere India, Bihar-State Inter Agency Group, Madhubani District Inter Agency Group, EFICOR, Tearfund, and other key agencies in the year 2012-13. The District of Madhubani was chosen for the first pilot to demonstrate a systematic, dynamic and practical DDMP due to its multi hazard profile of recurrence of floods, Drought, Earth Quake (Zone-V), Fire incidents, Heat waves, Cold waves and High Winds and the prevalence of socio-economic vulnerabilities. Once the district was finalized, a State level Advisory Body at Patna, Bihar and District Advisory Body at Madhubani, Bihar was set up to guide and take forward the process.

The plan was developed in a highly consultative manner with constant inputs and feedbacks from all the stakeholders. This Plan has moved beyond the reactive relief based approach and has a concise plan of actions for 53 different stakeholders at District level for disaster risk reduction, emergency response and recovery. The Plan also lays out the coordination structures at varied levels along with defined level for response as per the impact of the incident.

The Madhubani DDMP, as the first model plan, has put efforts to observe key principles such as Inclusiveness, Bottom-up approach, Active participation of all stakeholders at various levels, GO-NGO collaboration, joint planning and action, Focus on vulnerable groups, and Sustainability and linkages with development programs.

Following the pilot project, Government of Bihar through BSDMA has decided to prepare the District Disaster Management Plans for all 38 districts of Bihar. Accordingly, BSDMA has floated a tender enquiry and following a competitive tender process. M/s Centre for Development and Disaster Management Support Services (CDDMASS) was shortlisted for preparation of DDMPs for following four (4) districts:

1. Darbhanga
2. Madhubani
3. Samastipur
4. Nawada

A Letter of Award has been issued to CDDMASS wide letter number 753 dated June 5, 2015 for the above districts and a contract dated 15 June 2015 has been signed between CDDMASS and BSDMA.

CDDMASS acknowledges that Madhubani DDMP is a highly comprehensive plan and it encompasses all the relevant hazard risks in the planning. However, there are few additional components which CDDMASS plans to add in the current planning such as school safety, hospital preparedness, industry disaster preparedness etc. The current approach is to develop the DDMP to meet all the current and future disaster risks including the emerging threats from climate change, rapid urbanization, high resource pressure etc.

This report has been prepared for the Nawada district by CDDMASS based on the existing information, interactions with officials during the district visit and inputs received from BSDMA. The report highlights CDDMASS plan to prepare the DDMP work at Nawada.

## Conceptual Framework of DDMP

Bihar is India’s 12th largest state with a geographical size at 38,202 sq mi (98,940 km2).1 With a total population size of 10.41 crores, it is the third largest state in India.2 Bihar is vulnerable to various kinds of disaster, in particular it is prone to Flood, Earthquake, cold wave, heat wave, cyclone, landslide etc. 30 districts of state fall in seismic zone IV and zone V.

Table below shows total disaster occurrences in Bihar (2001-2011)3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Cold Wave** | **Cyclone** | **Earthquake** | **Flood** | **Heat Wave** | **Landslide** |
| 2001 | 27 | 14 | 0 | 36 | 47 | 6 |
| 2002 | 55 | 4 | 2 | 126 | 22 | 1 |
| 2003 | 176 | 8 | 1 | 63 | 70 | 11 |
| 2004 | 72 | 9 | 0 | 204 | 32 | 10 |
| 2005 | 27 | 11 | 1 | 26 | 68 | 8 |
| 2006 | 81 | 4 | 3 | 16 | 52 | 2 |
| 2007 | 97 | 14 | 5 | 477 | 58 | 18 |
| 2008 | 103 | 4 | 0 | 408 | 28 | 0 |
| 2009 | 98 | 0 | 1 | 99 | 46 | 7 |
| 2010 | 156 | 26 | 0 | 94 | 95 | 9 |
| 2011 | 174 | 22 | 6 | 186 | 86 | 15 |

Picture below presents multi hazard zones in Bihar4

The multi-disaster prone state of Bihar requires a multi-disciplinary approach to deal with various disasters with active participation from various stakeholders. It requires a continuous and integrated process of planning, organising, coordinating and implementing measures that are necessary for risk prevention, mitigation of risk impacts, preparing to face the disaster event, response, rehabilitation and reconstruction.4

National Disaster Management Act, 2005 mandates for development of comprehensive and holistic District Disaster Management Plan (DDMP) in all states of India at State, District and Village level. After the DM Act 2005 was enacted, concept of DM in Bihar has undergone paradigm shift towards prevention, reduction or mitigation, preparedness, quick response, rescue, relief & reconstruction to reduce negative impact of disasters.

In pursuance to Section 31 (1) of the Disaster Management Act 2005, the Government of Bihar has decided to prepare District Disaster Management Plan for all districts of Bihar. The National Framework for development of DDMPs, developed by the National Advisory Body for DDMPs – under the leadership of National Disaster Management Authority, forms the basis for development / revision of DDMPs in all the districts in Bihar.

Bihar State Disaster Management Authority (BSDMA) is the nodal agency for management for all disasters and oversees the preparedness of the state in the four stages of disaster management:

1. Mitigation
2. Preparation
3. Response
4. Recovery & rehabilitation

In view of the multi-hazard context of the state of Bihar, as well as the emerging risks of future hazards, largely climate change issues, rapid urbanization, increasing resource pressure etc., the development of DDMPs for the selected districts needs to be done in a comprehensive, practical, participatory, and action oriented approach so that the plan becomes a useful reference document for the district authorities both, at time of a disaster, as well as during the peace time when risk reduction, mitigation and capacity building actions may be undertaken. The plan will consider the vulnerabilities of the districts and the disaster history to take a reference, and look forward to the emerging future risks of climate change as well to ensure that enough and appropriate measures are taken to mitigate those risks in future.

## Scope of the Project

The multi-disaster prone state of Bihar requires a multi-disciplinary, comprehensive, participatory and practical approach to efficiently deal with the negative impacts of these disasters on the communities. It requires a continuous and integrated process of planning, organizing, coordinating and implementing measures that are necessary for risk prevention, mitigation, preparation (preparedness), response, rehabilitation and reconstruction. In all efforts, it is crucial to integrate/mainstream measures of disaster risk reduction (DRR) and climate change adaptation (CCA) so as to build the resilience of the vulnerable communities.

Below is a mention of the scope of work in this project:

1. Preparation of the DDMPs for the districts will be **in compliance with the guidelines of the DM Act 2005** and the structure of the **report will be as per the model DDMP of Madhubani developed by BSDMA**
2. While preparing the DDMPs, special attention will be given to Section 31 (1) of the Act, in addition to other provisions of the DM Act 2005
3. In addition to the above mentioned provisions of the Act, the DDMP will also include –
	1. The manner in which DRR could be integrated with the development plans & projects of the districts & Govt. of Bihar.
	2. Strategies for strengthening institutional and functional capacities of District Disaster Management Authorities (DDMAs).
	3. The roles and responsibilities for the different stakeholders, other than government departments, during different disasters.
	4. The roles and responsibilities for different government departments at the time of disasters.
	5. Processes to strengthen the early warning system for different disasters at the district level.
	6. The financial resources that will be required to fund the disaster mitigation efforts and the fund deployment mechanism will be detailed
4. The DDMP shall be prepared in Hindi with commonly used terminologies in English.
5. The consultant will provide strategies and names of the resource persons to be deployed for the proposed work of DDMP preparation. In addition, the consultant will provide consent letter for commitment of their time.

It is carefully planned that the approaches and methodologies will be adopted consciously for a meaningful and structured analysis which includes integrated approach, consideration of multi-hazard vulnerabilities, adopting consultative processes, and being innovative in the strategy and implementation.

The plan will also consider the issues of the village level for which a comprehensive hazard vulnerability capacity analysis (HVCA) will be conducted in 5 most vulnerable villages (selected for a sample study of the multi-hazard vulnerabilities and risks in the districts. This will also integrate planning process at various levels including the village, block and district level. Integration of plans of the line department and critical lifeline services shall also be part of the planning process.

Preparation of the DDMPs will be in compliance with the guidelines of the DM Act 2005 and the structure of the report be as per the model DDMP of Madhubani developed by BSDMA. While preparing the DDMPs, special attention will be given to Section 31 (1) of the Act, in addition to other provisions of the DM Act 2005.

**VALUE ADDITION BY CDDMASS**

CDDMASS feels that following addition points shall be essential to make a comprehensive DDMP that shall be effective in mitigating disaster risks and drawing a quick response during disaster.

* Capacity building plan for districts
* Mitigation activities
* Financial management plan
* Action oriented plan at district, block and panchayat level
* Monitoring plan at district and state level
* DIA (Disaster Impact Assessment) to the extent possible

Considering the gaps identified in the existing plans of various district, the study and planning for school safety, hospital safety and industry safety plan shall also be integrated in the DDMPs.

* 1. **Study and integration of Case studies and lessons learnt:**

CDDMASS will put efforts to study few cases stories and lessons learnt from previous disaster in the state, national and global levels to understand what can be integrated in our plans, what can be learnt from other disaster responses, what could be the worst case scenarios and how can we make ourselves better prepared. Below are few examples for a glimpse:

* **Learning from Bhuj Earthquake:** Prior to the devastating earthquake in 2001, Bhuj was considered to be in the “Zero” earthquake zone, which meant that there is no risk of earthquake in the district. This also meant that there was no plan for EQ preparedness and post-EQ management, which put the whole system in a paralyzed state. This is a clear indication of importance of appreciating the vulnerabilities & risks around, and making preparing ourselves for them with an efficient and effective disaster management plan.
* **Categorization of areas based on their vulnerabilities:** The Madhubani district plan has considered categorization of villages based on their different vulnerabilities (as per their geographic location and the hazard analysis vis-à-vis disaster history), to make vulnerability specific plans and suggest structural and non-structural mitigation actions for the same. Such process has been found very useful for local level preparedness and also for integration of DRR measures in the local development planning.

## Districts’ Profile

The state is divided into three ecological zones (Districts earmarked for CDDMASS are indicated in Red font) i.e.

* Zone I – North West Alluvial plains
	+ West Champaran
	+ East Champaran
	+ Gopalganj
	+ Sheohar
	+ Sitamarhi
	+ **Madhubani**
	+ **Darbhanga**
	+ Muzaffarpur
	+ Siwan
	+ Saran
	+ Vaishali
	+ **Samastipur**
* Zone II - North East Alluvial plains
	+ Begusarai
	+ Khagaria
	+ Saharsa
	+ Madhepura
	+ Supaul
	+ Araria
	+ Kishanganj
	+ Purnia
	+ Katihar
* Zone III – South Bihar Alluvial
	+ Buxar
	+ Bhajpur
	+ Bhabhua
	+ Rohtas
	+ Aurangabad
	+ Gaya
	+ Jehanabad
	+ Patna
	+ Nalanda
	+ Sheikpura
	+ **Nawada**
	+ Jamui
	+ Banka
	+ Lakhisarai
	+ Munger
	+ Bhagalpur

## 4.1 Overall disaster profile

The selected districts have multi-hazard profiles including vulnerabilities in terms of socio-economic details. Below table gives a summary of the multi-hazard profile of the districts under contract with CDDMASS:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Earthquakes**  | **Floods** | **Drought** | **High speed winds/ gale/ hail storm** | **Health/ disease scare[[1]](#footnote-2)** |
| **Madhubani** | 100% of the district covered by **Zone V**; High intensity prone zone | **25 to 53%** of the district is affected due to flood | Parts of district sometime face water scarcity | The district is in **High Damage Risk Zone (wind speeds onward of 47 m/s)** and **100% of the district is affected** | Kalazar, TB |
| **Darbhanga** | 45% of the district covered by **Zone V** High intensity prone zone | **70%** of the district is affected due to flood | Parts of district sometime face water scarcity | The district is in **High Damage Risk Zone (wind speeds onward of 47 m/s)** and **100% of the district** is affected | Kalazar, HIV prevalence, |
| **Samastipur** | 100% of the district covered by **Zone IV**; High intensity prone zone | **25 to 53%** of the district is affected due to flood | Parts of district sometime face water scarcity | The district is in **High Damage Risk Zone (wind speeds onward of 47 m/s)** and **100% of the district is affected** | Kalazar, TB |
| **Nawada** | less than 70% of the district covered by **Zone III**;Low intensity prone zone | **25 to 53%** of the district is affected due to flood | severely affected by drought, very drought prone | The district is in **Moderate Damage Risk Zone (wind speeds between 39 and 44 m/s)** and **100% of the district is affected** | Kalazar, Malaria |

(source: State Disaster Management Plan, section 1)

## Nawada District Profile:



*(http://www.mapsofindia.com/maps/bihar/districts/nawada.htm).*

Nawada has an area of 2494 sqkm and a population of 2,059,179 (Census 2011) of which 9.71 percent lives in urban regions of district (http://www.census2011.co.in/census/district/89-nawada.html). Nawada town is the administrative headquarters of this district. The city is divided into two blocks by the Khoori river, the left bank being the older, while the right bank is the modern section with public offices, sub-jail, dispensary and schools. Administrative profile of the district:

|  |  |  |
| --- | --- | --- |
| Sl. No. | Item | Count (no) |
| 1. | No. of Sub-Divisions | 03 |
| 2. | No. of Blocks | 14 |
| 3. | No. of Panchayats | 187 |
| 4. | No. of Villages | 1081 |

*(http://dcmsme.gov.in/dips/Nawada\_BIHAR.pdf)*

**Current disaster preparedness of the district:**

There are no major disaster occurrences at Nawada. However drought is one of the serious problems in the region. Main rivers of Nawada are Sakri, Khuri, Panchane, Bhusri by Kakolat, Tilaiya, Dhanarjay. As such, there is no focus on either mitigation or relief on any disasters. However there are some awareness activities at district level.

The district doesn’t have a DDMP. EOC is being set up at district collector office. Some training programs have been conducted by BSDMA for the officials of the DM cell. Recently during the school safety campaign (July 1-15), DM related trainings were imparted to various school teachers and students. In addition, training programs are also conducted by NDRF at the block level.



*Board for spreading awareness about earthquake near district guest house at Nawada*

## Approach, Methodology and Activities

## Approach for comprehensive plan

CDDMASS proposes a consultative approach that will includes active participation not only from CDDMASS but also from the state, respective districts and various departments at district level. Diagram below provides our approach for the preparation of DDMP at district level.

## Methodology:

CDDMASS believes in multi-stakeholder engagement and participatory approach for all actions, which deal with communities. Keeping the communities at the center of all the processes, the development of disaster management plan for a district shall take a multi-disciplinary, multi-stakeholder approach keeping into consideration the emerging threats of climate change, global warming, rapid urbanization, and challenges of population pressure on resources (crowd management) etc. The following are the key thoughts and steps to be taken for the development of DDMPs:

1. **Review and integration of existing DDMPs prepared by BSDMA earlier for the district under the contract and model DDMPs:** CDDMASS will begin with desk review of existing documentation in the field of Disaster Management at National, State and district level. Existing DDMPs for the districts and other districts prepared by other consultants & as agreed by BSDMA will also be studied to develop a comprehensive assessment of DM initiatives and initiatives planned in near future.
2. **Hazard Vulnerability & Capability Analysis:** HVCA will be conducted to get a detailed assessment of hazard profile and GIS mapping of the district. This will be carried out at 5 villages identified in consultation with district authorities. Illustrative criteria is as follows:
	1. Disaster profile of village (Primary & Secondary resources)
	2. Availability of GIS maps
	3. Vulnerability (Using vulnerability analysis)
	4. Logistics

Based on the preliminary assessment, villages will be classified into multi-hazard groups. CDDMASS will suggest a list of 15 most vulnerable villages meeting the agreed criteria, which shall be zeroed down to 5 by district authorities. The list of 5 villages will cover all hazards for the district. Detailed analysis will be done for these 5 villages. An illustrative list of the data sources for HVCA analysis is mentioned below:

1. Bihar Infrastructure (roads, hospitals, rivers, education institutions etc.) Mapping –(Source: <http://gis.bih.nic.in/>.[Designed and developed by NIC Bihar State Centre, Patna).](http://gis.bih.nic.in/)
2. District Wise Flood Hazard Map – (Source: http:[www.nrsc.gov.in](http://www.nrsc.gov.in/), National Remote Sensing Centre (NRSC)/Bhuwan, ISRO, Hyderabad.)
3. Vulnerability Atlas of India, Building Materials and Technology Promotion Council (BMTPC)  (<http://www.bmtpc.org/>)
4. 1934 & 1988, Seismic Iso-Seismil Map (Source: Bihar State Disaster Management Authority)
5. Table of Seismic Intensity VII, VIII & IX (Source: IS: 1893, part 1, 2002.)
6. Table of block wise Seismic Risk (Source: Bihar State Disaster Management Authority: publication: Hypothetical Occurrence of 1934 Earthquake Intensity,)
7. Survey of India Maps (<http://www.surveyofindia.gov.in/>)
8. Maps from the individual web sites of the 38 districts of Bihar.
9. Maps from Flood Management Information System (FMIS), (<http://fmis.bih.nic.in/>), Water Resources Department, Govt. of Bihar.
10. Road Maps- (Source Road Construction Department, Govt. of Bihar./Ministry of Surface Transport, GoI.)
11. Maps and datas from Department of Disaster Management, Govt.of Bihar.
12. Census Report -2011: Data of number of household, per block under the head ‘House Hold by Condition of Census Houses’.
13. 1934 & 1988 Seismic Iso-Seismil Map, prepared by BSDMA (Vulnerability & risk mapping projection on number of households that are likely to be affected)

Some of the hazard maps that will be covered in district plans are mentioned below:

1. Earthquake vulnerability table.
2. Ground water map of Districts. (Public Health and Engineering Department Website, Govt. of Bihar)
3. Flood plain zone (Inundation Map) of District.
4. River basin map
5. River map
6. High wind hazard map of Bihar.
7. Road map of districts.
8. Map of the water logged areas of districts.
9. Drought map
10. **Data collection:** Using primary & secondary sources. CDDMASS will prepare questionnaire for data collection and circulate to BSDMA for onward circulation to various government departments for various kind of data required. Some of the data required include (representative):
	1. Information on SDMA/ DDMA structure
	2. Implementation status of existing schemes/ programs by BSDMA
	3. Details of awareness/ community/ school safety/ hospital safety inititiatives/ capacity buildings by state
	4. Information on revenue villages
	5. Information on training institutes, training infra, number of trainings conducted etc in area of disaster management
	6. Information on funds

The list above is not comprehensive and actual data requirement will be conveyed to BSDMA from time to time

1. **Best practices assessment**: CDDMASS will study and incorporate learning from best practices in disaster management. One example from international and one from domestic best practice will be provided in all kind of disaster prevalent in state. (Eg learning from recent Nepal earthquake 2015)
2. **Setting up of multi-stakeholder consulting group** including PRIs, key nodal departments, DRDA, District Magistrate/Commissioner, representative from Dept. of Disaster Management and BSDMA. This group will be consulted time and again throughout the process of development of DDMPs and their feedbacks shall be incorporated in the process
3. **Multi-stakeholder consultation** to seek feedbacks and inputs on the existing plan and to understand their views. CDDMASS will conduct workshops to expedite consultations. The workshops will be conducted at district for wider participation at district level. The key stakeholders will include community representatives, PRIs (Gram Pradhans / Up-Pradhans), Jila Panchayat, key NGOs working in the district (especially focusing on disaster management, WASH, health etc.), DDMA, DRDA, key nodal departments and the major business and industry etc
4. **Multi-stakeholder consultation on draft DDMP**: the draft DDMP shall be consulted with the stakeholders for their inputs and feedbacks. The draft shall be further modified and finalized
5. **Designing Process/Protocol for stakeholder engagement;** to state the process as to how various stakeholders be in government, non government, private, business, community
6. **Designing Process/ SOPs/ Protocols for district, block and panchayat level;** to state the role of district, blocks and panchayat levels in disaster mitigation and response
7. **Designing process to mainstream DRR and CCA;** Understand the impact of Climate changes, adaptability on DRR and DRP
8. **Design Process for Operationalization and Review of DDMP;** to state comprehensively the process that will guide the DDMA in promoting community awareness, enhancing their resilience , ensure system readiness and prepared to respond, capacity development of the stakeholders, methods to practice the process through simulation and mock drills, process to review and revise the plan periodically.

In addition, CDDMASS proposes **to attempt to** include the following action items as part of our engagement approach:

* Analysis of actions which leads to prevention of disasters
* Approach for building community resilience will be articulated in the DDMPs. The definition of resilience building, indicators for resilience and methods to study it for future action can be stated
* Plan for Livelihood restoration will be a key component of recovery programming. In addition to accessing external support, benefits from the development and disaster mainstreaming strategy will be taken for addressing various livelihood issues
* Prepositioning of resources for effective response will be mentioned while discussing the IDRN as highlighted by BSDMA
* Addition of School safety, Hospital Preparedness and Industry preparedness (these are important components but were not part of Madhubani DDMP)
* Safey for animals in disaster management. The animal census has been undertaken in Bihar in the year 2007 and statistics were revised in the year 2012
* Study of safety aspects of historical heritage sites and DM plan for its preservation

The DDMP shall be developed in accordance with the Madhubani DDMP as advised by district and BSDMA. Below is a preliminary table of contents which is proposed to be part of the two volumes of the DDMPs for each districts:

**VOLUME-1: DISTRICT DISASTER RISK REDUCTION PLAN**

**Objectives:** This volume will enlist the specific actions to be taken during non-disaster time for DRR and mitigation measures (including mainstreaming of DRR into development; capacity building; Functional continuity actions; and Emergency Preparedness). The volume will also detail about the implementation protocols of the plan including institutional mechanisms, good practices, coordination & integration, linkages between various levels, financial provisions and the follow-up actions etc. This volume will also have specific action plans for different stakeholders and line departments.

| **Sl. No** | **Item** | **Details** |
| --- | --- | --- |
| 1 | Contextual analysis | Analysis of existing scenario* Political/ administrative
* Technology
* Economic
* Social
* Climatic
* Regulatory framework (DM Act, relevant sections, organizational -etc)
* DM efforts at districts
 |
| 2 | Problem identification and analysis | * HVCA
* Micro and Macro analysis
 |
| 3 | Stakeholder analysis | * Identify stakeholders across the three levels
1. Gram panchayat level
2. District level (Line Department)
3. Other stakeholder
 |
| 4 | Development strategy | * Comprehensive Planning
* Essential Service Functions (ESF)
* Integration and Coordination of all stakeholders and essential services Functions
* Worst case scenario and contingency planning
* Follow ups
 |
| 5 | DRR plan | * Legal framework
* Awareness strategy
* Institutional mechanism
* Implementation plan (including plan to keep machinery in good shape for use during disasters)
* Financial management
* Frontline staff training and other training inventory
* School safety/ hospital safety plan/ industrial safety plan
* CCA plan
* Livelihood restoration plan
* Stakeholder Plan
	+ Line departments (such as:)
	+ Gram panchayat committees
	+ Other Non government stakeholders
	+ Business groups
	+ Dalit and tribals
	+ Ex servicemen
	+ Health associations
	+ Local and international media
	+ Transporters (rail, road, water ,air)
	+ SHGs
	+ NSS, NCC, Youth groups etc
 |

**VOLUME-2: DISTRICT DISASTER RESPONSE PLAN**

**Objectives:** This volume will enlist the specific actions to be performed at district level in case of any disaster situation. This will also provide for disaster specific contingency action as well as protocols & processes for setting up and activate field based Emergency Operation Centers. A set of formats, checklists, and database of resources, vulnerabilities shall also make part of this volume. The section will enlist the specific actions to be performed at the district level in case of any disaster situation. The key response actions are divided into various phases including Actions on Receipt of Early warning ; Response activation; relief and response; de activation of response and recovery actions along with enlisting disaster specific contingency actions. This will also cover setting up of field Emergency Operation Center (EOC).

| Sl. No | Item | Details |
| --- | --- | --- |
| 1 | Actions common to all Disasters | * 1. Actions on receipt of early warning
	2. Actions for response activation
	3. Action for relief and response
		1. Search and rescue
		2. Initial assessment
		3. Relief distribution
		4. Monitoring
	4. Deactivation of response
	5. Recovery actions
	6. Action plan for different stakeholders
 |
| 2 | Specific contingency situation actions | 2.1. Contingency action for Floods2.2. Contingency action for Earthquakes2.3. Contingency action for Droughts2.4. Contingency action for Fire2.5. Drought management |
| 3 | Setting up Field Emergency Operation Center (EOC) or coordination mechanism | 3.1 Role of EOC during disaster3.2 Role of EOC in normal time3.3. onsite EOCs |

## DDMP Preparation Planning and Reporting Mechanism

It is very important to recognize the context and specificity of community(s) and geographic location(s) while developing such a dynamic planning and management instrument. Therefore it will be ensured that variability factors emerging out of the vulnerability aspects as well as the social and cultural aspects strictly influence the entire process. This is reiterating the fact that same size does not fit all and therefore it is necessary to be conscious of micro level understanding, planning and from there designing the management protocol.

CDDMASS will ensure that during the development of the DDMPs in the district, a participatory and inclusive process is adopted. For this purpose, the DDMAs shall be encouraged to take lead in the process throughout the project. For this, the district level advisory group will formed in each district in the chairmanship of the DM/DC which shall play the lead role and guide the process in all the activities.

A monthly meeting will be organized every month to apprise the DDMAs and the district level advisory groups on the progress of the project. The program manager from CDDMASS will attend in the monthly meetings.

## Timeline and Delivery Schedule

|  |  | Week |
| --- | --- | --- |
|   | Activity | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| A | **Existing Systems Study** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 | Kick off meeting |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | Draft contract discussion |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3 | Contract signing |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 | Preparation of Inception report |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4.1 | Preliminary data research (DM Act, DDMP, BSDMA) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4.2 | Detailing the methodology |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4.3 | Review |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4.4 | Submission of Inception report |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 | Comments from BSDMA on inception report (finalize work plan) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6 | Finalize the work plan with incorporating inputs from BSDMA |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7 | Presentation of Inception report & agreement on DDMP structure |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8 | Macro Analysis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8.1 | Review of national level DM Act, Policy |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Primary research |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Study |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8.2 | Review of existing SDMP |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Primary research |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Study |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8.3 | Review of DDMPs  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Collecting DDMPs |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Study (DDMP/ district + one other DDMP) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8.4 | Study of Vulnerability atlas |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9 | Study of existing DM framework (Org/ Institutional/Awareness/ Legal) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9.1 | Data gathering |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Preparation of questionnaire |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Review of questionnaire |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Circulation of questionnaire |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9.2 | Study of data |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9.3 | Identify current capacity (including programs) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Stakeholders |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Institutions |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | SDMA/DDMA/ VDC |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9.4 | Identify awareness and preparedness level |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9.5 | Review existing programs |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Mitigation/ Response/ Recovery |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Awareness programs |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Techno- Legal regime |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10 | Micro Analysis (Field analysis) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.1 | Hazard profile assessment (HVCA) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.1.1 | Field consultation/ Workshops/ Stakeholder consultation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Nawada |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.1.2 | District profiling |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Development of criteria for selection of 5 villages |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Recommendation to District Administration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Agreement on 5 villages |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.1.3 | Ground level analysis of 5 villages/ district |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.2 | Review of HVCA tools received from BSDMA and development of appropriate tools for 4 districts |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.3 | Translation of tools in Hindi |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.4 | Orientation of field team / enumerators on HVCA tools |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.5 | Field testing of tools (and improvements) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.5.1 | Field data collection on HVCA tools |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | Nawada |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.6 | GIS mapping of identified villages and urban areas |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.6 | One on one meetings with line departments |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10.6 | Capacity Analysis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Data gathering |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Circulation of questionnaire |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Training needs assessment of departments |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | Institutional analysis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| B | **Gap requirement assessment** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 | Best practices study- National and International |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.1 | Identification of best practice case (one international and one national per kind of disaster type in Bihar) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.2 | Case studies and learning assessment |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | Gap analysis (from current/ best practices/ improvement areas) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2.1 | Assessment of improvement areas  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2,2 | Categorization of improvement areas |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C | **Design of DDMP** |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 | Disaster Risk Reduction Plan Preparation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.1 | Disaster Mitigation Plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.2 | Legal framework |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.3 | Implementation Plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.4 | Institutional structure |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.5 | Awareness plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.6 | Capacity building plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.7 | Budgetary estimates |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.8 | Action plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1.9 | Stakeholder involvement plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | Disaster Risk Recovery Plan Preparation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2.1 | Action plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |
| 2.2 | Contingency situation plan |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |
| 2.3 | EOC |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |
| 2.4 | Roles fixation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |
| 3 | Submission of draft report |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |
| 3.1 | Review with client |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3.2 | Incorporation of comments |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 | Translation of final documents into Hindi |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 | Submission of final documents to BSDMA and district authorities (End project review) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **D** | **Monthly recurring actions** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Monthly meeting at district (involving BSDMA) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2 | Monthly progress report to BSDMA |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **E** | **Mid assignment review** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Legends |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Deliverable |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Off site activity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | Field activity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Deliverables

| **S.No** | **Deliverable** | **Deadline** | **Content** | **Comments**  |
| --- | --- | --- | --- | --- |
|  | **Project Inception Report** | One (1) month from award of contract | This is the first deliverable to be submitted by the consultant’s team. This report shall detail the following* Scope of work
* Project plan for execution of the project.
* Dependencies
* Project risks
* Possible risk mitigation measures
* Project communication
 | The report shall be submitted in hardcopy and a softcopy in CD to the district officials with a copy to BSDMA.District officials shall offer its comments within 07 days the presentation. The revised final Action Plan shall commence immediately thereafter.Thereafter CDDMASS will submit monthly reports, in the format prescribed by BSDMA, on the progress of the assignment. The monthly reports will be preceded by a monthly meeting to be organized by the CDDMASS in the concerned district headquarter with all stakeholders and BSDMA representative. |
|  | **Draft report** | Five (5) month from award of contract | The draft report will be developed as per the structure of model DDMP of Madhubani, which is in two volumes, as below* + 1. Vol. I – Disaster Risk Reduction Plan
		2. Vol. II – District Response Plan
 | To be submitted in softcopy in CD –to district officials with a copy to BSDMA. |
|  | **Final report** | Six (6) month from award of contract | The final report shall incorporate the comments/feedback from BSDMAThe final report will be developed as per the structure of model DDMP of Madhubani, which is in two volumes, as below1. Vol. I – Disaster Risk Reduction Plan
2. Vol. II – District Response Plan
 | To be submitted in softcopy in CD –to district officials with a copy to BSDMA. |

Note:

1. All the above-mentioned reports shall be submitted to DM/DDMA of concerned district along with copies to each of BSDMA and Department of Disaster Management, GoB.
2. In case BSDMA requires additional hard copies of the finally approved report, the additional copies shall be made available at the rates approved by Government of Bihar.

## Monitoring and Evaluation System

A key to successful project management is frequent, open, meaningful and effective communication with sound management practices to anticipate problems and resolve them effectively and expeditiously. As such we suggest following project review plan:

*8.1 Steering committee: A joint committee of BSDMA and CDDMASS*

BSDMA

(Nodal officer)

NM Prusty

(**Project Director, CDDMASS**)

*8.2 Nodal officer:* ***BSDMA shall appoint a nodal officer/ project manager for day to day coordination and review of project progress.***

The district wise list of nodal offiers is as follows:

|  |  |
| --- | --- |
| **District** | **Resource person/ Nodal person** |
| Darbhanga | Mr. B. K. Mishra, Senior Technical Advisor (M -9431011010, E-mail: bkm@bsdma.org |
| Madhubani |
| Nawada | Mr. Anuj Tiwari, Senior Advisor(M - 7763970778, E-mail: anujtiwari@bsdma.org) |
| Samastipur | Ms. Madhubala, (M – 9431480431, E-mail: msmadhu1973@rediffmail.com) |

*8.3 District monitoring committee: A district level committee for facilitation at district level*

Steering Committee

District 1 officer

CDDMASS Proj Mgr

District officer

District 3officer

District 2 officer

*8.4 Review mechanism:* ***We suggest a 3 tier review mechanism***

(i) Project progress reports – to be submitted by CDDMASS to BSDMA.

This will contain the activities conducted by CDDMASS during the reporting month, plan for the next month, any issue/ risk identified and any challenges rising in the project, which require immediate attention of BSDMA/ DDMA.

|  |  |  |
| --- | --- | --- |
| **Report** | **Periodicity** | **Supervisor** |
| **Project Progress Reports** | Monthly | BSDMA Project Manager |

Format of project progress report would be as advised by BSDMA.

(ii) Mid project review – A comprehensive project review in the middle of the project to identify and adopt any mid course correction.

|  |  |  |
| --- | --- | --- |
| **Meeting** | **Periodicity** | **Stakeholders** |
| **Mid project review** | Quarterly | BSDMA Steering and monitoring CommitteeProject Manager & Technical Support Team |

(iii) End project review – to be conducted after submission of the draft final report

|  |  |  |
| --- | --- | --- |
| **Meeting** | **Periodicity** | **Stakeholders** |
| **End project review** | Quarterly | BSDMA Steering CommitteeProject Manager & Technical Support Team |

*Progress communication mechanism:*

***Minutes of Meetings***

All formal meetings will be captured in minutes especially the action points and deliverables/milestones. The format of minutes of meeting is as per BSDMA.

## Project team

Below is the team for the DDMP development project in Nawada:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Team Members** | **Designation** | **Responsibilities** | **Prior experience** |
| NM Prusty  | Mentor cum Director | Project guidance, quality assessment | He has been a member of the National Advisory Committee on DDMP setup under the Chairmanship of Shri. T. Nanda Kumar (the then Member, NDMA, Govt. of India) |
| Jugal Kishore Nayak | Director | DDMP specific guidance | He has worked extensively in social housing, water and sanitation. He has specialization in Industrial Engineering |
| Raman Kumar | Project Manager | Responsible for preparation of DDMPs, coordination with state and districts | He has been involved in the development of DDMPs in number of districts of Bihar, and has led the similar process in other states |
| Vivek Jha | DM Specialist | Responsible for mitigation aspects of DDMP | He has been involved in the National Earthquake Risk Mitigation Project at NDMA |
| Anant Kumar | District Coordinator | Field level data collection and coordination with districts | Experienced in social processes and participatory practices. |

The below team structure represents the coordination and communication process in the project team.

**Mentor cum Director**

**(Mr. N M Prusty)**

**Project Director**

(Mr. Jugal Nayak)

**Project Manager**

**(Mr. Raman Kumar)**

**DM Specialist**

**(Mr. Vivek Jha)**

**District Coordinator**

Anant Kumar

**Support team**

Core team

Field team

## Assumptions, Risks & Dependencies

The current scope and delivery of this project is based on the following assumptions:

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Agency** | **Assumption/ Risk/ Dependency** |
| 1 | BSDMA | 1. BSDMA will facilitate coordination with District administration and DDMA.
2. BSDMA will coordinate with state level stakeholders to ensure maximum participation.
3. BSDMA will provide all data requested by us in a timely manner from state and coordinate/ assist where required in getting data from DDMAs.
4. BSDMA will review and approve deliverables as soon as possible but not later than 7 days of submission.
5. BSDMA shall be required to facilitate interaction with/ write to any state level agency/ institute etc. by engaging through letters or involvement of state authority.
6. CDDMASS will draft letters to be sent by BSDMA/ DDMA to various departments for visit/ data collection.
7. BSDMA will facilitate release of payments within 7 days of submission of complete invoice and supporting document by CDDMASS.
8. In events which are outside the control of the consultants, BSDMA to provide logistics, financial (additional compensation) support and extension of timelines for meeting deliverables. Such events include but not limited to:
	1. Delay in providing of data by relevant departments,
	2. Delay in approvals
	3. Elections
	4. Transfer of officers/ bureaucrats
	5. Natural disasters and un natural disasters/ accidents
9. Extension of time to capped at 30 days. Beyond which monetary compensation will be applicable.
 |
| 2 | DDMAs | 1. DDMAs will coordinate with district departments for participation and support.
2. DDMAs will ensure that departments provide all data within stipulated time in the form of filled up questionnaire/ requested format.
3. DDMA will help identify & mobilise stakeholders for interactions.
4. DDMA will arrange for local transportation / boarding & lodging of the project team for the visits.
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# References:

* + 1. Bihar official state portal, <https://www.bihar.gov.in>, last visit: 24 June 2015.
		2. Census data, <http://www.census2011.co.in/census/state/bihar.html>, last visit: 24 June 2015
		3. NIDM, <http://nidm.gov.in/pdf/dp/Bihar.pdf>, last visit: 24 June 2015
		4. BSDMA website, last visit 24 June 2014
		5. Personal visit to BSDMA and project districts by CDDMASS representatives (22nd-25th July, 2015)
1. TB and HIV prevalence is due to malnutrition, while the rest of the diseases are largely due to unhygienic living condition in those areas [↑](#footnote-ref-2)