Assam State Disaster Management Authority

All India Disaster Mitigation Institute

Auditing District and City Disaster Management Plans

Method and Tool

August 2013

AUDITING DISTRICT AND CITY DISASTER MANAGEMENT PLANS: METHOD AND TOOL

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CONTENTS

INTRODUCTION

In Assam, disasters are a part of everyday life. The entire state sits above a highly active seismic zone and every year, the monsoon rains swell the Brahmaputra River – one of the largest rivers in India – and its tributaries to such an extent that extensive floods are caused, particularly in the north-eastern and southern districts. In 2012 Assam experienced one of the worst floods ever in its history and just when many of the districts were beginning to recover from the disaster, they were struck again with floods over the months of May to July 2013. The cumulative social, economic and environmental impacts on Assam have been devastating, even more so because the state has low development levels, poor infrastructure, limited communication networks, poor agricultural productivity and weak industrial growth. However as the Planning Commission noted, the state has enormous potential to achieve prosperity as it is the nation's tea-growing centre, connects the state to the rest of India, Nepal, Bhutan, Bangladesh and the country's north-eastern region, has natural resource reserves like gas, coal, limestone and minerals, fertile hills and valleys, high biodiversity, lush forests, and spectacular scenery.[1]

Continuous planning and preparation for disasters can help the state with achieving this potential. In cognisance of this each of Assam's districts has prepared a District Disaster Management Plan and City Disaster Management Plans have been developed for the cities of Silchar, Guwahati, and Dibrugarh. Nonetheless the recent Flood experiences demonstrated that the plans need to be made much more robust in enabling communities to minimise disaster losses and impacts. How to do so is the critical question and accordingly this District and City Disaster Management Plan Audit Tool has been developed to help disaster managers analyse the strengths, weaknesses, and issues which have not been covered by the disaster management plans. **Part I** provides an overview of what District and City Disaster Management Plans are and the rationale for carrying out the audit, **Part II** sets out the objectives of the audit exercise and the method used to develop the tool, and **Part III** contains the simplified and full versions of the audit tool.

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1 State Plan Division, Planning Commission, Government of India (2002) *Assam Development Report,* Government of India, p. i

ABBREVIATIONS

AIDMI	All India Disaster Mitigation Institute
ASDMA	Assam State Disaster Management Authority
CBO	Community Based Organisation
CSO	Civil Society Organisation
CDMP	City Disaster Management Plans
DDMP	District Disaster Management Plans
GIS	Geographic Information Systems
HVCA	Hazard, Vulnerability and Capacity Analysis
NDMA	National Disaster Management Authority
NGO	Non Governmental Organisation

1

1.1 About District Disaster Management Plans

Under the *National Disaster Management Act 2005*, every district in India must have a disaster management plan which details the areas that are vulnerable to different forms of disasters, the measures to be taken by local authorities and district-level government departments for preventing, building capacity, preparing for, and mitigating disasters, and response plans and procedures for disaster situations. These response plans and procedures are to contain provisions for:

a) Allocating responsibilities to government departments and local authorities in the district

b) Ensuring prompt response and relief to disasters

c) Procuring essential resources

d) Establishing communication links; and

e) Disseminating information to the public.[2]

The District Disaster Management Plans (DDMPs) are prepared by District Disaster Management Authorities who are the district's planning, coordinating and implementing body for disaster management.[3] The DDMPs are to be reviewed and updated annually.[4] Copies are to be made available to government departments and the Assam State Disaster Management Authority (ASDMA).

1.2 Assam's District and City Disaster Management Plans

All of Assam's 27 districts have prepared and submitted their DDMPs to the ASDMA. Though there were no legislative requirements to do so, City Disaster Management Plans (CDMPs) have also been prepared for the cities of Silchar, Dibrugarh and Guwahati, all of which are of immense economic importance to the state. Generally the District and City Disaster Management

2 *National Disaster Management Act 2005 s 31*
3 *National Disaster Management Act 2005 s 30*
4 *National Disaster Management Act 2005 s 31(4)*

Plans (D/CDMPs) have been developed based on the information from government and informal sources and consist of the district's profile, an analysis of the district's hazards, vulnerabilities and capacities, the district's institutional disaster management structures, Standard Operating Procedures for government departments to follow in disaster situations, and disaster preparation, mitigation, prevention, relief, recovery, and capacity-building measures. These have mainly been organised into key Emergency Service Functions such as search and rescue, early warning and information management, relief and coordination, and water and sanitation.

1.3 Why Audit The District and City Disaster Management Plans?

Assam has always been extremely prone to earthquakes and floods due to its location in seismic zone V (area with extremely high seismic activity) and its proximity to the Brahmaputra River, one of Asia's major waterways. In 2012 however the state suffered its worst-ever floods in a century, wherein three successive waves of floodwaters in April, June/July, and September affected about 4.89 million people, submerged over 5000 villages, submerged about 40% of the state's area, and damaged about 2.54 lakh hectares of crop areas. The estimated loss to farmers was Rs 900 crores. The international NGO Save the Children also found that the floods had displaced approximately 1.8 million children.[5] Massive damage was inflicted upon the state's infrastructure, railways, bridges, viaducts, and seven national highways.[6]

The 2012 floods showed that an urgent review of the DDMPs and CDMPs was required so that such damage, losses and trauma from the floods will never again be inflicted on the state's population. Following discussions with the All India Disaster Mitigation Institute (AIDMI), the ASDMA decided to first audit all the D/CDMPs to identify the areas which needed strengthening and then begin the revision process. AIDMI

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5 'Assam floods displace 1.8 million children in 2012' Business Standard, 11 October 2012. Available at: http://www.business-standard.com/article/economy-policy/assam-floods-displace-1-8-mn-children-in-2012-112101102015_1.html Accessed on 28 May 2013.

6 Prabin Kalita, 'Assam hit by worst floods of century' Times of India, 11 July 2012. Available at http://articles.timesofindia.indiatimes.com/2012-07-11/guwahati/32631883_1_worst-floods-brahmaputra-valley-wave Accessed on 28 May 2013.

assisted them in this regard by developing, based on its current work to develop DDMPs for the districts of West Champaran (Bihar), Puri (Odisha), and Leh/Ladakh (Jammu and Kashmir), a District and City Disaster Management Audit Tool and carrying out the audits for all the 27 districts and 3 cities.

2

2.1 Audit Objectives

The overall objective of auditing Assam's District and City Disaster Management Plans is to identify ways for making them even more effective in improving communities' resilience to disasters and to assist the District Disaster Management Authorities in drafting 'next generation' D/CDMPs. Such a plan is one which has the following components:

a) Coordination and partnership-building mechanisms between stakeholders i.e. communities, local authorities, district/state/national state disaster management authorities, line departments, NGOs, and CBOs

b) Monitoring, review and evaluation frameworks for all D/CDMP measures

c) Safe handling and disposal procedures for hazardous materials, debris, contaminants, carcasses, and other dead organic material

d) Specification of financial costs and funding sources for all disaster management measures

e) Community-based disaster management measures[7]

f) Targeted disaster preparedness, mitigation, response, relief, rehabilitation and recovery measures for especially vulnerable groups i.e. women, children, the elderly, persons with disabilities/chronic illness, minorities, scheduled castes/tribes, refugees/internally displaced persons

g) Disaster risk management measures are integrated with sustainable environment management and climate change mitigation/adaptation measures

h) Integrated urban disaster risk management , taking care to ensure that towns and peri-urban areas, not just towns, are addressed

i) Linkages with social welfare/development schemes and other sector-specific plans e.g. School Disaster Management

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7 Community-based disaster management refers to processes and activities whereby at-risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their own vulnerabilities. Disaster management measures are developed by or with the community, communities are given disaster management and leadership opportunities, and they are able to participate in the implementation of disaster management measures.

Plans, emergency industrial off-site plans, and hospital emergency management plans

j) Comprehensive preparedness and mitigation measures which enable at-risk communities, emergency responders, and other stakeholders, to effectively anticipate disaster risks and mitigate losses.

k) Regularly updated inventories of all resources in the district

l) Regularly conducted Hazard, Vulnerability and Capacity Analysis which assess the risks and impacts of disasters on the communities in the district, as well as on key essential infrastructure and community services.

m) Livelihood and business support strategies

n) Response strategy which is based upon the principles of Incident Response Systems and allows for relief to be rapidly delivered, in a coordinated manner, to disaster victims.

o) Information management and dissemination mechanisms

p) Regular capacity building and training measures which focus on building disaster risk awareness and practical disaster response skills e.g. first aid. These should be targeted at emergency responders, line department and local officials, and members of the community.

q) Emphasis on disaster risk prevention and reduction

r) D/CDMP is 'action-oriented' and not too narrative. The D/CDMP should contain procedures and action items, not extensive background information and explanations.

s) Clear layout with page numbers, contents page, and chapters which have been logically organised.

The other objectives of the audit exercise were to:

• Determine whether the D/CDMPs adopt a holistic, integrated, and community-based disaster management approach.[8]

8 An 'integrated disaster management' approach is taken firstly to mean comprehensively addressing the prevention, preparation, mitigation, relief, recovery and rehabilitation stages in disaster management. Secondly it refers to the internalization of disaster risks into human welfare, environment sustainability and economic development activities and agendas.

• Determine whether the D/CDMPs provide for the special needs of vulnerable groups like women, children, minorities, the elderly, migrants, indigenous/tribal persons, and persons with disabilities

• Determine the usability and accessibility of the D/CDMP

• Identify whether the DDMPs comply with the National Disaster Management Authority's and National Institute of Disaster Management's model frameworks for DDMPs

• Identify whether the DDMPs meet the legal requirements under the *National Disaster Management Act 2005*

• Identify whether the DDMPs and CDMPs are in line with the Hyogo Framework for Action 2005-2015.

• Determine whether there are testing, monitoring, review and evaluation mechanisms in the D/CDMPs

• Determine whether extreme climatic events (caused by climate change) have been considered as disaster risks

• Identify whether the D/CDMPs have provisions for protecting natural/cultural heritage and the environment.

• Determine what capacity-building measures there are to develop local communities' and officials' abilities to handle disaster situations.

• Identify whether the D/CDMPs are linked with government social welfare and development schemes e.g. Mahatma Gandhi National Rural Employment Guarantee Act, Sarva Shiksha Abhiyan, and Indira Awaas Yojana.

2.2 Methodology for Developing The Audit Tool

The D/CDMP audit tool has been prepared in accordance with the following local and international policies, legislation, and guidelines:

• Assam State Disaster Management Policy 2010

• *National Disaster Management Act 2005*

• Model Framework for District Disaster Management Plan (National Disaster Management Authority)[9]

• District Disaster Management Plan- Model Template (National Institute of Disaster Management)[10]

• Hyogo Framework for Action 2005-2015

9 See National Disaster Management Authority(2010), 'Model Framework for District Disaster Management Plan' Available at : http://ndma.gov.in/ndma/pdf/ddmp.pdf Accessed on 16 April 2013

10 See National Institute of Disaster Management (2005), 'District Disaster Management Plan - Model Template' Available at: http://nidm.gov.in/PDF/manuals/DDMP_Guidelines_Template.pdf Accessed on 16 April 2013.
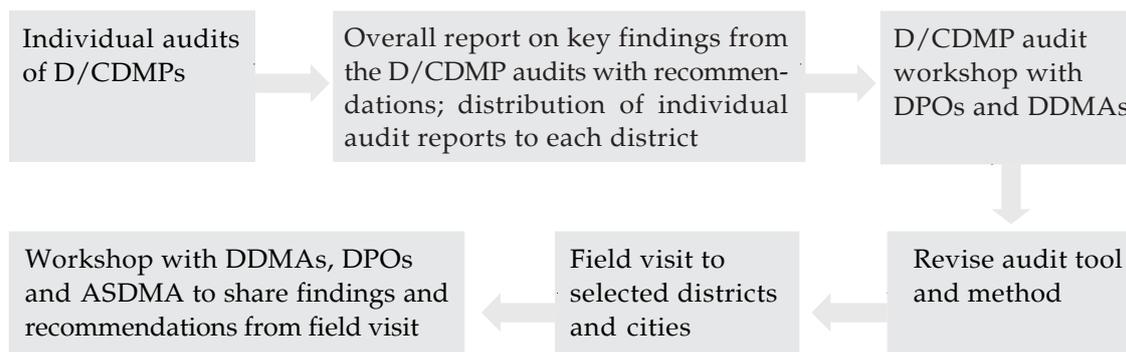
• Social welfare/development policies, legislation and plans in India e.g. Right to Education Act 2005, National Charter for Children 2003

• National Disaster Recovery Framework (2011, Federal Emergency Management Agency, United States of America)

• National Disaster Management Guidelines on Incident Response Systems (National Disaster Management Authority)

Reference was also made to the Asian Disaster Preparedness Centre's research on community-based disaster management and mitigation.[11] The Federal Emergency Management Agency's (USA) course training materials on disaster management was also referred to for designing the audit tool.[12]

The expertise of the National Disaster Management Authority, the ASDMA, the National Institute of Disaster Management, the United Nations Development Programme, and the partner organisations and agencies which AIDMI works with, were instrumental in the process of developing the audit tool. AIDMI also drew upon its experiences from developing pilot DDMPs for the districts of West Champaran, Bihar, Puri, Odisha, and Leh/Ladakh, Jammu and Kashmir.

2.3 Outcomes from The D/CDMP Audit

The results from the audits will be used to revise the D/CDMPs so that they are more inclusive, practical, community-oriented, environmentally sustainable, risk and impact-reduction focused, and address the rights and needs of the community, especially those who are the most vulnerable. The overall revision process is shown in the diagram below:

Individual audits of D/CDMPs	→	Overall report on key findings from the D/CDMP audits with recommendations; distribution of individual audit reports to each district	→	D/CDMP audit workshop with DPOs and DDMAs

Workshop with DDMAs, DPOs and ASDMA to share findings and recommendations from field visit	←	Field visit to selected districts and cities	←	Revise audit tool and method

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11 Asian Disaster Preparedness Centre (2004), 'Community-based Disaster Risk Management - Field Practitioners' Handbook' Available at: http://www.adpc.net/pdr-sea/publications/12handbk.pdf Accessed on 10 June 2013.

12 See e.g. 'Course on Comparative Emergency Management, Session 14: Structural Mitigation' Federal Emergency Management Agency.

2.4 How to use The District Disaster Management Plan Audit Tool

The District and City Disaster Management Plan audit tool has been developed as a questionnaire which has been divided into 8 key parts: general considerations, background information, Hazard, Vulnerability and Capacity Analysis, preparedness, prevention and mitigation, response and relief, reconstruction, rehabilitation and recovery, and additional comments. Each part contains a number of evaluation criteria against which the person conducting the audit must provide detailed responses. 2 versions of the audit tool have been provided - a simplified version which is more like a checklist for those who have limited time to conduct the audit, and a full version for those who wish to conduct a detailed study of the D/CDMP.

DISTRICT AND CITY DISASTER MANAGEMENT PLAN AUDIT TOOL (SIMPLIFIED)

3

Name of District/City:	**Date of Audit:**
Date of Plan:	**Draft Yes/No**
No. of Pages in Plan:	**Contents Page Yes/No:**
Chapters Yes/No:	

3.1 General Considerations

Evaluation Criteria	Yes/No	Details
Multi-hazard disaster management approach		
1. D/CDMP addresses all disaster risks in the district/ city.		
Timeframes		
2. All measures in the D/CDMP have start and completion dates.		
D/CDMP development process		
3. D/CDMP sets out the method, processes, and parties involved in preparing the plan.		
Availability in local languages		
4. D/CDMP available in local languages e.g. Assamese, Hindi, Bengali.		
Public availability		
5. 5. D/CDMP is freely available to the public, local district officials, line departments, and disaster management authorities at state and national levels.		
Multi-stakeholder disaster management approach		
6. Disaster measures in the D/CDMP are developed and implemented in partnership with other stakeholders and emergency responders e.g. NGOs, PRIS, CBOs, CSOs, volunteers, businesses, humanitarian agencies, and local officials. Their roles and responsibilities have also been stated in the D/CDMP.		

Evaluation Criteria	Yes/No	Details
District Disaster Management Authority (DDMA) Background 7. DDMA role and responsibilities specified: Frequency of meetings: _____ Community representative in DDMA committee: Urban representative in DDMA committee: Information on DDMA resources and budget:		
Linkages with government social welfare/ development schemes 8. D/CDMP has links with government social welfare/ development schemes operating in the district.		
Integrated risk management 9. D/CDMP contains mechanisms to integrate disaster risk considerations into the district's planning, development, social, environmental, and key economic activities i.e. industrial, trading, tourism, tea production, gas and oil refining, farming, textile and handicraft production.		
Community-based Disaster Management Approach 10. Disaster preparedness, prevention, mitigation, relief and recovery measures enable communities to design, provide regular feedback and comments, lead, manage, participate and manage their implementation.		
Vulnerable Community Groups 11. D/CDMP contains measures which specifically identify and address the needs of especially vulnerable groups in the community i.e. women, children, the elderly, persons with disabilities/limited mobility, dalits, minorities, internally displaced persons, and refugees.		
Finance and Resources 12. The costs of implementing each of the measures in the D/CDMP have been assessed and funding sources have been identified.		
Monitoring and Evaluation 13. D/CDMP contains measures for regularly testing, reviewing, monitoring, evaluating and updating the plan as a whole as well as the individual disaster preparedness, prevention, mitigation, relief, and recovery activities. These actions are taken by the implementing parties and independent persons		

Evaluation Criteria	Yes/No	Details
Urban Disaster Management		
14. D/CDMP consists of urban disaster management measures which:		
Assess and address disaster risks in cities, towns, and peri-urban areas		
Protect persons living in informal settlements, homeless persons, and those living in temporary/makeshift shelters		
Reduce disaster risks and impacts on over-crowded, high density and commercial areas		
Improve waste and drainage management		
Improves environment and pollution management		
Maps		
15. Maps in the D/CDMP are:		
Up-to-date		
Show the types and levels of disaster risks across the district/city		
Emergency shelters, critical infrastructure, storage areas, distribution points, locations of emergency supplies, tools and equipment		
Locations of villages, towns and cities		
Geographic terrain		
Media and Public Information		
16. D/CDMP has a media and public information management strategy which:		
Identifies the actors involved in the strategy and specifies their roles and responsibilities		
Ensures that disaster-related information is widely disseminated to the community and other stakeholders		
Assigns the media a role in disaster risk education, early warning, and disaster response		
Cultural and Natural Heritage		
17. D/CDMP contains measures for managing disaster risks to natural and cultural heritage areas		

Evaluation Criteria	Yes/No	Details
District Profile 18. District/city profile is Up-to-date Identifies the development challenges in the district/city Key economic activities in the district Vulnerable sections of the community		
Critical Infrastructure 19. D/CDMP assesses the disaster risks and contains preparedness, prevention, mitigation and recovery measures for critical infrastructure to minimise damage and ensure their continued operation.[13]		
Line Departments 20. Line departments operating in the district have developed Standard Operating Procedures to prepare and respond to disasters in the district/city.		
Economic Protection 21. D/CDMP contains measures which enable individuals to prepare for and protect their livelihoods from disasters. The D/CDMP also contains measures which enable businesses, industries, fishing, tea estates, farmers, oil and gas refineries, tourism, handicraft, and other commercial sectors to prepare for and protect their operations from disasters. The measures should enable the resumption of such activities as soon as possible following disasters.		

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13 Examples of critical infrastructure are: water supplies and sanitation, communication structures, transport infrastructure (especially railways and airports), electricity/power generation sources, medical and emergency services.

3.2 Hazard, Vulnerability and Capacity Analysis (HVCA)

Evaluation Criteria	Yes/No	Details
1. HVCA analyses the disaster risks and impacts at both the macro and micro levels i.e. at the district, block, city, town and village levels.		
2. Communities participate in identifying and assessing the disaster risks and capacities of their local area.		
3. Climate change and other man-made hazards e.g. water pollution and deforestation have been included as disaster risk factors.		
4. A population impact analysis has been conducted to identify the most at-risk groups.		
5. HVCA analyses the functioning levels of equipment, critical infrastructure, and essential services in the district.		
6. Resource inventories with the full contact details of all disaster management personnel have been compiled for the HVCA.		
7. HVCA assesses the training needs of communities, emergency responders, and other stakeholders.		

3.3 Disaster Preparedness

Evaluation Criteria	Yes/No	Details
1. D/CDMP has a disaster preparedness plan.		
2. Preparedness measures include seasonal inspection of equipment, facilities, and critical infrastructure to check on their need for repair and/or replacement.		
3. Preparedness measures include stocking of essential emergency relief supplies and equipment needed for disaster response and recovery.		
4. Preparedness measures foster preparedness at the individual, household, village, town, city, and district levels.		
5. The plan contains practical measures to test the community's and emergency responders' preparedness for disasters e.g. mock drills and emergency management exercise.		
6. There are measures to familiarise national, state, and district emergency responders with the communities.		

Evaluation Criteria	Yes/No	Details
7. The district/city has an Emergency Operations Centre (EOC) which: Is operational all the time Has a clear command structure Activity, incident recording, information sharing protocols Coordination mechanisms with emergency responders, communities, NGOs, line departments, district officials, and central/state disaster management authorities Resource management and mobilisation strategy Deactivation procedures Functional and backup equipment (especially communications systems)		
8. Full contact details of all key personnel in the EOC have been specified. There are also regular training programmes for EOC staff.		
9. There are Early Warning Systems in the district/city which: Provide warnings for all disaster risks in the district/city Has protocols for disseminating warnings clearly to the public and emergency responders Has training programmes to educate communities and emergency responders in recognising the warning signals and how to respond.		
10. Emergency Response Teams in the district/city have been formed according to key Emergency Support Functions. Full contact details for all team members have been provided and there are regular training programmes for them. The activities that the teams are to undertake before, during, and after disasters have been specified.		

3.4 Disaster Prevention and Mitigation

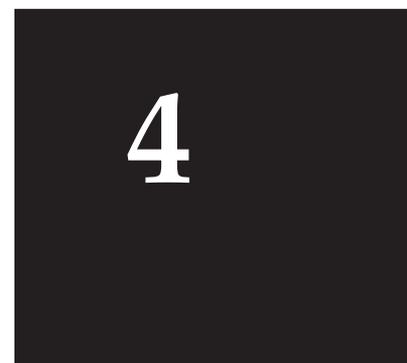| Evaluation Criteria	Yes/No	Details
1. D/CDMP has a disaster prevention and mitigation plan.		
2. There are structural and non-structural mitigation measures.		
3. The mitigation measures go towards: Improving the structural integrity of buildings and critical infrastructure Constructing resilient, long-term barriers against disaster risks like earthquakes and floods Improving waste and water drainage systems Environment protection, conservation, and pollution control Controlling land use, development, building, and population settlement Enforcement of safety standards in industries, schools, hospitals, and buildings.		

3.5 Disaster Response and Relief

Evaluation Criteria	Yes/No	Details
1. D/CDMP has a disaster response and relief plan.		
2. Measures to be taken have been set out using a Task Responsibility Activation Matrix.[14]		
3. Relief and response provisions are from the Assam Relief Manual 1976 and are linked with the provisions of the Calamity Relief Fund and the National Calamity Contingency Fund.		
4. Communities are made aware of their relief entitlements.		
5. There is an Incident Response System (IRS) in the district/city which: Has command and general staff Chain of command from village/city to district level Identified roles and responsibilities of all persons in the IRS Activation, response, and deactivation procedures Activity recording protocols Communication and coordination mechanisms		
6. Relief deployment and distribution points have been identified.		

Evaluation Criteria	Yes/No	Details
7. There are safe storage places for emergency relief supplies and procedures to record their receipt and distribution.		
8. There are procedures to expedite official authorisation of relief actions and supplies.		
9. There are measures to conduct rapid assessments of disaster victims' needs and to ensure the prompt delivery of emergency medical, water, shelter, and food relief which suit their requirements to them.		
10. Relief camps/shelters Have clean adequate water supplies Segregated toilets for women and men Have safety measures for vulnerable groups like children Accessibility for persons with limited mobility Cooking facilities Medical care and disease control		
11. There are relief measures for livestock		
12. There are procedures for safely handling and disposing of debris, wastewater, hazardous substances, carcasses, human waste and dead organic material from disasters.		

3.6 Disaster Reconstruction, Rehabilitation and Recovery

Evaluation Criteria	Yes/No	Details
1. D/CDMP has a disaster reconstruction, rehabilitation and recovery (RRR) plan.		
2. Measures to be taken have been set out using a Task Responsibility Activation Matrix.[15]		
3. The RRR plan goes towards: Ensuring that the community successfully overcomes the physical, emotional, environmental and economic impacts of disasters Improves the community's resilience to future disasters Improves the overall well-being and development of the communities Restores normal activities in the community		

DISTRICT AND CITY DISASTER MANAGEMENT PLAN AUDIT TOOL

4

Name of District/City:	Date of Audit:

4.1 General Considerations

This section looks at various issues that are associated with drafting District and City Disaster Management Plans (D/CDMPs), such as the processes used to develop them, the usability and accessibility of the plans, monitoring and evaluation mechanisms, whether an integrated disaster management approach has been utilised, media involvement, cultural and natural heritage protection, community-based disaster management, and engagement with multiple stakeholders.

Evaluation Criteria	Yes/No	Details
Time:		
1. What is the date of the D/CDMP?		
2. Is the D/CDMP a draft? Has a preparation date been specified?		
3. Do all the measures in the D/CDMP have timeframes i.e. starting and completion dates?		
D/CDMP Development Processes		
4. Does the D/CDMP describe the methods and processes used to develop it? What sources of information were used?[16]		
5. Who were involved in developing the D/CDMP? Please specify.		
Multi-Hazard Approach		
6. Does the D/CDMP adopt a multi-hazard approach, or does it only address specific disaster risks in the district/city?		
Usability and Accessibility		
7. How many pages are there in the D/CDMP?		
8. Is the D/CDMP user-friendly, concise and easily comprehensible?[17] Is it well-structured?		
9. Is the D/CDMP available in local languages e.g. Hindi, Assamese?		
10. Does the D/CDMP have a contents page?		
11. Is the D/CDMP freely available to the public? Is it available in block, tehsildar, municipal corporations, local authorities and line department offices?[18]		

Evaluation Criteria	Yes/No	Details
12. 1. Is there too much background information in the D/CDMP? Is it too narrative and too much data in the D/CDMP, such that it reads more like a data book?		
Multi-Stakeholder Approach[20]		
13. Are Panchayat Raj Institutions (PRIs), NGOs, CSOs/ CBOs, volunteers, businesses, and community groups involved in the implementation of the D/CDMP?		
14. If so, have their roles and responsibilities been identified and what activities are they to carry out?		
15. Are there mechanisms to build partnerships and coordinate actions between them, local authorities, government officials, the DDMA, and other emergency responders?		
16. Does the D/CDMP specify how national and state disaster management authorities would be involved in district-level disaster management?[21]		
District Disaster Management Authority		
17. Does the D/CDMP provide background information on the District Disaster Management Authority (DDMA) i.e. how it was formed, its functions, and who the key contact persons are?		
18. Does the D/CDMP specify when the DDMA's meetings are held e.g. yearly, half-yearly, quarterly intervals?		
19. Does the DDMA have at least one member who is from urban local government, /municipal corporations, or town planning authorities?		
20. Does the D/CDMP state the budget and resources of the DDMA?		
Integrated Risk Management[22]		
21. What are the central and state government social welfare/development schemes operating in the district?		
22. Does the D/CDMP contain provisions for linking disaster management with these social welfare/ development schemes?[23]		
23. Are there mechanisms for integrating disaster risk considerations into the district's planning, development, social, environmental and economic activities? (such as tea, oil and gas production)[24]		
24. Does the D/CDMP address industrial, chemical and other man-made risks which cause accidents/ disasters?[25]		

Evaluation Criteria	Yes/No	Details
Community-based Disaster Management[26]		
25. Does the D/CDMP contain measures whereby disaster management authorities, government officials, and other emergency responders can engage and build positive relationships with communities?		
26. Do the preparedness, prevention, mitigation, relief, and recovery plans in the D/CDMP provide opportunities for communities to: • Design the measures • Provide regular feedback and comments on the design and implementation process • Lead and/or participate in the implementation of the plans • Participate in conducting risk and impact assessments		
27. Do these plans contain measures which address the needs of especially vulnerable groups, such as women, children, the elderly, persons with disabilities/limited mobility, dalits, minorities, internally displaced persons, and refugees?[27]		
Disaster Management Plan Objectives		
28 Do the objectives of the D/CDMP aim to achieve the following: a) Holistic and integrated disaster management approach[28] b) Disaster risk reduction/prevention c) Environment sustainability d) Community-based disaster risk management[29] e) Multi-stakeholder partnerships for disaster management[30] f) Commitment to protecting the community, especially those with special needs and vulnerabilities?[31]		
Monitoring and Evaluation[32]		
29. Does the D/CDMP contain any provisions for testing, reviewing, monitoring and evaluating the activities specified in the plan?		
30. If so, who are the parties responsible for monitoring and evaluation, and at what intervals should they be carried out?		

Evaluation Criteria	Yes/No	Details
31. Does the D/CDMP specify the consequences for not implementing the disaster management activities specified in the plan?[33]		
32. Are there opportunities for members of the community, particularly the most vulnerable, to provide their feedback and comments on the D/CDMP and how disasters are being managed? Have security and confidentiality arrangements been made for them to do so?[34]		
Updating Procedures		
33. Does the D/CDMP clearly specify when it is to be reviewed and updated? How often should these actions be carried out?[35]		
34. Are there any provisions which require the District Disaster Management Authority to list its human resources, equipment, and critical supplies on the India Disaster Resource Network (IDRN)?[36]		
Finances and Resources for Implementing the D/CDMP		
35. What are the funding sources for disaster management activities in the district and implementing the D/CDMP?[37] Have the District Disaster Response and Mitigation Funds been established in the district, as required under the National Disaster Management Act 2005?[38]		
36. Have the costs of implementing each of the measures been assessed? Are these stated in the D/CDMP?		
37. For each of the measures, does the D/CDMP state who is responsible for funding them?		
Urban Disaster Risk Management[39]		
38. Does the district have urban and/or peri-urban areas i.e. cities, towns, outer suburban areas?		
39. If so, are there measures which protect: • Informal settlements, persons who are homeless, and persons who live in makeshift shelters like tarpaulin tents • Key commercial and trading areas • Critical infrastructure like hospitals and transport networks (especially airports and railway systems) • Overcrowded or high density areas		

Evaluation Criteria	Yes/No	Details
Mapping and Technology		
40. Does the D/CDMP contain up-to-date maps on: • Hazard-specific disaster risk mapping, showing high, medium, and low risk areas • Identification of emergency shelters, critical infrastructure, storage areas, distribution points, and locations of emergency supplies, tools and equipment. • Location of villages, towns and cities • Geographic terrain		
41. Do the maps contain scales? Are the scales and formats of the maps consistent in the D/CDMP?		
42. Are there digital and hard copy versions of maps available?		
43. Does the D/CDMP contain any provisions for utilising technology to assist in decision-making?[40]		
Media		
44. Does the D/CDMP contain a media and public information strategy?		
45. Who is involved in implementing the media strategy?		
46. If so, what are the topics addressed? Does it specify: • How early warnings and other disaster-related information will be communicated to the public and communities • Controlling the media presence at the disaster scene • Educating and raising awareness in communities about disaster risks and how to respond • Media briefing policies • Ensure that all persons, regardless of their location, will be able to have access to the information • The roles and responsibilities of the actors involved in the media strategy		
Cultural and natural heritage[41]		
47. Does the D/CDMP contain any measures for protecting natural and cultural heritage structures/areas?[42]		

4.2 District/City Background Information		
This section looks at the content of the district/city profile and whether the information is up to date.		
Evaluation Criteria	**Yes/No**	**Details**
District/City Profile		
1. Does the D/CDMP have a brief district/city profile which includes the following information: a) Climate, geography, and topography b) Urban-rural distribution c) Local administration e.g. no. of revenue circles, key towns, sub-divisions, development blocks, no. of villages d) Demography (population size, sex ratios, proportion of SC/ST/OBC/OBT, religious minorities, indigenous/tribal groups) e) Socio-economic profile e.g. literacy levels, access to drinking water facilities, proportion of population living below the poverty line f) Key economic activities and livelihoods in the district/city g) Location of informal settlements		
2. Does the district/city profile identify what the key problems/challenges are in the district/city?[43] If so what are they?		
3. Is the information in the district/city profile up to date?		
4.3 Hazard, Vulnerability And Capacity Analysis (Hvca)		
Hazard, Vulnerability and Capacity Analysis (HVCA) is a method used to assess the district/city's exposure to and capacity to respond to disasters. It involves analysing the disaster risks and hazards in the district/city, and collecting information on the resources available for preparing and responding to disasters (for example the number of hospitals and emergency relief personnel), By doing so this enables priority areas of action to be identified and in designing the overall disaster management strategy.		
Evaluation Criteria	**Yes/No**	**Details**
1. Does the HVCA outline the history, risks,[44] and impacts[45] of disasters in the district/city?		
2. When was the HVCA carried out, and how frequently is it revised/updated?		
3. What was the methodology used for carrying out the HVCA? Who conducted the HVCA?		

Evaluation Criteria	Yes/No	Details
4. Does the HVCA include climate change and other man-made activities as risk factors for disasters e.g. environment degradation?		
5. Has the HVCA been carried out at both the macro and micro levels i.e. district, block and village levels?		
6. Does the HVCA specifically analyse the disaster risks and capacities in urban and peri-urban areas (e.g. cities, towns, urban fringes, and other areas which are being urbanised but are not declared Urban Local Bodies[46])?		
7. Does the HVCA include a population impact analysis to identify groups in the community who are especially vulnerable to disasters? Examples are: • Women • Children • Elderly • Minorities • Migrants • Indigenous/tribal groups		
8. Does the impact analysis contain information on how these groups will be affected?		
9. Does the HVCA assess the disaster risks to key infrastructure and essential servicese.g. • Water supplies and sanitation • Communication structures • Transport infrastructure (roads, airports, rail) • Electricity/power generation sources • Schools and other education institutions, community halls, and other shelters • Waste management • Food/public distribution systems?		
10. Does the HVCA assess how well these infrastructure and essential services are functioning?		
11. Does the HVCA assess the risks and potential impacts of disasters on industries, tea estates, agriculture, and other key economic sectors in the district/city?		

Evaluation Criteria	Yes/No	Details
12. Does the HVCA assess the impacts of disasters on local livelihoods?		
13. Does the HVCA contain resource assessments for the district/city?[47]		
14. Does the resource assessment also include an identification of all personnel who can have a role in disaster management?		
15. Does the HVCA assess the disaster management skills and knowledge of communities and other stakeholders e.g. line department officials, district officials, PRIs, NGOs, and volunteers? Does it assess their need for training?		
16. Does the HVCA provide information on the financial capacity of the district/city to carry out disaster management activities?		
17. Does the HVCA assess the disaster risks and impacts on environmentally significant areas (such as national parks, conservation sites, river islands) and culturally/historically significant sites?		

4.4 Disaster Preparedness

Disaster preparedness refers to the knowledge and capacities developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.[48] This section of the audit tool examines the extent to which the D/CDMP ensures that communities and emergency responders are prepared for disaster situations.

Evaluation Criteria	Yes/No	Details
General Considerations		
1. Does the D/CDMP contain a disaster preparedness plan?		
2. Do the preparedness measures include: • Stocking of essential emergency relief supplies and equipment needed for disaster response and recovery • Seasonal inspection of equipment, facilities, and critical infrastructure to check on their condition and see if they are in need of repair or replacement		
Stakeholder Preparedness		
3. Have all line departments operating in the district developed Standard Operating Procedures and other contingency measures to prepare for disasters?		

Evaluation Criteria	Yes/No	Details
4. Do the preparedness measures encourage all persons in the community - individuals, households, businesses - to prepare for disasters? For instance, do they enable: • Households and individuals to develop disaster preparedness measures like evacuation routes from homes to emergency shelters and stocking essential items • Schools to develop disaster management plans • Businesses and industries to conduct risk analysis and develop contingency measures like back-up inventories, safe storage of important documents • Villages and towns to develop disaster management plans and other contingency measures?		
5. Are there measures which prepare persons who have agrarian and environment-dependent livelihoods for disasters? E.g. tea estates, farmers, and natural resource industries.		
Capacity Building		
6. Are there practical exercises to test the district/city's preparedness and readiness for disasters? Examples are emergency management exercises[49] and mock drills		
7. Are there programmes to familiarise national, state and district emergency forces with the communities?		
8. Are there measures to train communities in disaster risk awareness, familiarise them with the D/CDMP, and how to respond to such situations?		
Emergency Operations Centre		
9. Has an Emergency Operations Centre (EOC) been established in the district/city?[50]		
10. Is the EOC operational all the time? Is it on standby even when no disasters have occurred?		
11. When was the EOC established?		
12. Has a command structure been established in the EOC?		

Evaluation Criteria	Yes/No	Details
13. Does the EOC contain operational procedures addressing the following: • Monitoring of disaster risks and warnings • Coordination of relief, response and recovery efforts among emergency responders at the district, state and national levels • Coordination with NGOs, CBOs, other EOCs and other non-government emergency responders • Disaster response and relief strategy • Emergency resource mobilisation • Real-time information collection and sharing strategy • Activity logs/incident recording protocols • Emergency communications between communities and all disaster responders • Supply and logistics management • EOC demobilisation/deactivation		
14. Does the information management strategy specify how critical information will be shared promptly with communities and with all emergency responders?		
15. What are the communications equipment available in the EOC and are there back-up systems?		
16. Does the EOC have information technology systems available to assist it in analysing emergency situations and making rapid decisions?[51]		
17. Are there procedures for monitoring, reviewing, and testing the EOC's operations?[52]		
18. Have the resources and staffing arrangements of the EOC been specified in the D/CDMP? Is there a staff duty roster?		
19. Have the full contact details of the EOC and key staff members been specified?[53]		
20. Are there regular training programmes for EOC staff members? Are there procedures to familiarise them with the D/C DMP and the EOC's protocols?		
Early Warning Systems		
21. Are there Early Warning Systems (EWS) available in the district/city? If so, please describe.		
22. Does the EWS cover multiple hazards e.g. floods, earthquakes and storms?		

Evaluation Criteria	Yes/No	Details
23. Is there a protocol for disseminating the warnings to communities in a clear and easily understandable manner?[54]		
24. Are there education/training programmes to make all members of the community aware of Early Warning Systems, what signals to look out for, and how to respond?		
25. Does the EWS system allow for community-based early warning methods?		
Disaster Management/Emergency Response Teams		
26. Have disaster management/emergency response teams been formed according to key Emergency Support Functions?[55]		
27. Have members of the community been included in each of the teams?		
28. Have the roles and responsibilities of the teams been specified?		
29. Have the activities that disaster management teams are to undertake to prepare and respond to disasters been specified?		
30. Have the full contact details of all team members been stated in the D/CDMP?		
31. Are there regular training programmes for disaster management teams to familiarise them with the D/CDMP and in disaster skills e.g. search and rescue, emergency shelter construction, and managing supply and logistics in disaster situations?		

4.5 Prevention and Mitigation[56]
While disaster prevention is the outright avoidance of adverse impacts of hazards and related disasters, mitigation is the lessening or limitation of these impacts. Prevention, mitigation and preparation measures can sometimes overlap with one another.

Evaluation Criteria	Yes/No	Comments
1. Is there a disaster prevention and mitigation plan in the D/CDMP?		
Structural Mitigation Measures[57]		
2. What structural disaster mitigation measures are there in the D/CDMP?		

Evaluation Criteria	Yes/No	Comments
3. Do the structural disaster mitigation measures cover the following: • Hazard resistant construction and design for buildings and critical infrastructure • Creating, developing, and enforcing buildings codes • Relocation of communities/structures away from high risk disaster areas • Structural modifications (retrofitting) buildings and infrastructure • Construction and/or identification of public buildings as community shelters • Construction of resilient barriers and retention systems e.g. flood dikes and embankments • Constructing and maintenance of drainage and waste management systems		
4. Are there public education programmes to train the community in the existence of the shelters?		
5. Is there a system to regularly maintain the emergency shelter, stock it with emergency supplies, and ensure that it is staffed during disaster situations?		
Non-Structural Mitigation Measures		
6. What non-structural disaster mitigation measures are there in the D/CDMP?[58]		
7. Do these consist of the development and/or enforcement of regulations to control: • Land use and development activities • Environment degradation through conservation and sustainable natural resource management • Settlement in high disaster risks areas and areas with high population densities • Restricting the types of activities that can be carried out in buildings • Safety in industries, businesses, homes and schools?		

Evaluation Criteria	Yes/No	Comments
8. Are there training activities to educate individuals, households and businesses on how they can reduce the impacts of disasters on themselves? For example: • Securing furniture and other loose structures in buildings • Micro-insurance • Stocking of emergency supplies • Evacuation plans • Livelihood diversification • Development of business continuity and contingency plans		

4.6 Response and Relief

Response and relief, sometimes used interchangeably, refers to the provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence needs of the people affected.[59] This section of the audit tool examines the response and relief procedures to see whether disaster victims' food, shelter, water, clothing and security needs can be met promptly.

Evaluation Criteria	Yes/No	Comments
General Considerations		
1. Is there a disaster response and relief plan in the D/CDMP?		
2. Have the disaster response and relief measures been set out according to a responsibility matrix?[60]		
3. Are the relief provisions from the Assam Relief Manual 1976?		
4. Does the D/CDMP make reference to the items and norms of assistance from the Calamity Relief Fund and the National Calamity Contingency Fund?		
Community Awareness of Relief Entitlements		
5. Are there programmes available to make disaster victims aware of what their relief entitlements are?		
Incident Response System		
6. Is there an Incident Response System (IRS) in the district/city?		

Evaluation Criteria	Yes/No	Comments

7. Do the staffing arrangements of the IRS consist of:
 	
  • Command staff (Incident Commander, Information and Media Officer, Safety Officer, and Liaison Officer)
 	
  • General staff for tactical operations, planning,[61] and logistics?		

8. Has a clear chain of command been established from the village to district level?		
9. Are the roles and responsibilities of those involved in disaster response specified i.e. members of the DDMA and line departments?		

10. Have activation and response procedures been specified? Do these cover:
 	
  • Situations where early warning has been received, and situations where early warnings have not been received
 	
  • Initial response and situation assessment
 	
  • Development of an Incident Action Plan[62]
 	
  • Mobilisation of resources and Emergency Management Teams
 	
  • Response procedures for Emergency Management Teams
 	
  • Coordination with national and state authorities and response forces
 	
  • Coordination between emergency responders		

11. Has the chairperson of the DDMA been identified as the Responsible Officer for the district? In the case of cities, has the Chief Secretary been identified as the Responsible Officer for the disaster response?		
12. Are there procedures to maintain complete records of all the activities performed, the activities which still need to be completed, and the resources deployed to respond to the disaster?[63]		
13. Is there a demobilisation plan in place?		
Supply and Logistics		
14. Have relief deployment and distribution points been identified?		
15. Are there storage places to keep relief supplies safe from theft and damage?		

Evaluation Criteria	Yes/No	Comments
16. Are there procedures to record the receipt of relief supplies, who they have been received from, and where they have been delivered?		
17. Are there procedures to expedite official authorisation of relief actions and supplies?		
Basic Human Survival Needs		
18. Are there measures to conduct Rapid Impact Assessments of disaster victims' medical, food, shelter, water and clothing needs? Who is responsible for carrying this out?		
19. Are there measures to promptly deliver adequate clean water to disaster victims for drinking, hygiene and food preparation purposes?		
20. Are there arrangements to provide adequate emergency food to disaster victims? Do these include establishing free kitchen centres?		
21. Are there measures for building immediate temporary safe shelters to protect disaster victims from the natural elements?		
22. Are there procedures for establishing relief camps/ shelters? If so, do these address: • Water supply • Segregated toilets for women and men • Child-friendly areas, especially for girls • Accessibility for persons with disability and those with limited mobility • Cooking facilities • Medical care		
23. Are there measures for preventing, treating, monitoring and controlling the outbreak of diseases?		
24. Are there measures to identify and remove dangerous structures and hazards?		
25. Does the DDMP contain family reunification measures?[64]		
Livestock		
26. Does the D/CDMP have relief measures for livestock?		

Evaluation Criteria	Yes/No	Comments
Waste Management		
27. Are there procedures for safely handling and disposing of debris, wastewater, hazardous substances, carcasses, human waste and dead organic material from disasters?[65]		
Resumption of Critical Infrastructure		
28. Does the D/CDMP contain procedures for ensuring that critical infrastructure can resume operations as soon as possible?[66]		
Media		
29. Are there measures to manage the media presence at the disaster scene such that they do not interfere with disaster relief operations?		
30. Are there measures to ensure that accurate information about the disaster and relief operations are being collected and disseminated to emergency responders, disaster victims, and the general public?		

4.7 Reconstruction, Rehabilitation and Recovery (RRR)[67]

The impacts of disasters can last for many, many years - it takes a considerable amount of time to rebuild houses, families, livelihoods, businesses communities, and the local economy. Depending on the severity of the disaster, it may also be years before the environment recovers. The inquiry in this section is whether there are long-term measures that will facilitate their recovery and bring communities back to a state of normalcy. While doing so, regard should be given to the district, state and national-level social welfare and disaster relief government schemes.

Evaluation Criteria	Yes/No	Comments
General Considerations		
1. Does the D/CDMP contain a disaster reconstruction, rehabilitation and recovery plan?		
2. Have the measures specified been set out according to a Task Responsibility Activation Matrix?[68]		
3. Do the measures go towards: • Ensuring that the community successfully overcomes the physical, emotional, environmental and economic impacts of disasters • Improves the community's resilience to future disasters • Improves the overall well-being and development of the communities • Restores normal activities in the community		

Evaluation Criteria	Yes/No	Comments
Psychological and Emotional Impacts of Disasters		
4. Are there measures to help disaster-affected individuals and communities with overcoming the psychological and emotional impacts of disasters?[69]		
Permanent Shelter		
5. Are there measures to build permanent housing for disaster victims?		
Livelihood Restoration		
6. Does the D/CDMP contain measures for assisting disaster victims with resuming their livelihoods or establishing alternative livelihoods?[70]		
7. Are there measures to support micro, small and medium businesses with resuming their operations and revitalise the district/city's economy generally?		
Critical Infrastructure		
8. Are there measures to enable critical infrastructure to resume operations as soon as possible?		

4.8 Additional Comments
Please add any further comments you have on the D/CDMP

14 The responsibility matrix should have the following format:

Time	Task/Activity	Department/Agency
D –72 Hr		
D –48 Hr		
D –24 Hr		
D 0 Hr		
D +15 min		
D +30 min		
D +1 Hr		
D +2 Hr		

15 The responsibility matrix should have the following format:

S/N	Task	Implementing Actor	Activities	Time Period	Cost	Source of Fund

16 For example, members of the community, government departments, reports by NGOS and CBOs, and secondary sources like academic studies.

17 User-friendliness and conciseness can be evaluated by several factors: length, the way the information was organised, presentation, grammar and spelling, language clarity, simple sentences and wording, and whether there is too much background information provided. It is concerned with how easily users can obtain essential information, for instance Standard Operating Procedures for emergency situations, contact details of emergency personnel, and how the Emergency Operating Centre functions.

18 For this question, the means for accessing the D/CDMP should be discussed. The availability of a D/CDMP on the internet in itself is no indication of public access. Many districts would have extremely limited internet connectivity and therefore need to have ways of accessing hard copies of the D/CDMP. One example of public access is whether the D/CDMP is available in the District Collector's or municipal council's office and if so, whether members of the public are free to look at it.

19 For instance, the D/CDMP may provide extensive details on the district's profile and the theoretical elements of disaster management

20 This section seeks to establish whether disaster management in the district/city is largely carried out by government authorities.

21 For example the Assam State Disaster Management Authority, the National Disaster Management Authority

22 While it is increasingly being recognised that disasters exacerbate existing vulnerabilities and are a threat to human welfare, environment sustainability and economic development, the reflection of this relationship in policy and in practice still remains extremely limited. Disasters are treated as discrete isolated entities, rather than as risk factors which need to be internalised within socio-economic development and environmental sustainability agendas.Natural disasters can also lead to major accidents and man-made disasters such as oil and chemical spills, discharge of hazardous waste, gas leaks, fires, and epidemics. Urban and industrial areas are at particular risk of such incidents arising.

Central and state government social development/welfare schemes can be used to reduce communities' vulnerabilities to disasters and to recover from them. For instance, the Mahatma Gandhi National Rural Employment Guarantee Act and the National Rural Livelihoods Mission Schemes can both be used to provide disaster victims with immediate employment following disasters, and government housing schemes can be used to provide permanent accommodation to those residing in informal settlements

23 Integrated risk management could be analysed using a matrix which sets out in one column the government development scheme, and in another column the way it manages risk. A third column could be added showing how the scheme would operate in disaster situations.

24 For example, the Mahatma Gandhi National Rural Employment Guarantee Act and the National Rural Livelihoods Mission. Schemes, programmes and policies operating at the village, district, state and national levels should be considered. Where relevant the specific names of the schemes, programmes and policies need to be identified

25 Further examples are environment degradation due to human activities like deforestation

26 Community-based disaster management is where communities take the responsibility of developing, implementing, monitoring, managing, and reviewing disaster preparedness, prevention, mitigation, response, and recovery measures. They are at the centre of the process and governments, disaster management authorities, NGOs and other 'outsider' stakeholders play a facilitating role to help them reduce their vulnerabilities to disasters.

27 Examples are school safety programmes, devising special evacuation measures for persons with limited mobility, targeted risk awareness programmes, and tailored medical care for women and children.

28 'Holistic and integrated' disaster management approach means:

(a) All stages of the disaster management cycle i.e. preparation, prevention, mitigation, relief, response and recovery are addressed

(b) Disaster risk is integrated into the management of other issues and sectors, such as land use and planning, building and construction, community welfare, economic development, education, and natural resource management

(c) Disaster issues are integrated into government social welfare/development schemes e.g. ensuring that disaster victims are automatically provided with employment under the Mahatma Gandhi National Rural Employment Guarantee Act 2005

29 Community-based disaster risk management involves 'at risk' communities being actively engaged in identifying, analysing, preparing, responding, monitoring, and evaluating disaster risks to reduce their vulnerabilities and enhance their capacities to respond to disaster situations. Communities are regarded as being at the heart of decision-making and implementing disaster risk management activities. Examples of such measures would be holding consultations with the community on the disaster risks in their local areas, getting community members to develop disaster preparation measures, and including them as members of emergency response/disaster management teams.

30 Effective disaster management can only be achieved if all those persons whose interests are affected work together. By sharing and combining their skills, knowledge and resources, they are in a better position to protect themselves in disaster situations. Examples are the community, businesses, government, the non-government sector, education institutes, hospitals, the army, and financial institutes.

31 Within a community there are many groups who due to their socio-economic disadvantages, are particularly vulnerable to the impacts of disasters and are more adversely affected. They also have special needs that need attention during disasters - for instance children would have specific nutrition requirements and need arrangements to continue their education, while girls and women need secure and clean sanitation facilities. Persons with disabilities will require accessible shelters. A non-exhaustive list of vulnerable groups is: the poor, women, children, persons with disabilities, dalits, minority groups,the elderly, migrants and indigenous/tribal persons.

32 Monitoring and evaluation of the D/CDMP is the key to ensuring its implementation, accountability of disaster management actors to stakeholders, and in identifying areas for strengthening its effectiveness. As communities are the primary victims of disasters, it is critical that they, especially vulnerable persons, are given the opportunity to provide their opinions on the effectiveness of disaster management in the district.

33 For example, if the DDMP states that the Water Resource Department is responsible for repairing vulnerable points in river/canal embankments as a flood risk mitigation measure, what are the consequences if it does not do so? Are there ways of enforcing this duty? Regard needs to be given to the National Disaster Management Act 2005

34 Members of the community, especially vulnerable persons, may be reluctant to provide their opinions about disaster management due to fears of retribution, intimidation,harassment, and abuse from others. It is therefore essential that they are provided with a safe environment to articulate their views.

35 One should bear in mind that it is not just the D/CDMP as a whole which needs to be updated. Individual components may have to be reviewed and updated at different intervals - for instance the composition of emergency response teams could change every two years, the resource inventories of individual government departments would change all the time, and disaster risks may need to be assessed every three years. Accordingly the D/CDMP should be examined closely to see whether there are different timeframes for updating its various aspects

36 A Government of India and United Nations Development Programme initiative, the IDRN is a nation-wide electronic inventory of resources that enlists equipment and human resources collated from district, state and national-level government line departments and agencies. See Indian Disaster Resource Network, http://www.idrn.gov.in/aboutidrn.asp

37 In addition to central and state governments, regard should also be given to UN bodies, NGOs, and humanitarian agencies. It may be necessary to look into the budgets of individual government departments to see whether they have made financial provision for disaster management activities.

38 See National Disaster Management Act 2005 ss 48(b), 48(d)

39 Cities and towns are centres of economic activity, education, innovation, trade and transportation. They also play a critical role in connecting communities together across all levels -local, state, regional, and national. Due to higher population densities and a greater quantity of property, businesses and public infrastructure, the socio-economic impacts of disasters can be significantly greater than rural areas and have broader implications on the entire state. However, disaster management frameworks typically do not address urban disaster risks.

40 An example would be integrating Management Information Systems together with Geographic Information Systems to create a Decision Support System (DSS). A DSS is essentially a computer-based information system that supports businesses and organisations in making decisions for rapidly-changing, indefinable circumstances.

41 For too neglected is the need to protect natural and cultural heritage from disasters. Heritage is a crucial expression of a people's identity, history and culture. In addition to offering economic opportunities, they can assist with reducing disaster risks and providing livelihood opportunities in the recovery phases. Assam is home to two World Heritage sites.

42 Some examples would be working with the Archaeological Survey of India to devise cultural heritage management plans which factor in disaster risks, identifying particularly 'at risk' cultural heritage sites, and strengthening environment protection measures.

.43 Examples are: poor access to health, electricity, education services, remoteness, limited uptake of technology, use of outdated agricultural practices, poor infrastructure, environment degradation, conflict/political tension, and unemployment.

44 Details on the frequency and degree of risk, and expected times of occurrence should be given. Information on whether the disaster risks have been identified at the district, block, sub-division or village levels should also be provided

45 Impacts can be environmental, physical, social and economic. Where available information on each of these impacts should be given.If the D/CDMP provides information on the impacts of the disasters on specific groups in the community like women and children, details should be given.

46 Urban Local Bodies are administrative units which provide basic infrastructure and services in cities and towns.

47 This could consist of resource inventories detailing information such as the number of doctors, food storage facilities, emergency personnel, relief shelters, and police and fire personnel.

48 United Nations Office for Disaster Risk Reduction, 'Terminology', Available at: http://www.unisdr.org/we/inform/terminology Accessed on 28 April 2013

49 Emergency management exercises are activities which test the subject's ability to respond to and prepare for disasters. They can carried out sectorally (for example health, transport) or at different scales, for instance within the individual organisation, in a village or group of villages, a district, or in an entire city. As an example, refer to the 2012 Guwahati Emergency Management Exercise in Assam: http://www.asdmagemex.com/

50 Emergency Operations Centres are central command and control facilities which are responsible for mobilising resources, coordinating, and executing emergency relief and response procedures. They are a combination of various line departments and other agencies whose services are required in disaster response. See National Disaster Management Authority (2010), Guidelines on Incident Response Systems, pp. 34-35

51 Examples would be Geographic Information Systems and Decision Support Systems

52 Mock drills and maintenance checks of the EOC's systems can be a useful way of testing its readiness for disasters.

53 Full contact details mean name, address, and contact numbers for emergency and non-emergency situations.

54 As the responsibility for establishing early warning systems rests with national authorities, an analysis of how the warnings are transmitted to the state and district levels will need to be conducted. Another analysis which looks at how district authorities then disseminate warnings to local communities will also need to be carried out.

55 ESFs are the grouping of government and other supporting agencies capabilities into structures so that they can provide support, resources and services for saving lives, protecting property and the environment, and restoring essential services and critical infrastructure. Examples of ESFs are: transport, communications, emergency management, fire fighting, public health and medical services.

Details as to whether the D/CDMP identifies the department/agency responsible for implementing ESF activities and the timeframes for doing so should be included.

56 While prevention is the outright avoidance of adverse impacts of hazards and related disasters, mitigation is the lessening or limitation of these impacts. Prevention, mitigaiton and preparation actitivities can sometimes overlap with one another. See United Natioms Office for Disaster Risk Reduction, 'Terminology', Available at: http://www.unisdr.org/we/inform/terminology Accessed on 28 April 2013

57 Structural mitigation measures are those which involve physical alterations to the surrounding environment.

58 Non-structural mitigation measures aim to reduce disaster risks through modifying human action, behaviour, and natural processes. It differs from structural mitigation measures in that no engineering structures are required.

59 United Nations Office for Disaster Reduction http://www.unisdr.org/we/inform/terminology#letter-r. Basic subsistence needs refers to food, shelter, water, clothing, and health.

60 The responsibility matrix should have the following format:

Time	Task/Activity	Department/Agency
D –72 Hr		
D –48 Hr		
D –24 Hr		
D 0 Hr		
D +15 min		
D +30 min		
D +1 Hr		
D +2 Hr		

61 The planning division in the IRS is responsible for collecting, evaluating, and displaying incident information, maintaining and tracking resources, preparing the Incident Action Plan, and other necessary incident-related information

62 An Incident Action Plan is developed to inform all concerned personnel about the disaster situation and develop appropriate response actions

63 Examples are: Incident Briefings (informing everyone of the disaster and status of response), Incident Status Summary (status of tasks assigned, completed, or still to be completed), Unit Log (performance report of Incident Response Teams), Operation Assignment List, Incident Check-In and Deployment List (records of resources received at different facilities and where they have been deployed), On Duty Officers List (details of officers deployed), Medical Plan (identifying the number of medical aid camps and resources available),

64 The chaos of disasters can often separate families, thus making the disaster experience even more traumatic for victims. Children stand at particular risk of being orphaned or separated from their families, and this can put them in severe danger. It is therefore critical that there are measures in place for persons to be reunited with their families, friends, or relatives.

65 Disasters can create a considerable amount of solid and liquid waste that threaten public health, hinder reconstruction and cause environment degradation. They can also create extensive soil and water contamination issues. The question of proper waste disposal has, however, been quite neglected in disaster relief activities. See further, United Nations Office for the Coordination of Humanitarian Affairs Environment Emergencies Section (2011), Disaster Waste Management Guidelines, Joint UNEP/OCHA Environment Unit

66 Crtiical infrastructure are the basic facilities, services, and installations required for the functioning of a community or socity. Examples are transporation, communications, electricity, gas, oil and water supplies, emergency services, and public health services.

67 See National Institute of Disaster Management (2009), Disaster Management in India, Chapter 6, pp. 125-127 ('Recovery, Reconstruction and Rehabilitation')

68 An example of such a matrix is:

S/N	Task	Implementing Actor	Activities	Time Period	Cost	Source of Fund

69 Example measures are counseling and regularly monitoring the mental health of disaster-affected persons.

70 Examples would be replacing tools and equipment, providing skills training and interest-free loans.

All India Disaster Mitigation Institute