

# Evaluation and Lessons Learning Review

GoI-UNDP Disaster Risk Management Program

2002-2008



**adpc**

Asian Disaster Preparedness Centre

## TABLE OF CONTENTS

<b>Acronyms</b> .....	3
<b>Executive Summary</b> .....	4
<b>Chapter 1: Introduction</b> .....	9
<b>Chapter 2: Evaluation Methodology</b> .....	17
<b>Chapter 3: Strategic Vision, Findings and Conclusions</b> .....	19
<b>Chapter 4: Summary of Good Practices and Lessons Learnt</b> .....	44
<b>Chapter 6: Special Recommendations for the North Eastern States: A Regional Program of Action</b> .....	54
<b>Chapter 7: Analysis of Salient Points for Future Programming</b> .....	59
<b>Chapter 8: Summary of Conclusions and Recommendations</b> .....	65
<b>Annexure</b>	
<b>Annex I: Background of the GoI-UNDP DRM Program 2002-2008</b>	
<b>Annex II: Evolution of Disaster Risk Management in India</b>	
<b>Annex III: Terms of Reference of the Evaluation</b>	
<b>Annex IV: Summary Findings at State Level</b>	
<b>Annex V: Individual State Field Visit Report</b>	
1. <i>Arunachal Pradesh,</i>	
2. <i>Assam,</i>	
3. <i>Delhi,</i>	
4. <i>Maharashtra,</i>	
5. <i>Meghalaya,</i>	
6. <i>Manipur,</i>	
7. <i>Mizoram,</i>	
8. <i>Nagaland,</i>	
9. <i>Sikkim,</i>	
10. <i>Tamil Nadu,</i>	
11. <i>Tripura,</i>	
12. <i>Uttar Pradesh,</i>	
13. <i>Uttarakhand,</i>	
14. <i>West Bengal</i>	
<b>Annex VI: Summary of District/Block/GP/Village visited</b>	
<b>Annex VII: Quantitative Analysis of the Feedback received from the DPOs</b>	
<b>Annex VIII: List of Documents/IEC Materials collected and reviewed</b>	
<b>Annex IX: List of Persons/Organizations Met</b>	

## Acronyms

ADPC	Asian Disaster Preparedness Centre
ATI	Administrative Training Institute
BCPR	Bureau of Crisis Prevention and Recovery
CBO	Community Based Organization
CEO	Chief Executive Officer
CII	Confederation of Indian Industries
CPAP	Country Program Action Plan
DDMA	District Disaster Management Authority
DM	Disaster Management
DM	District Magistrate
DMC	Disaster Management Committee
DMP	Disaster Management Plan
DMT	Disaster Management Team
DPO	District Project Officer
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EOC	Emergency Operations Centre
GoI	Government of India
GP	Gram Panchayat
HR	Human Resource
IAYS	Indira Awaas Yojana Scheme
ICT	Information Communication Technology
IEC	Information, Education, Communication
INGO	International Non-Governmental Organization
MHA	Ministry of Home Affairs
NCCF	National Calamity Contingency Fund
NDMA	National Disaster Management Authority
NDMF	National Disaster Management Framework
NGO	Non-Governmental Organization
NIDM	National Institute of Disaster Management
NSC	National Steering Committee
PA	Program Associate
PMB	Project Management Board
PRIs	Panchayati Raj Institutions
PSC	Project Steering Committee
SDMA	State Disaster Management Authority
SEC	State Executive Committee
SEEDS	Sustainable Environment and Ecological Development Society
SHG	Self Help Group
SPO	State Project Officer
SSC	State Steering Committee
UN	United Nations
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VDMP	Village Disaster Management Plan

## **Executive Summary**

### **Introduction**

1. The GOI-UNDP Program has been under implementation in 176 districts in 17 states since August, 2002. The program aimed at reducing vulnerability to natural and man made disasters through community preparedness.
2. A Lessons learnt review and a way forward evaluation was entrusted to ADPC which was carried out with the national partner, SEEDS-INDIA in 14 program states that involved extensive field visits to programme districts and national consultation.
3. The evaluation exercise focused on outcome and output analysis ,review a broad gamut of strategies ,appraise the key priority areas of the Disaster Risk Management in India; review progress made so far and identify realistic time frame to complete the remaining activities.
4. The evaluation was carried out through extensive visits to fourteen states which included meeting with key officials at State and District Level and visits to the program areas;. Information was collated and an analysis of outputs, outcomes and overall impact of the program in relation to NDM Framework and DRM Program goals and objectives and main result areas were studied. A framework of action for sustainability was developed considering the overall environment in the country and the progress made since the Disaster Management Act, 2005. An assessment of the partnership strategy with respect to current and future initiatives of UNDP and Government of India was also carried out.
5. The inputs received from the Ministry of Home Affairs, Relief Commissioners, other State Government Officers, State Project Officers and Donors have been taken into account in preparing the draft report.

### **Outcome Analysis**

6. Comparisons with similar DRM Programs in Asia and Pacific make it evident that the GoI-UNDP DRM Program is the largest DRM program implemented by any country in Asia and has set a benchmark for community based disaster reduction. A dynamic and continuing partnership between the Government of India, State Government and the UNDP ensured strong leadership for the program. Training and capacity building at all levels including recruitment and placement of trained professionals at district levels made a qualitative difference to the program activities. In spite of numerous 'implementation dilemmas' that are typical to any large scale first-of-its kind initiative, the program has clearly demonstrated that life loss and vulnerabilities can be significantly reduced through appropriate community based preparedness measures.
7. The current evaluation reveals that the DRM program intervention has contributed significantly in achieving the stated outcome. Based on aggregation of indicator results under categories reflecting Intermediate Outcomes, it is evident that achievement of outcome indicators is highest at State and District level. This contributes significantly to Intermediate Outcome 1. At levels lower than district, the achievement has been less than 60%. As for Intermediate Outcome 2,. the program was successful in lateral

outreach but vertical penetration has been partial. It is, however, noted that achievements under few key indicators cannot be attributed to the DRM Program alone, which, at best, merely had a catalytic impact. The achievements under key indicators were largely government-driven as national initiatives influenced by factors not related to the DRM program.

8. The DRM program fulfilled the priorities set out by the Government of India, as reflected in the recommendations of the High Powered Committee but it did not transform sufficiently into new institutional arrangement. This was clearly a lost opportunity, more sorely felt particularly by the States, when ensuring the graduation phase of the program.

9. The DRM program was relevant to the need as it covered the most vulnerable regions of the country. However, the identification process excluded some high risk regions. The program design was not sensitive to the geo-climatic conditions, remoteness of project districts and poor infrastructure. This has resulted in additional strain of resources and delays in implementation. In certain States, the problem of law and order, became a barrier to smooth and efficient engagement with communities in some states.

10. Strong leadership at all levels catalysed program performance. At the National Level, the strong leadership provided by the Ministry of Home Affairs in driving the program and their engagement with the States has ensured fairly good coverage. Likewise a strong and continuous leadership and ownership of the program at state level and taking the local community leaders into confidence has yielded qualitatively better results.

11. The results improved significantly in qualitative terms in States where program activities were integrated with existing government development programs carried out by various line departments. Mainstreaming of the program in Education Departments by including DM curricula in school education was visible in most of the states. However, the program is still perceived as a stand-alone program in almost all states, building the capacity only of the Revenue departments. It has not been linked to development plans.

12. The DRM program was successfully able to reduce losses to lives and property in certain cases of natural disasters. This was evident in cases in Assam and villages in Tamil Nadu, where disasters successfully tested the level of preparedness of the local communities. However, in some case, the program activities had little or no impact when the effect of disasters is widespread.

13. Judicious use of technical resources and investments on training would have significantly improved program performance. The opportunity to use the DRM program to provide a fresh infusion of resources in order to develop their capacity as providers of training and technical support services to the State government, was not sufficiently utilized.

14. National United Nations Volunteers appointed for program management helped in fast start-up of the program and continued implementation of the program. District Project Officers played an important role in the accomplishment of program objectives by assisting the district administration in executing the program activities.

## Output Analysis

15. Program Outputs pertaining to preparedness have done well, whereas achievement pertaining to long term vulnerability reduction is partial. Two major result areas – promotion of disaster resistant and cost-effective housing technologies through training of professionals and construction workers has recorded low level of achievement. Likewise, establishment of techno-legal frameworks to create an enabling environment for disaster reduction has not achieved full results.

16. Output analysis reveals that Assam and Sikkim have reported high levels of achievement in nearly all major result areas. States of Uttar Pradesh, Uttarakhand, West Bengal, Tamil Nadu and Maharashtra have reported achievement in at least four out of six major result areas. Mizoram, Delhi, Tripura have reported achievement in three out of six major result areas.

17. There is a wide variation in output performance across states. An important factor contributing to this variation is the lack of locally based strategies. Too many activities; lower resource allocation per unit, no prioritization between activities and a cookie-cutter approach adversely affected the quality of the program activities.

18. Mock drills at community level was an innovative approach undertaken to enhance preparedness. The drills helped in raising awareness and sensitivity on the likely impact of disasters and steps that are needed for preparedness. In many places, the benefits of such exposure came into use in actually saving lives. Qualitatively the community mock drills highlighted many important areas for improvement..

19. State Disaster Management Plans – much needs to be done. In the reporting of results, 7 of the participating 14 States being reviewed reported having plans. In some States, where a plan document of sufficient quality does not exist, a process is underway to prepare it.

20. District Disaster Management Plans: Good progress on process and content. There is limited, if any, attention given to mitigation and prevention aspects in the District Disaster Management Plans.

21. Plans at village level were completed without adequate orientation and training of local communities. The paucity of time and ambitious quantitative targets forced the program to adopt template based approach. There were very few instances of revisions/review of Plans besides horizontal and vertical linkages were missing.

22. Awareness generation has been carried out through a variety of innovative and locally appropriate media, thus ensuring large reachability.

23. Making women an active partner in the local DRM process is showing signs of gradual improvement; though not to the desired level. Women have been trained in First Aid and Search and Rescue. The program design itself however, provided little room for women led and women specific strategies.

24. The program missed out importantly on community empowerment and social inclusion. The program outreach did not effectively translate into local level empowerment. There were constraints in program approach as well as external factors over which there was no control. Factors that helped – small scale recurrent disasters,

local social structures, community's own coping systems, local level engagement with other stakeholders. Factors that became a constraint – law and order problems, local vested interest groups, accessibility, no experience of past disasters.

**Partnership Strategy:**

25. A strong partnership between UNDP and Ministry of Home Affairs ensured that the program is efficiently introduced in the selected states and monitored regularly. The strength and nature of partnership at State level has strongly affected the impact of the program. However, there was inadequate integration with other national ministries, departments.

26. Formal mechanisms of involving civil society organizations and corporate sector were not provided for program design. As a result, this was seen largely as a government led program.

**Framework of Action for Program Sustainability**

27. The evaluation results reveal : States which have already made alternate arrangements are Maharashtra, Delhi, Uttarakhand, Sikkim; States which have taken significant action for alternate arrangements - Meghalaya, Mizoram, Nagaland, Tripura, West Bengal, Assam. States where action is now being initiated- Manipur, Arunachal Pradesh, Tamil Nadu, Uttar Pradesh

28. Disaster Management Act, 2005 had an important catalytic affect in ensuring program sustainability. Availability of adequate funds and technical expertise a major constraint for sustainability

29. Progress towards sustainability was measured against the following parameters: Institutional Structure in place, including DM training capacity, legal frameworks; Decisions on human resource support beyond program period; Budgetary support for continuity of program activities; Extension of program to other vulnerable areas not covered under the DRM Program. Based on the analysis, a framework of action for immediate and medium term measures have been proposed.

30. There is an immediate need for additional Human Resource ( HR) and Financial resources to support smooth transition from UNDP to state government officers exclusively designated to take over the program at state and district levels .

31. Medium Term Measures include ensuring all states have constituted and effectively functioning SDMAs and DDMA's with horizontal and vertical linkages at district and sub-district level. Formulation of State and District Disaster Management Plans incorporating with comprehensive local risk analysis. Regular Mock Drills to ensure level of preparedness. Capacity development of new institutional mechanism. Putting in place detailed training/ re-training systems. Increasing scope and number of institutions imparting training in DM. A Funding Mechanism for mitigation, training and preparedness. And a Coordination Mechanism through defined partnerships across all stakeholders which would ensure DM activities are effectively, response is prompt

32. Each State-wise would need to develop its own DRM Roadmap incorporating listed features for sustainability.

### **Good Practices and Lessons Learnt**

33. Based on the list of cases reviewed from the given pool of pre-identified cases and those sited during the evaluation field visits, a thematic approach has been adopted to identify 47 good practices under 13 themes.

#### **North Eastern States**

34. This report has made special recommendations for the North Eastern States considering their special challenges related to their unique geo-environmental setting that have enhanced vulnerability to natural hazards.

35. Centering around existing regional institutions such as the North East Council, it is recommended that DRM be included as a prominent agenda items in the regular activities and meetings of the institutions. This will showcase progress and make visible current needs, and help consolidate interest

#### **Salient components of future programming**

36. Almost all the state governments were of unanimous view that the program has to be carried forward in the existing DRM districts and also extended to non-DRM districts. Consolidation of the program in existing 176 districts and gradually extending the program to the all districts of the country is recommended.

37. Institutionalization of the techno-legal regime in all districts accompanied by required training of professionals need to be carried out.

38. Possible UNDP interventions under CPAP-2008-2012. UNDP may leverage funding available within the program to seek support of other international agencies. Critical support would be needed for ensuring effectiveness of SDMAs and DDMAs. Support to NIDM and Support to State level Training Institutes needs to be extended. Technical and logistic support may be provided by International/ UN Agencies for development of training modules for specific targeted groups, training of trainers, documentation, monitoring and evaluation.

39. There is also a felt need to look ahead and establish at least one full-fledged state level institution in the larger disaster prone states to take on the role of a State Institute of Disaster Management, similar to the role of NIDM at national level.

40. At the national level, funds may be provided by the Central Government for: strengthening of NIDM; undertake the program in all vulnerable districts of non-DRM States; consolidation and continuation of the program in DRM districts till the State Plans are finalized and the DRM Program included therein; monitoring as well as qualitative and quantitative evaluation of the program and awareness generation at national level through mass media.

41. At the state level, funds may be provided for: continuation of the program in the existing DRM districts as well as extension of the program to non-DRM districts, strengthening of the existing training institutes and identification of additional training institutes at state and district level; establishment and/or strengthening of State Institutes of Disaster Management; extension of the program to non-DRM states;

## Chapter 1: Introduction

### The Disaster Risk Management Program , India

Within the United Nations Development Assistance Framework (UNDAF) 2002-2007-India and the UNDP Country Program (2002-2007) and in partnership with the Ministry of Home Affairs(MHA), Government of India, the Disaster Risk Management Program was initiated in August 2002. The Program called and referred hereafter as “ GoI-UNDP DRM Program” was initially extended up to December 2008 and recently up to June, 2009, with the approval of the Project Management Board in its meeting held on 11<sup>th</sup> December, 2008. In August, 2002, the program initially targeted 28 districts in 3 States i.e., Bihar, Gujarat and Orissa which was further extended to 125 districts in 12 states in April, 2003. By late 2004 and early 2005, the program was spread over 169 (presently 176) most hazard prone districts in 17 selected States These States/UT are Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Maharashtra, Meghalaya, Manipur, Mizoram, Nagaland, Orissa, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand and West Bengal. The detail on the GoI-UNDP Disaster Risk Management Program is provided at Annex-1

### Program Resource Mobilization – Multi Donor Framework under DRM Program

The initial outlay for the program for 28 districts in 3 states was US \$ 2.0 million which was increased to US \$ 27.0 million when the program was extended to 125 districts in 12 states and finally to US \$ 41.00 million under a multi-donor framework when the program coverage was further enhanced to 176 districts in 17 states<sup>1</sup>. The financial outlay of the program and contribution from each of the Donor is presented in the Table 1.1 below;

**Table 1.1: Financial Resource Mobilisation**

Agency	Funding Mechanism	Amount ( USD)
UNDP	Core Funds	11,400,000
UNTF		1,000,000
EC	EU-India Disaster Preparedness Program	12,189,054
ECHO	DIPECHO Program	280,143
USAID	DRM Grant (386-G-00-03-00102)	9,012,535
AusAid		97,200
DFID	Trust Fund to support UNDP-DFID Partnership Arrangement in India	4,600,000
UNISDR		1,500,000
Govt. of Japan		950,000
	<b>Total</b>	<b>41,028,932</b>

### The “Largest” and “Leading” Program in Asia

Following the first UN Disaster Management Training Program (UNDMTP) implemented in 14 Asian countries from 1990-1994, a number of UN Country Offices initiated small to medium sized (\$200,000 - \$700,000) programs on capacity building for disaster

<sup>1</sup> Source: Agenda Notes, Meeting of Program Steering Committee , 26 September 2008

management implemented during the period of 1996-2000. These programs used a small grant from UNDMTP coupled with SPD funding from UNDP Country Offices. In India too, a similar project by UNDP India country office was implemented through the Ministry of Agriculture and Cooperation, Government of India from 1997 to 2000, with a total value of about \$600,000.

***A Number of “Firsts”***

Compared to this above program in India, and its generation of smaller DM capacity building programs in Asia, the GoI-UNDP DRM program (2002-2008) was a qualitative shift in size, scale, and budget. Also, with the exception of projects in Bangladesh, Vietnam, and China, it was the first of the large programs implemented by UNDP and/or UN Country Teams in Asia. Apart from size and volume of funds, parallel to a similar program in Bangladesh, it successfully used a multi-donor funding approach. In the case of India, the HPC report had just come out, and the NDM Framework was in the process of being formulated by the Government based on its needs assessment; and primarily using national expertise. Donors were encouraged to contribute resources to a program to be jointly managed by the Government of India through UNDP. This represented an approach of donor harmonisation that was consistent with the principles of the later articulated Paris Declaration on Aid Effectiveness. This is a great strength of the program.

The GoI-UNDP DRM program evolved and expanded over the period of last six years primarily due to additional resources mobilised and extended coverage in terms of Districts. By 2008, the program was expanded to the 176 districts with full UNDP country office support and at present this extended further upto June 2009 with very limited support to the Program States.

The Table 1.2 below presents the overall program goal, objectives, strategies and intended outcome from the project based on latest Project Document.

**Table 1.2<sup>2</sup>: GoI-UNDP Disaster Risk Management Programme: Key Strategies, Objectives, Result Areas and Outcomes**

<b>Goal : Sustainable Reduction in Disaster Risk in some of the most hazard prone Districts in selected States of India</b>	<p>The indicators of achievement of this Goal are</p> <ul style="list-style-type: none"> <li>• Risk reduction factored in rapid disaster recovery</li> <li>• Disaster mitigated and development gains protected.</li> <li>• Disaster risk considerations mainstreamed into development</li> <li>• Gender equity in disaster preparedness</li> </ul>			
<b>Relevance to UNDAF Outcome (s): Institutional Mechanism strengthened for capacity building of local governance institutions and empowerment of community members (particularly the marginalised including women)</b>				
<b>Expected Outcome (s):</b> Reduce Vulnerability to natural and man made disasters through community preparedness				
<b>Expected Output(s):</b> Disaster Management institutionalized and capacities developed at all levels with specific emphasis on women and other marginalized groups; increased community preparedness to manage disasters and mitigate vulnerabilities through risk reduction approaches & technologies				
<b>Program Support Objectives (PSO)</b>				
<ol style="list-style-type: none"> <li>I. Capacity building to institutionalize the system for disaster risk management</li> <li>II. Environment building &amp; education program in disaster reduction and recovery in most hazard prone states</li> <li>III. Multi-Hazard preparedness and mitigation plans for disaster risk management</li> <li>IV. Networking knowledge on effective approaches, methods, and tools for disaster risk management, developing and promoting policy frameworks at state and national levels</li> </ol>				
<b>Program Strategy</b>	<b>Program objectives ( PSO)</b>	<b>Program Main Result Areas</b>	<b>Direct Outcome</b>	<b>Indirect Outcome</b>
<p><i>Support to Ministry of Home Affairs for ensuring administrative, institutional, and legal, techno-legal, communication, and policy mechanisms for disaster risk management.</i></p>	<p><u>PSO 1</u> National capacity enhancement to institutionalize the system for natural disaster risk management in Ministry of Home Affairs.</p> <p><u>PSO 4</u> Promoting policy framework at state and national levels</p>	<p><u>MRA V:</u> Legal and techno-legal framework revised, policy framework promoted and systems created to ensure their compliance</p>	<ul style="list-style-type: none"> <li>• Enhanced capacity in Ministry of Home Affairs for natural disaster risk management</li> <li>• Administrative and institutional framework for administrative, institutional, legal, techno-legal, communication and policy mechanism for disaster risk management I developed for (National) Disaster Management Cell in the Ministry of Home Affairs</li> <li>• Integrated Operation Centre with scientific warning dissemination system at MHA able to provide adequate and timely support to the implementing agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of expenditure on disaster relief and increased investment in preparedness measures</li> <li>• Sharing of disaster relief cost by the community</li> <li>• Self-reliant villages, gram panchayata, blocks and districts for preparedness</li> <li>• Convergence of services and links to area development plans</li> <li>• People's awareness and participation increased</li> <li>• Access to information by the people</li> </ul>

<sup>2</sup> Source: Program Document – 2007 ; Project ID - 0001309

<p><i>Support National Government [MHA] efforts in strengthening its role in community and local self-governments' preparedness and response.</i></p>	<p><u>PSO 2</u> Environment building, education, awareness program and strengthening capacities at all levels in natural disaster risk management and sustainable recovery</p>	<p><u>MRA I</u>: DM institutionalized and capacities developed at all levels with specific emphasis on women  <u>MRA III</u>: Disaster Management and Mitigation Awareness generated at all levels</p>	<ul style="list-style-type: none"> <li>• <i>Comprehensive disaster risk management framework and recovery strategies in 176 district of 17 program states</i></li> <li>• <i>Enhanced capacity of the government functionaries of the nodal agency at the state level and in all selected districts in developing and updating the risk management and response plans for different hazards from time to time</i></li> </ul>	
<p><i>Support to National Institute of Disaster Management [NIDM]</i></p>	<p><u>PSO 4 – ii</u> promoting policy framework at state and national level  <u>PSO 2 ii</u> strengthening capacities at all levels in natural disaster risk management and sustainable recovery [</p>	<p><u>MRA I</u>: DM institutionalized and capacities developed at all levels with specific emphasis on women <u>MRA VI</u>: Networking and knowledge sharing between Government, NGOs/CBOs, Institutions and Stakeholders involved in Disaster Management</p>	<ul style="list-style-type: none"> <li>• <i>National and state database on natural disaster risk management developed</i></li> <li>• <i>Knowledge network for better involvement of stakeholders</i></li> </ul>	

### **Comparisons with similar DRM Programs in Asia and Pacific**

The GoI-UNDP program bears comparison in terms of its size, budget, objectives, results, modalities, and program management approaches with the following larger UNDP DRM programs or UNDP assisted programs in other countries, as presented in the Box 1 below;

#### **Box 1: Similar UNDP Programs in other countries of Asia and the Pacific**

- **Government of Bangladesh** – *Comprehensive Disaster Management Program (CDMP)*, 2003-2009.
- **Government of Indonesia** with UNDP/DFID – *Safer Communities through DRR in Development*, 2007-2011
- **Government of Pakistan**/UNDP/UNISDR/Donors – *National Capacity Building for Disaster Risk Management (NCBDRM)*, 2007-2011
- **Government of Bhutan** and UNDP – *National Disaster Risk Management Framework*
- **Government of Maldives** / UNDP – *Disaster Risk Management*
- **Government of Sri Lanka** / support from UNDP – *Road Map for Safer Sri Lanka*, 2005-2015
- **Government of Nepal** / UNDP / ECHO – *National Strategy for Disaster Risk Management in Nepal*, 2006-2007

Brief information about some of the ongoing programs in the region are presented below;

#### **Government of Bangladesh “Comprehensive Disaster Management Program (CDMP)” – 2003-2009**

The Comprehensive Disaster Management Program (CDMP) is being implemented by the Ministry of Food and Disaster Management (MoFDM) with funding assistance provided through UNDP, UK Department for International Development-Bangladesh (DFID-B) and the European Commission (EC). CDMP has been designed to strengthen the Bangladesh Disaster Management system and more specifically to achieve the paradigm shift from reactive response to a proactive risk reduction culture. CDMP seeks to raise the capacities of at-risk communities while lowering their vulnerability to specific hazards as well as to serve as a good risk management model for the region. (Source: ADPC, 2008)

#### **Government of Indonesia with UNDP/DFID “Safer Communities through Disaster Risk Reduction in Development” (SC-DRR)**

In support of initiatives by the Government of Indonesia including the enactment of the National Disaster Management Law and further development of a National Action Plan for Disaster Risk Reduction, UNDP and the Government of Indonesia designed the SC-

DRR project. The project aims to make disaster risk reduction a normal, integrated part of the country's development process. Disaster risk reduction needs to be established in the core functions of government, as well as among public and private partners at all levels especially local communities. This will go a long way towards alleviating physical, economic, and social vulnerability to disasters. The project aims to foster a *culture of safety* leading to sustainable development and poverty reduction in Indonesia. (Source: UNDP-Bureau for Crisis Prevention and Recovery, 2007)

**Government of Pakistan/UNDP/Donors – “National Capacity Building for Disaster Risk Management (NCBDRM)”**

The National Capacity Building for Disaster Risk Management (NCBDRM) project will assist the Government of Pakistan in implementing the nine priorities identified in the National Disaster Risk Management Framework (NDRMF), to establish appropriate institutions and structures at national, provincial, and local levels, and for developing systems and capacities of stakeholders at all levels to deal with issues of disaster risks and vulnerabilities in an effective manner. Two core areas of intervention include: Integration of disaster risk reduction into sectoral development planning and implementation of different ministries; and Local and community level capacity development and mitigation of specific hazards. (Source: Government of Pakistan-UNDP, 2007)

While it is difficult to make comparison between these different selected DRM programs, certainly, by any standard, the GoI-UNDP DRM Program is the largest DRM program implemented by any country in Asia. It is wide in geographical coverage (17 States; 169 districts; 149,897 villages; 38 cities at high seismic risk) as it covers a significant percentage of the administrative levels i.e.

- 17 of 35 States (49%)
- 176 of 593 districts (28%) [using 2001 Census data]
- 149,897 of 593,731 villages (25%)
- 38 cities of with >500,000 inhabitants and located in Seismic Zones of III, IV, or V (100%)

The Table 1.3 below summarizes about the DRM programs in Bangladesh, India, Indonesia and Pakistan

<b>Country</b>	Bangladesh	Indonesia	Pakistan	India
<b>Period</b>	2003-2009	2007-2011	2007-2011	2002-2008
<b>Title</b>	Comprehensive Disaster Management Program (CDMP)	Safer Communities through Disaster Risk Reduction in Development (SC-DRR)	National Capacity Building for Disaster Risk Management (NCBDRM)	Disaster Risk Management Program (DRM)
<b>Budget</b>	26.6 million USD	18.0 million USD	46.5 million USD	41.0 million USD
<b>Principal Objective</b>	To strengthen the capacity of the Bangladesh disaster management system to reduce unacceptable risks and improve response and recovery activities.	Disaster Risk Reduction becomes a <i>normal part</i> of the decentralized development process.	To enhance capability of the GoP at the federal, provincial, and local levels in dealing with disaster risks/vulnerabilities in a systematic manner [...]	Sustainable reduction in disaster risk in some of the most hazard prone districts in selected States of India.
<b>Geographical Coverage</b>	National, District, Upazilla, Union, Ward, Community	National, as well as 6 out of 33 provinces targeted in 2008	National, as well as 50 districts, major urban centres, etc	176 of 593 districts; 17 of 35 States.
<b>Donor(s)</b>	UNDP, DFID, EC	DFID	UNDP, AusAid, CIDA, DFID, WB	EC, USAID, GoJ, AusAID, DFID, ECHO
<b>Leading Government Agency</b>	Ministry of Food and Disaster Management (MoFDM)	Initially, the National Development Planning Agency (BAPPENAS) and National Coordination Agency for Disaster Management (BAKORNAS PB)	National Disaster Management Authority (NDMA)	Ministry of Home Affairs
<b>Other Government departments and UN Agencies involved as partners</b>	<b>MoFDM</b> , Disaster Management Bureau (DMB), Directorate of Relief and Rehabilitation (DRR), Department of Environment, UNDP, UNOPS, FAO.	<b>BAPPENAS</b> and <b>BAKORNAS PB</b> , Ministry of Home Affairs, Local Authorities, Decentralization Support Facility (DSF), UNDP	<b>NDMA</b> , Provincial/Regional Disaster Management Authorities, Federal Line Ministries, Departments, Training and Education Institutions, UNDP, other UN Agencies, and NGOs.	<b>Ministry of Home Affairs</b> , UNDP India Office.
<b>(Intended) Results</b>	1. Professionalisation of the DM System – <i>through Capacity Building sub-program.</i>	1. Establishing a disaster risk reduction policy, legal and regulatory framework.	1. Establishment of institutional arrangements. 2. Strategies for building	1. National capacity enhancement to institutionalize the system for natural

	<ol style="list-style-type: none"> <li>2. Mainstreaming of DRM Programming – <i>through Development Partnership sub-program.</i></li> <li>3. Strengthening of Community Institutional Mechanisms – <i>through Community Empowerment sub-program.</i></li> <li>4. Expanding Preparedness Programs across a Broader Range of Hazards – <i>through Research and Information Management sub-program.</i></li> <li>5. Operationalising Response Systems – <i>through Response Management sub-program.</i></li> </ol>	<ol style="list-style-type: none"> <li>2. Strengthening institutional systems that support decentralized disaster risk reduction integrated with local-level development.</li> <li>3. Promoting education and awareness programs to bolster understanding of the development and disaster linkages.</li> <li>4. Implementing disaster risk reduction initiatives that make communities safer.</li> </ol>	<p>codes, land use and disaster insurance.</p> <ol style="list-style-type: none"> <li>3. National risk assessment.</li> <li>4. Analysis on climate change related risks.</li> <li>5. Disaster risk education, training, awareness.</li> <li>6. Disaster risk management planning.</li> <li>7. Local and community level program implementation.</li> <li>8. Strengthening of early warning systems.</li> <li>9. Early warning systems for epidemics.</li> <li>10. Mainstreaming disaster reduction into development.</li> <li>11. Effective emergency response system.</li> <li>12. Capacity development for post disaster recovery.</li> </ol>	<p>disaster risk management in Ministry of Home Affairs.</p> <ol style="list-style-type: none"> <li>2. Environment building, education, awareness programs and strengthening capacities at all levels in natural disaster risk management and sustainable recovery.</li> <li>3. Multi-hazard preparedness, response, and mitigation plans for disaster risk management at state, district, block, village and ward level in 176 most multi-hazard prone districts of 17 selected states.</li> <li>4. Networking knowledge on effective approaches, methods and tools for disaster risk management, developing and promoting policy frameworks at State and National levels.</li> </ol>
--	---	--	---	--

(Sources: UNDP Bangladesh, Indonesia, Pakistan, India; CDMP; BAPPENAS)

## Chapter 2: Evaluation Methodology

The Methodology for undertaking the “Lessons Learning Review and Forward Looking Evaluation” of GOI-UNDP Disaster Risk Management Program was determined after perusal of the “Mandatory Guidelines for Evaluators of UNDP Programs”. The exercise was carried out by an Evaluation Team from Asian Disaster Preparedness Centre (ADPC), Thailand and its national partner SEEDS, India as per the agreed terms of reference

This evaluation study is meant to provide outcome analysis of the program activities carried out in the selected 14 States as well as forward looking recommendations for future strategy for consideration of Government of India, the state governments, UNDP and other stakeholders in India.

### **Objectives of the Evaluation Exercise:**

The objectives of this evaluation of the GoI-UNDP Program as stated in Section 3 of the ToR (*Annex- III*) are:

- Perform holistic **outcome and output** analysis.
- **Review a broad gamut of strategies like contribution to policy formulation, institutional strengthening, capacity building, awareness generation, community based disaster preparedness approach, partnership building, knowledge networking, management effectiveness etc**
- Appraise the key priority areas of the Disaster Risk Management in India with specific focus on community based disaster preparedness, including provisions under the DM Acts (national and state) and ascertain how **DRM activities could be mainstreamed in the development plans to ensure sustainability.**
- Review progress made so far and identify realistic time frame to complete the remaining activities, as well as make an assessment of measures required to gradually institutionalize the measures in the Government system.

The evaluation team has approached this exercise as a forward-looking evaluation and lesson learning review underlying the need to meet the expectations of MHA, UNDP, and other stakeholders to contribute to the processes of institutionalization of DRM in the program States. This would help identifying actions and opportunities to extend DRM activities to other States, districts, and communities at risk by UNDP as well as Government of India.

### **Key audiences of the report**

The key audiences for the Evaluation are primarily:

- Ministry of Home Affairs (MHA) as the executing, as well as the implementing, agency.
- UNDP India as the agency that provided country office support.
- State governments, SDMAs and DDMAAs as they develop Road Maps and undertake implementation of programs to institutionalize disaster management systems in their States and mainstream disaster risk reduction into development.
- Various national agencies and other national-level stakeholders when they formulate and implement various DRR interventions with internal or external resources.
- Donors to the program, who are interested in understanding the impact of their contributions and an appraisal of the approach to inform future investments of development resources.
- National and International Non-Governmental organizations (NGOs) and Community Based Organizations (CBOs) in their future local and State level interventions in the multi-disaster prone States in India.

The other key audiences of the Evaluation, outside of India are the Governments of Asian countries, UNDP Offices in Asian countries and at the regional level, UN Agencies, Donors and all Development Partners.

### ***Previous Evaluations of GoI-UNDP DRM Program***

This report builds on previous evaluations carried out. In 2006, UNDP had entrusted an evaluation to National Institute of Disaster Management (NIDM). The purpose of the evaluation exercise was a rapid qualitative assessment of the Phase I of the DRM Program implemented in 28 districts in Bihar, Orissa and Gujarat. The evaluation assessed the program performance, the relevance and appropriateness of the program design, and its implementation in the context of the disaster management policy perspective. The exercise was tasked to assess the efficacy of the program approach and strategy in mainstreaming disaster risk reduction as part of development initiatives.

In addition, an Outcome Evaluation was conducted by UNDP for its internal use in May-June 2007. This was an overall evaluation of its country program (2003-2007) and the specific outcomes at the country level for the entire UNDP country program. This included an analysis of the contributions of the DRM program to the sub-outcome of ***“Reduce vulnerability to natural and human-induced disasters through community preparedness”***.

Furthermore, the European Commission conducted a specific donor evaluation through a team of independent consultants in January-February 2008 in the DRM target states of Assam, Sikkim and West Bengal as well as Thiruvanthapuram and Kochi in Kerala, Mumbai and Pune in Maharashtra and Guwahati in Assam, which were cities under the UEVRP component. The purpose of the EC evaluation was to assess the extent to which the program supported by EC had achieved its objectives against the standard criteria set out for the EC funding support to the DRM program. The brief about these previous evaluations are presented in *Annex- 1*. While undertaking this evaluation, the team made itself aware of the conclusions of these earlier evaluations and comments/observations of the key stakeholders, and built upon them.

### ***Overall Approach to this Evaluation Study***

The overall approach adopted for the Study is:

- An assessment of the measures required to institutionalise DRM
- Analysis of how DRM activities could be further mainstreamed to ensure sustainability,
- Analysis of the outputs, outcomes and overall impact of the program in relation to NDM Framework and DRM Program goals and objectives; and main result areas;
- Identify strengths of the strategies pursued under the program
  - *A Review of Strategies and Activities in which the program fared very well. These could be further highlighted in form of case studies.*
  - *A Review of Strategies and Activities in which the program made some unique/first time initiatives. And what was there net impact.*
  - *Review of Lessons learnt on activities that did not yield desired results*
- Appraisal of the key priority areas of the program such as community based disaster preparedness, in the context of the provisions of the DM Act
- Assessment of coverage of cross cutting issues in the implementation of the program including mainstreaming within the government programs,
- Assessment of the partnership strategy including integration of the program with stakeholders such as academic and training institutes.

The inputs received from the Ministry of Home Affairs, Relief Commissioners, other State Government Officers, State Project Officers and Donors have been taken into account in preparing the draft report.

## Chapter 3: Strategic Vision, Findings and Conclusions

This chapter on findings and conclusions follows the structure of the UNDP guidelines<sup>3</sup> on outcome evaluation. Accordingly, this chapter is divided into four principal sections – an outcome analysis (3.1), examination of driving forces/factors that affected program performance (3.2), an output analysis (3.3) and partnership strategy (3.4). In each section, a national level assessment as well as state wise disaggregated analysis has been carried out.

The findings in this chapter reflect the observations made by the evaluation team during visits to the field, meetings with key officials and study of available statistical information as well as documentation carried out as part of the project.

### 3.1: Outcome Analysis

Findings in this section of the report are based primarily on analysis of secondary information and other documentation available for the program.

#### **3.1.1 The GoI-UNDP DRM program has been a path breaking initiative in the country both in terms of scale as well as the breadth of its intervention.**

The GoI-UNDP DRM Program was initiated at a time, when there was little appreciation and understanding on disaster reduction issues. In 2002, the country was recovering from a string of catastrophic disasters. The HPC report too had pointed out that a comprehensive approach to disaster management was required. It was evident that every subsequent disaster was adversely affecting lives and property and that a paradigm shift was now necessary both in terms of spirit and action

Even though it has been pointed out in the past, that the program is highly ambitious covering a large number of activities and large geographical spread, it was clearly evident that in overall terms community's perception and response to DRM issues has markedly improved.

#### **3.1.2 The current evaluation carried out in fourteen out of the total program seventeen states, reveals that the DRM program intervention has contributed significantly in achieving the stated outcome.**

The Multi Year Funding Framework for UNDP outlines the following expected outcome, as a result of activities carried out under the country program 2003-07: "Reduced vulnerability to natural and human-induced disasters through community preparedness".

Additionally, two intermediate outcomes have also been stated as follows:

**Intermediate Outcome 1:** Institutional and legislative systems for Disaster Risk Management (DRM) strengthened and DRM mainstreamed into key development sectors.

**Intermediate Outcome 2:** Local level mechanisms – plans, resources and trained personnel -- developed for enhancing disaster preparedness.

Based on aggregation of indicator results<sup>4</sup> under categories reflecting Intermediate Outcomes, it is evident that achievement of outcome indicators is highest at State and District level. This contributes significantly to Intermediate Outcome 1. At levels lower than district, the

---

<sup>3</sup> Guidelines for Outcome Evaluation: Monitoring and Evaluation Companion Series #1. Pub. Evaluation Office, United Nations Development Program; [www.undp.org/eo](http://www.undp.org/eo)

<sup>4</sup> Physical Progress Report, 12<sup>th</sup> November, 2008, UNDP

achievement has been less than 60% (Figure 3.1). As for Intermediate Outcome 2, the program was successful in lateral outreach but vertical penetration has been partial.

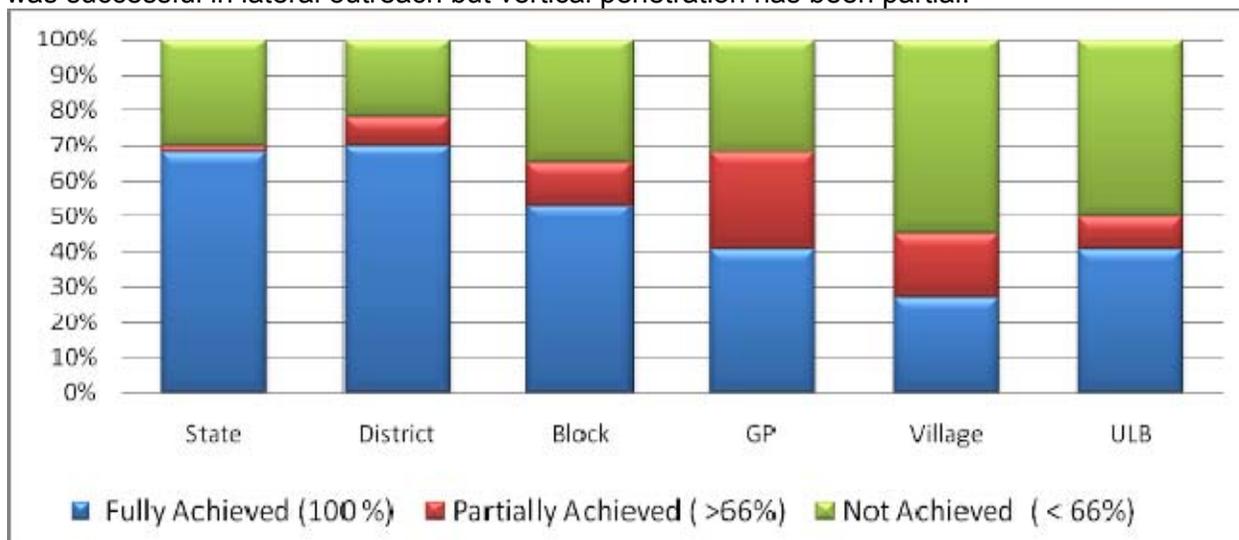


Figure 3.1 : Overall achievement of Outcome Indicators aggregate level-wise

Based on the Physical Progress Report, a state wise analysis was carried out of outcome indicators under the categories – institutionalization, mainstreaming, local level preparedness mechanisms (Table 3.1). These categories broadly reflect the intended program outcome. In order to report progress against each categories, the available output indicators (28 of the 79 available indicators of the UNDP’s Physical Progress Report, November, 2008) that best reflect the intended outcome have been bundled together. The block circle indicates achievement rate 50% to 100%, which is the clear indication of positive change and empty circle indicates the achievement rate less than 50%, as these parameters need more focus under respective segments (Monitoring & Evaluation Framework Handbook Rating System where the baseline is taken 50% and above 50% achievement rate is considered as the Positive change)

The results are indicated State wise; the analysis reveals that Uttarakhand, Uttar Pradesh, Assam, Sikkim, Tripura, West Bengal and Tamil Nadu have scored high on their contribution to Outcome. When compared across seventeen states, their efforts have been remarkable at the local level, reflecting all round progress at all levels.

It is, however, noted that achievements under few key indicators cannot be attributed to the DRM Program alone, which, at best, merely had a catalytic impact. The achievements under key indicators such as formation of Authority at state, district levels; State DM policy enactment, revision of relief codes, renaming/ re-designation of nodal department, Integration with Govt. development initiatives, engagement with other Govt. departments and functioning of EOCs (State, District level) were largely government-driven as national initiatives influenced by factors not related to the DRM program.

Table 3.1 State wise Analysis of Outcome Parameters

Outcome Parameters	Key Indicators	Uttarakhand	Uttar Pradesh	Assam	Sikkim	Tripura	West Bengal	Tamil Nadu	Nagaland	Maharashtra	Mizoram	Delhi	Arunachal Pradesh	Meghalaya	Manipur	Overall Achievements
Institutionalization	Formation of Authority at state, district levels	●	●	●	●	●	●	●	●	●	●	●	●	●	●	14/ 14
	Formation of DMCs at all levels	●	●	●	●	●	●	●	●	●	●	●	●	●	●	14/ 14
	Formation of DMTs at all levels	●	●	●	●	●	●	●	●	●	●	●	●	●	●	14/ 14
	State DM policy enactment	●	●	●	●	●	●	●	○	○	○	○	○	○	○	8/ 14
	Amendment of building codes/ bye-laws	●	●	●	●	●	●	○	○	●	●	○	●	○	○	9/ 14
	Revision of relief codes	●	●	○	●	○	○	○	○	●	○	○	○	○	○	4/ 14
	Renaming/ redesignation of nodal department	●	●	●	●	●	●	●	●	○	●	○	●	●	●	12/ 14
Mainstreaming	Sensitization of professional bodies, corporate	●	●	●	○	●	●	○	●	●	●	●	●	○	○	10/ 14
	Integration with Govt. development initiatives	●	●	●	○	●	○	○	○	●	●	●	○	●	○	9/ 14
	Engagement with other Govt. departments	●	●	●	●	●	○	○	○	●	●	●	○	●	○	9/ 14
	Coverage of DM in civil training - ATIs, Police	●	●	●	●	○	●	●	●	●	●	●	●	○	○	11/ 14
	Partnership with Corporate sector	●	○	○	○	●	○	○	○	●	○	●	○	○	○	4/ 14
	Coverage of DM in school curriculum	●	●	●	●	●	●	●	●	●	●	●	●	●	●	14/ 14
	Coverage of DM in engineers curriculum	●	○	○	●	●	○	●	○	○	○	○	○	○	○	6/ 14
Coverage of DM in architects curriculum	○	○	○	●	○	○	○	○	○	○	○	○	○	○	3/ 14	
Local level preparedness mechanism	DMC, DMT members trained at all levels	●	●	●	●	○	●	●	●	●	●	○	●	●	●	12/ 14
	Schools sensitization, key teachers trained	●	●	●	●	●	●	●	●	●	●	●	●	●	●	14/ 14
	Architects trained	○	○	○	●	○	●	○	○	●	○	○	○	○	○	4/ 14
	Engineers trained	●	●	●	●	●	●	●	○	●	●	○	○	○	○	4/ 14
	Masons trained	●	●	●	●	●	●	○	○	○	●	●	○	○	○	8/ 14
	Volunteers trained ( CSOs, NYKS etc)	●	●	●	●	●	●	●	○	●	○	●	●	●	●	12/ 14
	PRI members, RWAs trained	●	●	●	●	●	●	●	○	●	○	○	○	○	○	9/ 14
	Women participation at all levels	○	○	●	○	●	●	●	○	●	○	○	○	○	○	8/ 14
	Formulation of DM plans at all levels	●	●	●	●	●	●	●	●	●	●	●	●	●	○	13/ 14
	DM plan review and update at all levels	●	○	○	○	○	○	○	○	○	○	○	○	○	○	1/ 14
Others	Functioning of EOCs (State, District level)	●	●	●	●	●	●	●	○	●	●	●	●	○	○	11/ 14
	Conduct of mock drills at all levels	●	●	●	●	○	●	●	●	●	●	●	●	●	○	12/ 14
	Inventory review and update (IDRN)	●	●	●	●	●	●	●	○	●	●	●	●	●	○	12/ 14

Note: ● indicates 50 to 100% achievement rate, and ○ indicates, less than 50 % achievement,

### **3.1.3 DRM Programming did not transform sufficiently following new Institutional Arrangements**

During the program, a transformative disaster – the Indian Ocean tsunami of December 2004 – took place. It affected one of the DRM States (Tamil Nadu), and led to the passage of the Disaster Management Act in December 2005, establishment of NDMA headed by the Prime Minister in September 2005, and the creation of new institutions i.e., Disaster Management Authority at the State and district levels. Such fundamental transformations accelerated change that the NDM Framework contemplated and the DRM program advanced. In Tamil Nadu, 6 more tsunami-affected districts were added to the DRM program, and there were demands, expectations, and opportunities that the new DM Act and the new institutions created. Full advantage was not adequately taken of the potential of the unfolding new institutional landscape. As a result, the new programs and initiatives of NDMA (and the SDMAs in some States) proceeded in parallel and were not fully synergized. This was clearly a lost opportunity, more sorely felt particularly by the States, when ensuring the graduation phase of the program.

### **3.1.4 The DRM program was relevant to the need as it covered the most vulnerable regions of the country. However, the identification process excluded some high risk regions.**

The GoI-UNDP DRM Program had taken into consideration vulnerability to multiple hazards as the basis of identifying areas for intervention. This was good “first step” towards prioritization however, there were some problems with this approach.

There are more districts in the country that met the criteria of selection, but they were not addressed. Similarly, the district is a large administrative unit and geographical area, and not all areas within are equally affected by the same hazards and risks. Therefore, by using the district as a unit, and aiming to address all blocks and villages therein with similar activities using a fairly ‘cookie cutter’ approach, the possibility of concentrating on the most vulnerable blocks or villages within the district was not followed.

Similarly, across the States, there are variations on vulnerability, affected by predominance of a particular type of hazard. There are variations in the population distribution, settlement type and terrain. Certain states of the country experience frequent low intensity disasters, which, in cumulative terms, have a strong impact on local communities. As such, a risk assessment, rather than a vulnerability assessment would have helped adapting program activities to specific needs of the States.

Many local hazards such as drought, landslides, extreme heat, extreme cold, lightning strikes, and bamboo famine have been ignored. Criteria of potential number of lives that may be lost or affected would have helped to include some of the most vulnerable areas that have been ignored in the present program.

### **3.1.5 The DRM program fulfilled the priorities set out by the Government of India, as reflected in the recommendations of the High Powered Committee.**

The DRM program was started at a time, when the country had suffered from a series of catastrophic disasters (Orissa, 1999; Gujarat, 2001) and there was a general sense of urgency for taking pre-emptive action against disasters to minimize loss of life and property.

The High Powered Committee on Disaster Management, constituted in order to look into the entire gamut of disaster management in India, in August 1999 made the following recommendations:

- Inclusion of disaster management in the Concurrent List of the 7th Schedule of the Constitution and enactment of a National Calamity Management Act as also State Disaster Management Acts.
- Constitution of a permanent Cabinet Committee on Disaster Management and an all Party National Committee on Disaster Management.
- Creation of separate Departments of Disaster Management and Mitigation in States and the Ministry of Disaster Management in the Union Government.
- Establishment of a National Institute of Disaster Management as a Centre of Excellence for creation of knowledge network and its dissemination including training and networking with State level training Institutes.
- Creation of state of the art Emergency Operation Centers at State and District level.
- Creation of a National Fund for rehabilitation and reconstruction and a separate National Fund for prevention and mitigation.
- Preparation of large-scale digital maps, topographic maps, seismic micro zoning and satellite remote sensing.
- Development of a sound information database and documentation of previous disasters.
- Development of District Disaster Management Plans and their integration with the State Plans and the National Plan.
- Preparation of Panchayat, local body and community level Disaster Management Plans.
- Strengthening of forecasting/warning and alert systems.
- Human Resource Development by training of Police and Para Military personnel, Fire Services personnel, Civil Defense/Home Guards, Territorial Army, ex-servicemen, NCC, NSS, Scouts and Guides, NYKS and Youth Clubs.
- Collaboration with SAARC and neighboring countries for forecasting, information sharing and pooling of resources.
- Trigger mechanism to simultaneously activate response on all fronts.
- Development of a standard cache of equipments for search & rescue and medical response
- Evolvement of minimum standards of relief.
- Preparation of Disaster specific medical plans.

The program met the needs of the Government to approach disaster management in a holistic manner and covering vulnerable areas of the country and is relevant to the current national and state priorities. While referring to this program, the Planning Commission, in its Eleventh Five Year Plan document, has stated that “under this program, disaster management plans are being prepared from village to district; village volunteers are being trained in first-aid, search and rescue, evacuation and relief and shelter management; disaster management teams are being constituted at the district and sub-district levels and mock drills are being conducted at all levels. It is the largest community based DRM program in the world. There is a definite need to increase the scope to cover other deficient areas too, in order to draw the full benefit from this”.

### **3.2: Factors influencing program performance**

Findings in this section are based on field visits by the evaluation team, discussions with project beneficiaries and subsequent meetings with key stakeholders at National, State and District levels. The detail of State wise findings and individual State visit report by the Evaluation Team is included in *Annex-IV* and *Annex-V*

A variety of factors have influenced program performance. The evaluation team has identified five primary factors that have strongly influenced performance of the program : Leadership, State level ownership, Experience of past disasters and Quality and availability of training (Table 3.2).

**Table 3.2 Factors influencing program performance:**

	<b>Factor</b>	<b>Contribution</b>
A	<b>Leadership</b>	Local level leadership at district and sub-district levels; Engagement with communities and other institutions; Bringing about multi-stakeholder participation in events and activities.
B	<b>State Level Ownership</b>	Contribution from the State Budget, Mainstreaming of program activities and placement of capable leadership.
C	<b>Experience of Past Disasters</b>	Heightened sensitivity has contributed to better reception and acceptance to program activities.
D	<b>Training Systems</b>	Development of resource material, mobilization of local institutions, tapping external resources to strengthen ongoing efforts.
E	<b>Program Management</b>	Deployment of NUNVs, State & District Project Officers, Creation and Integration of program management structures at State level

### **3.2.1 Strong leadership at all levels catalysed program performance.**

Strong leadership is of critical importance in disaster preparedness and response situations. At the National Level, the strong leadership provided by the Ministry of Home Affairs in driving the program and their engagement with the States has ensured fairly good coverage.

During the visits undertaken by the evaluation team, it was found that in states like Assam, West Bengal, Sikkim, Maharashtra, Mizoram, Tamil Nadu, Uttar Pradesh and Uttarakhand, strong and continuous leadership at state level and taking the local community leaders into confidence has yielded qualitatively better results.

### **3.2.2 Strong Ownership by State Governments and District Authorities: A Lasting Legacy of the DRM Program**

The program consolidated earlier smaller scale programs in several States, and indelibly created enormous momentum in most of the participating States and districts. There is a visible feeling of it being a State and district level program; owned and implemented by the State and district authorities. While there is appreciation and gratitude to both GoI and UNDP for the enabling framework, and technical, human resource, and financial support provided by the program; there is an equally welcome sense of the need to carry on regardless of continuing resources. Such sentiment is no doubt fostered by responsibilities under the DM Act, the establishment of SDMAs and DDMA with legislative back-up; and the process of exit and graduation. The evaluation team observed such sentiments being expressed in all most all the States as: *“we are just beginning and there is need to continue, and are confident of getting State government resources and support from other sources to do so, even when the program ends under the multi-donor framework.”*

### **3.2.3 Multi-Level Action ensured top-down and bottom-up accountability**

A key strength of the program was the number of levels at which implementation action was taken up. This was not a national program working with the National Disaster Management office, complemented by a set of pilots in districts or communities. Rather, it was a serious effort at simultaneously working in a large number of communities, and all the way up to the national level, through Panchayat and Panchayati Raj institutions (PRI); block, district, state; and various concerned Ministries of National Government. Working through the National and State Governments, on self-set priorities, this was, as one Donor aptly characterized it: *“truly both a top down and bottom up program”*, simultaneously.

### **3.2.4 Recognition of community own strengths and practices, has led to strong ownership by community institutions.**

In cases, where the program has consciously recognized and integrated community's own practices, the ownership has been built in a natural manner. Two major causes may be identified leading to this influence – the community's experience with natural disasters, and the community's own capacity in terms of awareness, ability to cope (including traditional knowledge) and social bonding.

During the visit by the evaluation team, it was also revealed that strong coping mechanisms have traditionally existed within the communities. In Arunachal Pradesh, villagers have their own systems of early warning, construction practices and local emergency response methods. The DRM program activities have further strengthened local capacities.

In Mizoram, a largely literate population, strong institutional support and rich involvement of NGOs strengthened participation as well as impact.

This momentum, confidence, and ownership is welcome, but we must recognize that continued technical support, networking among communities across States and districts, and some financial support from the national level will still be needed. Else, the momentum and promise of taking forward this program will be lost.

### **3.2.5 Integration with existing government programs carried out by various line departments has significantly improved the quality of results.**

The program States that have 'smartly' integrated, or 'piggybacked' on existing programs and program structures have had a head start in reporting achievements. Considering Disaster Risk Management is a multi-disciplinary exercise, a proactive approach to integrate with the other disciplines has helped.

The evaluation team noted that states like Delhi, West Bengal, and Maharashtra have taken concrete steps in ensuring the DRM program is well integrated with government programs. Planning Department of Nagaland issued instructions to all departments, during the visit of the evaluation team, to ensure that disaster mitigation is integrated with all new development schemes, before sending it for approval. Mainstreaming of the program in Education Departments by including DM curricula in school education was visible in most of the states. It has been mainstreamed in Health and Home Departments in north eastern states where training in first aid is provided, down to village level, through the Primary Health Centres and in search and rescue by Civil Defence and Home Guards under Home Departments.

However, the program is still perceived in almost all states as a stand-alone program, building the capacity only of the Revenue departments. It has not been linked to development plans. There are no intervention programs to reduce the micro level vulnerability, based on village level

vulnerability profile. Linkages of the program with different departments at state and district level were not visible. At the state and district level, involvement of other line departments needs to be improved. Awareness and capacity building for all line departments is needed. This will help all concerned departments to consider disaster management while planning their development activities.

**3.2.6 The implementation of the program was adversely affected because the program design did not incorporate challenges of accessibility and state of infrastructure.**

Certain high risk districts were remotely located particularly in the North East, and carrying out activities in such areas required extra efforts. The program design for planning as well as monitoring required such challenges to be recognized.

The program should address recurring local hazards and the immediate needs of the communities. The program design was not sensitive to the geo-climatic conditions, remoteness of project districts and poor infrastructure. This has resulted in additional strain of resources and delays in implementation.

The program design and strategy was somewhat over-ambitious keeping in view the constraint of time and resources and a large number of activities taken up under the program. However, it cannot be ignored that, it was the first program of its kind taken up by the Government in conjunction with UNDP, for disaster risk reduction from national down to the village level and the program design articulated the concerns of the main stakeholders and gave expression to the vision of the National and State Governments for an inclusive agenda for disaster risk reduction at all levels.

**3.2.7 While the program has been largely unaffected by changing political climate, certain states experiencing problems of insurgency have reported problems in implementation.**

In Manipur and Nagaland, controlling law and order is the priority for the state, shifting Disaster Management to a secondary level of importance. The problem of law and order, became a barrier to smooth and efficient engagement with communities. Also, multi-stakeholder participation became very limited as there were very few opportunities to build mutual trust and common agenda for action. This was evident in the particular disengagement found among the people met during the evaluation visits.

**3.2.8 Impact of Disasters. The DRM program was successfully able to reduce losses to lives and property in certain cases of natural disasters.**

Comprehensive documentary evidence on the influence of natural disasters on program performance was not available. However, the evaluation team found good examples of the benefits acquired as a result of DRM program activities. The capacity building of communities has been tested in several states during recent disasters and the community has been able to act in a pro-active manner on their own without outside support, on a selective basis. There is need to document such instances and share it with communities with similar vulnerabilities.

Dhemaji district of Assam, during the flash flood of 2007, the capacity built by the DRM program could be put to use effectively. In West Bengal, during the floods of 2006 and 2007, the people of Burdhan district effectively responded to the situation by rescue exercises and provision of temporary shelters. Similarly, in 2008, the Irrigation Department with support of DRM task forces could repair breaches along the embankments to protect the area from floods.

Samiyarpetti village in Cuddalore district provides the best example of positive impact of the DRM program. The village was affected by Indian Ocean Tsunami on 26<sup>th</sup> December, 2004.

Training to villagers was provided just a month before the Tsunami. As a result, during the Tsunami, lives lost were significantly low, while in a village just 2 kilometres away, the death toll was more than three times to the numbers.

**3.2.9 There is also evidence where the program activities have little or no impact when the effect of disasters is widespread.**

Specially in cases, where widespread natural disasters have occurred, the output of the program has had very little positive impact on managing response and recovery. In Maharashtra 2005 floods, the capacity built under the DRM program was largely inadequate in meeting the challenges of disasters.

In the latter part of the program however, a thrust on establishment of Emergency Operation Centres, investments on vital equipment and infrastructure have considerably improved capabilities of States and Districts in tackling large scale disasters.

**3.2.10 Judicious use of technical resources and investments on training would have significantly affected the program performance.**

The earlier (1997-2001) UNDP program invested significant percentage of resources in capacity building of the Disaster Management Faculty in the DM Cells of the State ATIs. The program provided opportunities for international training for a set of institutions that had been sought to be built since 1993.

Yet, during the DRM program, very limited use was made of these existing institutions, with a few exceptions. The opportunity to use the DRM program to provide a fresh infusion of resources - and a learning and development opportunity to these institutions - in order to develop their capacity as providers of training and technical support services to the State government, was not sufficiently utilized.

By and large the DM Cells/Centres were sought to be utilized as providers of training courses for State government officials. In some cases, in the first two years of the program, training courses on "Development of Disaster Management Plans in Districts" and "Community Based Disaster Risk Management" were organized. But these were not tailor-made to the needs of the program. By and large, the State ATI DM Cells were involved in fairly peripheral levels of the program implementation, and rarely beyond the role of training service providers.

Wherever states have well developed curriculum, manuals and training courses available to develop capacity of implementing officials at State and District Level, there is marked positive effect on the quality of program outputs., Assam, Maharashtra, Mizoram, Uttar Pradesh Uttarakhand have carried out extensive training programs using the DM cell of ATIs. Availability of high caliber technical institutions and other resource organizations have improved confidence and sustainability of program results.

**3.2.11 Quality of training programs at State Training Institutes needs to be improved; training modules updated; refresher training mechanism to be put in place**

The quality of the training programs varies not only from state to state, but also from district to district in the same state. Where training has been integrated with different government departments, the quality was observed to be good. In other cases, it varied from good to poor. Besides, training has to be imparted in different modules to specific groups assigned with different responsibilities. These areas would be wide- ranging such as formulation and updating of disaster management plans at different levels, micro level planning, conduct of mock drills, first aid, search and rescue, shelter management, relief distribution, sanitation, media management, documentation, management of relief camps, communication links at grass root

level, dissemination of early warnings and awareness generation. The training modules developed for this purpose would need to be updated based on their qualitative assessment and evaluation. It is also necessary to put in place a mechanism for refresher training for different stakeholders.

Likewise, one-time training only gives awareness or sensitises the participants. In order to gain real expertise, one needs to have refresher trainings and repeated practice. This was not found to be a widespread practice.

### **3.2.12 Program Management: Role of National United Nations Volunteers**

The strategy to provide human resource (HR) support for program implementation through National United Nations Volunteers (NUNVs) was a deliberate and imaginative choice. It was a vastly different approach from using a few internationally recruited Technical Advisors complemented by national Technical Officers. Using NUNVs on this scale, for a program of this scale, enabled the recruitment and deployment of young professionals to be the key support to the senior officials in States and districts to single-mindedly focus on implementation of the program.

These NUNVs were competent, enthusiastic to work, and often having personally experienced the havoc wrought by major disasters in their home States e.g. the Orissa Super Cyclone and Gujarat earthquake. Therefore, the NUNVs were highly motivated to make a difference and professionally contribute to a 'social good'. There is no doubt that they were the key to the fast start-up of the program and continued implementation of the program on a fast track. Their work has drawn praise from their demanding supervisors: the RCs, SPOs, and DMs, and from partner organizations and the beneficiary communities.

The pace of program implementation provided a great learning environment for these professionals, an exposure to government from within, and an opportunity to cut their teeth on difficult, practical problems. When disasters struck other countries; for example, the floods in Sri Lanka in 2003, and later the Indian Ocean tsunami in December 2004, it was the best and brightest of these NUNVs that were deployed and served with distinction. Thus, the program has contributed an influx of between 200 to 400 new professionals in the sector over the last 8 years. These DRR professionals are now working outside the country, in INGOs, regional organizations, and UN Agencies, and are appreciated for their competence, insight, practical wisdom, and dedication. This itself is no mean achievement.

### **3.2.13 District Project Officers appointed by UNDP have played an important role in the accomplishment of program objectives by assisting the district administration in executing the program activities.**

Through their services, the District Project Officers have made themselves indispensable for the district administration. Over the years they have managed to carve a niche for themselves and have established themselves as focal points for disaster management activities. They have been assisting with plan preparation, updating and training activities in the district. Importance of the inputs of DPOs is distinctly visible in the status of DRM activities in the states where support of DPOs has not been provided. DRM activities in these states have been affected quantitatively and qualitatively.

A distinct difference in the level of achievement is seen in the states of Manipur, where the program activities at district and below district level have been adversely affected due to the absence of DPOs. Of the late, provision for hiring field officer were planned but never hired due to administrative reasons. As a result these plans have not been prepared. The activities at

block and village level have also been negatively affected which is evident from the lack of visible progress in program activities at block level and the low level of detailing in the village disaster management plans. These shortcomings could have been overcome in the program period by the appointment of such officials at the District levels. Similarly, in Mizoram, Field Officers were hired by the State Nodal Agency but each of the officers had two districts to look after against the nodal practice of one DPO in each district. This has also affected activities in the state of Mizoram. However, the state has tried to overcome this deficiency under the guidance of a dedicated retired officer of the State. On the other hand, in Assam, the DPOs have contributed significantly in facilitating preparation of fairly good quality DMPs e.g. Nagaon district.

Arunachal Pradesh was perhaps the only state, which performed well even in the absence of DPOs. The good performance of the districts in the state can be attributed to the creation of posts of DRROs, who have been discharging the functions of a DPO. However, this process has delayed the activities in the state since the posts were created only two years back. The creation of posts also put a burden on the financial resources of the state, which could have otherwise been used for the DRM activities. Uttarakhand, on the other hand, has enjoyed the support of DPOs who have helped the districts in achieving remarkable progress in program activities and have assisted in the initiation of admirable activities such as setting up of well equipped EOCs and technology demonstration units. The DPOs have also introduced a number of innovative practices such as setting up of a disaster mitigation fund in Uttarkashi and bamboo plantations in Bageshwar district.

In most of the states, UNDP appointed DPOs have played a direct implementing role, making the present progress possible, whereas they should have played a facilitating role, building the capacity of local government officials. However, for this to be effective, the government needed to appoint a district level full time official.

#### **3.2.14 Institutionalization of State and District level DRM Positions**

The Human Resource support provided by the program through the Program Associates, Project Officers, State Project Officers, and District Project Officers are today recognized as indispensable to the continued implementation of the program. They thus filled a pre-existing void, and their effective delivery of services pointed to a need which is now being institutionalized. The creation in some States of Technical Secretariats for the State DMAs and the new regular positions of district Disaster Preparedness Officers is the sure sign that a new system is required.

#### **3.2.15 “Project management structures were insufficiently integrated into State and district structures”**

This aspect has been to some extent already discussed in paragraph 3.2.12, which points out the role of NUNVs and their “separateness” from existing structures. It is no doubt true that continued reliance on NUNVs did not adequately activate the functionaries in the system in a phased manner, to ensure a more sustainable way. It is hoped that, with the creation of regular positions to man the new structures and their secretariats created under the DM Act (namely the State and District DM Authorities), this will change the situation.

Some States did not follow the NUNV approach, but consciously appointed DPOs and SPOs from among the existing officials of the State government. This is seen most clearly in West Bengal and Tamil Nadu. West Bengal, almost uniquely in the country, has a district and block level Relief Officer (DRO and BRO). This existing human infrastructure was utilized as a base for program implementation and appointment of DPOs. The States did not have or require the

same level of HR support. So too, Tamil Nadu (TN) used the existing infrastructure of District and Block Rural Development Officers to serve as DPOs.

While the use of existing functionaries within the system made for greater integration, and rootedness, there was a relatively slower start-up in the absence of “fresh blood” with many existing functionaries seeing the additional burden of increased responsibilities, without any incentive or reward for good work completed as unreasonable and unwarranted, and therefore did not extend their full cooperation. Thus it can be said, that use of State human resources led to a slower start-up, but a more sustained program, even if at a lower level of performance. Future programs should make greater use of existing State and district officials.

### **3.3 Output Analysis**

Findings in this section are based on correlation between quantitative results and field observations.

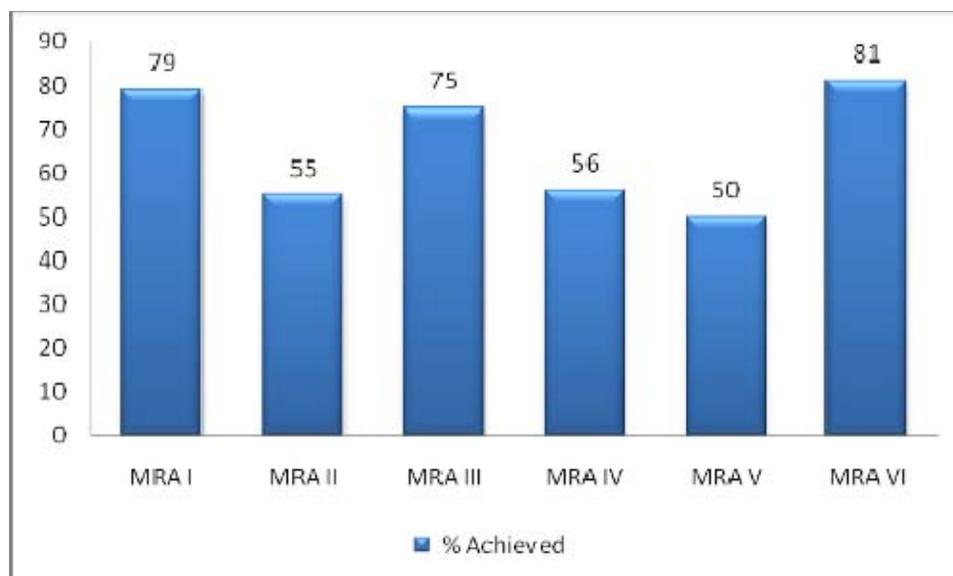
#### **3.3.1 Program Outputs pertaining to preparedness have done well, whereas achievement pertaining to long term vulnerability reduction is partial.**

The key outputs by the DRM program have been categorized under 6 main result areas as under:

- ◆ **MRA I:** DM institutionalized and capacities developed at all levels with specific emphasis on women.
- ◆ **MRA II:** Multi hazard preparedness planning with linkages to a strengthened network of disaster management information centers and early warning mechanisms.
- ◆ **MRA III:** Disaster management and mitigation awareness generated at all levels.
- ◆ **MRA IV:** Disaster resistant and cost effective housing technologies promoted.
- ◆ **MRA V:** Legal and techno legal framework revised, policy framework promoted and systems created to ensure compliance.
- ◆ **MRA VI:** Networking and knowledge sharing between governments, NGOs/ CBOs, Institutions and stakeholders involved in disaster management.

The main result areas stated above strongly relate to the intended outcome of the program – Reduced vulnerability to natural and human induced disasters, through community preparedness.

As noted in previous evaluations, and reconfirmed by the current round – the program has created an enabling environment bringing about paradigm shift in attitude from relief to preparedness. However, the long term vulnerability reduction cannot be achieved solely by preparedness measures. Sustained actions aimed at mitigation as well as at integration with development programming are essential. Out of the total 79 activities categorized within 6 main result areas, only a few activities may be categorized as ‘long term measures towards vulnerability reduction’.



**Figure 3.2: MRA wise achievement aggregated for 14 States**

Two major result areas – promotion of disaster resistant and cost-effective housing technologies through training of professionals and construction workers has recorded low level of achievement. Likewise, establishment of techno-legal frameworks to create an enabling environment for disaster reduction has not achieved full results. It is acknowledged that both these result areas require substantial investments in time and effort. However, state wise analysis reveals that only four states with respect to MRA IV and six states with respect to MRA V have made any progress at all. (Table 3.3). The achievement of various states against given MRAs is based on rating stipulated by UNDP<sup>5</sup> when, if the result indicates less than 66% achievement, it is considered as “Not achieved”. The table below indicates colored boxes where achievement is equal to or more than 66%. Based on the analysis – Assam have highest level of achievement with respect to program outputs across all MRAs.

**Table 3.3: State wise Achievement of Major Result Areas.**

Summary Achievement of MRAs	Assam	Sikkim	Uttar Pradesh	Uttarakhand	West Bengal	Tamil Nadu	Maharashtra	Mizoram	Delhi	Tripura	Nagaland	Manipur	Arunachal Pradesh	Meghalaya	Overall
<b>MRA I</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>79</b>
<b>MRAII</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>55</b>
<b>MRAIII</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>75</b>
<b>MRAIV</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>56</b>
<b>MRAV</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>50</b>
<b>MRAVI</b>	■	■	■	■	■	■	■	■	■	■	■	■	■	■	<b>81</b>

<sup>5</sup> Guidelines for Outcome Evaluators, UNDP Evaluation Office, Companion Series #1

### **3.3.2 Quantitative output analysis, aggregated for all states, is impressive for several parameters.**

The quantitative output analysis of the program, based on figures compiled as on August 2008, shows that the program performance has been quite impressive in respect of several parameters, compared to the pre-determined targets laid down. At state level, the number of master trainers trained was 5880 against the target of 5294 (111%), 6852 senior officers and policy makers including legislators have been sensitized against the target of 4791 (143%) and 16 out of the 17 state EOCs strengthened and equipped (94%), DM included in school curricula (100), training of members of professional bodies and corporate sector (111%) and conduct of massive awareness campaign (225%). However, the progress is not as good in respect of constitution and training of state search and rescue teams (76%) and somewhat poor in respect of finalization of state disaster management plans (41%), amendment of state building bye laws (59%) and relief codes (24%).

At district level, the achievements have been extremely good in respect of DMC members trained (12757--219%), teachers trained (90533--724%), DMT members trained in First Aid (14158--338%) and Search and Rescue (12682--309%, total PRI members trained (15078--380%), women PRI members trained (4729--363%) and fairly good for the preparation of disaster management plans (96%), conduct of mock drills (86%) and EOCs equipped (93%).

At block level, the progress is again quite impressive in respect of DMC members trained (50171--208%), PRI members trained (87366--243%), women PRI members trained (16848--155%), total Volunteers trained (117125--129%), women volunteers trained (27596--102%) and masons trained (36730--148%) The progress was fairly good in respect of disaster management plans prepared (1273--80% ) but was poor in respect of mock drills conducted (1551--35%)

At GP level, the progress is good in respect of DMC members trained (297717--134%) and women DMC members trained (80065--127%. The progress is fairly good for the preparation of disaster management plans (25522--86%). However, the progress is not good in respect of DMT members trained in First Aid (108824--46%) and Search and rescue (108531--46%).The percentage of women DMT members trained in first aid and search and rescue is however fairly good at 90% and 93%) respectively of targets set. The progress is particularly poor in respect of mock drills conducted (10053--17%)

At village level, the progress is quite good, seen in the background of targets set, in respect of DMC members trained (1209280--96%), fairly good for DMT members trained in first aid (508324--75%) and search and rescue (485344--72%), disaster management plans prepared (132065--88%). The progress in respect of women DMT members trained in first aid and search and rescue is somewhat less than satisfactory at 80% and 61% respectively of the targets set. However, it is quite poor for the mock drills conducted (10053--17%)

At ULB level, the achievement is very good in respect of DMC members trained (15706--202%) but not as good for preparation of disaster management plans (506--84%) and conduct of mock drills (668--66%).

The quantitative output achievements are not considered to be appropriate yardsticks for an outcome analysis. As will be seen from above, the targets set, particularly at block, GP and village level, are apparently over-ambitious. Secondly, the program has been taken up at these levels during the last two years only, since considerable time was taken for advocacy at the state and district level, before the program could make a head-start at these levels. The targets

for mock drills were determined on the assumption that these could commence from the second year onwards, which in itself was not a very realistic assumption, particularly at block, GP and village level. The mock drills could be organized only after the members of DMCs, DMTs and PRIs were trained and disaster management plans put in place. Therefore, the mock drills could be initiated only during the last one year. Keeping this aspect in view, the progress in respect of conduct of mock drills cannot be considered really bad, although it could have been accelerated to some extent but not in terms of the pre-determined targets.

The overall outcome of the program has been much better compared to the trends indicated by the quantitative outputs. The program has been very successful in creating awareness at community level, which was quite visible in almost all the states. It has also brought about a change in the mindset among the officers at state and district level, particularly in those states which had not suffered a major disaster in the recent past. The program has also succeeded in significantly raising the level of preparedness of the community as well as other stakeholders including the governments at state and district level. The training imparted to over three million personnel is indeed a remarkable feat. The first evaluation conducted in mid-2006 had brought out that training had been imparted to almost half a million personnel. The pace of implementation has really picked up during the last two years with the spread of the program to GP and village level and more than a million people are being trained every year. Seen in the context that this program has no visible physical deliverables for the community either in cash or kind but only attempts to educate and train the community to help themselves in case of disasters, it is indeed a remarkable achievement without any parallel in any country in the world in the field of disaster risk reduction.

### **3.3.3 Too Many Activities, Too Little, Too Thin**

A big criticism of the widespread geographical coverage at multiple levels, was articulated, both by implementing partners, other stakeholders, and even beneficiary communities. Some key phrases came up repeatedly:

*“Too many activities, lower resource allocation for each activity, no prioritization between activities.”*

*“A ‘cookie cutter’ approach; diversity not sufficiently recognized.”*

*“Quality of each output and quality of control/assurance could have been better.”*

These comments have been examined in this subsequent sections:

***“Too many activities; lower resource allocation per unit, no prioritization between activities”.***

As already mentioned, each State was given a set of targets to achieve, based on the original program document. Later, when the quantitative monitoring system was set up, some desirable outputs were added to be monitored by MHA, even if these were not program targets. This heavy load of “targets” did not lend itself to good planning, as it did not easily clarify to the implementing States the relative hierarchy of outputs, nor the relative time to be spent on each output. So too, in the case of certain mass outputs (e.g. preparation of village level disaster management plans and later, mock drills) the available budget was so small compared to targets that it often translated into potentially low levels of resource availability, such as Rs 150 per village DM plan and Rs 100 for a village level mock drill. Such amounts were lower than expenditure needed, and compared unfavourably with resource inflows from normal national budgetary allocations for similar development programs in other sectors, or to externally-funded programs through NGOs, Government, or other UN Agencies aiming at similar DM/DRM

activities. Thus the frequency, depth, and consequent establishment of a long term working system around these activities of contingency planning and rehearsals suffered.

It is to the credit of the several State and district governments and the innovation and imaginative approach of RCs, SPOs, DMs, and DPOs in these States, that the necessary supplementary funding through State government budgets and programs was brought to bear and made available for these activities, while imaginative partnerships were struck to share resources and build synergies with other on-going government and NGO programs. In moving ahead to expand the program, or in supporting long term institutionalization of these activities (e.g. planning, conduct of drills, refresher training, and workshops for CBDRM groups and activities), it must be recognized that resources for activities are needed and must be mobilized from government budgetary resources and local contributors.

The inability of local implementing partners to discern, and the lack of specific and visible guidance from national authorities on program management and prioritization, meant that in the list of 18 direct targets/outputs, the importance of some activities was not understood, and therefore were neglected. One glaring example would be the preparation, vetting, and circulation of State DRM Plans, which were neglected in several States.

***“A cookie cutter approach – diversity not sufficiently recognized”.***

As is inevitable in a program of this size and with its planned timeframe, it is necessary to have indicative activities that could be taken up, complemented by a shortlist of essentials that must be accomplished. Both of these will require nationally applicable common guidelines. In our view, such an approach was necessary to kick-start the program. Though apparently a ‘cookie cutter’ approach was used, in actual discussions with States, and subsequently in rolling out implementation, there was sufficient lee-way given so that these targets could be informally reviewed and modified. Clearly this was done, especially as several States were keen to engage, and some insisted on some components be included which were different from those planned. This was particularly so in various States like Maharashtra, West Bengal and Tamil Nadu, where there are long traditions of work in this area and new reasonably well-funded projects through NDMA.

***“Quality Control and Assurance could have been better”.***

With so many activities, monitoring was primarily carried out through monthly self-reporting, and lack of sufficient periodic substantive field monitoring from the MHA/UNDP Program Unit in Delhi – consequently, quality suffered. This could have been strengthened by regular meetings with the State and a similar mechanism in each State. This could also have been addressed by clearer guidelines for each activity, supporting a process for State level review and refinement, and the availability of a help desk or source of technical support above the SPOs/DPOs. Thus there seems to be much fairness in this observation.

**3.3.4 Mock drills at community level was an innovative approach undertaken to enhance preparedness. Qualitatively the community drills provided many important lessons for improvement.**

Unlike mock drills that are conducted in ‘control’ conditions, the community drills conducted as part of the program was a bold and innovative initiative. In many places, the benefits of such exposure came into use in actually saving lives (Tamil Nadu). Key to successful community based disaster reduction lies in the community’s ability to overcome the challenges of frequent small scale risks. Over a period of time, counter-measures practised build local level resilience. Overall, the drills helped in raising awareness and sensitivity on the likely impact of disasters

and steps that are needed for preparedness. Drills brought communities and local governments closer. However, qualitatively there were many areas that needed improvement.

- Correct set of instructions: Difference between ‘duck-cover-hold’ in case of earthquakes, and ‘drop – cover – roll’ in case of fire were not clear. Likewise, each type of disaster requires distinct set of actions. As observed by the evaluation team, these distinctions were not clearly understood by the local implementers.
- Cooperation of multiple agencies at community level was not forthcoming. Drills were considered an activity ‘owned’ by the Department of Revenue. Other departments did not always actively cooperate in providing necessary inputs.
- Mock drills have been carried out as one-off activity. Except in Uttarakhand, regularity of mock drills have not been reported from other states. This is a major limitation of the program. As a result, the drills have been forgotten along with the learning on special skills. Contrary to this trend, there are isolated good examples – Rhoi District of Meghalaya, where mock drills have been organized. Also, in Arunachal Pradesh, the evaluation team observed that communities had well-developed local techniques of administering first-aid using readily available bamboo. Bamboo has also been used by communities in Nagaland, to temporarily store water and use it to extinguish fire in accidents .
- Over-reaction and poor planning. In an email based discussion on UNDP’s Solution Exchange<sup>6</sup>, highlighted that sometimes, mock drill participants ‘jump’ the steps originally planned. Some actors over-react as a result encroaching on the role of others. This was largely a result of inadequate planning before the drills. This was also observed by the evaluation team in the mock drills organized in Assam, Meghalaya and Nagaland.
- Lack of seriousness. Respondents on the email discussion<sup>7</sup> pointed out that the quality of drills and the seriousness attached to it is largely affected by the degree of involvement of the community in the exercise. Taking community leaders into confidence, especially key role players in the drills has strong influence on quality.

### **3.3.5 State Disaster Management Plans – much needs to be done**

A State level plan is one cornerstone framework document for Disaster Management in the State. At the minimum, it is an effective contingency plan for preparedness for disaster response, with a clear articulation of roles and responsibilities of each department of Government, and a description of vertical linkages – upwards to the center and international assistance when needed, and downwards to the district emergency response arrangements. Implemented imaginatively it can be more: it can articulate a program for emergency response system upgrading and maintenance of preparedness; as well as a program for mainstreaming DRR into development. Even against the above mentioned lower benchmark, the performance is less than desired.

There is no easily accessible central inventory of these plans, either at MHA or in the DRM program office in UNDP,. Nor is there any evidence of a review process involving review by a national agency or technical specialist in the DRM team. In the reporting of results, 7 of the participating 14 States being reviewed reported having plans. This record of performance belies the quality and utility of the plans.

While visiting the States, the field team discussed this with the State Governments, and on request, were provided with copies of the State DM Plans for 3 of the 14 States A quick review of these Plans reveals the following:

---

<sup>6</sup> Solution Exchange Query on Mock Drills. <http://www.solutionexchange-un.net.in/drm/cr/cr-se-drm-11030801.pdf> (Size: 233 KB)

<sup>7</sup> ibid

- (i) Very few plans are actually approved by the State Disaster Management Committee or any other approving authority in the State.
- (ii) Some have not been revised it since 2004.
- (iii) There is no specific process for reviewing these Plans once prepared.
- (iv) State level mock drills have not been carried out.
- (v) In some States, where a plan document of sufficient quality does not exist, a process is underway to prepare it. Assam has constituted an inter-departmental committee to prepare the State Plan.

During the HPC process between 1999 and 2002, several States were asked to initiate preparation of plans, and State level committees were constituted and undertook activities in this regard. It is not clear whether there was an intensive effort to link up with these past processes during the DRM program.

Part of the challenge in preparing and finalizing plans is the absence of clear guidance; and subsequent review from the DRM program. However, the NDMA has now issued guidelines for the preparation of the State level disaster management plans. Hopefully, in future, the State DMPs would conform to these guidelines and Plans will be up-dated annually.

In the PSC meeting on 26<sup>th</sup> September 2008, the team recommended that focused action, including technical support, be provided to all participating States - which should be encouraged to review/finalise their State level plan as a key output of the DRM program. This is an important part of the graduation strategy. Continued support to State DM Plan development, review, testing, and updating is an important component of support to SDMAs.. A brief commentary of status of the State DM Plans is presented in the individual state field visit reports in *Annex- V*.

### **3.3.6 District Disaster Management Plans: Good Progress on Process and Content; Consolidation needed.**

The district DM plans are a key instrument for a structured response to natural disasters. Today, with constitution of DDMA's and their responsibilities under the DM Act, this assumes even greater importance.

District contingency planning is not a new phenomenon. Several States, particularly those affected by recurrent floods have long-standing practices of producing annual flood plans, which are revisited every year in the pre-flood season and revised. Uttar Pradesh, for instance, has a State level Act – the Uttar Pradesh Flood Control Act of 1954 – which specifically mandates such planning. In 1995, under MEERP, six districts in Maharashtra became the focus of an intensive exercise to prepare and update district plans. This was later extended to cover 25 more districts with support from YASHADA. So too, the Uttar Pradesh ATI and a proactive State Relief Commissioner's Office, promoted district level planning workshops in at least 20 different districts in Uttar Pradesh. Under the 2000-2002 ADB-TA, 8 districts; 6 in Uttarakhand; and Maharajganj and Kanpur received technical support to revise and prepare their DM plans. During 2001-2003, the LBS Academy and NCDM prepared the Red Book and issued guidelines on district DM planning. All these processes contributed to a momentum in favour of DM planning.

There is no doubt that the DRM program maintained the momentum, provided new inputs, and enhanced the quality of the regular DM planning process where it existed. In some cases, however, the guidelines produced, or the initiatives taken, did not adequately refer to or build upon past processes followed in the State.

Disaster Management Plans have been developed at various levels. Since it has been the practice to develop annual contingency plans for response at state and district level, it was, therefore, easy to prepare the Disaster Management Plans. However, there is limited, if any, attention given to mitigation and prevention aspects in these plans.

The District and below district Disaster Management Plans presently put in place are qualitatively below average, except in few cases. Besides, these do not have either horizontal or vertical linkages. Most of the district plans do not include vulnerability analysis and risk assessment, training and capacity building, identification of prevention and mitigation measures, updated resource inventory and roles and responsibilities of different stakeholders. It does not cover adequately the strategy for multi-stakeholder approach or address the requirements of socially disadvantaged and children as well as gender empowerment issues. These plans are required to be updated on annual basis. However, with the preparation of district plans in accordance with the provisions of the Disaster management Act, 2005, these issues are expected to be addressed adequately. It is necessary that the guidelines issued by the State Authorities adequately cover all these aspects for inclusion in the district and below-district plans. Also, no system was found to be in place for periodic review and updating of the plans at all levels.

As per the reports of the State Governments to UNDP, 169 of the 176 districts have prepared and revised district plans. The team, during its visits to the States and districts, made efforts to collect these documents and examined their content and formulation process.

The team collected 36 district level plans from the 14 States visited. This included 34 DMPs from DRM districts and 2 DMPs from non-DRM districts-Akola in Maharashtra and Hoogly in West Bengal.

The DRM program has certainly helped in improving the quality and usefulness of the plans. A major shift is promoting a multi-hazard approach. This is reflected in good information on hazard profiles, vulnerability, and capacities; in many cases geo-referenced. In some States, the State level disaster inventory has also been utilized. Some plans have benefited from the involvement of local level technical/specialist inputs; namely from State level universities and local NGOs. In a few cases the training course workshop on district DM planning has been a contributing factor. The plans have greatly benefited from significant inputs from the District Magistrate and the District Project Officer (DPO). Also, in some plans, the involvement of the range of agencies which are assigned roles under the plan is visible

In few States, the team was informed that the process of finalization of plans included its submission to the Relief Commissioner/Secretary, Disaster Management; and in some cases even a presentation of highlights was made before the State Steering Committee. In both cases; the verbal and written feedback received; was a supplementary source of technical guidance to the District Administration, District DM Committee and DPO. Documentation of this feedback and technical review was often undertaken by the State planning SPO and PA; once again indicating the useful and critical role they played in the process of development of District Plans.

The fact that few non-DRM districts also had plans of acceptable quality points to several conclusions. The team appreciated the plans of Haldia District. District DM is traditionally a continuing activity within the State Administration, particularly in those states and districts which are often affected by recurrent floods.. It also points to two other factors: the shift to a multi-hazard approach and improved quality of information; was primarily administered through instructions from State governments. When such instructions was issued to DRM districts; in many States these were also issued to non-DRM districts and followed. There is also the "transfer" factor. A district collector (DM or the ADM); who successfully pioneered a new approach in a DRM district during his/her tenure there; promoted the same approach when

he/she moved to a non-DRM district. This also happened at the level of Block Relief Officers being transferred within the State. For instance, a champion of the Haldia (non-DRM district) plan had earlier served in North 24 Parganas (DRM district).

Not much horizontal exchange was visible in the DRM program implementation. There was limited structured opportunities for district level officials of each State to meet in lateral lesson learning and exchange exercises. On sharing this observation during debrief after the field visit to Maharashtra, the State Government agreed to take this up. As a result, three divisional level workshops were held in November 2008 bringing DMs and key officials from 4-5 districts to divisional headquarters for interaction on these issues.

With the establishment of the SDMAs and DDMA's, this exercise of annual DM planning at district level is expected to assume greater importance, and a structured process to provide regular technical input; benchmarking; sharing of good practice; et al. will be needed. This should be made a key ingredient of future DM planning.

**3.3.7 Plans at village level were completed without adequate orientation and training of local communities. The paucity of time and ambitious quantitative targets forced the program to adopt a 'cookie-cutter' approach. There were few instances, if at all, of revisions/review of Plans.**

A large number of Disaster Management Plans at Panchayat and Village levels have been prepared. In the absence of proper orientation preceding the process of plan making, the process of developing the plans with community involvement was forced to follow a template based approach. Moreover, weak local ownership increased the pressure on the facilitators to achieve a large number of plans with limited time frames. Where a few hamlets make one village panchayat, the Disaster Management Plan shows only the map and details of the main village, overlooking the training and mobilization carried out in the hamlets. Such omissions have happened due to a template-based approach.

Ideally, Disaster Management Plans at village level should be regularly reviewed and approved by the district, and likewise the district level plans should be approved by the state. This will ensure that the plans cover all aspects of disaster management and at the same time linkages can be made from village plan to district plan to the state plan. This review process should be carried out annually accompanied by appropriate refresher training. The DM Act seeks to establish such linkages, which need to be scrupulously followed.

**3.3.8 Awareness generation has been carried out through a variety of innovative and locally appropriate media, thus ensuring large reachability.**

A rich variety of media (posters, wall paintings, films, puppet shows, street play, magic show, audio cassette, children's books) have been used to communicate on disaster risk to local communities. "How to" guides have helped local intermediaries in organizing information to come up with strategies for risk reduction. A detail list of IEC materials prepared under the DRM program and also lately by the States with NDMA support is been listed in *Annex-VIII*

This is an important positive output of the program. However, a true indicator of success of any such public awareness strategy is the degree to which there is evidence of self-initiated action (Knowledge - Realization – Decision – Action). There is limited evidence (limited only to select sectors) of self-initiated action based purely on receipt of IEC material. Moreover, the indicators selected for measuring outputs do not sufficiently capture this correlation. These has also been captured in the Good Practice Document by the Evaluation team<sup>8</sup>

---

<sup>8</sup> Refer Good Practice Document- Deliverable No. 2

### **3.3.9 Making women an active partner in the local DRM process is showing signs of gradual improvement; though not to the desired level.**

Women's participation was found to be good where the DRM program could ride on existing opportunities such as active Self Help Groups, Anganwadi Workers, ASHA workers, or where traditionally women have active roles in the community. In selected states – Arunachal Pradesh, Manipur and Tamil Nadu, the participation of women was found to be high. In many communities in the North-East, existing social structures have fewer barriers for women's participation. This allowed greater roles for women. Likewise, in urban areas, young girl volunteers could be mobilized and have played important role in creating awareness in the local society.

The involvement of women at the grass roots level in the implementation of the program, though less than the desired level, is gradually improving. There are positive trends to show that women participation is gradually changing from passive to at least semi-active. A visible impact of the program is that all women, as a group, are not seen as vulnerable. This could be due to gradual change in the social environment and particularly due to larger number of women represented on PRIs. However, this program, in a modest way, has contributed to the greater involvement of women in disaster risk reduction. With increasing involvement of PRIs, Anganwadi workers, Self Help Groups and NGOs in the implementation of the program, the women participation in the program would improve further significantly. The stress should be more on quality participation of women, a trend which is now gradually emerging, rather than greater participation in terms of numbers only.

Women have been trained in First Aid and Search and Rescue. However, it is also noted that in general, women have not been trained in flood rescue techniques. It may be recalled that during the tsunami in 2004, many women lives were lost since they were not willing to be rescued from water by men. There is a need to develop women master trainers for flood rescue.

The program design itself provided little room for women led and women specific strategies. Ensuring participation of women in community meetings was not enough as it failed to break the prevailing social barriers. Separate strategies were needed.

### **3.3.10 Extent of community empowerment has been limited, even though the outreach has been widespread.**

Communities have been directly included in the preparedness training, conduct of mock drills and other related program activities. Though involvement has led to change in attitudes, there is inadequate level of empowerment. A variety of factors such as below have influenced this.

- In several regions, the recurrent nature of disasters calls for high levels of preparedness. Infusion of special skills on first-aid, evacuation, and rescue directly to the community has helped overcome challenges posed by small scale disasters. At the same time, most of the areas have not experienced major disasters for a long time. Communities in such areas were complacent towards program activities. The program activities have not factored in specific strategies needed to address high intensity low frequency type of disasters.
- Engagement with local leaders has yielded mixed results. While their influence over communities has helped create inroads into community level activities, there is evidence that leaders were not pro-active in ensuring inclusion of the most vulnerable groups within communities. ( Example of the lady BDO in Maharashtra)
- Marginalized communities do not seem to be specifically identified or targeted at local level. This is an area of concern, as both traditional community based approaches and top

down approaches can isolate marginalized elements of the community and compound social problems. By their nature, marginalized communities have problems accessing community resources and this was not factored in the program activities either.

- Engagements with strong local institutions helped. However, local NGOs often lacked capacity, and a further existing lack of trust between local governments and NGOs became a barrier to their involvement. Specific strategies were required to identify and train NGOs from the very beginning.
- At local level, there are good examples of improving effectiveness of ongoing programs – NRHM and SSA, by including DRM program components. In Sikkim, ASHA workers have been trained as “pratham suraksha bal”; this enhanced their own efficiency and engagement with the communities. In Uttar Pradesh, masons and contractors engaged in construction of new school rooms have been trained in earthquake resistant techniques. Most of these initiatives were at the behest of the respective State Governments on Central Government sponsored schemes. More efforts at the Central Government level were needed to make such initiatives widespread.
- In urban areas, the community’s participation was limited, except in Delhi where the opportunity provided by ongoing ‘bhagidari’ program of the Delhi government allowed direct interaction with Resident Welfare Associations. The same set of strategies applied in rural areas was not successful in urban areas.

**Table 3.4: Factors influencing community participation as observed by the evaluation team (state visited mentioned in parentheses)**

<b>What helped</b>	<b><i>What were the constraints</i></b>
<ul style="list-style-type: none"> <li>• Small scale recurrent disasters created strong understanding. (Assam)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Non-occurrence of disasters have led to complacent attitude towards program activities.</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Competing needs/problems of livelihood, law &amp; order problems hindered interest and involvement in the program.</i></li> </ul>
<ul style="list-style-type: none"> <li>• Consultation with the community Plan preparation. (Assam, Arunanchal Pradesh, Meghalaya, Nagaland)</li> <li>• Mock Drills were successful in raising awareness and sensitivity to potential disaster impacts.—Assam, Meghalaya</li> <li>• School Based interventions were very successful in training children-Assam</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Community having to travel through difficult terrain to attend training workshops meeting incurring cost and time.</i></li> <li>• <i>Training has been provided but community task forces do not have necessary equipment to support their activities.</i></li> </ul>
<ul style="list-style-type: none"> <li>• Strong Leadership at State level</li> </ul>	
<ul style="list-style-type: none"> <li>• Involvement of PRI members ensured participation of officials at higher tiers – district, block and gram panchayat--Assam</li> </ul>	
<ul style="list-style-type: none"> <li>• Community’s own coping practices incorporated in program activities (Arunanchal)</li> </ul>	

<ul style="list-style-type: none"> <li>• IEC Materials/Awareness Programs during major festivals. (Sikkim)</li> </ul>	
<ul style="list-style-type: none"> <li>• Existing community structures with strong bonding. (Sikkim)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Existing social structures became barriers to program outreach by excluding the most vulnerable groups with local communities</i></li> </ul>
<ul style="list-style-type: none"> <li>• Engagement with local service providers such as fire service, primary health centres (Tamil Nadu, Assam)</li> </ul>	
<ul style="list-style-type: none"> <li>• <i>Involvement of local NGOs specially youth groups has helped in larger community outreach</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Lack of trust between district authorities and local NGOs has significant effect on participation.</i></li> <li>• <i>Inadequate capacities of NGOs became a hindrance to their involvement.</i></li> </ul>

### 3.3.11 The progress of putting in place techno-legal framework has been very slow

Techno legal regime has not received the attention it deserves in almost all states. Although model building bye laws, amendments to be made in Town and Country Planning Acts and Development Control Regulations have been shared with all states, very little, if any, effort has been made by the state governments to reduce urban vulnerability. Hazard Safety Cells, though constituted, are not really functional. Similarly, while Rapid Visual Screening (RVS) of few lifeline buildings has been undertaken by some states, the detailed evaluation for retrofitting has not been carried out. The respective State Urban Development Departments need to develop and implement a roadmap for this purpose in a time bound manner. The Ministry of Urban Development needs to take lead to achieve this objective, with the NDMA and Ministry of Home Affairs as facilitators.

### 3.3.12 Overall there is low utilization of funds as against budgeted costs.

The overall percentage of expenditure against the resources released to the states (without funds for HR) is about 49% for the quarter ending June 30<sup>th</sup>, 2008.<sup>9</sup> In contrast, there is relatively high level of achievement of program activities. This reflects in part, unrealistic costing of activities across States. As such, no correlation exists between fund utilization and program performance across states.

**Table 3.6: Expenditure across States.**

Percentage Expenditure	States
Above 80%	Sikkim and Tamil Nadu
60-80%	West Bengal, Maharashtra, and Gujarat
50-60%	Uttarakhand
35-50%	Arunanchal Pradesh, Assam, Bihar, Delhi, Mizoram, Orissa and Tripura
Less than 35%	Manipur, Meghalaya, Nagaland and Uttar Pradesh.

<sup>9</sup> Agenda notes-program steering committee – 26 September 2008

### **3.4: Partnership Strategy:**

#### **3.4.1 A strong partnership between UNDP and Ministry of Home Affairs ensured that the program is efficiently introduced in the selected states and monitored regularly.**

A strong partnership between UNDP and Ministry of Home Affairs provided good leadership at the national level. However, as noted earlier, there was inadequate integration with other national ministries, departments, civil society and other resource institutions. This had a corresponding effect on the states.

For example, engagement with the Central Board of Secondary Education led to inclusion of Disaster Management in the school syllabus. This was a significant development and became a model for State Governments to follow. As a result, inclusion of disaster management syllabus in the State Curriculum has been achieved by almost all states.

All program activities were initiated simultaneously without correctly assessing local level capacity and needs. The results were therefore varied across states.

#### **3.4.2 The strength and nature of partnership at State level has strongly affected the impact of the program.**

The partnership strategy with organizations outside the government is limited largely to those at local level. This widened the base for volunteerism. However, limited involvement of organizations at National and State level is a 'missed opportunity' on building sustainability and for mid-course learning.

In many States, the DRM program has utilized existing local community based institutions as well as NGOs in serving as resource agencies mobilizing local volunteers, training and awareness generation activities. This has yielded good results in States like West Bengal, Assam, Sikkim, Mizoram, Delhi, Maharashtra, Tamil Nadu and Uttarakhand.

In West Bengal, the program is part of the deliberations and activities of the Inter Agency Group at state level; this provides a wider platform for learning and ownership.

A large number of non-government organizations are working in community based disaster reduction activities in the country. Many such agencies bring with them useful experiences and innovations. The DRM program could have taken useful inputs from such ongoing activities in the region.

The corporate sector has been largely not involved in the program. Barring few local trade/business associations in select program areas, there is inadequate participation of such institutions.

Likewise, the involvement of scientific and technical community is limited. There are some good examples of bringing in expertise in good construction practices. Many other sectors, where scientific and technical inputs may have helped, was found to be missing.

#### **In Conclusion:**

The findings from the evaluation have been summarized below in a format to provide salient inputs for future programming. In this section, three questions are posed – What worked well? What could have been done better? What was missed out? Against each question, only one conclusion that was felt as most important, has been drawn up:

### **What worked well?**

The DRM Program was implemented at a scale unprecedented in the world and the sheer breadth of its activities has set a benchmark for community based disaster reduction. To carry out the program, an intricate management structure was put in place. A dynamic and continuing partnership between the Government of India, State Government and the UNDP ensured strong leadership for the program. Training and capacity building at all levels including recruitment and placement of trained professionals at district levels made a qualitative difference to the program activities. The involvement of PRIs and Aganwadi workers has helped in institutionalizing DRM into local self governments and in improving women's participation. The scope of the program allowed it to absorb and redefine its targets, brought about by the passage of Disaster Management Act in 2005. Likewise, the program provided a recovery to risk reduction continuum in large scale disaster situations in the country.

In spite of numerous 'implementation dilemmas' that are typical to any large scale first-of-its kind initiative, the program has clearly demonstrated that life loss and vulnerabilities can be significantly reduced through appropriate community based preparedness measures.

### **What could have been done better?**

Disaggregated strategies were required to address the varying nature of vulnerabilities and capacities of communities and other key stakeholders across the country. Making multi-hazard vulnerability as the basis of identifying program target areas provided an incorrect baseline especially in the North East region, which has high seismic vulnerability along with challenges of accessibility, and law and order. At the community level too, local needs and risks were not fully assessed leading to biased presumptions. This had a bearing on the program output as it appeared too ambitious for certain areas with respect to availability of time and breadth of activities. Similarly, urban communities by their nature are heterogeneous and therefore, conventional means of eliciting community participation were not relevant to the context. National institutions, NGOs also engaged in similar field based activities could have closely involved in providing 'customized' inputs for specific regional needs.

There is a wide variation in output performance across states. An important factor contributing to this variation is the lack of disaggregated strategies. Therefore, the gains from the program may not sustain for long beyond the program unless targeted activities are taken up in near future.

### **What was missed out?**

The program missed out importantly on community empowerment and inclusion. In the country's context, the progress towards MDGs is critically linked to the well being and security of the most vulnerable within communities. These include women and children, the disabled, minority groups, scheduled castes and tribal groups. In any disaster situation, these groups are impacted the most. Bar school-going children, the special needs and capacities of such groups were largely overlooked in program design. Women's representation in numbers as well as active participation, though started, needs to be further strengthened. Empowerment as a whole, desirably to be seen in the form of the role of the local people in decision making was equally missed out. The program activities at the local level aimed at implementation, but not partnerships for informed local decision-making.

Future programming needs to be sensitive to such requirements and develop targeted strategies that ensure inclusion and equity in all activities. Likewise, empowerment has to be achieved based on strong community based mobilization, education and awareness creating a ground for self-motivated community-led risk reduction legacy.

## **Chapter 4: Summary of Good Practices and Lessons Learnt**

A separate case-study document “Good Practices and Lessons Learnt” has been produced as part of the “Lessons Learning Review and Evaluation exercise. This brief chapter provides an overview and summarizes salient points identified from the case studies.

A thematic approach has been adopted to identify 47 good practices, under 13 themes:

1. Training Facilitates Preparedness
2. Mock Drill for Better Preparedness
3. Promoting Traditional Coping Mechanism
4. Preparedness Facilitates Better Response
5. People Volunteer in Community Based Activities
6. Channels for Social Campaign for Disaster Risk Reduction
7. Alternative Communication Channels for Quick Response
8. Demonstration of Safe Construction Practices
9. Safer Schools – Effective Institution for Disaster Awareness and Preparedness
10. Gender Sensitive Approach in DM Practices
11. Integration of DM Plans in the Local Planning Process
12. Integration of DRM in Development Schemes
13. Sustaining Community Based Initiatives

Each of the themes of good practices summarized in the separate document covers (i) observations (ii) explanation and remarks that explain the experiences of the practices’ impact and (iii) lessons learnt through illustrations of cases cited through reviews.

### ***Observations on the Good Practices***

The “Good Practices and Lessons Learnt” document is best used as a learning input, inspirational trigger, and a tool for replication. This exercise has an approach to capture from the pool of pre-identified cases and from the visits to selected 14 states, evidences of the narratives at locations after interacting with the community, officials and DRM program staff as the “doers” among practitioners.

Guidelines were developed under the programme to document the cases of best practices and to publish them as examples for use during awareness generation campaigns and training activities. It was observed during the field visits that although many of the cases are being introduced or adopted in other programme States, there is a need for the States to capture the impact of the programme interventions at the community level and involvement of different agencies and NGOs, to share the common approaches used for implementing the program activities. During the document’s development, it was observed that the State governments such as Maharashtra have actually brought out documentation on the Good Practices of DRM in their State, while other States such as Uttar Pradesh has initiated a process. However, not every state has been able to document the best practices and innovative initiatives.

### ***Lessons learnt from the captured cases of Good Practices***

The “Good Practices and Lessons Learnt” document focuses on how effective the activities under the DRM programme were in achieving a real positive change to reduce vulnerabilities and risks of people. The main areas of practices that stand out were mapping out communities’ vulnerabilities and risks, preparing plans, incorporating preparedness activities through drills, linking mitigation measures with local area development priorities, and adaption of model training approaches to enable communities to actively participate in DM initiatives. Some of the

more prominent lessons learnt of each theme, as illustrated in the Good Practices document, are given below.

- Theme 1. *Disaster Risk Management (DRM) training programmes should be conducted in the local language when possible, and the training of female master trainers should be promoted. Utilising existing institutions and systems for delivering training programmes (especially at the lower administrative levels), and involvement of more stakeholders, should be encouraged.*
- Theme 2. *Mock drills have facilitated the Disaster Management Plan (DMP) updates. The drills should be institutionalized as a regular activity at the sub-district levels, within the remit of the Disaster Management institutional mechanisms, and increased community participation in drills should be encouraged. Coordinating with stakeholders at the local level would provide greater expert inputs and possibilities of volunteer mobilization.*
- Theme 3. *The role of traditional coping techniques should be recognized in village DMPs and also within capacity-building training programmes. There is a lack of documentation of traditional coping capacities, which should then be shared with other district-level stakeholders through an appropriate medium.*
- Theme 4. *Village DMPs, including the associated information maps, should be accessible to all within the village, and the DMP's effectiveness tested through mock drills. DRM priorities should form an integral part of village-level development activities, and should also be linked to livelihood strategies, in order to promote 'awareness to action'.*
- Theme 5. *Although the volunteerism approach adopted was positive in engaging communities, long-term sustainability of the approach requires permanent organizational support, clear-cut roles and responsibilities, and due recognition of the volunteers' important contributions.*
- Theme 6. *Imaginative and diverse media channels were utilized to communicate DRM messages to target groups – including initiatives to reach those with physical disabilities. Feedback routes should be present during awareness-raising activities in order to assess the quality and effectiveness of messages.*
- Theme 7. *Emergency Operating Centre (EOCs) can serve as information hubs and helplines; however, most district EOCs are not yet operational. Efficient EOC functioning requires complementary community and response team training, and linking Early Warning Systems (EWSs) to community-level disaster preparedness.*
- Theme 8. *Training programmes for masons and other construction workers on hazard-resistant building techniques form key inputs for improving the safety of buildings. A pool of master trainers should be identified for training programmes, which should also provide certification and refresher training to construction workers.*
- Theme 9. *School DMPs, once prepared, should be readily accessible for use during emergency responses, and should include key contact details. School managers should be encouraged to improve hazard-resistance of existing structures, and to construct more resilient new school buildings.*
- Theme 10. *Active participation of women in village Disaster Management taskforce teams has been an encouraging sign of increased female involvement in DRM activities. Women master trainers and involvement of female Self Help Groups (SHGs) should be promoted in order to encourage greater female participation and integration of gender sensitivity into activities.*
- Theme 11. *Community participatory approaches for DMP preparation is weak at all local levels, and DMPs are mostly limited to the template circulated under the DRM programme. Furthermore, there is a lack of sharing DMPs with line departments and community members. Greater NGO involvement during DMP development should be promoted, formalized through Memoranda of Understanding (MoUs).*
- Theme 12. *More proactive involvement and commitment from the Indian Government, through the Department of Panchayat and Rural Development, would ensure greater streamlining of DRM into planning processes.*
- Theme 13. *Panchayat meetings have provided a useful platform for sustaining active participation from communities. New development programmes should include DRM-related activities – particularly at the block and village levels.*

## **Chapter 5: Framework of Action for Program Sustainability**

This section of the report outlines a framework of action required to ensure sustainability of the program beyond 2008. In doing so, it takes into consideration the healthy progress made by some States. The first part of this section, is an assessment of graduation strategies prepared by the States; the second part examines possible action points to ensure sustainability of DRM program in the State.

### **5.1 Assessment of State Graduation Strategies**

Progress towards sustainability was measured against the following parameters :

- Institutional Structure in place, including DM training capacity, legal frameworks.
- Decisions on Human Resource Support beyond program period.
- Budgetary support for continuity of program activities.
- Extension of program to other vulnerable areas not covered under the DRM Program.

Major challenges listed out by most states pertain to availability of funds, technical and human resource support. Challenges related to external environmental factors such as Law and order has also been quoted atleast by two North Eastern States.

Based on the assessment of the graduation strategies put forth by the States and observations of the the Evaluation Team during their visit to the States - four states have taken significant decisions taken that can potentially ensure sustainability (Table 5.1) - Maharashtra, Delhi, Uttarakhand and Sikkim.

In Maharashtra, in addition to the State and District Management Authorities, there were ten regional disaster management centres constituted. It has also been decided to conduct mock drills twice a year. Besides, beyond December, 2008, allocations have been made in the State Budget to continue the system of District Project Officers. Moreover, a decision has been taken to include Disaster Management as one of the parameter in performance appraisal of Secretaries. Creation of State and District Disaster Response Fund has been approved. The activities of the DRM program would be carried out in 21 non-DRM districts. DM training has been included in the departmental as well as school curriculum.

In Delhi, the Delhi Disaster Management Authority was constituted in 2003 and District Disaster Management Authorities constituted in all Districts. The State has made budget provisions beyond the program period to continue activities. A cadre of professionals created with management training and new emergency services have commenced during Program period.

In Uttarakhand, in addition to the statutory bodies set up under the DM Act, a specialized institute – the Disaster Mitigation and Management Centre is now functional as an autonomous body. Nodal officers are in place at State, District and Block level. Also, Block Development officers have been assigned responsibility of Plan preparation and updating at Block level. The CRF funds have been partly apportioned to conduct earthquake resistant training. Also, arrangements are in place with numerous institutes of higher learning for carrying out training. Committed resources beyond program period will potentially ensure sustainability of all activities beyond the project period.

In Sikkim, state nodal officers have been identified from the Line Departments. The existing four United Nations Volunteers (UNV) who were hired by the State Nodal Agency, LR&DMD from

their State has further been absorbed in regular Sikkim Government post since July 2008 by recognizing their contribution under the GoI-UNDP DRM program

The present status, based on close interaction with the concerned state governments and the inputs received from the states including the State Graduation Strategies, may be broadly placed in the following three categories:

- A States which have already made alternate arrangements**  
*Maharashtra, Delhi, Uttarakhand, Sikkim*
- B States which have taken significant action for alternate arrangements**  
*Meghalaya, Mizoram, Nagaland, Tripura, West Bengal, Assam*
- C States where action is recently initiated**  
*Arunachal Pradesh, Manipur, Tamil Nadu, Uttar Pradesh*

**Table 5.1: Summary of progress towards sustainability:**

State	Initial Progress*	Elaborate Plans**	Significant Decisions taken for continuity***
Maharashtra	●	●	●
Delhi	●	●	●
Uttarakhand	●	●	●
Sikkim	●	●	●
Meghalaya	●	●	
Mizoram	●	●	
Nagaland	●	●	
Tripura	●	●	
West Bengal	●	●	
Manipur	●		
Assam	●	●	
Arunachal Pradesh	●		
Tamil Nadu	●		
Uttar Pradesh	●		

*Source: State Graduation Strategies*

**\*Initial progress:** Where some initial activities have been undertaken to continue the momentum created by DRM.

**\*\*Elaborate Plans:** State and District level plans are under finalization and mainstreaming activities have been initiated with other departments within the State

**\*\*\*Significant Decisions taken for continuity:** Budget allocations for activities beyond program period. Training calendars made. Posts have been created/and or specific role allocations made.

### **5.2.1 Passage of Disaster Management Act, 2005 had an important catalytic affect in ensuring program sustainability.**

The evaluation team observed that most States that have reported progress towards sustainability have been successfully able to integrate the program management structure with the institutional mechanism stipulated in the Disaster Management Act.

Maharashtra, Delhi, Uttarakhand, Meghalaya, Mizoram, Nagaland, Tripura and West Bengal have all reported the constitutions of SDMAs. In Maharashtra, Uttarakhand and West Bengal an

existing system at State and District level further helped in expediting the process of institutionalization.

### **5.1.2 Availability of adequate funds and technical expertise a major constraint for sustainability**

A major constraint noted by States is the availability of adequate funds to be able to continue program activities. As the program was implemented using GOI – UNDP funds with little or no support from the State Government, many States are now struggling to find suitable replacement resources.

The second important barrier noted by States is the limited access and availability of technical expertise. This would be a major challenge for future programming for the States, as the need for trained manpower far exceeds the current supply. Moreover, considering the scale of the challenges at hand, there is an urgent need to identify and empower greater number of specialized institutions and trained professionals.

Two States – Sikkim and Uttarakhand have noted the challenges related to accessibility in ensuring coverage of all parts of the State.

## **5.2 Framework of Action for Program Sustainability**

The program has now been extended by UNDP under the existing modalities up to June,2009. Each program state/ UT has to take pro-active measures for continuation of the program beyond this date. The strategy to be adopted by each state can be broadly categorized in two stages:

- Immediate measures to be taken by by June, 2009 to ensure continuation of the program without any break; and
- Medium term measures for program sustainability over the period of next 12 months from January to December, 2009

The state level graduation strategy may be reviewed and revised to include immediate as well as medium term measures discussed in this chapter and implemented in a time bound manner. While the immediate measures may be put in place by June,2009, the medium term measures need to be completed over a period of 12 months, by December,2009. The graduation strategy already undertaken by the state governments may feed into the revised graduation strategy to facilitate its implementation.

### **5.2.1 Immediate measures for additional HR and Financial support**

The immediate concern is to put in place necessary manpower by each state government so that the transition from the HR support presently provided by UNDP to state government officers exclusively designated to take over the program at state and district level is smooth. Besides, funds have to be earmarked for the continuation of the program activities.

### **5.2.2 Medium Term Measures**

The immediate measures proposed to be taken primarily by Ministry of Home Affairs (MHA) and NDMA are an interim arrangement for uninterrupted continuation of the program till regular arrangements are put in place and will not ensure sustainability and institutionalization of the program unless institutional, planning, training, funding and coordination mechanisms are put in place in terms of the Disaster Management Act, 2005 and the program is integrated with the development plans of all the Ministries and Departments at national, state, district and local levels. The following medium term measures may, therefore, be taken to ensure its institutionalization by the state governments:

**a. Constitution and ensuring functionality of SDMAs and DDMA's**

The state governments of Arunachal Pradesh, Assam, Delhi, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal have constituted the SDMAs. Tamil Nadu has yet to constitute the SDMA. Manipur had constituted the State Authority in 2005 and it is yet to be re-constituted in terms of the Disaster Management Act, 2005. In most of the states, the DDMA's are still in the process of being constituted. Even in few states where DDMA's have been constituted, these are yet to be made functional. It is, however, obvious, keeping in view the functions assigned to it, that the DDMA would be the key implementing and monitoring agency for the DRM Program at district and below-district level. The State Governments may ensure that these Authorities are in position and fully functional.

**b. Ensuring horizontal and vertical linkages at district and sub-district level.**

The vertical institutional linkages are provided through the NDMA, SDMA and DDMA as per the DM Act. At district and below district level, the three tier Panchayati Raj System can support the institutional mechanism. Likewise, the horizontal linkage has been provided with the inclusion of Chairperson, Zila Parishad as co-Chairperson of the District Authority. Besides, the horizontal linkages should appropriately include NGOs, Youth Organizations, Anganwadi workers, teachers, Ex-service men and other stakeholders who will function in conjunction with the PRIs and government functionaries at grassroots level.

**c. Formulation of State and District Disaster Management Plans**

The Act provides for formulation of National, State and District Disaster Management Plans at the respective levels. The National Authority has already issued guidelines for the preparation of the State Plans.

As noted in the previous sections of this report, the State and District Disaster Management Plans are yet to be put in place. Once this exercise is completed the state and district plans would be able to cover micro level risk analysis, integration of measures with development plans and projects, capacity building, linkages with the Disaster Management Plans of each department, roles and responsibilities of each department, funding mechanism for implementation of the State Plan and other related measures. It will also have necessary linkage with the National Plan on the one hand and the District Plans on the other hand.

**d. Regular conduct of Mock Drills to ensure level of preparedness.**

The evaluation team noted during the field visits that mock drills were largely being conducted as one off activity. Conduct of mock drills not only generates awareness and prepares the community, it also affords an opportunity to ascertain the strengths and weaknesses of the Plans, which can then be modified and updated accordingly. Indirectly, the conduct of mock drills support sustainability of DM initiatives.

Over the period of last two years, NDMA has organized a large number of table-top exercises and mock drills. These mock drills are very elaborate and are organized for specific disasters at different locations in conjunction with the state governments and other stakeholders. The number of table top and mock exercises organized by NDMA range from 60 to 80 every year. The feedback received from the state governments (Assam, Uttarakhand) revealed that these mock drills have contributed significantly in capacity development as well as awareness generation. In order to ensure capacity development at below-district level, the State and District Authorities may conduct similar mock drills and table top exercises at block, GP and village

level. Besides, such exercises need to be adequately documented and video-graphed and shared with other states/ districts with similar vulnerabilities.

#### **e. Training/ Re-training Systems**

The integration of the program from national to local level will be successful only if training and re-training of all stakeholders is in-built in the system at all levels, particularly at district and local level. The training/ re-training mechanism has to include the following stakeholders:

- Sensitization of the members of SDMAs and DDMA's;
- Training of officers and employees of SDMAs and DDMA's;
- Training of government functionaries at district and below- district level;
- Training of government officials of Urban Local Bodies (ULBs)
- Training of over three million elected representatives of PRIs;
- Training of members of NGOs active at district and below-district level;
- Training of representatives of voluntary organizations like Self Help Groups, Anganwadi workers, Youth organizations, Ex- service men, school teachers etc;
- Training of members of Disaster Management Committees and Teams at village, block, gram panchayat, urban local body and ward levels;
- Training of members of corporate sector.
- Training of officials of other Ministries/ Departments, Agencies and Programs, where mainstreaming of DRR is sought to be achieved.

The total number of persons to be trained may, therefore, be in the range of over five million. Since there are frequent changes in the incumbents due to transfers, retirements, fresh recruitment, elections, migration of people who may be represented on DMCs and DMTs from rural to urban areas, sustainability of the program would depend on training/ re-training of personnel which is a stupendous yet essential task.

Besides, training has to be imparted in different modules to specific groups assigned with different responsibilities. These areas would be wide- ranging such as formulation and updating of disaster management plans at different levels, micro level planning, conduct of mock drills, first aid, search and rescue, shelter management, relief distribution, sanitation, media management, documentation, management of relief camps, communication links at grass root level, dissemination of early warnings and awareness generation. The training modules developed for this purpose would need to be updated based on their qualitative assessment and evaluation. Significant investments need to be made in further review of existing information, education and communication materials, standardizing curriculum and periodically updating it and promoting a culture of professional exchange and adaptation of materials to meet the requirements in local context. The projects of NPCBEERM and NPCBAERM, the approach of Ministry of Human Resource Development through the Sarva Shiksha Abhiyan, Incident Command Systems' training modules, as refined from time to time, could be taken as illustrative blueprints.

#### **f. Increasing scope and number of institutions imparting training in DM**

The responsibility of training and capacity building has been entrusted to the National Institute of Disaster Management (NIDM) at the apex level. With the transfer of the scheme relating to support to the State ATIs/ SIRDs from the Ministry of Home Affairs to the National Institute of Disaster Management, the ATIs/ SIRDs and their DM Cells are in the process of being strengthened and revitalized. NIDM is extending technical support by way of development of

training modules and organization of training of trainers, besides providing additional financial support. Faculty members of NIDM are assigned to play the role of a mentor for particular ATIs.

At state level, there are Disaster management Centers in almost all states at Administrative Training Institutes (ATIs) and State Institutes of Rural Development (SIRDs). Considering the sheer volume of the personnel to be trained in different training modules, this activity cannot be undertaken by the government institutes alone. It is necessary to identify additional training institutes at state level. These Centers as well as the additional training institutes identified for the purpose need to be upgraded with experienced faculty members in community based disaster risk management, facilities and infrastructure. These Centers/ Institutes may be made responsible for development of specific training modules for different areas of the state, based on their respective vulnerability profile and taking the modules developed by NIDM as broad guidelines. The Centers may impart training to members of PRIs, state and district level functionaries and voluntary organizations including NGOs and also assess and evaluate the quality of training programs being organized by training Centers and NGOs at district and below- district level. This aspect may be addressed by the SDMAs in consultation with NDMA for financial and logistic support and NIDM for technical including professional support. Such a role is already being effectively played by few established institutions in some states like Disaster Management and Mitigation Center (DMMC) in Uttarakhand, the Gujarat Institute of Disaster Management (GIDM) from an earlier period, soon after the Bhuj earthquake, the DM Center in YASHADA, Pune in Maharashtra, the Disaster Management Institute, Ahmedabad and also the Disaster Management Institute, Bhopal in Madhya Pradesh. These institutes provide the composite services of training and technical support in the field of disaster prevention, mitigation and preparedness. There is also a felt need to look ahead and establish at least one full-fledged state level institution in the larger disaster prone states to take on the role of a State Institute of Disaster Management, similar to the role of NIDM at national level.

It will be necessary to involve civil society organizations, for imparting training to the community at grass root level, with adequate supervision and evaluation system put in place. These organizations will need to be provided with necessary technical, logistic and financial support. Such arrangements can be on “fee for services” modality.

#### **g. Role of National Institute of Disaster Management**

At the apex level, the National Institute of Disaster Management may develop model training modules for different target groups and organize training of state level trainers. The Institute may also devise certification schemes and undertake macro level evaluation of training programs, based on feed-back received as well as field visits to state level training institutes including DM Centers at ATIs/ SIRDs. Besides, NIDM may also develop training modules for NGOs and other stakeholders and impart training to trainers drawn from national level NGOs, which in turn may impart training to trainers drawn from state and district level voluntary organizations with the objective that the trainers so trained should have developed the requisite competence to train NGOs and other stakeholders at grass root level. The community based disaster risk management training components may be integrated with the proposed National HRD Plan

#### **h. State level technical support organizations**

Besides ATIs/ SIRDs, there is a felt need to identify technical support institutes in each state for imparting training to engineers, architects, masons, doctors and paramedics as well as corporate sector and voluntary organizations. Where feasible, linkages with the National Resource Institutes under the twin programs of the Ministry of Home Affairs (now transferred to NIDM) for training of engineers and architects need to be established. The Regional Centers of

Excellence for specific disasters also need to be developed. For this purpose, each state need to evolve a State Human Resource Development Plan with the support of NIDM. For this purpose, NIDM may develop and share guidelines with the state governments. The State HR Plans so developed may feed into the National HR Plan to be developed by NIDM. If necessary, the development of National as well as State HR Plans may be out-sourced to well established institutes or civil society organizations having requisite expertise in the field.

A well- developed training/ re-training cum technical support mechanism fully embedded in the existing systems with adequate coordination with the other stakeholders entrusted with the responsibility of training personnel at grass root level and providing technical support to SDMAs and other government entities is an essential pre-requisite for the institutionalization of the DRM Program.

### **i. Funding Mechanism**

In the recent Graduation-cum-exit strategy prepared by 13 of the 17 participating States for the DRM Program, it has been recognized that funds have to be provided for taking forward the program primarily in the respective state budgets. The possible sources of funds identified are State Budget, CRF (10% of allocation), Mitigation Funds and centrally assisted programs. However, of the 14 states covered under the evaluation, budgetary provisions have been made by Delhi (Rs 7 crore), Maharashtra (Rs 1 crore), Mizoram (2% of State Plan) and Sikkim only. It is necessary that the remaining states provide adequate funds in their respective budgets from the next financial year.

At the national level, funds may be provided by the Central Government for::

- strengthening of NIDM to enable the Institute to fulfill its obligations;
- undertake the program in all vulnerable districts of non-DRM States;
- consolidation and continuation of the program in DRM districts till the State Plans are finalized and the DRM Program included therein;
- monitoring as well as qualitative and quantitative evaluation of the program through outsourcing to professional agencies, preferably to government institutes/agencies;
- awareness generation at national level through mass media.

At the state level, funds may be provided for:

- Continuation of the program in the existing DRM districts as well as extension of the program to non-DRM districts in DRM States
- strengthening of the existing training institutes and identification of additional training institutes at state and district level;
- Establishment and/or strengthening of State Institutes of Disaster Management;
- extension of the program to non-DRM states;;
- development and updating of the Resource Inventory;
- provision of basic inexpensive equipments such as First Aid Kits, search and rescue equipments for use of community during disasters as well as during the mock drills;
- documentation of lessons learned and dissemination of information to the stakeholders and the community;
- awareness generation within the state in local languages;
- micro level monitoring and evaluation of the program in order to take up mid-stream corrective measures.

A Committee may be constituted by MHA to assess the quantum of funds required to fulfill their obligations, so far as the DRM Program is concerned, over the period of next five years. This Committee should function in close coordination with NDMA. Similarly, the States may develop

their own mechanism to assess the funds requirement during the next five years, on year to year basis.

### **I. Coordination Mechanism**

The need for an effective and vibrant coordination mechanism, both vertical and horizontal, for DRR initiatives in general and the DRM Program in particular, cannot be over-emphasized. It is therefore desirable to lay down modalities of coordination in a realistic manner so that instances of lack of coordination are minimal and isolated particularly in the context of the DRM Program as proposed below:

- An apex level Steering Mechanism headed by vice-chairperson or a member of NDMA may be put in place for overall guidance for the formulation and implementation of the DRM Program
- A senior officers' level committee with officers from the Ministry of Home Affairs and other concerned Ministries may be constituted for macro level coordination of the DRM Program.
- Similar arrangements may be put in place by the State Governments/ SDMAs..
- The District Disaster Management Authority may constitute an Implementation Committee under the Chief Executive Officer of the Authority with representatives of Urban Local Bodies and the district level training institute to interact with the local authorities including visits to block/ village/ ward level for micro level monitoring and to oversee the implementation of the Program. This committee may closely interact with NGOs, CBOs, SHGs, Youth Organizations and other stakeholders actively associated with the implementation of the program at the community level. On the other hand, this committee may also function as the window to consider and find appropriate solutions to the problems of the other stakeholders.
- The Chief Executive Officer of the District Authority may set apart some time once a month or at more frequent intervals as considered necessary to listen to the grievances or other issues raised by the Civil Society Organizations active at district and below- district level with a view to facilitating their functions for the grassroots implementation of the DRM Program.

### **j. State-wise DRM Roadmap**

There is need to review the state roadmaps with special focus on community based disaster risk management and the Graduation Strategy for the DRM Program as well as State Disaster Management Policy. The Policy may be laid down, or reviewed where it is already laid down, after the National Policy on Disaster Management is finalized and released so that necessary linkages are maintained. The resolve of the state governments to adopt a multi- stakeholder approach with community participation for disaster risk management should find an expression in the state, district and local plans.

### **k. Partnership arrangements as a future programming approach.**

Since disaster management has to be taken up with a multi-disciplinary and multi-stakeholder approach, there is need to develop an inclusive program for implementation in partnership with the Civil Society Organizations, Self Help Groups, NSS, NYKS, NCC, teachers, ex-servicemen as well as corporate sector by pooling of resources including technical and financial resources. While a beginning has been made in few states in this direction under the DRM Program, the approach needs to be further consolidated and extended to all states. Such a partnership approach and distribution of geographical areas and responsibilities to different stakeholder organizations based on their competence and past performance is well established for response and recovery programs. It now needs to be extended consciously to encompass the pre-disaster aspects of awareness generation, mitigation and preparedness included in the DRM Program.

## **Chapter 6: Special Recommendations for the North Eastern States: A Regional Program of Action**

### **6.1 Special Challenges in North Eastern States**

The North Eastern region is composed of 8 States, namely: Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. North Eastern India is a vast landmass of 262,179 sq km with 98% of its boundaries as International and only 2% as national. The region consists of eastern part of great Himalayan arc comprising the whole of Arunachal Pradesh, and the eastern hill ranges comprising of the Patkai-Manipur-Mizoram-Arakan-Chittagaon hill tracts and the Shillong-Mikir plateau. The region has several common features; and experiences common hazards and disasters that are regional in scale, namely riverine floods and earthquakes. In addition, several States, and particularly the mountainous areas therein, experience landslides and flashfloods. The region experiences excessive rainfall and severe floods in the monsoon season. Floods in the region are caused by a combination of natural and anthropogenic factors. The unique geo-environmental setting of the region vis-à-vis the eastern Himalayas, heavy rainfall, weak geological formation, active seismicity, accelerated rates of erosion, rapid channel congestion, massive deforestation, intense land use pressure and high population growth especially in the flood plain belt and temporary palliative measures for flood control are some of the dominant factors that cause and intensify floods.

Due to unplanned exploitation of resources, coupled with the above-mentioned factors, the region is crippled with problems such as food deficiency, energy shortage, inadequate surface communication, flood drainage congestion and declining productivity. Floods have caused regular losses in the region. Every year several hundred thousands of population, livestock, and thousands of million of property are affected by floods on a routine basis. Even within the Brahmaputra basin, the flood warning system in the region is inadequate. Coordination between the neighbouring States to exchange flood reports in real time is reportedly poor

Seismically, the NE region is one of the most active regions of the world. The earthquakes of 1897 (8.7 Richter magnitude) and 1950 (8.5 Richter magnitude) which impacted the region are reported to be among the most severe in the world. However, the present population has almost forgotten or is unaware about the seismic risk of the area... It would be worthwhile to note that the growth in cities is enormous and hap hazard in this region. Almost 50% in Mizoram, 24% in Manipur, 20% in Arunachal Pradesh, 20% in Meghalaya, 18% in Nagaland, 17% in Tripura, 13% in Assam and 11% in Sikkim are urban people. The mushrooming of multi-storied concrete structures with scant regard to the safety norms is characteristic of 253 cities in the region. Another alarming situation is that the traditional houses are being replaced with the concrete houses, even in rural areas of the region, making the population much more vulnerable to earthquakes.

Landslides have affected the habitation and the infrastructure every year. Sitting on the highest seismic zone in the unplanned urban areas, the vulnerability is high. The fragile hills are subjected to high rainfall and seismic activities, which trigger soil erosion and landslides. The average soil erosion in the region is about 28 ton/ha/year.

The complex ethnicity of the region, the continuing insurgency, the influx of refugees, the high migration from hills to cities coupled with low level of development presents a gloomy picture of the whole NE region. Almost 40% of the population is below the poverty line in the region and any disaster pushes them further below.

The NE States are conscious of their hazards and vulnerabilities, particularly the recurrent annual floods in the Brahmaputra region. These floods contribute to the fertility of the flood plain and bring nutritional benefits, but also bring displacement, damage, and loss of lives and livelihoods. The NE States therefore have longstanding systems for annual contingency planning with respect to floods, and every year meetings are held in the pre-monsoon season, contingency plans revised, and preparedness reviewed.

### **6.2 Initiatives in the NE States under the DRM Program**

The NE States have taken initiatives under the GoI-UNDP DRM Program, with varying degrees of significance in each State since the activities were started during 2003-2004. While Assam, Mizoram, Sikkim and Tripura has done exemplary work and deepen community level DRM activities, Arunachal Pradesh, Meghalaya have initiated activities that are satisfactory to the level of quantitative achievement reported by them. Both Manipur and Nagaland had some degree of challenges faced by them in terms of external factors such as Law and Order Situation and Insurgency, however, good institutional mechanism has been put in place. In addition, the Urban Earthquake Vulnerability Reduction Project (UEVRP)-sub component of the DRM program was implemented in Guwahati city and Kamrup Metro in Assam. Details are presented in the individual State Report in the *Annexes*.

During the evaluation, the visiting team was briefed on the action taken under the project and by the GoI National Seismic Advisor in order to review the techno-legal regime in all the NE States. The team saw the valuable work initiated by some States in reviewing and revising the Building Codes and Town and Country planning legislation, as well as in rapid visual assessment of key buildings in cities and in some cases initiating the retrofitting programs with State government funds. The Team also saw and appreciated the work done on city level Disaster Management in Guwahati, Gangtok, and Aizawl city with multi-stakeholder involvement including relevant metropolitan/urban development authorities. This is significant momentum on an issue that must be sustained and upscaled in all North Eastern States.

### **6.3: Regional Approach to DRM Implementation through North East Council (NEC)**

From an early stage in the DRM Program, a regional (multi-State) approach was taken by UNDP and MHA as an additional, reinforcing overlay of the State level programs. This sought to promote dialogue among the States through regional meetings, as well as regional institutions and mechanisms (especially the North Eastern Council (NEC)), which were the platform on which a shared understanding and programmatic approach were built. The North Eastern Council (NEC) is a regional statutory planning body and been identified as a focal centre for providing support to the member States in reducing the risk posed by these disasters.

To catalyse this regional action, human resource support under the program innovatively took a regional approach, namely the deployment of an Indian Administrative Service (IAS) Officer to the NEC as Advisor on Science and Disaster Management during the period of January 2003 to March 2004. A Disaster Management unit was established at the NEC. In a subsequent period of January 2005 to March 2006, another IAS Officer was stationed in Shillong, with a mandate to catalyse and support the DRM Program in the States both directly and through the Program Officers/Associates. This second deployment was not located at the NEC. Both of these regional deployments played a useful and important role in accelerating DRM work in NE India. Furthermore, Program Associates and State Project Officers were deployed on a regional basis as well. One UNDP Program Associate was located in the UNDP Orissa Hub office – over viewing all NE States, and two Project Officers, one located in Agartala (covering Tripura,

Mizoram, Manipur), and the second located in Kohima/Dimapur (covering Assam, Meghalaya, and Nagaland).

#### **6.4: Initiatives taken under the DRM Program by NEC in 2003-2004**

In 2003 and 2004, a number of innovative regional initiatives were undertaken by the NE States that clearly placed Disaster Management as a key theme of the NEC agenda and program of action. The subject was discussed in a formal meeting of the full NEC and the **“Shillong Declaration on Natural Disaster Management in North East India”** was adopted in February 2004 which is a document of political commitment for regional cooperation. The Shillong Declaration, with its wide ranging coverage and mandate represents an impressive starting point and cornerstone of a regional action program in NE India. Additionally, operational documents, namely the Road Map for Disaster Management in North Eastern Region, and a paper on “Inclusion of Disaster Management in development plans” were also developed. The Road Map identified the necessity to shift from disaster relief to disaster preparedness. It stressed that, as a focal point, the NEC would provide a platform for experience-sharing, knowledge dissemination, awareness campaigns, and technical support to its Member States. Consequently, a 20-point framework for disaster management in the region was developed for activity implementation during 2003 and 2004. The paper on “Inclusion of Disaster Management in development plans” highlights that ‘the message from the Tenth Plan is that in order to move towards safer national development, development projects should be sensitive towards disaster mitigation.

#### **6.5: Current Views on Implementing a Regional DRM Program**

It must be noted that in spite of the good work done under the the DRM Program, as reflected by the adoption of these above documents and inclusion of Disaster Management into the NEC agenda, this is not a subject that was actively pursued later (after 2004) under the program. Indeed, even awareness of the existence of these three documents (which are publicly available on the NEC website) is very low. During the Program Steering Committee Meeting held on 26<sup>th</sup> September 2008 in Delhi (which had participation from 7 of the 8 NE States), there was considerable interest in accessing the NEC documents and in considering them as a starting point or input in follow-on discussions.

At the State level, some States are proactive in trying to once again initiate / take up similar regional initiatives. The Principal Secretary DM and State Project Officer in Assam, during the evaluation team’s visit to Guwahati, reported on a meeting held in late July 2008 chaired by the Member NEC with participants from Assam and other States; with NE-SAC and other regional institutions to plan on setting up a regional flash flood monitoring and forecasting system.

The evaluation team met the Secretary, NEC, namely Mr Phalguni Raj Kumar (IAS) in Shillong on 29<sup>th</sup> August 2008, in which it was acknowledged that the NEC has a crucial role to play in DRM activities in the region for the next program (2008-2012). It was conveyed that the NEC can act as a nodal agency and can drive the DRM initiatives for all NE States, while also facilitating sharing of lessons learned. The NEC Secretary agreed that the NEC can review the current progress of DRM through the meetings, at Chief Minister and Governor level, and that the DM component can be covered under the NEC agenda. He also agreed that the NEC can play a major role and take follow up action to ensure mainstreaming of disaster risk reduction in development plans in all north eastern states.

## **6.6: Recommended Next Steps**

### **a. Continued support to implement remaining activities**

As reported in the agenda notes for the PSC meeting of 26 September, there is a huge unspent balance in each of the NE States. The committed amount as per the MoU for these 08 States ranges between 865,200 USD (Mizoram, Nagaland) to 2,892,144 USD (Assam), where as the percentage utilization<sup>10</sup> recorded by the time the Agenda notes of the PSC were prepared were as low as 12.13% (Nagaland) to as high as 81.76% (Sikkim against the total INR 26905928 released to the Sikkim State Nodal Agency). The low percentage of utilization is attributed to many internal and external factors. The individual State visit report in the *Annexes* has further elaborated the fund utilization status.

States like Mizoram, Tripura and Sikkim has shared clear cut plan for utilization of the remaining funds available with them with pre-identified activities before 31 December 2008. While UNDP may not like provide HR support, exceptional decision for limited State level HR support are required to complete these activities. As reported by the State Nodal Officer for DRM program in Mizoram *“Although gradual exit of the external support cannot be avoided but as on today, the Government of Mizoram is not yet in a position to continue the program without outside support. Fund is required for Capacity Building (more training of DMT members), purchase of equipment for the 4 State Rapid Response Forces, First Aid Kits for VDMTs, Apparels for DMTs, Research/Investigation costs, and other activities. To maintain continuity of the program in the State of Mizoram, it is felt necessary that engagement of the Consultant and his 4 members team of Field Officers is extended for at least another two years”*. While this look quite impossible for further longer support as States should explore funding under the new institutional system, States where a clear cut Graduation Strategy as well as Strategy of utilization of the reported unspent balance is available, the support should continue until June 2009

### **b. Technical support for completion of Vulnerability Study and Hazard Zonation Mapping**

States like Sikkim has completed a susceptibility/Vulnerability Study of Sikkim to Natural Disaster and the GIS aided study of Landslides (South Sikkim). Similarly, Mizoram have reportedly initiated Earthquake Hazard Zonation Mapping activities. Looking at the vulnerability of the NE States, such initiatives are good for the States and technical support from outside is required. It is suggested that the such ongoing initiatives may continue and technical support should be provided.

### **c. Regional DRM Programming through NEC**

As explained in above section 6.3, 6.4 and 6.5, support is required to initiate the action point in the the regional initiative to implement the Road Map for Disaster Management in North Eastern Region.. A special workshop of NE States should be urgently convened by the DRM Program in a NE State capital (Guwahati or Shillong). This should be preferably co-organised by the NEC and even DONER, and should be done before the end of the DRM Program, using the available program funds. A key objective of such a meeting would be to review the earlier NEC documents developed with support from the DRM Program, and to reaffirm a revised program of action.

---

<sup>10</sup> The percentage utilization by States is on the amount released to them. This may or may not include HR cost which is handled by UNDP CO in many cases)

**d. State level DRM Road Map**

Each of the NE States should be supported to develop a robust State level Road Map for DRM in their respective State, expanding on the Graduation Strategy of each State.

**e. Support to finalize State DRM Plan**

Given that the State DM plans are weakly developed, a regional workshop be organised to provide technical guidance and support to the State governments and SDMAs in preparing these documents, or revising those that currently exist. This should be co-organised with NDMA/ Ministry of Home Affairs/ DONER.

**f. Possible Regional Institutions to be involved in DRM Activities**

The North East region has a number of NE-specific regional institutions, as well as some regional branches of National institutions. Given the multi-faceted nature of Disaster Management, and the range of actions that need to be taken, these institutions must be involved. The Road Map document names these institutions very specifically and makes a recommendation for establishing Disaster Management cells or programs in the following institutions:

- North Eastern Regional Centre of the National Institute of Rural Development (NIRD), Guwahati
- North Eastern Space Applications Centre (NE-SAC), Shillong
- Indian Institute of Technology (IIT) Guwahati
- North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli
- North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur
- Regional Institute of Management Studies (RIMS), Imphal
- Regional Institute of Paramedical & Nursing (RIPAN), Aizawl
- Regional Research Laboratories (RRL), Jorhat
- Indian Institute of Entrepreneurship (IIE) Guwahati
- North Eastern Police Academy (NEPA), Umiam
- National Disaster Response Force (NDRF) Battalion, under the CISF stationed at Guwahati

**g. Experience Sharing and Lesson Learning**

A regional workshop on lessons learned from the DRM Program in the NE States be organized with a wide multi-stakeholder audience. This will showcase progress and make visible current needs, and help consolidate interest in the next phase of the Program.

## Chapter 7: Analysis of Salient Points for Future Programming

### 7.1 Implementation Strategy--The past perspective

In accordance with the implementation strategy finalized for undertaking the project a large complement of human resource was recruited and provided by UNDP at national, state and district level, in consultation and with the approval of respective governments.. This implementation modality had distinct advantages and also related disadvantages. The main advantage, as brought out in the first evaluation report as well as by several state governments during interaction with the Evaluation Teams, was that the project implementation was placed on a fast track primarily due to human resource support provided by UNDP. On the other hand, the related disadvantage, which eventually surfaced, was that it was primarily perceived as a UNDP program and the state governments did not fully identify themselves with the ownership of the project. The fact that it was financed fully under a multi donor assistance framework without any contribution from the Central and State Governments contributed further to the initial lack of ownership, at least fully, at the state and district level. *It is, however, a fact that state governments did incur considerable expenditure in kind on several activities related to the DRM program from separate budgets at state and district level.* However, since there was no separate budget head exclusively for this program where government funds were parked, this expenditure was invisible and was not perceived as state governments' contribution. However, most of the state governments are now in the process of providing funds for taking forward the program after exit of the international program partners, as brought out in the Graduation-cum-Exit Strategy worked out by each state government, although this process may take some time due to usual financial constraints. It has to be realized that a community based initiative cannot be concluded in five years; it has to be embedded in the existing systems of the government at all levels with adequate financial and logistic support provided within the system to ensure that project activities are continued on regular basis. Therefore, it has now become essential to integrate the community based DRM Program with the mechanisms already put in place with legislative back up.

Another factor to be kept in view is that although the program was initiated in September, 2002 in 28 districts and extended to 125 districts in April, 2003 with 44 districts added by end-2003, the settlement of the program modalities with the state governments did take considerable time and it was effectively launched in most of the states by end-2003 or early-2004. The UEVRP component and additional 44 districts in five north eastern states were added subsequently, by mid-2004. The program implementation traveled down to blocks and particularly at gram panchayat and village/ward level in the latter half of 2006 (*This aspect was particularly highlighted by several state governments*) , This is the reason that the visibility of the program at GP and village level was somewhat poor before mid-2006, as brought out during the first evaluation. Therefore, the program has been under implementation at grass root level for about two years only. Ironically, we are at the conclusion stage, at least so far as multi donor assistance framework is concerned, when the program has really started picking up now at the GP and village level. This is not the appropriate time to pull off but rather apt time to infuse additional financial, technical, logistic and manpower support to ensure sustainability and institutionalization of the program. Besides, the new institutional, planning, training, funding and coordination mechanism has emerged only after enactment of the Disaster Management Act, 2005 which was notified for state related provisions only in August, 2007. The states are still in the process of putting in place these mechanisms including the modalities for financial support. The Ministry of

Home Affairs and the state governments have to keep these limitations in view while deciding the future program strategy.

## **7.2: Salient components of future programming**

Almost all the state governments were of unanimous view that the program has to be carried forward in the existing DRM districts and also extended to non-DRM districts. Besides, several non-DRM states are keen to introduce the program in their states. The salient components for future programming have to be decided keeping in view these requirements and to ensure that the Disaster Risk Reduction in general and the DRM Program with community participatory approach in particular are in-built in the system of governance. These aspects were discussed at length with the State Governments, both at state and district level. The salient components which emerged, based on these discussions as also the views of the Evaluation Team, are summarized in the succeeding paragraphs.

## **7.3: Linkage to the Eleventh Five Year Plan**

The disaster risk reduction in general and the DRM Program in particular is an important component of the national priorities as articulated by the Planning Commission in the Eleventh Plan document (2007-2012). At the outset, it states that *“With urbanization and concentration of population in metropolitan cities, more and more people are becoming vulnerable to locational disasters. So, the development process needs to be sensitive towards disaster prevention, preparedness and mitigation. Disaster management has therefore emerged as a high priority for the country. Going beyond the historical focus on relief and rehabilitation after the event, there is a need to look ahead and plan for disaster preparedness and mitigation in order to ensure that periodic shocks to our development efforts are minimized.”* As for the DRM Program, the document inter alia mentions that *“It is the largest community based DRM program in the world. There is a definite need to increase the scope to cover other deficient areas too, in order to draw the full benefit from this”*.

## **7.4: Consolidation of the program in existing 176 districts**

The program had been taken up in 169 districts in 17 states during the first two phases. The number of districts has now increased to 176 primarily due to bifurcation of few districts over the period last six years. There is a felt need to further consolidate the program in these districts, particularly in respect of the following components:

- Introduction of intensive awareness generation campaign at grass root level through distribution of pamphlets, bus-back panels, wall hoardings, person to person contacts by involving NGOs, SHGs, Anganwadi workers, teachers and students, besides government functionaries.
- Conduct of vulnerability analysis and risk assessment at micro level
- Development of master trainers at district and block level and from anganwadi workers, based on well-prepared training modules by Disaster Management Cells at ATIs/ SIRDs, in consultation with NIDM, if necessary.
- Training/ re-training of elected representatives of PRIs/ ULBs as well as DMCs and Task Forces of DMTs, based on well developed training modules.
- Review and updating of Disaster Management Plans, based on guidelines issued by SDMA/ DDMA with upwards and downwards linkages.

- Regular conduct of mock drills at all levels
- Introduction of DM curricula in schools/ colleges
- Introduction of techno-legal regime in cities and towns.
- Training of Engineers, Architects and Masons in earthquake/ cyclone/ flood/ landslide resistant constructions
- Intensive implementation of UEVRP component in all cities and towns falling in seismic zones III, IV and V.
- Activating Hazard Safety Cells in all earthquake prone states for Rapid Visual Screening, Detailed Evaluation and Retrofitting of life-line buildings.
- Maintenance and regular updating of resource inventory under IDRN.
- Documentation.
- Micro level planning for taking up intervention programs at grass root level to reduce vulnerability
- Integration of DRR in general and DRM in particular with the development plans at district level
- Effective coordination mechanism with all stakeholders, both horizontal and vertical

#### **7.5: Extension of program to 241 vulnerable districts in 22 states**

As per the Vulnerability Atlas of India, prepared by BMTPC, there are about 241 districts which are most vulnerable to different hazards, particularly earthquakes. All 176 districts where the program is being implemented at present may not necessarily be included in these 241 districts. Therefore the additional districts to which the program is required to be extended may range between 110 to 120 districts. These districts need to be brought under the DRM program umbrella as early as possible.

#### **7.6: Extension of program to all 612 districts in the country**

In the next phase, after the phase extending the program to 241 districts is taken up, the program may be extended to all remaining districts in the country. Preliminary action for preparation of detailed project report for this purpose may be taken in advance and necessary administrative and financial approvals obtained so that the program may be initiated during the first year of the next five year plan.

#### **7.8: Institutionalization of the techno-legal regime in all districts**

Although model building bye laws have been brought out and circulated among all states, followed by each ULB-wise recommendations of specific amendments required to be carried out and shared with concerned state governments by the National Seismic Advisor of Ministry of Home Affairs, who along with his team has been engaged under the DRM program, hardly any action has been taken by the state governments to translate the recommendations into action. This matter needs to be followed up vigorously by the Ministry of Home Affairs in conjunction with the Ministry of Urban Development with the state governments. Simultaneously, training of engineers, architects and masons needs to be undertaken on a much larger scale. NDMA is already in the process of developing a project report for this purpose. However, the introduction of this component (UEVRP) under the DRM program will assist in sensitizing the stakeholders as well as the community for putting in place the techno legal regime.

### **7.9: Possible UNDP interventions under CPAP-2008-2012**

The UNDP Country Program- 2008-2012, signed with the Ministry of Finance in February, 2008, inter alia states, in respect of Disaster Risk Management, that *“The program will focus on integrating disaster risk reduction elements across all development sectors. Support to the newly established district and state level disaster management authorities will institutionalize community-level disaster preparedness. Appropriate policies and regulations and comprehensive multi-hazard risk assessments will help integrate disaster risk reduction concerns into development planning, including adaptation to climate change impacts. The next phase of the program will be closely associated with the National Disaster Management Authority, established in 2005. Drawing upon recent experiences, such as the 2004 Indian Ocean tsunami, will help strengthen post disaster recovery operations.”* It is linked to the National priority to integrate development planning and environment concerns to ensure containment of adverse effects, such as the threat of climate change, and the well-being of future generations as well as to the UNDAF outcome 4 which states that *“the most vulnerable, including women and girls, and government at all levels have enhanced abilities to prepare, respond and recover from disasters and environmental changes”*.

### **7.10: Possible Support by International Agencies including UNDP during 2008-2012**

In view of the aforementioned goals and objectives, technical and logistic support may be provided by International Agencies including UNDP for the following activities during the period 2008-12 which also synergizes with the Eleventh Five Year Plan.

#### **a. Support to SDMAs**

The state governments would need technical support for the preparation of State Plans in accordance with the provisions of the Disaster Management Act, 2005. For this purpose, six states (three DRM and three non-DRM states) may be selected in consultation with MHA/ NDMA for development of model State Plans. The assistance may be in the form of outsourcing the assignment to different agencies/ team of consultants. The State Plans so developed can then be replicated, mutatis mutandis, in the remaining states/ union territories by the respective SDMAs/ SECs.

Technical support may be provided to the selected six states as mentioned above, for the preparation of guidelines for the development of District Plans. The modalities of assistance to be provided may be same as for preparation of State Plans. The guidelines may be made use of by the remaining states/ union territories for developing their own guidelines.

#### **b. Support to DDMAAs**

One district may be selected in each of the 17 DRM states for development of a model District Plan in consultation with the concerned SDMAs. It would actually amount to updating of the District Plans keeping in view the legislative provisions and guidelines of National and State Authorities as also lessons learned during the intervening period, mock drills and consultations with the local authorities. This function can be outsourced to the team of consultants drawn from professional agencies including NIDM. The DM

Centers functioning in the Administrative training Institutes in the states from which the district is selected may invariably be associated with the exercise.

It may be appropriate to develop at least one local plan, to be implemented by the local authority. The modalities for the preparation of the local plan may be same as proposed for district plan.

### **c. Micro Level Planning**

Micro level planning at below-district level for taking up intervention programs is necessary at Village/ GP/ Block/ULB/Ward level to bridge the gaps. Assistance may be provided for the development of modest intervention projects in the selected districts. Technical support from International/ UN agencies may be for the purpose of identification of gaps and preparation of project reports by out-sourcing. The cost of implementation of the project may be borne by the state governments from the funds available with the district planning body or line departments, where feasible, or District Disaster Mitigation Fund. The implementing agency of the project may be the local authority under the overall supervision of the District Authority. The District Development Officer, who is normally also the Chief Executive Officer of the Zila parishad, may be assigned the responsibility of monitoring and evaluating the progress of the project.

### **d. Support to NIDM**

NIDM would be primarily concerned with the development of training modules for specific targeted groups, training of trainers, documentation, monitoring and evaluation. The up-gradation of the Institute and the development of faculty, particularly in the sector of community based disaster risk management is likely to take considerable time.. During this interim period of say next 3 to 4 years, NIDM may need technical and logistic support which may be provided by International/ UN Agencies. The modalities of providing assistance may be settled in consultation with NIDM and the approval of NDMA/ MHA.

One of the responsibilities entrusted to NIDM under the Disaster Management Act, 2005 is to formulate and implement a comprehensive (national) human resource development plan. NIDM has initiated the process but it is likely to take considerable time due to inadequate facilities. The National HR Plan developed by NIDM would be the Roadmap for states to develop their respective State HR Plans. Technical support to NIDM to formulate the National HR Plan will go a long way to integrate the DRR initiatives including the DRM Program with development to achieve the goal of inclusive development. The modalities for providing technical and professional support to NIDM and its partner State Institutes may be worked out in consultation with them.

### **e. Support to State level Training Institutes**

The Disaster Management Cells at the State Administrative Institutes (ATIs) and the State Institutes of Rural Development (SIRDs) are at present functioning in almost all states. However, most of these Centers are neither well staffed nor well equipped. This requirement is primarily to be addressed by the Ministry of Home Affairs and the State Governments. The State Plans may take care of this aspect. However, pending their up-gradation by the Central and State Governments, technical and logistic support may be provided to these Institutes, in the field of community based disaster risk management

**f. Technical and financial cooperation with development partners**

It may clearly not be possible for UNDP and other international agencies to provide technical assistance to SDMAs, DDMAAs, NIDM, state level training institutes, civil society organizations as well as for micro level planning directly or through extension of HR support by engagement of resource personnel. However, this task may be achieved through technical and financial cooperation with development partners by out-sourcing to them specific activities. Selection of such partners may be made based on their technical and professional competence and proven track record.

## **Chapter 8: Summary of Conclusions and Recommendations**

**8.1** DRM Programming did not transform sufficiently following new Institutional Arrangements. As a result, the new programs and initiatives of NDMA (and the SDMAs in some States) proceeded in parallel and were not fully synergized. This was clearly a lost opportunity, more sorely felt by the States, when ensuring the graduation phase of the program. The program, in its next phase, may be integrated with the institutional mechanism now put in place, by the national as well as the state governments.

**8.2** The DRM program was relevant to the need as it generally covered the most vulnerable regions of the country. However, the identification process excluded some high risk regions. There are more districts in the country that met the criteria of selection, but they were not addressed. Similarly, not all areas within a district are equally affected by the same hazards and risks. Therefore, by using the district as a unit, and aiming to address all blocks and villages therein with similar activities, the opportunity of concentrating on the most vulnerable blocks or villages within the district was lost. Similarly, across the States, there are variations in vulnerability, population distribution, settlement type and terrain. Certain states of the country experience frequent low intensity disasters, which, in cumulative terms, have a strong impact on local communities. As such, a risk assessment, rather than a vulnerability assessment would have helped adapting program activities to the micro level specific needs of the States. Many local hazards such as drought, landslides, extreme heat, extreme cold, lightning strikes, and bamboo famine have been ignored. Criteria of potential number of lives that may be lost or affected would have helped to include some of the most vulnerable areas that have been ignored in the present program. This may be corrected in the program design during the next phase.

**8.3** A key strength of the program was the number of levels at which implementation action was taken up. This was a serious effort at simultaneously working in a large number of communities, all the way from national to village/ ward level. However continued technical support, networking among States and districts, and adequate financial support from the national level would still be needed; otherwise a lot of the momentum and promise of taking forward this program will be lost.

**8.4** Integration with existing government programs carried out by various line departments in some states has significantly improved the quality of results. However, the program is still perceived in almost all states as a stand-alone program, It has not been linked to development plans. There are no intervention programs to reduce the micro level vulnerability, based on village level risk profile. Linkages of the program with different departments at state and district level were not visible. At the state and district level, involvement of other line departments needs to be improved. For this purpose, awareness and capacity building for all line departments at state and district level is needed.

**8.5** Judicious use of technical resources and investments on training would have significantly affected the program performance. In the next phase, the quality of training programs at State Training Institutes needs to be improved and training modules updated. Refresher training mechanism has to be put in place

**8.6** Although the strategy to provide human resource (HR) support for program implementation through National United Nations Volunteers (NUNVs) and District Project

Officers was a deliberate and imaginative choice which accelerated the program implementation, it is no doubt true that continued reliance on NUNVs did not adequately activate the functionaries in the system in a phased manner, to ensure a more sustainable approach. It is hoped that, with the creation of regular positions by the states, this situation will change.

**8.7** Program Outputs pertaining to preparedness have done well, whereas achievement pertaining to long term vulnerability reduction is partial. Sustained actions aimed at mitigation as well as at integration with development programming are therefore essential, which need to be built- in, in the next phase.

**8.8** Quantitative output analysis, aggregated for all states, is impressive for several parameters, compared to the pre-determined targets laid down. However, the progress is not as good in respect of constitution and training of state search and rescue teams and somewhat poor in respect of finalization of state disaster management plans, amendment of state building bye laws and relief codes. The progress is somewhat less satisfactory in conducting the mock drills at block, GP and village level. More focused attention needs to be paid to these aspects in the future program strategy.

**8.9** Too many activities; lower resource allocation per unit, no prioritization between activities and a cookie-cutter approach adversely affected the quality of the program activities. With so many activities, monitoring was primarily carried out through monthly self-reporting, and there was lack of sufficient periodic substantive field monitoring from the MHA/UNDP Program Unit in Delhi; consequently, quality suffered. Project Management Units, both at national and state levels, are therefore essential pre-requisites for micro level monitoring of the program..

**8.10** Much needs to be done to improve the quality of State Disaster Management Plans. There is no easily accessible central inventory of these plans, either at MHA or in the DRM program office in UNDP, Nor is there any evidence of a review process by a national agency or technical specialist in the DRM team Some State Plans have not been revised since 2004. The mechanism laid down in the DM Act for preparation, approval and review of the State Plans need to be followed scrupulously.

**8.11.** There is limited, if any, attention given to mitigation and prevention aspects in the District Disaster Management Plans .The District and below district DM Plans presently put in place are qualitatively below average, except in few cases. Besides, these do not have either horizontal or vertical linkages. Most of the district plans do not include vulnerability analysis and risk assessment, training and capacity building, identification of prevention and mitigation measures, updated resource inventory and roles and responsibilities of different stakeholders. It does not cover adequately the strategy for multi-stakeholder approach or address the requirements of socially disadvantaged and children as well as gender empowerment issues. Also, no system was found to be in place for periodic review and updating of the plans at all levels. These aspects need to be adequately addressed for which purpose guidelines may be laid down by the State Authorities, based on the guidelines issued by the National Authority for State Plans..

**8.12** Awareness generation has been carried out through a variety of innovative and locally appropriate media, thus ensuring large reachability. However, the extent of community empowerment has been limited, even though the outreach has been

widespread. The public awareness strategy needs to be revised to promote self-initiated action by the community.

**8.13** Making women an active partner in the local DRM process is showing signs of gradual improvement; though not to the desired level. With increasing involvement of PRIs, Anganwadi workers, Self Help Groups and NGOs in the implementation of the program, the women participation in the program is expected to improve further significantly. The stress should be more on quality participation of women, rather than greater participation in terms of numbers only.

**8.14** The progress of putting in place techno-legal framework has been very slow. It has not received the attention it deserves in almost all states. Although model building bye laws, amendments to be made in Town and Country Planning Acts and Development Control Regulations have been shared with all states, very little, if any, effort has been made by the state governments to reduce urban vulnerability. Hazard Safety Cells, though constituted, are not really functional. Similarly, while Rapid Visual Screening (RVS) of few lifeline buildings has been undertaken by some states, the detailed evaluation for retrofitting has not been carried out. The respective State Urban Development Departments need to develop and implement a roadmap for this purpose in a time bound manner. The Ministry of Urban Development needs to take lead to achieve this objective, with the NDMA and Ministry of Home Affairs as facilitators.

**8.15** A strong partnership between UNDP and Ministry of Home Affairs provided good leadership at the national level. However, there was inadequate integration with other national ministries, departments, civil society and other resource institutions. This had a corresponding effect on the states. This integration may be brought in through the National Plan as envisaged in the DM Act.

**8.16** All program activities were initiated simultaneously without correctly assessing local level capacity and needs. The results were therefore varied across states. The strength and nature of partnership at State level has strongly affected the impact of the program. Greater involvement of NGOs in serving as resource agencies mobilizing local volunteers, training and awareness generation activities as well as involvement of corporate sector and scientific and technical institutes in the next phase may significantly bridge this gap.

**8.17** There is a wide variation in output performance across states. An important factor contributing to this variation is the lack of disaggregated strategies. Therefore, the gains from the program may not be sustained for long beyond the program unless targeted activities are taken up and further consolidated in the next phase of the program.

**8.18** The program missed out importantly on community empowerment and inclusion. In the country's context, the progress towards MDGs is critically linked to the well being and security of the most vulnerable within communities. These include women and children, the disabled, minority groups, scheduled castes and tribal groups. The special needs and capacities of such groups were largely overlooked in program design. Women's representation in numbers as well as active participation, though started, needs to be further strengthened. Empowerment as a whole, desirably to be seen in the form of the role of the local people in decision making was equally missed out. The program activities at the local level aimed at implementation, but not partnerships for informed local decision-making. Future programming needs to be sensitive to such

requirements and develop targeted strategies that ensure inclusion and equity in all activities. Likewise, empowerment has to be achieved based on strong community based mobilization, education and awareness creating a ground for self-motivated community-led risk reduction legacy.

**8.19** The sustainability of program outputs remains a challenge as progress made by most State Governments for supporting post-project activities is presently not adequate. The State Governments may ensure that the State and District Disaster Management Authorities are in position and fully functional by December,2009..The panchayati raj institutions and the municipalities may be entrusted with the coordination, monitoring and implementation of the community based disaster risk management program by involving civil society, youth organizations, teachers, government workers and other stakeholders including community. At below district level, the three tier Panchayati Raj System may function as the institutional mechanism.

**8.20** The vertical linkages have been provided under the DM Act. The horizontal linkage has been provided with the inclusion of Chairperson, Zila Parishad as co-Chairperson of the District Authority. Besides, the horizontal linkages should appropriately include NGOs, Youth Organizations, Anganwadi workers, teachers, Ex-service men and other stakeholders who will function in conjunction with the PRIs and government functionaries at grassroots level. The active involvement of PRI members will also ensure a gender-sensitive approach

**8.21** The conduct of mock drills not only generates awareness and prepares the community, it also affords an opportunity to ascertain the strengths and weaknesses of the Plans, which can then be modified and updated accordingly. This aspect particularly needs to be addressed. There should also be a mechanism to assess the quality of the mock drills conducted and greater involvement of the community, NGOs, SHGs and other stakeholders. The mock drills organized under the DRM Program may be integrated with the mock drills to be organized by State and District Authorities. Besides, such exercises need to be adequately documented and video-graphed and shared with other states/ districts with similar vulnerabilities.

**8.22** The National Institute of Disaster Management has not been strengthened adequately, despite additional responsibilities entrusted to it. Therefore, there is a mismatch between the objectives laid down for the institute and the faculty as well as administrative support and infrastructure facilities provided to the institute, which needs to be addressed. Similar bottlenecks would continue to arise at state and district level. These issues need to be addressed and resolved in a time bound manner so that the pace of program implementation, monitoring and internal concurrent evaluation is accelerated at all levels. The new systems of DRM have several new institutional mechanisms that require establishment, orientation, clarity on roles as well as peer learning, based on multi-stakeholder partnership. A massive capacity development exercise has, therefore to be put in place for these institutions alone to ensure optimum and sustainable results.

**8.23** The state level training institutes need to be upgraded with experienced faculty members in community based disaster risk management, facilities and infrastructure. These Centers/ Institutes may be made responsible for development of specific training modules for different areas of the state, based on their respective vulnerability profile and taking the modules developed by NIDM as broad guidelines. The Centers may

impart training to members of PRIs, state and district level functionaries and voluntary organizations including NGOs and also assess and evaluate the quality of training programs being organized by training Centers and NGOs at district and below- district level. This aspect may be addressed by the SDMAs in consultation with NDMA for financial and logistic support and NIDM for technical including professional support.

**8.24** There is also a felt need to look ahead and establish at least one full-fledged state level institution in the larger disaster prone states to take on the role of a State Institute of Disaster Management, similar to the role of NIDM at national level.

**8.25** At the national level, funds may be provided by the Central Government for: strengthening of NIDM; undertake the program in all vulnerable districts of non-DRM States; consolidation and continuation of the program in DRM districts till the State Plans are finalized and the DRM Program included therein; monitoring as well as qualitative and quantitative evaluation of the program and awareness generation at national level through mass media.

**8.26** At the state level, funds may be provided for: continuation of the program in the existing DRM districts as well as extension of the program to non-DRM districts, strengthening of the existing training institutes and identification of additional training institutes at state and district level; establishment and/or strengthening of State Institutes of Disaster Management; extension of the program to non-DRM states; development and updating of the Resource Inventory; provision of basic inexpensive equipments such as First Aid Kits, search and rescue equipments for use of community during disasters as well as during the mock drills; documentation of lessons learned and dissemination of information to the stakeholders and the community; awareness generation within the state in local languages; and micro level monitoring and evaluation of the program in order to take up mid-stream corrective measures.

**8.27** The state level graduation strategy may be reviewed and revised to include immediate as well as medium term measures and implemented in a time bound manner. While the immediate measures may be put in place by June, 2009, the medium term measures need to be completed over a period of 12 months, by December, 2009. The graduation strategy already undertaken by the state governments may feed into the revised graduation strategy to facilitate its implementation.

**8.28** There is need to review the state roadmaps with special focus on community based disaster risk management and the Graduation Strategy for the DRM Program as well as State Disaster Management Policy. The Policy may be laid down, or reviewed where it is already laid down, after the National Policy on Disaster Management is finalized and released so that necessary linkages are maintained. The resolve of the state governments to adopt a multi- stakeholder approach with community participation for disaster risk management should find an expression in the state, district and local plans.

**8.29** There is need to develop an inclusive program for implementation in partnership with the Civil Society Organizations, Self Help Groups, NSS, NYKS, NCC, teachers, ex-servicemen as well as corporate sector by pooling of resources including technical and financial resources.

**8.30** A special workshop of NE States should be convened by the DRM program in a NE State capital. This should be preferably co-organized by the NEC and even DONER. A

key objective of such a meeting would be to review the earlier NEC documents developed with support from the DRM Program, and to reaffirm a revised program of action. Each of the NE States should be supported to develop a robust State level Road Map for DRM in their respective State.

**8.31** Given that the State DM plans are weakly developed in NE States, a regional workshop may be organized to provide technical guidance and support to the State governments and SDMAs in preparing these documents, or revising those that currently exist. This should be co-organized with NDMA/ Ministry of Home Affairs/ DONER. A regional workshop on lessons learned from the DRM Program in the NE States may also be organized with a wide multi-stakeholder audience. This will showcase progress and make visible current needs, and help consolidate interest in the next phase of the Program.

**8.32** The technical and logistic support may be provided by International Agencies including UNDP during the period 2008-12 to extend support to State and District Disaster Management Authorities for the preparation of State and District Plans, development of model local plans, micro level planning at below-district level for taking up intervention programs at Village/ GP/ Block/ULB/Ward level to bridge the gaps for disaster risk reduction, and assistance for the development of modest intervention projects in the selected districts. Technical support from International/ UN agencies may be for the purpose of identification of gaps and preparation of project reports by out-sourcing. Technical and logistic support to NIDM and state level training institutes for the next 3 to 4 years for putting in place training modules for different stakeholders for community based disaster risk management and formulation of National and State HR Plans. The modalities for providing technical and professional support to NIDM and its partner State Institutes may be worked out in consultation with them.

**8.33** It may clearly not be possible for UNDP and other international agencies to provide technical assistance to SDMAs, DDMA, NIDM, state level training institutes, civil society organizations as well as for micro level planning directly or through extension of HR support by engagement of resource personnel. However, this task may be achieved through technical and financial cooperation with development partners by out-sourcing to them specific activities. Selection of such partners may be made based on their technical and professional competence and proven track record.