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# Nepal

## National progress report on the implementation of the Hyogo Framework for Action (2009-2011) - interim

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## Outcomes for 2007-2009

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### Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

#### **Outcomes:**

Disaster risk reduction (DRR) has become a national priority for sustainable development. The 10th five year plan (2002-2007) underscored that the main objective of DRR is to contribute substantially to make the public life secure by managing the natural and man-made disaster systematically and effectively. The 3-year interim plan (2008-2010) also emphasized that DRR is an integral component of sustainable development and accorded priority to pre-disaster preparedness.

Further, at national level, the national strategy for disaster risk reduction has been adopted, which starts from October 2009 onwards.

Down the line, 67 districts (out of 75 districts) have disaster preparedness plans. In order to implement these plans, the District Natural Disaster Relief Committee (DNDRC) have been streamlined and empowered to strengthen DRR efforts and enhance emergency response capacity. About 66 VDCs (out of 3913 VDCs in the country) in four districts (Banke, Bardia, Chitwan and Nawalparasi) have prepared disaster management plans including prioritization of three main hazards.

At local level the 3-year interim plan (2008-2010) has envisaged to enhance the engagements of local bodies and communities in the prevention works. With support and initiation of non-governmental organizations, disaster management committees have been formed. In the high risk areas, there are some Village Development Committees put in place with preparedness strategy with large scale community participation. It's important to highlight that these efforts are limited only in few villages and yet needs to be up-scaled.

Four municipalities (out of 58 municipalities) have started implementing safe building construction practices using the seismic code provisions in the local context. To promote safer construction and infrastructure development, concerted efforts by government, non-government organizations are geared up to follow the seismic safety standard effectively throughout the country.

MoHA with the support from World Bank has prepared Nepal Hazard Risk Assessment which covers five major hazards.

### Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

#### **Outcomes:**

The Ministry of Home Affairs (MoHA), is the focal agency for implementing NSDRM in Nepal. The mandate of MoHA has been strengthened to address the comprehensive DRR needs in the country. International coordination mechanism at MoHA with relevant stakeholder's linkages has been developed and strengthened to enhance the institutional capacity for implementing DRR activities in the country.

The NSDRM (adopted in 2009) envisages a central level Disaster Management Council, which is to be chaired by the Hon'ble Prime Minister. The NSDRM proposes Disaster Management Authority as secretariat of the council to streamline the institutional processes across the relevant agencies at national level with the linkages down the line.

The government has promulgated Local Self-Governance Act (1998) which has initiated decentralization process and local bodies are delegated more authority, responsibility and resources. Formation of Disaster Management Committees (DMCs) has been initiated at about 44 VDCs (out of 3913 VDCs from 75 districts in the country) of two districts. Government of Nepal is preparing to expand these institutions in other VDCs and strengthening their linkage with respective DNDRCs.

Further, the government has established disaster risk management focal desk and appointed officials in 12 government departments and other ministries to synergize DRR effort in the relevant line agencies.

In order to enhance the quality of humanitarian intervention and address identified gaps in emergency response and relief is carried out through Cluster Approach which has identified lead agencies in 13 different sectors. This Cluster approach is instrumental to achieve strategic responses and better prioritization of available resources by clarifying the division of works among organizations.

Nepal Risk Reduction consortium comprising of ADB, IFRC, UNDP, UNOCHA, UNISDR and World Bank has developed a draft program proposal identifying five flagship areas of immediate intervention for disaster risk management in Nepal.

### **Area 3**

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

#### **Outcomes:**

Nepal loses more than 300 lives each year due to water induced disasters, which is likely to be aggravated further in coming years due to climate change/variability induced factors. Most of the deaths and damages are reported during the monsoon season encompassing three months duration covering July to Sept months. In order to cope with the disaster, Pre-Monsoon planning workshop is conducted at national level through multi-stakeholders involvement. Pre-monsoon plan is conducted at district levels also and it has been proved very effective in emergency response.

One window policy and cluster approach in emergency response has been successfully realized in dealing with different disasters in the past. For initial damage and loss estimation, a standard information collection process using Multi-sectoral Initial Rapid Assessment (MIRA) has been practiced from 2009.

As a continuous process towards comprehensive emergency response planning in Kathmandu, 64 open spaces for evacuation during emergencies have been identified within Kathmandu valley.

Ministry of Home Affairs has recently completed construction of one Emergency Operation Center at national level which will function as central unit for emergency response capacity, for coordination among different clusters and for coordination among agencies during emergency response and relief.

Hospital Preparedness for Emergencies (HoPE, Medical First Respondent (MFR) and Collapsed Structure Search and Rescue (CSSR) training are being given to Medical officers and security officers. Valley level Earthquake Simulation Exercise (INSARAG) has been conducted. Model agreement between GON and UN to expedite import/export and transit of relief consignments in the event of

disasters and emergencies was signed on 31 May, 2007 to enhance the national capacity for emergency response.

A comprehensive Logistics Capacity Assessment of Nepal has been done by WFP. Airport Readiness and Surge Capacity assessment of 4 regional and Traibhuvan International Airports has been conducted.

## Strategic goals

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### Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

#### **Strategic Goal Statement:**

Disaster Risk Management (DRM) and Climate Change Adaption (CCA) are being institutionalized in Nepal in an integrated manner. The next 3-year plan, focusing on Climate Change and Disaster Resilient Planning, has been taken up to integrate DRM and CCA in all sectoral plans. The comprehensive disaster risk reduction and emergency response preparedness have been envisaged to achieve through sectoral strategies for integration of DRR.

The right of people to live risk free life in a clean environment will be ensured as one of the constitutional rights in the upcoming constitution. Institutionalization of DRM and CCA will be ensured by revising the current Natural Calamity Relief Act (1982) to shift the focus from rescue and relief centered approach to an integrated disaster risk management approach by investing more in preparedness, mitigation and community empowerment; by establishing and strengthening disaster risk management institutions at central, regional and local level; by strengthening emergency response capacities at national, regional and local level; and, by engaging communities at all states of disaster risk management planning, decision making and implementation.

As urban centers are coming up as growth engines for the countrys' economic development, formulation and implementation of comprehensive program for building resilient urban centers and urban communities will be carried out. Implementation of Nepal Building Code is being made mandatory in all 58 municipalities within next 5 years. For this, capacity strengthening of the municipalities will be carried out.

Early Warning Strategy will be completed in 2010 which will be instrumental in developing framework for installation, operation and maintenance of early warning system for major hazards throughout the country.

The experience of development of Disaster Management Plan at VDCs level in 66 VDCs of four districts have been successful and will be expanded to disaster prone VDCs of all 75 districts.

### Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

#### **Strategic Goal Statement:**

Establishment of high level body on Disaster Risk Management within next two years at central level to synergize effort among different sectoral programs for sustainable development.

Establishment of DRMC at central, regional, district and local levels for enhanced coordination at regional/district level among government line agencies, non-governmental organizations and private sector for sustained effort on preparedness, mitigation and emergency response

Annual and periodic development plans of all 75 districts to integrate DRR in all sectoral plans with a focus to build resilience of communities to multiple hazards.

Establishment and institutionalization of an authentic, open and GIS based Disaster Information Management System (DIMS) at the central, district and municipal levels to cover all disaster-related information have been realized.

DisInventar data collection system will be further strengthened and a national policy will be developed for information sharing and dissemination mechanism through local media, FM stations and mobile phone network such that the communities at risk get maximum benefit from the information

Development of Early Warning Strategy (EWS) in 2010 and establishment of early warning system for major rivers basins, GLOFs and Drought and major landslides will be in the future.

Development of Risk Sensitive Land Use Planning (RSLUP) has been done for Kathmandu Metropolitan City. RSLUP will be expanded to cover the Kathmandu valley comprising 5 municipalities and similar planning will be completed for 4 other regional centers of the county.

Enhanced capacity at local level for multi-hazard risk assessment and to implement risk reduction measures through community based organizations, schools and VDCs.

### **Area 3**

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

#### **Strategic Goal Statement:**

Ministry of Home Affairs has set up one National Emergency Operation Center (NEOC) at national level. It has been planned to develop its network through establishment of similar centers in four other regional centers within next five years. The network will be further expanded to all district headquarters in the future.

Further in the above context, Standard Operating Procedures (SOPs) for hospitals, security forces and local communities is being developed to enhance the capacity for effective emergency response and preparedness.

MoHA has completed study on Kathmandu Valley Earthquake Disaster Mitigation in 2002 and action plans will be developed in line with the recommendation of the study for emergency response preparedness of the valley. Similar studies will be extended to all 5 regional centers and action plans will be developed.

Gap analysis for logistic requirements in emergency response for all 58 municipalities will be done based on the Logistic Capacity Assessment. In order to enhance the emergency response, networks of warehouses will be developed throughout the country for food and non-food items. The existing

warehouses of Nepal Food Corporation, Nepal Red Cross Society and Private Sector will be strengthened and further network will be developed so as to have at least one warehouse for food and non-food items each in all of the 75 districts within five years. Effective disaster response has been planned through establishment and/or strengthening of warehouses and repositioning capacities at central to local level strategic locations for storing food and non-food items.

Development of a robust communication system has been planned utilizing the reach of National Radio, Television and local media such as FM stations for emergency response preparedness and also for overall disaster risk reduction. For this purpose, trained journalists and media persons will be developed in all 5 regional centers in the future.

## Priority for action 1

*Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.*

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### Core indicator 1

*National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.*

#### Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

#### Is DRR included in development plans and strategies?

Yes

#### Means of verification:

- \* Yes: National development plan
- \* Yes: Sector strategies and plans
- \* Yes: Climate change policy and strategy
- \* Yes: Poverty reduction strategy papers
- \* Yes: Common Country Assessments (CCA)/ UN Development Assistance Framework (UNDAF)

#### Description:

Nepal is one of the pioneer countries to have a separate act with focus on disaster management. Natural Calamity Relief Act was promulgated in 1982; however, it has focus on post-disaster response and relief. Despite of this limitation, the act has envisaged an institutional mechanism for relief and response from central to Village Development Committee level. Realizing its limitation and immediate need to change it to encompass broader disaster risk management objectives, the government has initiated process to enact new act. The government has also initiated process to formulate the National Policy for Disaster risk Management. Both these initiatives are focused on internalizing the shift from a response-based national system to emphasizing the disaster risk reduction and effective preparedness approach. The process, however, has yet to materialize due to uncertain political scenario in the country.

Nepal has adopted National Strategy for Disaster Risk Management in October 2009 which has

proposed National Council under chairmanship of the Prime Minister to work as the high level body for DRR.

Realizing the importance of mainstreaming disaster risk reduction in development planning, DRR was included as a separate chapter in the National Plan document from 10th Plan (2002- 2008) and is continued in 3-year interim plan (2008-2010) as well. In an ongoing effort to integrate DRR and CCA, UNDP/ADB/National Planning Commission (NPC) are working jointly for Climate Change and Disaster Resilient Planning which will result in integration of DRR and CCA issues in all sectoral plan for next 3-year National Plan.

The government has formed High Level Climate Change Council under the chairmanship of the Prime Minister in order to mitigate and adapt to the adverse impacts of climate change in the country. National Climate Change Policy and National Adaptation Program of Action are completed.

### **Context & Constraints:**

Although the commitment of the government is reflected in plans, policies and strategies, there is serious gap in terms of implementation of the programs. One of the major challenges for this is the lack of capacity and lack of trained human resources at all levels: from national to local level.

In Nepal there is also lack of a comprehensive legal and policy instrument to internalize the broad ranges of issues in DRR and emergency response. In order to build resiliency of the nation and communities to disaster, Nepal needs to establish and institutionalize an integrated Disaster Risk Management system that could address the entire spectrum of disaster related issues from mitigation to preparedness and response.

Some of the other constraints, which although not directly in the domain of DRR stakeholders, have direct impact on how DRR related policy and acts are formulated, adopted and institutionalized are:

Lack of political stability in the country

Evolving state structure as Nepal is moving towards a Federal State

### **Recommendations**

Immediate adoption of DRR policy and new Disaster Management act which encompasses comprehensive approach of DRR

Development of National Plan of Action based on the National Strategy (2009)

Integration of CCA and DRR issues in sectoral plans of all Ministries in the next 3-year plan (2010-12)

Establishment of institutional framework in line with the newly adopted NSDRM

## **Core indicator 2**

*Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels*

### **Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

### **Is there a specific allocation of budget for DRR in the national budget?**

No

### **Means of verification:**

\* 0 % allocated from national budget

\* 0 USD allocated from overseas development assistance fund

\* 0 USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)

\* 0 USD allocated to stand alone DRR investments (e.g. DRR institutions, risk assessments, early warning systems)

\* 0 USD allocated to disaster proofing post disaster reconstruction

### **Description:**

There are some budgetary allocations from the Government for disaster risk reduction purposes through existing organizational set up such as that to DWIDP for river training, to MoLD for small-scale disaster reduction works, and to MoEST for flood forecasting and other meteorological services. There are few other projects and programs such as soil conservation, watershed management and irrigation which ultimately contribute to DRR. There is an ongoing effort at National Planning Commission to integrate CCA and DRR issues in all sectoral plans from upcoming 3-year National Plan which will be instrumental in allocating substantial resources for disaster mitigation and preparedness.

At District Level, 65 districts prepared Disaster Management Plan in 2009. However, there is no provision for separate budget allocation for DRR in the periodic plan of the districts which has rendered the plans ineffective. Disaster Management Plan has been successfully developed at VDCs level also with the support of International Agencies. Sixty six VDCs of four districts have successfully implemented DMP with prioritization of three major hazards in their areas. As the Local Self-Governance Act (1999) delegated authorities and responsibilities to local bodies for formulating and implementing development plans, capacity building of local decision makers will be an effective way to implement disaster risk reduction initiatives in a sustainable way.

There are other budgetary allocations dedicated for post-disaster relief and recovery. A study by MoHA and UNDP has suggested that the total amount allotted for post-disaster relief and recovery in 2007/08 was around 180 million NRs (Nepali Rupees) and 2.2 billion NRs. In 2008/09.

Few VDCs have started allocating small fund for DRR and the initiation has to be scaled up at national level in line with Ministry of Local Development guidelines.

### **Context & Constraints:**

The budget allotted for disaster preparedness and mitigation is spread among different programs and projects which render it ineffective. Although 10th National Plan and 3 year Interim Plan recommended few priority areas for action, it was not reflected in budget allotment. One of the challenges is to draft plans based on realistic scenario and put the resources to reflect the priorities specified in the National Plan.

There are no systematic exploration of the interaction between natural hazards, macro-economic performance and public finance. The current budgetary provision for relief and response activities are insufficient and budgetary mechanism for relief and recovery operations in the event of a drought are limited (UNDP 2010).

Although district level Disaster Preparedness Plans are prepared, there is no budget allocation under this heading in the periodic budget.

Some VDCS have started allocating separate fund for DRR; however, due to lack of proper guideline the process has not yet been institutionalized.

## Recommendations

There is need to develop and implement a financial tracking system to monitor all DRR related expenditures for mitigation, preparedness and emergency response.

MoLD provides financial support to VDCs, Municipalities and District Development Committees (DDCs) by assessing achievement of Minimum Conditions. In order to ensure effective allocation of resources for DRR at local level, the assessment process should include criteria for assessing the progress in DRR, CCA and Environmental Management.

The options for incorporating potential disaster events into economic forecasting and other econometric model should be explored to support enhance economic planning and decision making.

In order to mitigate the catastrophic losses that will result from a major earthquake in Kathmandu valley, a comprehensive action plan has to be developed for increasing seismic safety of public facilities, schools, hospitals and lifelines.

## Core indicator 3

*Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels*

### Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

### Do local governments have legal responsibility and budget allocations for DRR?

Yes

### Means of verification:

\* Yes: Legislation

\* No: Budget allocations for DRR to local government

### Description:

Local Self Governance Act (1998) has delegated responsibilities, authorities and mobilization of local resources to local bodies. Local bodies have the authority to collect the revenue such as land revenue tax, vehicle tax and property tax and spend them for development of the area from periodic plans. According to the Act, Village, Municipal and District Development Committees are responsible for the construction and maintenance of village, municipal and district public infrastructures, respectively, including works to control natural calamities and to lessen related loss of life and property.

Sixty seven out of 75 districts have adopted District Contingency Plan in 2009/2010 which is substantial progress compared to 26 districts in last year. The initiative taken at district level to prepare the plan is a milestone in the DRR initiative; however, the plans are rendered ineffective as there is no separate budget allocation in the periodic budget for this purpose. Some municipalities have Disaster Preparedness Plan but it has not been initiated in most of the municipalities and VDCs.

People's participation is ensured in the development activities and local disaster management committees have been established. Community participation and their ownership in development activities are reflected in the fact that most of the local development initiatives are carried out through local users group. In order to enhance capacity of local authorities, VDC secretaries have been given orientation trainings by different agencies in some districts. Agencies are practicing to incorporate

community participation through the formation and training Disaster Preparedness Committees and User Groups in project implementation

**Context & Constraints:**

From last one decade, there are no elected representatives at local level. The long and protracted armed insurgency that lasted from 1995-2007 has left many infrastructures at local levels damaged and unusable. There is still some conflict going on in different parts of the country which has left them without any governance structure.

Many small scale development activities are carried out through local users group and their capacity building will be instrumental for disaster risk reduction. Development of decision making tools, impact evaluation tools and monitoring and evaluation tools usable for the local users group will be an effective way to incorporate disaster risk reduction and in development initiatives. Although central level plans and policy underscore the need to build resilient communities, lack of awareness, capacity and tools at local level result in serious gap in the implementation.

**Recommendations**

Orientation training to all local authorities on DRR and Emergency Preparedness

The experience of developing DMP in 66 VDCs in five districts should be expanded to hazard prone VDCs of all the districts.

Development of tools for communities at risk to assess hazard and risk of their community. The process can be started with one most disaster prone district in each of the five regions and involving school teachers and students for the process.

Ministry of Local Development should develop a policy instrument to ensure that DRR and Environmental Management is given due consideration in development and implementation of a project.

Establishment of Local Disaster Management Fund at District Development Committee level and separate budget allocation of DRR in periodic plans at the central level, district level and VDCs level.

**Core indicator 4**

*A national multi sectoral platform for disaster risk reduction is functioning.*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Are civil society organisations , national planning institutions, key economic and development sector organisations represented in the national platform?**

-- not complete --

**Means of verification:**

\* 0 civil society members (specify absolute number)

\* 0 sectoral organisations (specify absolute number)

\* 0 women's organisations participating in national platform (specify absolute number)

**Description:**

With initiation and leadership of MoHA, National platform has been already formed with multi-sectoral

involvement. A process to institutionalize its functionality and effectiveness has been initiated by MoHA and the National Platform is expected to gear up its activities by the end of 2010.

In addition to the National Platform, MoHA has initiated a process to regularly organize Focal Desk Meeting where all the stakeholders including cluster representatives are invited. However, the effort is still at very central level only and need to expand to district level and to the local levels also.

Established in 1996, the Disaster Preparedness Network (DP-Net) is envisioned as a loose association of individual organizations within the development sector in Nepal, which are concerned with disaster management. DP-Net complements the effort of these agencies to inform and prepare organisations and communities to deal effectively with disasters.

Nepal Risk Reduction consortium comprising of ADB, IFRC, UNDP, UNOCHA, UNISDR and World Bank has developed a draft program proposal identifying five flagship areas of immediate intervention for disaster risk management in Nepal. The programs were developed based on government priorities and discussions with multi-stakeholder group.

Additionally, various mechanisms (e.g. Cluster meeting, workshops, exercises, lessons learnt implemented) are functioning and coordination mechanisms have been developed to share information among national and international actors.

#### **Context & Constraints:**

Although the idea of National Platform has been very much appreciated by all the stakeholders, its effective functioning has yet to be realized. One of the reasons for this is lack of legal mechanism to institutionalize it. Another challenge the platform is facing is lack of resources.

In addition to the national platform, other similar formal and informal forums are functioning which have been effective medium to synergize the DRR initiatives, learn and review the grass-root level initiatives and disseminate the information to the stakeholders. However, such forums need to be developed to a network of similar institutions up to local level. Such a mechanism will ensure effective coordination of central level activities to grass-root level realities.

#### **Recommendations**

Develop National Platform should develop as a self functioning, independent and multi-stakeholder forum within 2010. The platform should meet at least twice a year in order to review the progress, adopt national strategies and set the agenda for the future.

Ensure that there is separate budget allotment at National Level for smooth functioning of the platform for few year and after that it should function in a self-sustainable way.

Develop Network of National Platform at Regional Level (within 2 years), at District and VDC level in next 5 years.

## **Priority for action 2**

*Identify, assess and monitor disaster risks and enhance early warning*

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### **Core indicator 1**

*National and local risk assessments based on hazard data and vulnerability information are available*

*and include risk assessments for key sectors.*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Is there a national multi-hazard risk assessment available to inform planning and development decisions?**

-- not complete --

**Means of verification:**

- \* Yes: Multi-hazard risk assessment
- \* 0 % of schools and hospitals assessed
- \* 0 schools not safe from disasters (specify absolute number)
- \* No: Gender disaggregated vulnerability and capacity assessments
- \* No: Agreed national standards for multi hazard risk assessments

**Description:**

Institutional commitment for the hazard assessment and vulnerability assessment is well reflected in the Tenth National Plan (2002-08). The tenth plan has identified the main cause of failure of past attempts, among others, as "...the lack of modern technology that provides pre-information and warning about the possible natural disaster, the lack of topographic survey of possible disaster areas, and the lack of awareness in the management of natural disaster." Therefore, the plan has set one of the targets of disaster risk reduction as hazard map preparation. The plan has envisaged one of the strategies as "the seismological measurement center and the natural disaster management center established in the country will be strengthened." The underachievement of the Tenth plan can be underscored from the fact that little has been done to improve the situation of seismological measurement and natural disaster management center in the plan period.

MoHA is preparing Early Warning Strategy which will be available by the end of 2010. There are few successful initiatives carried out by some governmental and non-governmental organizations to set-up early warning system such as community based flood early warning system implemented in some places.

The risk assessment is done by the most of the organization but do not cover multi-hazards. At the same time, sector specific risk assessment and analysis are missing which is critical to develop sector specific plans; climate change, food insecurity etc . Absence of common and standard approach for risk assessment and analysis has been the constraining factor.

Participatory vulnerability risk assessment (PVA) is being carried out by some agencies with involvement of communities at risk. PVA has produced localized hazard map and this information is used for disaster risk reduction action planning.

**Context & Constraints:**

Accumulation of data alone is not enough as it needs to be processed into useful information and also equally important is to disseminate the information to communities at risk so that they can make decision for reducing the underlying risk. Although the national plans have emphasized lack of coordination and focus on emergency response as some of the challenges for effective disaster risk reduction, the

implementation programs are unable to overcome the challenges. The risk reduction initiatives envisaged in development plans are seldom realized in the field.

Scaling up the few successful examples and continuation of existing success stories are some of the biggest challenges not only in early warning system but also in overall aspect of disaster risk reduction.

Although community level risk mapping is done with the support of municipalities, the process has to be internalized by VDCS and Municipalities. As this is not happening for many reasons, scaling up and sustainability of such initiatives are major concerns.

#### Recommendation

The government ministries in close cooperation/ collaboration with non-government agencies should initiate a national level risk assessment exercise covering major hazards in the country.

Prepare Risk Sensitive Land Use Map for all 5 regional centers in first phase and for all District Headquarters and municipalities in the next phase.

Conduct studies on indigenous knowledge on hazard assessment and risk mitigation measures, document it and disseminate it to wider audience. Such indigenous knowledge should be protected and institutionalized by mainstreaming it in the formal and informal education.

Strengthen technical capacity of the local authorities to conduct risk assessment and analysis by conducting intensive training in all municipalities.

Establish national Disaster Information Management system database accessible to all stakeholders and to the communities.

## Core indicator 2

*Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities*

#### Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

#### Are disaster losses systematically reported, monitored and analysed?

Yes

#### Means of verification:

\* Yes: Disaster loss database

\* No: Reports generated and used in planning

#### Description:

Department of Mines and Geology disseminates information about earthquake to media houses within half an hour of occurrence of earthquake. However, there is no system in place to monitor, archive and disseminate information about other hazards such as landslides and floods. Earthquake risk mitigation project of Government of Nepal carried out detailed earthquake hazard and vulnerability analysis of Kathmandu (2002) and this is the only substantial information on earthquake risk mitigation of Kathmandu valley available so far. Similarly, Department of Water Induced Disaster Prevention (DWIDP) has prepared Water Induced Disasters hazard map of 10 major basins in Nepal.

There are no community level vulnerability assessments carried out for any type of disasters in Nepal. GoN with support from UNDP/ICIMOD conducted Community Risk and Vulnerability Assessment of eight Village Development Committees (VDCs) representing three physiographic regions - the middle mountains, the inner Terai, and the Terai. There are some scanty information on earthquake vulnerability for few cities (Kathmandu, Lalitpur, Ilam) from independent studies. However, for other disasters, there is neither comprehensive information about level of hazard nor about the vulnerability.

### **Context & Constraints:**

Nepal lacks systematic and scientific database system about hazards, vulnerabilities and risk at macro and micro level. Few agencies at the central and district levels regularly publish and disseminate disaster related information. However, transparent and effective systems to monitor and archive of disaster related data are still to be put in place. Similarly, as of now the focus to collect information at any level is only limited to any disaster occurrence or post disaster situation.

Nepal has substantive number of community and local radio stations and print media. Nepal has established mobile phone network all over the country. Effective media management will be an effective tool for collecting hazard and vulnerability information and disseminating relevant information to the communities at risk. However, media involvement is so far limited to disseminating information of the event.

### **Recommendations**

It is important to develop a policy in collaboration with Telecommunication, Media and Journalists for effectively using the reach of media and telecommunication network for information collection, sharing and dissemination for the communities at risk. Involvement of the communities for collection, compilation, processing and disseminating information not only ensures usefulness of the information but also contribute towards sustainability of the approach.

The effort is required to enhance capacity of media persons to report disaster issues effectively by providing orientation, awareness and capacity building training at least once each year in each of the five regional centers. Awareness creating, sensitizing and capacity building of media in disaster risk reduction is necessary for effective use of the reach of media to the society.

It is equally important to develop standard data collection process and ensure collection of timely and reliable data has to be through an institutional basis. Local authorities, school teachers and media persons will be effective medium of collection and dissemination of disaster information.

### **Core indicator 3**

*Early warning systems are in place for all major hazards, with outreach to communities.*

#### **Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

#### **Do risk prone communities receive timely and understandable warnings of impending hazard events?**

No

#### **Means of verification:**

\* No: Early warnings acted on effectively

\* Yes: Local level preparedness

\* No: Communication systems and protocols

\* No: Active involvement of media in early warning dissemination

**Description:**

The Government of Nepal is in the process of developing Early Warning Strategy for Nepal and it is likely to be completed by 2010. The strategy, along with NSDRM, will be effective guiding documents for development and sustainability of effective early warning system in Nepal.

Nepal Red Cross Society carries out community based disaster risk reduction measures such as establishment of basic Early Warning System (EWS) at communities along with construction and maintenance of shelters and drinking water system; capacity building measures such as trained manpower for rescue and relief; and Hazard, vulnerability and capacity assessment and mapping at communities.

DHM has developed community based flood early warning system in Rapti, Narayani, Baulaha Khola, West Rapti in Chitwan, Nawalparasi, Banke and Bardia districts.

**Context & Constraints:**

Early warning system doesn't function well unless they are institutionalized at community level. In order to increase their effectiveness the EWS has to be integrated with social system of the communities such as involvement of school and school teachers in spreading the message.

There are few successfully working EWS. However, extending the current EWS to capture multi-hazard risk and scaling up the pilot projects at country level are two of the major challenges.

Absence of national level mechanism to monitor hazard and risk, forecast warning messages, disseminate it to the communities at risk is another challenge for DRR. The media is less aware and less involved in EWS and their involvement can be substantially improved through awareness creating and capacity building.

One of the challenges for early warning system is establishing communication protocol between technical authorities (like Department of Hydrology and Meteorology) and communities.

**Recommendations**

Multi-Hazard map for all areas of the country should be prepared and existing maps and information should be made user-friendly to the communities.

It is important to prepare high-risk areas for water induced disasters and develop rainfall threshold map for floods and landslides.

It is necessary to install EWS in all major river basins, GLOF and landslide prone areas throughout the country.

Preparation of Risk sensitive land-use planning for five regional centers in the first stage and municipalities in the next state should be prioritized.

Identification of major hazards and institution to deal with such hazard and people centered EWS.

Indigenous knowledge has been proved effective in mitigating disaster risk. Therefore, documenting such practices, disseminating it to wider audiences and institutionalization of the knowledge in formal and informal education system should be prioritized.

**Core indicator 4**

*National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Does your country participate in regional or sub-regional DRR programmes or projects?**

Yes

**Means of verification:**

- \* Yes: Programmes and projects addressing trans-boundary issues
- \* Yes: Regional and sub-regional strategies and frameworks
- \* No: Regional or sub-regional monitoring and reporting mechanisms
- \* No: Action plans addressing trans-boundary issues

**Description:**

The 1934 Bihar-Nepal Earthquake and 2008 Koshi flood are two vivid examples of trans-boundary disasters affecting Nepal and India simultaneously. Although both countries faced different levels of damages, there were serious gaps in relief and rescue and responding to the immediate and long-term needs of the affected communities in both the countries. In 2008 Koshi flood, it was observed that many affected people crossed the border to take refuge in the shelters available in Nepal side. Because of lack of trans-boundary operation and cooperation framework in case of disasters, the response to these disasters couldn't be coordinated in a better way.

Not only for disasters affecting countries on either side of the border, cooperation framework at regional and bi-lateral level is an urgent requirement. This will not only facilitate efficient and effective planning of resources for immediate response to disasters, but also will lead to exchange information and experience in disaster preparedness.

In this context, establishment of SAARC Disaster Management Center in 2007 is a positive step.

**Context & Constraints:**

The difference in economic development along with investment in infrastructure and advancement in technology among the SAARC countries is manifested also in the different level of response capacities in South Asia. However, with respect to the nature of hazards the countries face and in terms of their level of disaster preparedness, all of the countries are almost at equal footing. The earthquakes that occurred in Gujarat in 2001, in Pakistan in 2005 and in China in 2008 is a reflection of how the countries face similar level of risk to natural disasters.

As the region shares same ecological, geological and river system, regional cooperation mechanism can be instrumental in realizing better disaster risk reduction. The need for regional cooperation, which extends from real time data sharing to immediate response in case of a big disaster, has been recognized and underscored at regional forums. Some initiatives have been taken place such as the issue of river training to reduce flood inundation in Nepal-India boundary, initiative for regional flood information system and humanitarian action in the aftermath of a disaster.

Another area where immediate cooperation is required is the Pandemic. This is of added importance to Nepal and India, as they share large (about 1600 Km) land boundary connecting peoples in the two

sides.

#### Recommendations

Strengthen SAARC Disaster Management Centre (SDMC) to play central role in DRR and Emergency Response at regional level which will ultimately lead to effective use of SAARC DM center and metrology center for early warning, risk mitigation and emergency response

Development of procedure and standards for Rapid Damage and Need Assessment survey by SDM center and use of that information to mobilize resources and response at regional level

Strengthen inter-governmental cooperation for common trans-boundary issues and mobility of people during disasters

Establish hotline contact with authorities at all levels (National, Regional and District level) for immediate communication in case of major natural disasters requiring attention of the other side.

### Priority for action 3

*Use knowledge, innovation and education to build a culture of safety and resilience at all levels*

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#### Core indicator 1

*Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)*

#### Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

#### Is there a national disaster information system publicly available?

No

#### Means of verification:

\* No: Web page of national disaster information system

\* No: Established mechanisms for accessing DRR information

#### Description:

There is system to collect disaster incidents, death, no of affected people and property loss through government channels mobilized by Ministry of Home Affairs. Nepal Red Cross Society and few other I/NGOs collect and disseminate disaster information. However, relevant and updated information on disasters in the country are scattered and scanty. As of now, through the support of UNDP, historical information on disaster occurrences called "Desinventar" has been collecting disaster related information for last 36 years (1971-2007) and updated regularly. Similarly, the Department of Water Induced Disaster Prevention (DWIDP), Nepal Red Cross Society and few other I/NGOs have been collecting and disseminating the national level information on disasters annually or occasionally.

Most of the information available in the country level are accessible; however, information are not readily available and accessible by grass-root local level. Additionally, there is no comprehensive information sharing system to communities at risk.

For example, activities of some agencies include production of disaster related materials for different target groups and disseminating them. Action Aid has prepared eight different types of IEC materials (posters on flood/earthquake and HFA, calendars, flip charts, disaster knowledge series....etc) . These materials have been distributed to DMC/REFLECT centers and schools. Four different films on flood preparedness, earthquake safety, fire preparedness and rights of the disaster affected people were prepared and broadcasted in national television. Other examples include, production of participatory video on DRR and Climate change adaption and orientation training to journalists.

### **Context & Constraints:**

Although “Desinventar” can be used effectively to collect, analyze and disseminate disaster information, the data collection mechanism is not systematic. Similarly, there is no any established mechanism to share such available information. Likewise, in many instances, the available information are not utilized for new programs/ activities design and implementation.

Recently, Government of Nepal has completed infrastructure of National Emergency Operations Center (EOC) with support from AusAID and UNDP. EOC can be utilized effectively for collecting, collating, analyzing and disseminating information regularly on disasters and coordination of emergency response.

In order to utilize the information for disaster risk reduction initiatives at local level, institutional mechanism at district and village level need to be strengthened through disaster plans.

### Recommendations

Develop infrastructure and capacity in the EOC for collecting, analyzing disseminating disaster information

Establish network of communication in EOCs at five regions (first stage) and all district headquarter (Second stage) with the EOC at central level

Implement DesInventar at local level

Integrate disaster information system from NRCS, Nepal Army, Nepal Police, Armed Police Force and other agencies with the proposed EOC

Develop a system of allocating certain fund of VDCs for regularly updating and disseminating hazard and risk information

### **Core indicator 2**

*School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.*

### **Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

### **Is DRR included in the national educational curriculum?**

Yes

### **Means of verification:**

\* Yes: Primary school curriculum

\* Yes: Secondary school curriculum

\* Yes: University curriculum

\* Yes: Professional DRR education programmes

### **Description:**

The current textbooks include disaster risk reduction related content and there is continuous ongoing process at Curriculum Development Centre (CDC). With the support of UNDP, CDC has completed DRR curriculum review and content identification for Lower Secondary Level. The exercise will be instrumental in revising the existing curriculum at Lower Secondary level (Grade 6-8) and the curriculum is expected to be revised by the end of 2010. A DRR reference Material has been prepared for the use of students of Grade 6-8. Teacher's orientation package to support teaching DRR material is ready.

Although disaster risk reduction is included in text books at all levels, there is serious gap in capacity building of school teachers. The current effort to orient the teachers to the new content is very limited and scarce. In addition to the regular class work exercise, the schools need to develop school DRR plan and conduct regular drills. Twelve schools in Chitwan district have exercised WASH activities and training materials have been developed for teachers' training on CBDRM in 17 schools from Kailali and 4 schools from Doti district.

Incorporating DRR in school curriculum has begun and new module in higher education with comprehensive coverage in terms as geographic coverage and materials need to be incorporated in the future.

School disaster preparedness program is being implemented in some schools. School disaster library and school disaster committee have been established in those schools.

### **Context & Constraints:**

Schools are one of the most important community centers in rural areas. They are most revered and trusted institution in the communities. Developing a safer school not only protects lives of children but will also be an effective medium to create awareness and disseminate the know-how to the communities. Another asset of working with the schools is their existence throughout the country including in very remote areas.

As the concept of DRR is relatively new to teachers and school administrators, schools have not been able to play substantial role in DRR. The schools are already facing shortage of resources, there is lack of adequate teachers, the school buildings themselves are vulnerable to different hazards and the school teachers lack training and orientation in DRR.

Further, the curriculum designed at central level are sometimes unable to reflect the realities of the disaster prone area as same content is delivered throughout the country. The country faces different hazards in different parts and different regions have diverse resources to cope with disasters. In order to contextualize the DRR content in school education, the teachers need substantial orientation, training and hands-on experience which can be materialized through regular drills.

All the government officers need to go through rigorous trainings which are designed for fresh officers to senior executives and offered by Nepal Administrative Staff College. The trainings can be effective forum as entry point for the government officials to develop their understanding about DRR. However, the opportunity has not been effectively used so far.

Another challenge in DRR education is inadequate linkages between formal and non-formal education sectors.

### **Recommendations**

Review the existing school curricula from Primary to Higher Secondary level and include DRR content in

a systematic way. This has already been completed for Lower Secondary Level (Grade 6-8) and the process needs to be continued for other grades as well.

In close collaboration with the MoE, train teachers both at school and college levels in the field DRR. Conduct orientation training to teachers at National and Regional level and develop Trainers of Training. The trainers should be used to carry out similar training to all teachers throughout the country. Additionally, up-scaling the training activities to cover ranges of hazards and geographic area are essential. Informal education and training should also be a part of the DRR initiatives in schools. Incentives to School in terms of their initiative to implement comprehensive disaster risk reduction initiatives in school

Develop practical training materials for teachers and provide training not only to enhance their understanding of DRR issues but also to contextualize the content to local risks and needs.

Design and organize exposure trips, modular training and internship for concerned government officials on neighboring country where school and college curricula offers DRR and learn from them.

Establish information management mechanisms and network to share good practices on DRR related curricula and teaching materials.

Along with DRR education, carry out regular drills in schools involving teacher, administrators and students at least once a year in each of the schools.

### **Core indicator 3**

*Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.*

#### **Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

#### **Is DRR included in the national scientific applied-research agenda/budget?**

No

\* No: Research outputs, products or studies

\* No: Research programmes and projects

\* No: Studies on the economic costs and benefits of DRR

#### **Description:**

Some research activities on DRR and Climate Change Adaptation are carried out by academic institutes, individual organizations and individual researchers. However, the research activities are sporadic and have not contributed significantly as research agenda are not implementation oriented nor the part of a comprehensive framework for DRR.

Economic and financial analyses are hardly used in decision making to mainstream DRR into development planning. Recently, MoHA and UNDP have completed a study on Economic and Financial Decision Making in DRR which seeks to develop, for the first time, an evidence-based strategic approach to mainstreaming DRR into development in Nepal, based on sound economic and financial analysis.

Risk assessment methodology available around the world have been used for couple of Hazards at limited geographical areas. Study on cost/benefit analysis of DRR in Kailali has been done and impact of Cash for Work as a crisis mitigation measure in Kailali, Dadeldhura and Baitadi district has been evaluated as a pilot case.

### **Context & Constraints:**

'Actionable' research is lacking in Nepal. The research activities are scanty, sporadic and seldom originate from need based issues. This is mainly due to lack of institutional dialogue among academic institutes, professionals and practitioners. In order to scale up implementation oriented research, multi-stakeholder forums such as National Platform will be effective. The Platform needs to ensure active participation of academic institutes as one of the major stakeholders. The institutional dialogue can also be strengthened by providing graduate level course in disaster risk management.

There has been relatively little macro-economic and financial analysis of the impact of disasters in Nepal, which is one of the hindrances for cost-benefit analysis of investment in DRR. Central government has yet to internalize the importance of local level planning and implementation of DRR.

### **Recommendations**

Involve academic institutes in the National Platform as one of the stakeholders and ensure that there is enough discussion on policy and implementation which needs research intervention.

Include DRM as one of the core or elective subjects in related ongoing graduate/undergraduate programs of different universities.

Allocate budget to carry out research through students. For this purpose, the universities should take the lead.

Tool for financial analysis of large projects should be developed in order to carry out Disaster Impact Assessment. Such tools should also facilitate decision making by accounting for the contribution made by such projects in building resilience of communities.

### **Core indicator 4**

*Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.*

### **Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

### **Do public education campaigns on DRR reach risk-prone communities?**

Yes

### **Means of verification:**

\* Yes: Public education campaigns.

\* Yes: Training of local government

\* Yes: Availability of information on DRR practices at the community level

### **Description:**

There are many public level events which contribute significantly to raise awareness of the public,

sensitize politicians and advocate policy makers. Earthquake day is observed in February commemorating the 1934 earthquake and it has now been extended to many districts.. UN ISDR day is also observed each year at national level.

Local radio stations and FMs are covering wide areas to circulate general information about disaster risk reduction and specific emergency incidents.

Few other activities carried out by different organization:

- WASH awareness campaign and counseling program at community level
- Community radios, different IEC materials and observation of days in collaboration with other stakeholders including Government agencies
- Community awareness on DRR in 31 communities
- Along with other agencies, supported Earthquake Day and ISDR Day activities and awareness-raising events
- Organizing workshops/meetings to prepare communities to respond to disasters (district and sub-district level)
- Public awareness improved in 13 VDCs and 3 Municipalities in 4 districts
- Collaborative activities on awareness raising activities at local and national

### **Context & Constraints:**

The awareness campaign has gained momentum recently after few fateful events in the new millennium: the 2004 tsunami in Indian Ocean, 2001 earthquake in Gujarat India, 2005 earthquake in Pakistan, 2008 earthquake in China and 2010 earthquake in Haiti. The awareness campaigning is spearheaded by Local NGOs/ CBOs working in the area of DRR with enthusiastic support from the government.

The substantial progress made in awareness raising and sensitizing has resulted in attracting attention of the parliamentarians also. More than 100 parliamentarians (out of 600) have been approached and advocated the disaster risk reduction mainstreaming agenda. A DRR toolkit has also been developed with focus to sensitize the policy makers and parliamentarians.

Most of the awareness activities, however, are focused in urban areas. The activities are neither institutionalized nor internalized within the governance mechanism.

Building culture of safety among communities and sustaining the level of awareness created by public events are some of the challenges.

### **Recommendation**

District disaster preparedness planning at national/regional/district and VDC level should have a major thrust to raise awareness, disseminate information and advocate measures for building resiliency of the communities. The activities should extend their outreach to rural area and should target the communities at risk.

All the Schools throughout the country must have at least one disaster drill each year. Schools can play vital role in developing a sustainable mechanism for sustainability of DRR initiatives and it should be a part of formal and non-formal education.

Training and capacity building of local authority on the issue of DRR should be an integral part of any disaster preparedness plan.

Use of innovative methods for information dissemination and awareness raising can be effective. Street drama and making use of cultural activities can be effective and sustainable way for knowledge and education in DRR.

## Priority for action 4

*Reduce the underlying risk factors*

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### Core indicator 1

*Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.*

#### Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

#### Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc)

No

#### Means of verification:

- \* No: Protected areas legislation
- \* No: Payment for ecosystem services (PES)
- \* No: Integrated planning (for example coastal zone management)
- \* Yes: Environmental impacts assessments (EIAs)
- \* Yes: Climate change adaptation projects and programmes

#### Description:

Nepal experiences frequent hydro-meteorological disasters and Climate change/variability will further increase their frequency and severity. Climate change will also adversely impact lives and livelihoods of hundreds of thousands of people which will render them vulnerable to natural disasters. Moreover, as large share of the population is dependent on rain-fed agriculture, impact of climate change will be manifested in food shortage further aggravating the vulnerability of the population. Although there is general acknowledgement of the issue, lack of sufficient contextual scientific and technical information is impeding program formulation to cope with these adversaries.

The political commitment for mitigating and adapting to Climate Change is reflected in the fact that the Government has formed high level council for Climate change in 2009. In 2008 budget, there was very clear reference to establishment of Climate Change Research Center but has not been realized yet. The commitment has again been repeated in the approach paper for next 3 year plan also (2010-12).

Initiatives such as construction of electric fences, embankment improvement, machans, culverts, drainage, bridges, shelters, irrigation facilities and toilets in the communities in the districts covering over 47,000 population in 5 districts have induced better living environment along with reduced underlying risks on flood, drought, wildlife intrusion and health related hazards including the impacts of climate change. Similar integrated approach of Environmental management, CCA and DRR for improving livelihoods of people will be instrumental in making substantial difference.

#### Context & Constraints:

There is a growing inclination among competing line agencies in the government to believe that Climate Change, Environmental Management and Disaster Risk Reduction have to be taken care of by separate entities. Ministry of Environment is the focal agency for Climate Change and Environmental management

and MoHA is the focal agency for Disaster Risk Management. This has often led to limit the effectiveness of the efforts and also confused implementing agencies not to mention the communities themselves whose first attention always is meeting the immediate needs.

Other challenges include:

- Translating policies into practice
- Community-based projects have limitations in terms of technical quality, resource availability, and operations & maintenance
- Inconsistent recorded data and very high cost of available data
- Inconsistency in the available information
- Wider areas and issues (hazards) to cover within limited resources.
- Resource availability and also maintenance
- Reaching out to the poorest of poor communities due to cost implication for such devices

Recommendation

The high level committee under chairmanship of the Prime Minister envisaged by NSDRM should be formed immediately. The high level committee should develop a framework to realize integration of Environmental Management, Climate Change and DRR issues. The framework should have resonance with the livelihoods of the people at local level.

A network/platform should be established where experts in environmental management, climate change and DRR can exchange views, share information and make coordinated effort.

The development plans and policies need to integrate DRR, Climate Change adaptation and mitigation and environmental management comprehensively in development strategies. This comprehensive approach should also be reflected in the grass-root level implementation as well with the well established link to address the livelihoods of the people.

Establish CC and DRR research center at national level. Implementation oriented and scientific research on inter-linkage of Environmental management, CC and disaster occurrences should be fostered through the center.

## **Core indicator 2**

*Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.*

### **Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

### **Do social safety nets exist to increase the resilience of risk prone households and communities?**

-- not complete --

### **Means of verification:**

\* No: Crop and property insurance

\* No: Employment guarantee schemes

\* No: Conditional cash transfers

\* Yes: DRR aligned poverty reduction, welfare policy and programmes

\* Yes: Microfinance

\* No: Micro insurance

**Description:**

Agriculture is still the largest contributor the GDP of Nepal. Large share of agriculture is still rain-fed and slight climatic variations result in loss of substantial amount of food production. As agriculture is still a informal sector and has yet to develop as industrial sector, insurance of crop is not practiced substantially. Insurance is also not common for residential buildings and infrastructures. Although there is increasing trend of health and life insurance, the insurance system is yet beyond the reach of majority of population where 25 percent of the people live below the poverty line.

Microfinance is promoted through Grameen Bank in rural areas and also through some non-governmental organizations. Cooperative is a large movement across the country. However, due to lack of policy instruments, these microfinance and cooperative movement have not been linked with disaster risk reduction initiatives. Through PRER project (Protracted Relief and Early Recovery Project) 1,000 families were supported with seeds and training of kitchen gardening and waste management training at three Koshi affected VDCs. The families produced vegetables consumed at home and sold at local market in 2009.

There is no safety net for loss of lives, loss of products and loss of livelihoods support system. World Food Programme (WFP) does provide food rations to villagers who participate in work and training programs where they build infrastructure that links them to markets. Women and their young children are provided with nutritional support through monthly take home rations.

**Context & Constraints:**

The existing micro-finance and cooperative structures are key interventions to build safety net for reducing vulnerability of communities at risk. Incorporating CCA and DRR initiatives into these existing mechanisms can also enhance their effectiveness and ensure their long-term sustainability.

Nepal is still highly rural country with more than 80 percent of the people living in the rural areas. However, the urban population growth is substantial in last few years which is around 6 percent compared to national population growth rate of around 2 percent. The urban centers are accumulating risk by increasing constructions which do not meet the building code requirements. The urban population also doesn't have any safety net and their vulnerability is further increased because of their dependency on small business and services in informal sectors.

**Recommendations**

As a pilot project, initiate micro-finance and insurance system targeted for low income groups in few urban centers.

Develop and promote alternative and innovative financial instruments for addressing disaster risk reduction

Enhance involvement of Private Sector in DRR for use of financial instruments (micro finance, micro-credits, insurance etc)

Promote the development of financial risk-sharing mechanisms, particularly insurance and reinsurance against disasters

**Core indicator 3**

*Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities*

**Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

**Are the costs and benefits of DRR incorporated into the planning of public investment?**

No

**Means of verification:**

\* No: National and sectoral public investment systems incorporating DRR.

\* Yes: Investments in retrofitting infrastructures including schools and hospitals

**Description:**

Although there is significant effort to mainstream disaster risk reduction (DRR) into broader development plans, DRR efforts have yet to be dealt with truly cross-cutting theme among different sectoral investments. Sectoral policies such as National Agriculture Policy 2004, National Shelter Policy 1996 (2053 BS), National Urban Policy 2006, etc. have incorporated the disaster risk reduction issues. However, implementation of these Acts is weak.

The investment in different infrastructure is not prioritized in accordance with their contribution to vulnerability reduction and contribution to building resiliency of the communities. Public infrastructures hardly comply with seismic safety of the new construction. There is urgent need to strengthen existing public facilities which were not designed to take into account of the seismic forces.

UNDP in collaboration with Ministry of Physical Planning implemented Earthquake Risk Reduction and Recovery Project (ERRP) project which initiated pilot projects of retrofitting public infrastructure in 5 regions.

Guidelines for structural and non-structural assessment of hospital buildings in Nepal have been developed and few structural retrofitting have been done.

Some other good practices implemented successfully by different agencies are listed below:

- Exploring new initiatives to generate economic sources such as allocating certain percentage of revenue from community forest goes to DDRC fund in Udayapur district and fistful of rice campaign, and emergency relief fund are established in communities.
- Specific policies, guidelines projects have been developed and implemented to reduce the vulnerability of economic activities and some guidelines for social enterprise development is in progress.
- Micro-insurance schemes have, in some cases, been integrated into microfinance activities via partner; agricultural disease management work in 7 districts
- Livelihood capacities of communities have been strengthened in 5 VDCs in 2 districts
- Insurance scheme for the workers in Food for assets type of work will be implemented in current working period.

**Context & Constraints:**

There is limited technical capacity for retrofitting and strengthening of existing buildings compared to the large amount (almost 85-90 percent) of public-private buildings requiring seismic strengthening. Few successful initiatives, which have recently taken up, require scaling up at country level.

The challenges include lack of any systematic studies and or information to identify the most vulnerable economic activities and productive sectors in the country. Nepal Living Standard Survey 1996 and 2003/4 has identified economically vulnerable segments of the society. However, no linkages between

economical vulnerability and disaster have been established.

Developing safety net through wider coverage of insurance is another challenge. Insurance does not cover crops (only livestock and life insurance available); the very poor require skills-building in addition to microfinance, which is hindered by the lack of a well-functioning agricultural extension service

#### Recommendations

Develop, strengthen and multiply cooperative organizations which can support investment, insurance and deposit for small scale farmers and businesspersons.

### **Core indicator 4**

*Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.*

#### **Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

#### **Is there investment to reduce the risk of vulnerable urban settlements?**

No

#### **Means of verification:**

- \* Yes: Investment in drainage infrastructure in flood prone areas
- \* Yes: Slope stabilisation in landslide prone areas
- \* Yes: Training of masons on safe construction technology
- \* No: Provision of safe land for low income households and communities

#### **Description:**

A study conducted by MoHA/JICA (2002) has concluded that Kathmandu valley is at very high seismic risk and “once a great earthquake occurs, Kathmandu will suffer immense losses of life and property and will be unlikely to be able to function as the capital of Nepal.” Realizing the need to build earthquake resistant buildings, Nepal has developed National Seismic Building Code in 1994 and was adopted in 2004. Act has made it mandatory to be implanted in all municipalities and public buildings. Only four municipalities have so far adopted the building code. Lalitpur Sub-Metropolitan City started application of the building code in 2007 and now it has been adopted by three more municipalities including Kathmandu Metropolitan City.

Local municipalities and DUDBC have initiated the process of training masons for earthquake safer constructions and providing them license. The effort, however, is still limited to few hundreds of masons which is an insignificant number compared to hundreds of thousands of masons involved in construction industry.

Few identified slope hazard areas have been stabilized along the roads. However, landslide hazard mapping , prioritization of vulnerable areas and stabilization is still not being carried out.

Land-use planning is a significant commitment by each and every periodic development plans. Unfortunately, the implementation and monitoring is weak due to several reasons. Building Code is made compulsory in municipal areas. New public buildings have been constructed according to the

norms but needs rigorous monitoring mechanism. National Shelter Policy 1996. and National Urban Policy 2007 has incorporated to some extent the issue of DRR.

In order to meet the MDG of Education for All by 2015, Nepal needs to construct 10,000 class rooms each year and new school construction should be made to comply with building standards.

**Context & Constraints:**

More than 85 percent of the buildings in the country are non-engineered constructions. Even the so called engineered buildings are seldom designed according to seismic building code standard. As the country is very high earthquake risk zone, the buildings are at very high risk. Earthquake safety of these existing buildings is of serious concern.

Although trained engineers and designer cannot be produced in coming few years to meet the demand of construction industry, the gap can be filled by raising awareness of house owners and developing trained contractors/ masons.

**Recommendation**

Up-scale the training to masons and contractors to cover all the building types particular to a geographic area

The training and awareness need to be extended also to house owners level as their decision for adopting earthquake safer houses is key to success of the program.

Link School Disaster Risk Reduction Initiatives with awareness raising and capacity building of local communities and local masons.

Ensure that all newly constructed school buildings, hospitals and public infrastructure comply with the seismic building codal provisions. For construction of new schools in remote areas, mandatory guidelines and standards should be developed in local language which can be followed by local artisans.

Develop retrofitting strategy for public facilities, schools and hospitals with tools for prioritization

Develop retrofitting guideline at national level and strengthen capacity of local authorities of Kathmandu valley and of 4 other regional centers (out of 5 including Kathmandu) for implementation of Building Code and Retrofitting for existing buildings.

**Core indicator 5**

*Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Do post-disaster recovery programmes explicitly incorporate and budget for DRR?**

No

**Means of verification:**

\* 0 % of recovery and reconstruction funds assigned to DRR

\* No: Measures taken to address gender based issues in recovery

**Description:**

The 1993 flood in Central Nepal and 2008 flood in eastern Nepal are two recent examples of major

disasters which affected thousands of people. In 1993, there was no experience of dealing with disasters and the emergency response was chaotic let alone the post disaster recovery. Contrary to that, the response in 2008 was well coordinated because of large effort put on learning from the past failures. However, even for 2008 flood, series of gaps were realized in the transition from response to recovery and phase of recovery and rehabilitation.

Realizing the gap, Nepal Risk Reduction Consortium came up with five flagship programs of immediate intervention for DRM in Nepal and flood management in the Koshi river basin is one of them.

In 2009/10 annual budget 1.3 billion was separated for relief, land development and rehabilitation of the victims of the floods in Koshi and Far and Middle West; and for immediate relief and protection programmes to operate immediately after natural disasters.

As Nepal is transition phase from 10-year long insurgency which resulted in loss of many infrastructure, the GoN has allocated about 5% of its annual budget (2009/10) for relief, reconstruction and rehabilitation.

Two year PRER (Protracted Relief and Early Recovery Project) focusing on Education and Nutrition, in Koshi affected VDCs. The project has supported nearly 5,420 children, in terms of nutrition. Shelters and improved livelihood capacities have been implemented at the community level that integrate into post recovery process.

#### **Context & Constraints:**

Nepal, like many other least developed countries, has limited resources to meet overarching infrastructure and social development needs. As the emergency phase is over, the attention of frontline media will be over and disaster affected people are left alone to live on their own. This not only lead to make the affected people more vulnerable but also to invest in infrastructure which increase vulnerability.

Lack of institutional arrangement at central and local level for integrated Disaster Risk Management has led to inefficient use of resources invested in recovery and rehabilitation. The decisions are made on ad-hoc basis and often contributing to more disastrous situation.

#### **Recommendation**

Involvement of community from planning to implementation in response, recovery and rehabilitation can ensure effective investment disaster resilient recovery.

Establishment of separate technical cell to look-after recovery and rehabilitation

Enforcement of seismic standards for new construction

Prepare system and mechanism for incorporating disaster risk reduction into post-disaster recovery and rehabilitation (Build Back Better)

Ensure system for using opportunities during the recovery phase to develop capacities that reduce disaster risk in the long term, including through the sharing of expertise, knowledge and lessons learned

#### **Core indicator 6**

*Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.*

#### **Level of Progress achieved:**

2: Some progress, but without systematic policy and/ or institutional commitment

#### **Are the impacts of major development projects on disaster risk assessed?**

No

**Means of verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Environmental Impact assessment is a mandatory process for large scale project; however, there is no process established for Disaster Impact Assessment. There is growing acknowledgement to assess disaster resiliency of development projects.

Kathmandu is at high earthquake risk but neither the residential buildings nor the public buildings have gone through vulnerability assessment. There is sincere awareness among government authorities, local authorities and, to some extent, among general public as well. However, the level of risk has not been assessed for buildings, infrastructures and lifelines.

**Context & Constraints:**

Government is aware of the need to incorporate and institutionalize disaster impact assessment (DIA) in major projects during its design phase such as EIA. However, it needs substantial revision of the existing Act or enforcement of new Act. The capacity is limited not only at the local levels but also at the central level. There is lack of tools for impact assessment and also for assessment of contribution of a particular project to the resiliency of communities.

**Recommendations**

Contribution to disaster resiliency should be one of the factors for prioritization of projects as it will be instrumental in building resiliency to nations and communities.

Establish a mechanism to assess disaster impact of development project.

Develop system and mechanism to include Disaster Impact Assessment (DIA) along with Environmental Impact Assessments (EIA) in all major projects; and incorporate disaster consideration in environmental and natural resources management.

**Priority for action 5**

*Strengthen disaster preparedness for effective response at all levels*

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**Core indicator 1**

*Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Are there national programmes or policies to make schools and health facilities safe in emergencies?**

Yes

**Means of verification:**

\* Yes: Policies and programmes for school and hospital safety

\* Yes: Training and mock drills in school and hospitals for emergency preparedness

**Description:**

School safety and hospital safety have yet to gain major thrust in the national programs and budgetary support. Few activities carried through departments and line agencies are not significant to impart a major change. There is program on School Earthquake Safety Program (SESP) from 1999 and has already been retrofitted few school buildings in order to make them earthquake safer. Hospital emergency preparedness is also carried out with lead support from Tribhuvan University (TU) Teaching Hospital but has yet to be internalized by many hospitals. Bheri zonal hospital is also retrofitted to ensure service/functions within hospitals during emergency period. Agencies are also working to form Disaster management committees and different task forces: Early warning, Health, Search & Rescue, Food & water, Shelter & NFI and are formed under each DMC. Schools have been involved as integral part of CBDRM. School based DMCs are formed and school based DRR/DP activities done in some districts.

School and Hospital safety is one of the five flagship areas identified by an international Consortium of ADB, IFRC, UNDP, UNOCHA, UNISDR and World Bank (formed in May 2009). The flagship area on School and Hospital safety focuses on a seismic safety of schools and hospitals. An estimated USD 52 million is proposed for this flagship area.

**Context & Constraints:**

It is estimated that there are about 60-80,000 school buildings in 32,000 public schools all over the country. There are also thousands of private schools which have almost equal number of building structures. These buildings seldom meet building safety requirements and need immediate attention either to replace them or retrofit them.

Additionally, Nepal requires to add 10,000 classrooms each year in order meet the MDG of Education for All by 2015. Because of large number of constructions involved and also because of the urgency with which these schools are being built, the new constructions do not meet the building safety regulations. Following building safety standards for new constructions can be instrumental in reducing the underlying risk.

The real challenge is to upscale these practices through massive capacity building and creation of working conducive legal and policy environment at all levels. Lack of implementation mechanism is a challenge from the VDC level to the central level in every sector.

**Recommendation**

Develop Safe School Construction manual for different regions with special focus on reducing the multi hazard risk in the area.

Implement mandatory provisions for following building safety regulations for construction any new schools and hospitals.

Assess multi-hazard and vulnerability of school buildings throughout the country, rank the schools for actions to be taken (either to replace, retrofit or safe enough to continue operation) and prioritize the intervention according to the level of hazard.

Assess seismic safety of all the hospitals throughout the country and recommend safety measures for the hospitals.

Develop policy and mandatory regulations for structural and non-structural safety in case of major earthquake for all hospitals throughout the country.

## Core indicator 2

*Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.*

### Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

### Are the contingency plans, procedures and resources in place to deal with a major disaster?

Yes

### Means of verification:

- \* Yes: Contingency plans with gender sensitivities
- \* No: Operations and communications centre
- \* Yes: Search and rescue teams
- \* Yes: Stockpiles of relief supplies
- \* Yes: Shelters
- \* Yes: Secure medical facilities
- \* Yes: Dedicated provision for women in relief, shelter and emergency medical facilities

### Description:

Nepal developed the National DM Plan in 1993 itself, However, due to several reasons including lack of institutional mechanism at central level, the activities were not successfully implement and monitored. Since then, several agencies - both government and non-governmental - are working in the field of DRM/R on their own. This has hindered the progress and often resulted in wastage of resources due to duplication of activities and lack of institutional memory.

Considering these facts, Pre-monsoon workshop is carried out at National level which is instrumental in reviewing lessons from past disasters, review of existing documents and practices and recommends strategy for disaster level preparedness plan. The workshop developed templates for multi-stakeholders consultation workshop at district level, mapped agencies working at the districts and identified lead agencies to support the activities of District Natural Disaster Relief Committee (DNDRC) in each district.

After the central level workshop, 67 districts have prepared disaster preparedness plan. District Natural Disaster Relief Committee (DNDRC) is the district level committee, provisioned by NCRA (1982) to look after emergency response which ensures participation of administration office, district development office, line agencies, Nepal Red Cross Society (NRCS) and non-governmental sectors.

Preparedness planning is still to be incorporated at VDC, Municipality and even district levels. NRCS has some stockpiles of relief supplies and has warehouses to store food and non food items at strategic locations for emergency use up to the VDC level. This should accompanied by appropriate capacity building for inventory, periodically replenishment of supplies, and operation of preposition of the materials. Government should provide enabling environment for youth to work as volunteers in disaster preparedness and response.

One National Emergency Operation Center will be completed this year and its operation will commence by the end of 2010. Emergency response simulations have been conducted in few districts.

**Context & Constraints:**

Due to lack of coordination, technical capability and resources, the plans are not effectively implemented and monitored. The district disaster plans are essential but not sufficient for effective emergency response and response preparedness. There are no regular drills and exercises to test, review and update the plans. Although the plans are tested against disasters, institutional process to review the plans will make significant contribution to increase its effectiveness.

Some of the challenges faced by different organizations are listed below:

- Difficult to mobilize DDRC members
- Lack of evacuation shelters is sometimes a problem
- Duration of programs is very short for project based activities and this constraint often results in one-time activity
- No enough time required for simulation
- Insufficient feeding of information in the prescribed formats.
- Lack of pre-positioning provisions of agencies.

**Recommendations**

All districts should prepare District Disaster Preparedness plan and MoHA should take leadership to ensure that the districts have technical capacities and resources to do so.

The periodic budget should allot at least 10 percent of annual budget for disaster risk management and DRR initiatives.

The District Contingency Plans should be tested at least once a year by conducting drills and exercises with involvement of all stakeholders. The outcome of the drill should be reflected to review and update the plans

The cluster approach should be continued and strengthened by allocating clear roles and responsibilities and sharing good practices (Recommendation by Association of International NGOs in Nepal)

**Core indicator 3**

*Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.*

**Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Are financial arrangements in place to deal with major disaster?**

Yes

**Means of verification:**

\* Yes: National contingency funds

\* No: Catastrophe insurance facilities

\* No: Catastrophe bonds

**Description:**

The Government has two sources of funding for response and recovery activities; The Prime Minister's

Disaster Relief Fund and the Ministry of Home Affairs' regular disaster relief fund. The resources for the first one come from the government as well as individual and institutional donation/ contribution within and outside the country and the second one from government regular budget. In every annual budget, the government allots 50 million (NRs) dedicated fund for emergency response. Every year substantial budget is allotted in regular development program for recovery.

There is provision for District Disaster Relief Fund with sufficient amount as the situation demands in each 75 districts. Additionally, Nepal Red Cross Society (NRCS) separates relief fund and stocks; UN has also central emergency and relief fund.

Not only the government agencies, but I/NGOs also have been instrumental to set up separate resources at local level.

### **Context & Constraints:**

The budgetary provision is not sufficient in comparison with the depth and breadth of yearly disaster impact in the country. Moreover, there is no dedicated fund for recovery. As disaster impact is witnessed in the loss of lives and loss of livelihoods of the poor strata of the population, a long-term recovery package has to be designed and implemented to support the affected people.

The emergency response and recovery process should contribute towards risk mitigation and livelihood support to the communities with a 'building back better' approach. However, lack of institutional mechanism and capacity to deal with the disasters has rendered the emergency support ineffective to support the livelihoods of the people. Insurance and micro-finance are two effective instruments to build resiliency of the communities. However, there are no insurance and bond provisions for catastrophic events due to lack of policy instruments.

Kathmandu valley is exposed to very high seismic risk and a report by MoHA/JICA (2002) suggests that the governance mechanism will totally collapse and Kathmandu will stop to function as capital city in case of a major earthquake in the valley. Although this has been realized from many decades, effective programs for risk reduction and emergency preparedness are lacking in substance.

### **Recommendation**

Kathmandu Valley Comprehensive Earthquake Risk Mitigation Strategy has to be developed; a separate and dedicated fund has to be established for recovery. Resilient Infrastructures have to be developed and Emergency Preparedness Plan has to be formulated.

A policy tool has to be developed to ensure disaster resilient public facilities such as schools and hospitals.

Separate dedicated spaces have to be provided for emergency evacuation and temporary shelter for people displaced from disasters. Such spaces should be developed for all 58 municipalities and 75 districts headquarters.

Develop and implement emergency preparedness plan for Kathmandu valley which supports the risk mitigation and preparedness strategies.

### **Core indicator 4**

*Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews*

### **Level of Progress achieved:**

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

**Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur?**

Yes

**Means of verification:**

- \* Yes: Damage and loss assessment methodologies and capacities available
- \* Yes: Post disaster need assessment methodologies
- \* Yes: Post disaster needs assessment methodologies include guidance on gender aspects
- \* Yes: Identified and trained human resources

**Description:**

MoHA compiles the damage and loss data from district offices on regular basis and disseminates it to the stakeholders. NRCS compiles the data after disaster in rapid assessment format developed with the help of MoHA and disseminates it to the stakeholders.

In order to provide need based support to the affected people, cluster-wise information is collected through Multi-sectoral Initial Rapid Assessment (MIRA). MIRA was used in Koshi flood (2008) and has been used in other disasters as well. This format ensures cluster wise need assessment and avoids data duplication among different agencies.

Association of INGOs Nepal (AIN) has published Report on “Nepal’s Emergency Preparedness and Response System- Good Practices, lesson learned and gaps.” One of the key lessons learned underscored in the report is that “disaster actors ..have adopted a culture of producing and distributing situation reports. This is a change from the past, when individual organizations kept record for their own benefit only.” It also launched the “Minimum Standards for Education in Emergencies, Chronic Crises and Early Reconstruction (A Nepali version)” which will be instrumental in ensuring continuation of education facilities in the emergencies.

**Context & Constraints:**

Comprehensive disaster risk management is a recent development in Nepal and the focus has been only in isolated emergency response and relief. Only recently, the need for integrated approach has been realized. However, there are still substantial gaps in the implementation of the realization for productive results. Similarly, the commitment of the government reflected in the paper seldom is translated into programs with enough budgetary allocations.

Formation of national and district levels forums to share knowledge, information and resources, is first step towards realizing integrated disaster risk management approach. Disaster information management systems should be decentralized to the district level for analysis and use for planning purpose. First hand data on information on hazard and disaster impact should be collected from ward and village level. Necessary mechanism and capacity for this should be installed and updated regularly.

Integrate advanced technology with community owned initiatives for affordable, effective and sustainable approach.

**Recommendations**

Develop EWS for major hazards and link it with print and electronics media for faster dissemination. One

of the approaches to do this would be to connect EWS with mobile phones which now have reach to the rural areas as well.

Disaster data management system should be further strengthened so as to make the information readily usable by the communities at risk.

Develop infrastructure for EOC so that it can act as central agency to coordinate data collection system, to analyze the data and to disseminate it to the communities.

## Drivers of Progress

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### **a) Multi-hazard integrated approach to disaster risk reduction and development**

#### **Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

#### **Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?:**

Yes

#### **If yes, are these being applied to development planning/ informing policy?:**

No

#### **Description (Please provide evidence of where, how and who):**

MoHA with support from World Bank is finalizing country level Multi-Hazard Risk Assessment. The different hazards included in the assessment are earthquake, flood, drought, landslide and epidemic. The study will also focus on economic impact of different hazards.

The document will be a milestone in disaster risk reduction initiative of the country. However, more studies need to be carried out to develop tools to incorporate those information in development projects and policies. Another challenge is on disseminating the risk information to local authorities and communities so that it is incorporated into their decision making.

More effort should be on localizing the multi-hazard information and making it available to the communities. Involvement of communities for local level hazard map preparation guarantees ownership of the project with the communities which is essential first step to make the intervention a sustainable and self-evolving process.

### **b) Gender perspectives on risk reduction and recovery adopted and institutionalized**

#### **Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

#### **Description (Please provide evidence of where, how and who):**

Because of cultural norms, Women in Nepal are still under-privileged compared to their male counterpart in terms of the literacy rates, access to resources and access to political power. Therefore, mainstreaming gender, which basically needs to put emphasis on women focused approach, into disaster risk reduction and climate change policy-making and implementation is essential for success

and sustainability of the strategy.

One of the eight guiding principles of NSDRM is Gender mainstreaming and social inclusion.

There is full acknowledgment of the issue at national level; however, a comprehensive assessment of acknowledgment of the issue at local level has yet to be done. The Government of Nepal disaggregates the annual budget in sector-wise gender responsive section. The 2009/10 annual budget has 17.3, 36.43 and 46.27 percentage allocation for directly supportive, indirectly supportive and Neutral gender responsive allocation, respectively. The commitment of the government at central level is also reflected in National Plans and Policies which is also underscored in the recently published approach paper for next 3-year plan.

The need and success of gender sensitive DRR are reflected in studies and projects carried out by different agencies. In a project called SAMADHAN (meaning 'solution'), the participation of Women and Children, at times outnumbered men's and boys' participation in training and evacuation drills. When the seasonal flooding occurred, the Samadhan communities showed their new collective strength, and saved lives and assets that, otherwise, would have been lost.

### **c) Capacities for risk reduction and recovery identified and strengthened**

#### **Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

#### **Description (Please provide evidence of where, how and who):**

The need for mainstreaming DRR in development plans have been fully acknowledge as reflected in the National Plans. In order to achieve the overarching goal of disaster resilient communities, communities need to be engaged in DRR which can be achieved only through capacity building of communities and ensuring their participation.

Capacity building at all levels only can ensure effective disaster risk management. Involvement of communities in DRR initiatives requires strengthening their capacity which requires information exchange at different stages. At the initial stage, community is unaware of the significance of the intervention and hence awareness campaign is the first logical step for capacity building. The awareness campaign will be instrumental to raise their interest and orientation program, at second stage, will be able to encourage them to understand the complexity of the problem. At the third stage, there is need for intensive training which will result in informed decision making for DRR.

Several agencies both government and non-government have been organizing different training programs in the field of DRR/M. This is a positive step; however, it has not resulted in substantial progress as the intervention is carried without doing the national level need assessment. Similarly, many INGOs are supporting local organization without doing the proper assessment of the need of that particular local organization from a long term perspective. Therefore, much of these capacity building activities are not strengthening capacity. They are rather creating dependency.

### **d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities**

#### **Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

Human security includes means to secure basic rights, needs, and livelihoods and to pursue opportunities for human fulfillment and development. Disasters are increasing in impacts and scope, not due to hazards alone, but because of the combined effects of large-scale environmental, social, demographic, and technological changes. Climate change and the potential for increased disasters related to extreme events also raise critical concerns for long-term human security. There are no provisions laid to take into account of the socio-environmental risk to the most vulnerable and marginalized groups (CCA, DRR and Human Security, GECHS, 2008).

Realizing the need to address specific issues of vulnerable, marginalized and poor strata of the society, the GoN has put forward special economic program for such underprivileged and vulnerable groups. One of the eight guiding principles of NSDRM is ensuring human and social security.

There are about 20,000 squatter settlers in 70 plus squatter settlements alone. There are still 25% of the people living below the poverty line earning less than a dollar a day. Government of Nepal is constructing 3,000 housing units targeted for the poor in eastern Terai.

Detailed risk assessment of the squatters and slum dwellers need to be carried out. The settlers need to be made aware of the risk they are exposed and immediate measures have to be applied to reduce the underlying risk.

**e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels****Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

MoHA has started active engagement of DRR stakeholders at central level through regular Multi-stakeholders meeting. National Platform has been constituted and its institutionalization process is gearing up. DP-NET, a network of individuals and organizations involvement in disaster risk management, is actively engaged in creating forum for the stakeholders to share experiences, develop future actions and implement effective initiatives for comprehensive disaster risk management.

At district level, partnership for disaster preparedness and response has fostered in pre-monsoon workshop and district disaster plans. In 2010, out of 75 districts, 67 carried out pre-monsoon workshop and prepared district disaster preparedness plan compared to 26 last year. In 2010, pre-monsoon workshop was held at regional levels also in five regions. Districts also have DNDRC which is a forum where government line agencies, non-governmental organizations and private sectors are involved as recommended by the NCRA (1982).

These activities reflect that there is acknowledgement of the multi-stakeholders engagement at all levels. However, the focus primarily has been on emergency response and relief rather than comprehensive disaster risk management package. This is partly because of the limitation of the current Act and partly because of the traditional mindset of considering disaster risk management as equivalent to emergency response and relief. The current Act needs to be amended (and MoHA has already prepared draft amendment to be tabled at the parliament in near future) reflecting the need of comprehensive approach for disaster risk reduction.

A high level arrangement at central level and separate focal agency to work at central and local levels need to be established with involvement of multi-stakeholders as envisaged in the NSDRM (2009).

## f) Contextual Drivers of Progress

### Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

### Description (Please provide evidence of where, how and who):

1. The emphasis put on DRR in National Plans from 10th National Plan (2002-07) reflects the awareness and acknowledgement of mainstreaming DRR in sustainable development agenda. However, the commitment in policies and plans are not met for different reasons. At macro level this is partly due legal instruments in line with the need to invest on preparedness and sound recovery and partly due to traditional mindset of line agencies to neglect in disaster resilient investment.
2. About 300-350 lives are lost each year due to hydro-meteorological disasters and most of the losses occur during monsoon period. Realizing this fact, Pre-Monsoon workshop is organized each year with involvement of stakeholders. Although this activity narrowly focuses on emergency response planning, this has proved very effective in responding to disasters. The approach should be extended to encompass the comprehensive disaster risk management framework with emphasis on preparedness and mitigation.
3. Nepal Risk Reduction Consortium has identified five flagship areas of immediate intervention for disaster risk management in Nepal. The development process of the flagship areas involved multi-stakeholder process with the Government of Nepal and civil society organizations. One of the flagship areas is intervention in School and Hospital safety.

## Future outlook

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### Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

### Overall Challenges:

There is full acknowledgement in the development policies and plan for incorporating disaster risk reduction into development plans. However, what is reflected and underscored in the plans are not substantiated in the annual programs and budgets. One of the reasons for this is lack of tools to assess contribution of an investment in development sectors towards disaster resiliency of a community and/or nation. There is necessity to devise mechanism to assess disaster resiliency of the project itself and also of its contribution toward disaster resiliency of a community.

### Future Outlook Statement:

As the adverse impacts of climate change are being witnessed across the societies, their vulnerability to disasters is also increasing manifold. Additionally, the environmental and health risk pose substantial challenge to lives and livelihoods of people. Therefore, the policies, plans and institutions should be able to comprehend the combined risk to communities from these adversaries and devise policies to effectively reduce their negative effects. There is growing trend to compartmentalize disaster risk reduction, climate change, environmental risk and health hazards as separate domain. This approach will not only address the partial problem only but also will be detrimental to long term sustainability of development effort. Moreover, the intervention for the integrated approach need to have direct linkage with livelihoods of people to ensure community ownership of any development effort.

## Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

### **Overall Challenges:**

The emergency response and relief approach is so entrenched in the current system that it will take time to mobilize the system to more comprehensive disaster risk management approach. The new policy and act which are in pipeline will be instrumental to gear up the effort towards changing this mindset. The new policy and act will also ensure sufficient budgetary provision and mechanism to spend on mitigation, preparedness and recovery.

### **Future Outlook Statement:**

The immediate need and highlight in emergency response attracts is not visible in mitigation, preparedness and recovery phase. There is need to develop tools to which can show the difference made by investing in preparedness activities. Such tool will also be instrumental in advocating for more resources being diverted towards preparedness activities.

## Area 3

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

### **Overall Challenges:**

Although emergency response has been the main thrust of disaster risk management in the previous years, it was basically wait and see approach with spontaneous reaction to provide rescue and relief. SOPs have not been developed, institutional mechanisms are not strong, relief funds are distributed on ad-hoc basis and there is no central emergency coordination mechanism. The newly established EOC will be one step towards a better response mechanism. However, there is need to develop network of EOC across the country from central to local level.

The challenge is to drive the shift on paradigm of disaster management approach from conventional rescue and relief approach to integrated approach where multiple hazard environments are considered. This requires change in practice, attitude and commitment of both government officials and civil society actors.

### **Future Outlook Statement:**

Capacity development of emergency response team, development of standardized damage and loss estimation system, process to assess risk in advance of a disaster and information sharing mechanism are some of the challenges for emergency response.