## Mainstreaming Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in Development programs

Mainstreaming Disaster Risk Reduction into Development and Disaster Management Plans is an important mandate of the Disaster Management Act 2005. Already there is an emerging consensus that the key to achieve sustained reduction in disaster loses lies in factoring risk considerations into development activities. Risk sensitive land-use planning, building regulations with provisions for structural safety against natural hazards, construction of hazard resistant infrastructures including housing, mechanism for disaster risk audit, catastrophic risk insurance etc. could reduce future disaster risks.

Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimizing that activity's potential contribution to hazard specific vulnerability. In order to mainstream DRR appropriate policy interventions and adequate financial allocation would be required.

**Approaches for mainstreaming**: There are three suggested approaches of mainstreaming disaster management into the development process and disaster management. There are:

- Structural Measures
- Non Structural Measures
- Disaster Mitigation Projects

**Structural measures**: In the structural measures to build in DM concerns one could look at new projects, ongoing projects and existing structures. All <u>new projects/programmes</u> should be reviewed to see whether Disaster management concerns have been incorporated. This would entail:

- Ensuring that all new critical infrastructure projects like power, water, communication etc., compulsorily comply with the safety standards of disaster reduction.
- Strengthening of techno-legal regime like implementation of provisions of BIS code, Town and Country Planning Act and building byelaws as well as the national guidelines issued by the NDMA on various disasters.
- Ensuring that all existing infrastructure establishments are retrofitted from future disasters, to the extent possible.

<u>Ongoing Projects/Programmes</u> will also need to be audited to ensure that the completed structures such as infrastructure installations have structural alternatives added on to ensure resilience, to specific disasters to which the concerned locations are vulnerable.

Existing structures and Projects/Programmes already completed would have to revisited selectively, say first focusing on lifeline buildings like district hospitals, multi-storied buildings etc. The manner of undertaking such an exercise is dealt with in the NDMA

guidelines, especially those relating to the management of Earthquakes, Cyclones and Floods.

**Non structural measures**: Some of the non-structural measures for mainstreaming DM into development plans include-

- Amendment of Building bye laws and master plans for earthquake proofing/ flood management, etc.,
- Amendment of Land use and zoning regulations
- Flood plain zoning
- Strengthening the enforcement mechanisms

The national cyclone risk mitigation project is an example of a national level mitigation project. Other examples are the proposed National Earthquake mitigation project, Landslide Mitigation Project and National Flood Mitigation Project. Incorporating Disaster risk reduction measures into development programmes involving construction of buildings etc., such as Sarva Shiksha Abhiyan, Indira Awas Yojana, Jawaharlal Nehru National Urban Renewal Mission, Rajiv Awas Yojana etc. is yet another approach to reduce risk being created through new projects, and these projects itself could contribute to reduction of existing risks. Some other Projects outside the framework of plan schemes such as projects on Awareness programmes, Capacity building, Community based DRM projects, upgrading early warning systems and developing failproof communication networks, micro-zoning, etc. could also be used.

Based on the suggested approaches the specific actions would involve -

- Adopting a sectoral approach and identification of Key sectors for mainstreaming. Within each sector, key programmes/projects would have to be identified. This has to be followed by identifying the entry points within the programmes/projects for integration.
- It would also involve work at the policy and planning level be it national, state and district level.
- It would also need a close coordination with the State Planning Commission and Finance Department for promoting DRR into all development programmes and involve working with different departments to mainstream DRR into the departmental Plans and policies.
- Advocacy would have to be done for allocation of dedicated budget for DRR within the departmental plans.
- Further, appropriate guidelines for different sectors would have to be developed and for it to be effective and sustainable DRR would have to be ultimately integrated to the development plans of various departments at the district and sub-district levels.