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Figure 1: Relationship between climate change adaptation and disaster risk reduction (source: ISDR) *Background paper*

**National Workshop  
on  
“Reducing Vulnerabilities to Climate Change and Disaster Risk through  
Integrated Water Management “**

**AusAID-UNDP Climate Change Adaptation Project (2011-2014)**

*Venue: New Delhi*

*Dates: 17 December, 2012*

**1. Background of the Project:**

The Australian Agency for International Development (AUSAID) and UNDP entered into a partnership agreement in 2011 to enhance climate change induced risk management capacities (adaptation, disaster mitigation and risk reduction) in one district each of flood-prone areas of Orissa and drought-prone areas of Madhya Pradesh. This project is dovetailed with the on-going Government of India-UNDP Disaster Risk Reduction (DRR) Programme that aims to strengthen the institutional structures to undertake disaster risk reduction activities at various levels, as stipulated in the National Disaster Management Act (2005).

The objectives of the project are develop models of community-based management of water resources; Integrate water management and climate change risk concerns into disaster management planning at district and Gram Panchayat levels. It would also strive to integrate adaptive water management practices in the state-level policy and planning processes related to climate change and disaster risk management. Overall, the project seeks an integrated approach to link climate change adaptation, disaster risk reduction and water management in order to enhance the adaptive capacities of vulnerable communities.

**2. Climate Change Adaptation and Disaster Risk Reduction:**

The Intergovernmental Panel on Climate Change (IPCC) defines “climate change” as “a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer”

Natural hazards by themselves do not cause disasters – it is the combination of an exposed, vulnerable and ill-prepared population or community with a hazard event that results in a disaster. The scientific evidence shows that climate change poses a double threat for disasters. Firstly, increases are expected in the frequency and intensity of weather and climatic hazards such as floods, cyclones, heat waves and droughts (already occurring in some places). Secondly, there are likely to be other changes such as ecosystem degradation, reduced availability of water and food, and impacts on livelihoods, which together will reduce the capacities of communities to cope with natural hazards. Climate change will add yet another stress to those of environmental degradation and rapid unplanned urban growth, further reducing communities’ abilities to cope with even the existing levels of weather hazards.

Nowadays, linkages between Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) are being debated widely. Both CCA and DRR overlap a great deal through common factors of



“weather and climate” and “similar tools used to monitor, analyse and address adverse consequences”. Therefore, it makes sense to consider these together while conceptualizing relevancy interventions and implement them in a systematic and integrated manner. For example, risk assessments, flood management systems and enforcement of building codes contribute to the policy goals of both. At the same time there are areas of non-overlap, such as in earthquake risk engineering for disaster risk reduction and agricultural or trade policy initiatives for adaptation.

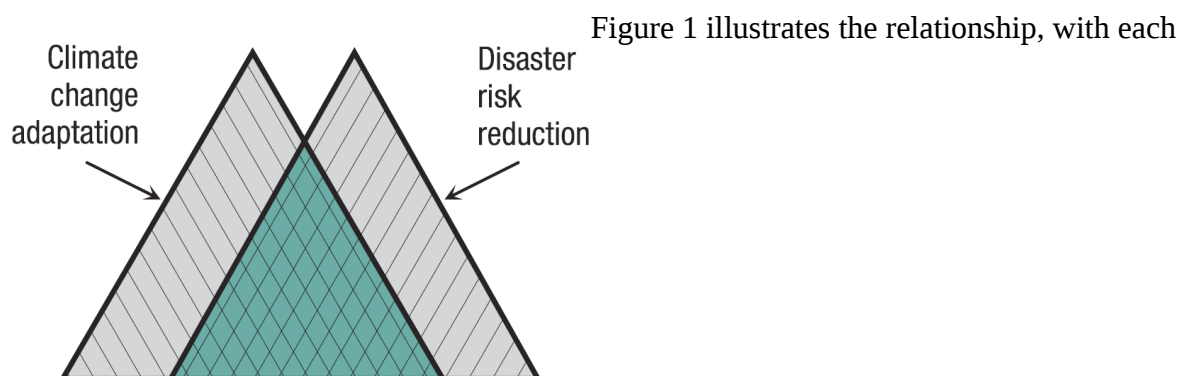


Figure 1 illustrates the relationship, with each

pyramid representing the hierarchy from a distinctive top-level policy goal, down through institutions and mechanisms, to a base of concrete programme actions that increasingly overlap. Climate change adaptation and disaster risk reduction share another common feature – they are not sectors in themselves but must be implemented through the policies of other sectors, in particular, those of agriculture, water resources, health, land use, environment, finance and planning. There are also linkages with other policies, most notably poverty eradication and planning for sustainable development, and education and science.

Climate induced hazards impact communities across socio-cultural and economic groups. Women, children, disabled and old are at even more risk due to their vulnerability, while the poor are inept to deal with the onslaught of disasters as it directly impacts their livelihood. The inequitable distribution of rights, resources and power – as well as patriarchal cultural rules and norms –constrains many people’s ability to take action on climate change, especially for women. Therefore, gender is recognized as a critical factor in understanding vulnerability to climate change.

The Government of India is strongly committed to minimize the adverse impacts of climate change in the short and medium-term and to strengthen the resilience of the country to climate change. The National Action Plan for Climate Change (NAPCC) acknowledges the importance of reducing the negative impact of climate change, particularly on women and men from poor and more vulnerable sections of society. A critical impact of climate change for the country will be on water security. The National Water Mission under the NAPCC aims at "conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management". Integration of disaster risk reduction into national and local development policies and plans is considered one of key processes to promote a sustainable and climate resilient development paradigm. Communities, especially poor women and men, need to be supported in adopting and incorporating risk reduction concerns into their day-to-day lives, livelihoods and occupational patterns.

### 3. Risk Reduction through Integrated Water Management



The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report of the Working Group II describes the likely effects of climate change, including increases in extreme events. Drought-affected areas are likely to become more widely distributed. Heavier precipitation events are very likely to increase in frequency leading to higher flood risks.

Integrated Water Management (IWM) is a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP-TAC 2000). The 12<sup>th</sup> Five year plan has emphasized the need to create a framework which addresses integrated water management to deal with climate change related risk. Though the proposed new version of the National Water Policy 2012 re-emphasise water as an ecosystem service; it does not provide adequate linkages with environmental, natural resources or disaster management policy.

The AusAID-UNDP Climate Change Adaptation project aims to incorporate methods to reduce vulnerabilities to climate change and disaster risk through integrated water management. This has been one of the key messages from national and state action plans on climate change but not been implemented. Lessons from this project will feed into above plans.

The Project is supporting interventions at two levels:

- 1) Support the development of local strategies and the demonstration of adaptive water management measures on the ground in pilot sites in two districts in two different ecosystems.
- 2) Use the experience and lessons gained from its support at local level to inform and influence development planning process and policy-making at district and state levels particularly related to State Level Action Plans on Climate Change and the State Disaster Management Plans. The project will help link development, adaptation, and disaster risk management in an integrated way, and to promote cross-sectoral and coordinated responses to address the risks of climate change.

*With the above background, a National Workshop on Reducing Vulnerabilities to Climate Change and Disaster Risk through Integrated Water Management is being organized by UNDP in New Delhi on 17 December 2012. The workshop objectives are:*

- *to discuss with key stakeholders the concept, issues, experiences on adaptation and disaster risk reduction measures taken by various agencies*
- *Identify national level policy/programme interventions required to mainstream CCA/DRR in development, especially by focusing on an integrated water resources management approach*
- *Explore collaboration opportunities*

**Participants:** About 50 participants from Government and non-government sectors, Research and Development organizations, Community members, donor organizations etc.