

## **Disaster Risk Reduction and Sustainable Climate Change Adaptation: An Overview from South Asia**

### **Disaster Risk Reduction and Sustainable Climate Change Adaptation**

Sustainable climate change adaptation is the key to enabling significant changes in the field of DRR and climate change adaptation. The unprecedented challenges created by climate change can be decreased through planned and integrated adaptation measures. To date, DRR and climate change adaptation have evolved with independent plan in risk management. Although the main component of sustainability is flexibility to both climate changes and disaster by adapting to better enduring impacts and to quickly recover from these. As DRR deals with variability of climatic condition and is considered as important protection against impacts of climate change, conversely it must highlight adaptation by considering future changes into analyses and developing model and thereby considering along with both prospective risk and corrective risk.

Current assessment techniques seem inadequate to deal with both existing disaster risks and possibilities of future risks caused by both endogenous development and exogenous changes and short-term DRR actions. Models and frameworks of good practice and policies now exist amongst researchers, GOs and NGOs. Building understanding, appropriate structures and capacity building for adoption within GOs, NGOs, stakeholders and other international organizations is now a priority.

### **Disaster Risk Reduction and Sustainable Adaptation to Climate Change in South Asia**

The aims of Disaster Risk Reduction in South Asian region is to minimize the effects and reduce risk of a disaster by building awareness among people about particular disaster event, building safe homes and cyclone shelter in flood and cyclone prone areas, developing saline-resistant rice varieties, or implementing early warning systems, for example.

It is now widely established that change in the climatic condition has a direct impact on seriousness and prevalence of disasters. Changing temperatures, rising sea levels, and higher rainfall are likely to make disasters more frequent in South Asia. DRR and adaptation to climate change both seek to achieve sustainability and reduce vulnerability of people. Indeed, efforts are developing to link sustainable climate change adaptation and DRR more closely in policy, plan and practice.

Disaster Risk Reduction is essential to adaptation and is the first step of defense against impacts of climatic change, such as, sea level rises or flooding from glacier melt. DRR expertise and knowledge on building resilience is a functional starting point for adaptation plans. In turn, the DRR group needs to think much more about the long term impacts of climate change linked disasters such as the deforestation, soil erosion and loss of biodiversity.

In South Asia, local communities are the most vulnerable and directly affected by disaster events but they also have important indigenous knowledge, passed down from generation to generation, to manage and reduce risk. The poorest and marginal farmers are the most vulnerable to disaster risk. They have no safety nets or savings and no alternative sources of food or income, for instance, a flash flood or cyclone destroys their crops, livelihood and home. Reducing people's vulnerability to disaster at the community level and make them prepared for most devastating disaster event means they will be much more resilient to natural hazards and disasters.

There are many types of sustainable adaption and DRR activities, some of them are as follows:

- using indigenous knowledge, which is tested and tried in the local context
- establishing early warning systems, even though these can be costly maintain and to run
- developing contingency plans
- building awareness and understanding through local activities and events
- Putting micro-finance initiatives and insurance in place to assist transfer risks and supply additional resources.
- helping people find alternative sources of income
- building safe homes and flood-resistant buildings
- Schools in the cyclone and flood prone areas can be built in a way that can be used as safe home or cyclone shelter during disaster events

Adaptation success depends on rapid global greenhouse gas emissions reduction.

## **Reference**

Sterrett, C., 2011. Review of Climate Change Adaptation Practices in South Asia- Oxfam Research Reports , Climate Concern, Melbourne, Australia, November, 2011.