

Climate Change and Disaster Risk Reduction

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ABOUT RIKA

RIKA is a social entrepreneurship startup (DIPP-29629) with an aim of bringing research into the core of disaster management activities in India and other parts of South Asia. Resonating the Sendai declaration in relation to the need for widening the scope of Science and Technology in the disaster management, we at RIKA envision to act as a bridge connecting academic research, policy makers and field practitioners to make informed decisions and use of new technologies

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Introduction

Climate Change is defined by the IPCC as - ' a change in the state of the climate that can be identified (e.g. by using statistical tests). The long-term effects of climate change include declining biodiversity, changes in ecosystem goods and services, effects on agriculture and forestry sector, negative impacts of extreme events such as intensified hurricanes and floods and many more. The risks to human lives are dependent on the extent and ability of human adaptation to cope with constantly changing scenario. CRED database on disasters shows an increase in natural hazards caused by meteorological and hydrological events in past 2 decades. This increasing trend in disasters has mostly been assigned to climate-related hazards thus associating with the phenomena of climate change. Hence concerns over the long-term impact of changing climate have garnered much attention internationally. Discussion on disaster losses due to climate change is rather complex as disaster risk is result of pre-existing vulnerabilities and hazards. Therefore a systematic linkage between Disaster Risk Reduction (DRR) and climate change adaptation (CCA) addressing sustainable development, poverty reduction and human has been recognised globally (1).

Global and national scenario

Globally, the integration of CCA and DRR has been released through of several key international policies since 2015. The Sendai Framework was the first such post-2015 development agreements, which was followed by major intergovernmental policy frameworks - the 2030 Agenda for Sustainable Development and Sustainable Development Goals in September 2015, the Paris Agreement on Climate Change in December 2015 and the New Urban Agenda in October 2016. These frameworks have played significant role in reinforcing a global agenda for disaster risk reduction and climate change adaptation to include common indicators for measuring progress. The SFDRR promotes disaster resilience and capacity building through the milieu of sustainability, climate change adaptation and poverty eradication. It reaffirms the significance of climate change adaptation and promotes the assessment of multi- hazard risk that includes climate change scenarios. More importantly, SFDRR advocates that DRR should be integrated into multilateral and bilateral development programs that aim to tackle issues in adaptation to climate change and sustainable development (2) .

India owing to rapid population growth and its increasing demand burdens the climate-sensitive natural resources like, forest and water and forests; highly populated large about 7500 km of coastal area; and impact on agriculture and subsequently on food security. Needless to say the country is bound to have climate change impacts.

India's growing economy and increasing consumption levels result in increase of energy production-use, and consequently greenhouse gas emissions. Thus it is imperative that India makes concentrated efforts towards policies and programme that encourages the convergence between CCA and DRR. Including DRR in climate change adaptation policies and measures would make it increase its efficacy and efficiency. There is emerging need for integration of DRR and CCA at national level policy agendas rather than viewing them as a separate domain. This means that DRR policies and programmes are developed in synergy with CCA strategies from the local to the national level. It necessitates incorporation of future impact of changing climatic patterns, projected climatic scenarios, and their harmful effects on communities become a part of disaster management. Practitioners of DRR need to get acquainted with and understand climate change and its potential impacts. CCA requires a range of policies and plans at national level that will guides institutional, programme and policy at the state, district, block, village and community level

Climate change adaptation at national level is the responsibility of the Ministry of Environment and Forests (MoEF), while disasters and its management is the primary located with the Ministry of Home Affairs in India. There exist National Action Plan on Climate Change (NAPCC) and the proposed the states to prepare State Action Plans on Climate Change (SAPCC). Similarly the National Disaster Management Act, 2005 has mandated all states are mandated to prepare State level DM Plan that extent to the villages. The National Disaster Management Plan, 2016 also mentions the impact of climate change. However convergence between CCA and DRR are not addressed in either documents even when overlap exists with issues related to natural resources management, poverty reduction, and environmental health along other developmental processes. This lack of harmonization at policy level will result in in sufficient implementation and maladaptation that would increase the risk of disasters.

Way Forward

From various discussions on the convergence of the two fields certain important measures are needed in India to ensure the integration is undertaken at all levels. Firstly, a common organisational setup that is flexible and provides the institutional and policy framework, which focuses particularly on building resilience to climate and disaster risks. In the long term this will avoid duplication and malpractices at the same time will enable better coordination among various concerned stakeholders. While at institutional level, the agencies dealing with climate change (MoEF) and disasters (MoHA) should be more closely linked, through their work including the national policies and plans. At the same time at operational level a bottom up approach that links climate change adaptation and disaster risk reduction as a common set of issues from state to district level with Community approaches are critically. Research in areas supporting this integration in the field of science and technology; communication, legal frameworks and social science needs to be encouraged and invested. Building capacities of local government to enhance their understanding of CCA and DRR that strengthens the operational and institutional response. Communication at local levels with the aim to raise awareness to reduce risk and vulnerability and adapting to climate change to natural hazards at community.

Reference

1. Birkmann, J., & Pardoe, J. (2014). Climate change adaptation and disaster risk reduction: Fundamentals, synergies and mismatches. In *Adapting to Climate Change* (pp. 41-56). Springer, Dordrecht.
2. UNISDR (2008). Climate Change and Disaster Risk Reduction Briefing Note 01
3. NIDM. Mainstreaming Disaster Risk Reduction In Environment Sector: Guidelines And Tools. Climate Change: Mitigation and Adaptation for DRR. Chapter 5.
4. Climate Development and Knowledge Network (2014). Inside stories on climate compatible development.
5. NIDM, 2014. Strengthening Climate Resilience through Disaster Risk Reduction Approach in Andhra Pradesh and Tamil Nadu in India Experience and Lessons.