Training on Integration of Climate Change Adaptation & Disaster Risk Reduction

Concept Note

GUJARAT INSTITUTE OF DISASTER MANAGEMENT
BUILDING RESILIENCE

1. Rationale

Climate change refers to a change in the climate that persists for decades or longer, arising from either natural causes or human activity (adapted from IPCC, 2007 in UNISDR, 2009). Climate change is already modifying the frequency and intensity of many weather-related hazards (IPCC, 2014) as well as steadily increasing the vulnerability and eroding the resilience of exposed populations by adversely impacting the arable land, access to water, stable mean temperatures and rainfall (UNISDR, 2015a). Climate-related disasters accounted for about 90 percent of the 7,255 major disasters between 1998 and 2017, most of them being floods and storms (Wallemacq & House, 2018). Risk to weather-related hazards is concentrated in low and middle-income countries (UNISDR, 2009). Although the precise impact of climate change is not certain, and it is important to be aware that not all areas will be impacted in the same way. Nevertheless, projected impacts of climate change that will drive disaster risk include (UNISDR, 2009b):

1. Rising sea levels, which will increase hazards in low-lying coastal areas. The population of coastal areas has grown faster than the overall increase in global population (UNISDR, 2009).
2. More severe and frequent extreme precipitation events, which will intensify existing patterns of extensive risk when combined with the increases in the population and assets exposed due to migration from rural areas.
3. Changes in the geographic distribution of weather-related hazards, which may lead to new patterns of risk.
4. Decreasing resilience, which is likely to disproportionately affect poorer countries and communities meaning that climate change is also a driver of poverty.

Climate Change Adaptation & Disaster Risk Reduction

It is prudent that reducing disaster risk and adapting to climate change is therefore necessary to achieve sustainable development. Disaster risk reduction (DRR) and Climate Change Adaption (CCA) are two fields of work which aim at strengthening resilience of people and societies by managing risks and adjusting to climate change. Also, addressing climate change is one of the keys to achieve sustainable development. It is urgent to reorient our technologies, our sciences, our finances and, above all, our mentalities, to transform our economies and ensure a sustainable future for all.

Adaptation: In human system, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects. (IPCC, 2018)

Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development. (UNDRR, 2016)

Integrating CCA & DRR

There is significant convergence between the problems that disaster risk reduction and climate change adaptation seek to address. The regions already exposed to climate-related hazards and effects will be at greater risk due to a projected increase in the frequency and/or intensity of those hazards and effects because of global climate change. For considerable period of time, development and humanitarian practitioners have been advocating for an approach that integrates disaster risk reduction and climate change adaptation to build resilience in a sustainable way. Disasters and climate change both have similar consequences for people's lives. There is significant overlap between the problems that disaster risk reduction and climate change adaptation seek to address. With climate change predicted to increase the frequency and/or intensity of climate-related hazards and effects, populations already exposed to those hazards and effects will be at greater risk.

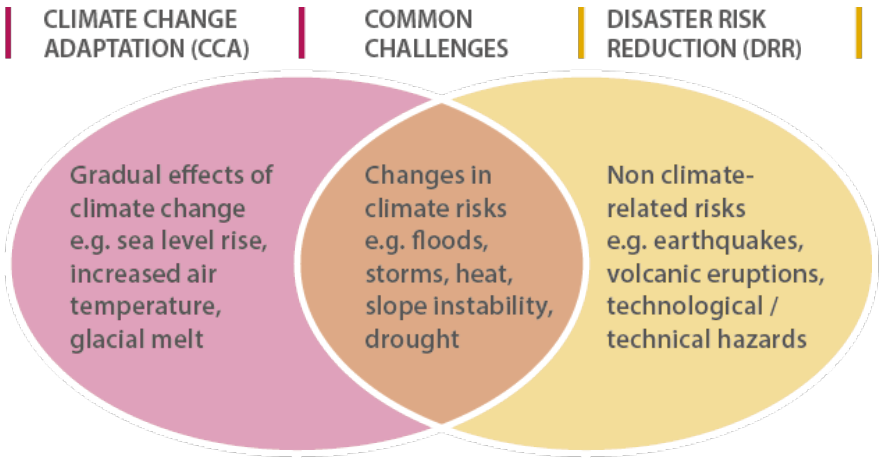


Figure 1: CCA and DRR Overlap

There is expeditious need to intervene to strengthen local resilience and capacities to adapt to climate risks by implementing a participatory process for diagnosing, analysing and planning

sustainable strategies for preventing and combating disasters. In disaster events, the local community has more to lose by being exposed to disasters and has most to gain by reducing disaster impacts in their community. The role of CBOs/NGOs in this context therefore assumes added significance. Experiences have shown that some of the most successful risk reduction initiatives have involved communities in understanding the hazards of that locality and designing an appropriate response mechanism. CBOs/NGOs play a key role in facilitating and supporting the community in the executing and regulating CBDRM based initiatives thus helping the vulnerable communities in transforming into a disaster resilient unit.

Initiatives of Climate Change Department, Govt. of Gujarat

As the world is exploring low carbon path of development, Gujarat has emerged as a leader in action oriented approach in dealing with Climate Change. Gujarat is a state which has converted the challenge of Climate Change into an opportunity of good governance, sustainable and equitable development and resilient growth. Gujarat ranks first in earning carbon credits under Clean Development Mechanism in the country. Gujarat has setup of a separate Department of Climate Change which is the first Asian and fourth sub-national Government Department in the world. Gujarat has kept constant emphasis both on mitigation as well as adaptation efforts. Some of mitigation initiatives are increased emphasis on alternate renewable energy source (solar energy, wind energy, bio-energy power generation), steps for energy conservation and broad spectrum of initiatives to avail Clean Development Mechanism (CDM) to reduce carbon intensity as much as possible. Some of the climate adaptation initiatives are development of State Wide Drinking Water Grid, steps to increase in irrigation efficiency, Sardar Sarovar Project, Sagar Khedu Sarvangi Vikas Yojana, Micro Water Harvesting etc. The department has also prepared the State Action Plan on Climate Change (SAPCC) with an aim to ensure success of these measures and realization of the ambitious and progressive ‘vision for development

2. Need of the Training Program

The Climate change is altering the face of disaster risk. It is believed that Climate Change leads to changes in the frequency, intensity, duration and timing of extreme weather and climate events. There is expeditious need to intervene to strengthen local resilience and capacities to adapt to climate risks by implementing a participatory process for diagnosing, analysing and planning sustainable strategies for preventing and combating disasters. In disaster events, the local community has more to lose by being exposed to disasters and has most to gain by reducing disaster impacts in their community.

In such scenarios, the role of CBOs/NGOs assumes added significance. Experiences have shown that some of the most successful risk reduction initiatives have involved communities in understanding the hazards of that locality and designing an appropriate response mechanism. CBOs/NGOs play a key role in facilitating and supporting the community in local hazard identification and synthesising, executing and regulating CBDRR initiatives to develop local capacities for effective risk management. At the local level, CBOs and NGOs can play a catalytic role in building up community awareness of climate change and its likely impact on their lives, livelihoods and habitats. They can help build up their capacities to undertake the needed adaptive actions to reduce vulnerability, mitigate risks and build resilience.

Thus conducting an 'Orientation Program on Integration of Climate Change Adaptation & Disaster Risk Reduction for CBOs/NGOs' will ultimately help them to assist and serve local communities by curtailing their vulnerabilities and tending to transform them into a disaster resilient unit.

3. Objective of the training program

CBOs/NGOs can provide access at the local level, bring in-depth on-the-ground knowledge, and build on trust they have already established with communities at the grassroots level. Communities and CBOs/NGOs are critical partners for achieving effective DRM. The following specific objectives will be pursued in the training program -

i. Recent Concepts & Trends in field of Disaster Risk Management. ii. The shift from Managing Disasters to Managing Disaster Risks
iii. Roles and responsibilities of DRR of different stakeholders
iv. Emergent Disaster Risks, with focus on Climate Change as Disaster Risk amplifier
v. Sustainable development with Resilience at the core
vi. Understanding roles & potential of CBOs/NGOs in integration of Climate Change & Disaster Risks into Planning and Policy-making

4. Target Participants

The intended target group of the training program the members/representatives of Community Based Organisations and other Non-Government Organisations.

5. Agenda of the Blended Capacity Building Program

The agenda of the blended capacity building program will be to build capacities of the civil societies on integrating CCA & DRR in planning and policy making so that same can have

rippling effect at community level. Some of the agendas to be discussed in orientation training program are:

Mainstreaming Climate Change Adaptation & Disaster Risk Reduction in Planning & Policy Making

- Climate Change Adaptation & Mitigation Initiatives of Govt. of Gujarat
- Climate Change Policy Design and Implementation
- National Missions on Climate Change
- Gujarat State Action Plan on Climate Change

Building Resilience for All: Equity & Inclusion in Climate Adaptation & DRR

- Social Dimensions of Climate Change
- Community and Stakeholder Engagement
- Climate Change & Poverty
- Gender Inclusion in CCA & Women: The Agents of Change
- Integrating indigenous and scientific knowledge to create a more inclusive and Climate Resilient World for Families

CBOs/NGOs and their role and responsibilities and potential in the DRR/CCA

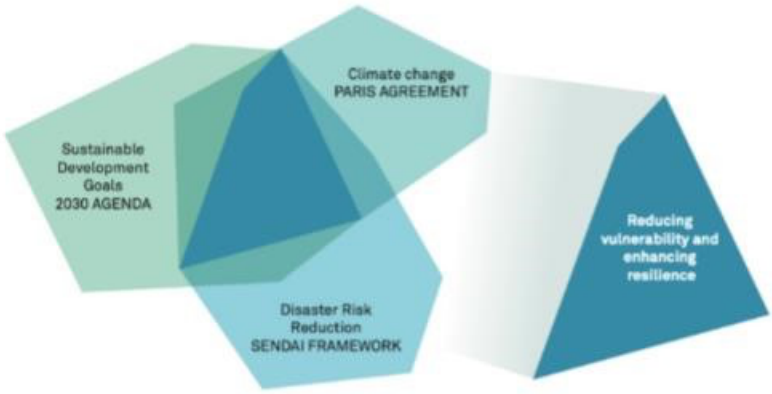
- Promotion of Community-Based & Inclusive Disaster Risk Reduction
- Linking Modern Knowledge with Indigenous Knowledge
- Serving as the link between national and local constituencies.
- Improving the population's access to DRR & climate information by acting as bridge between research institutions and the population
- Promoting accountability through example: as a strategy to ensure quality and transparency for diverse actors' participation.

Leveraging Technology for Community Level Disaster Risk Reduction & Mgmt.

- Usable technology for Community for Disaster Risk Reduction
- Leveraging Technology for End to End Dissemination of EW
- Accessing population/landuse data for public usage DSS
- Web Application: DAMINI, MEGHDOOT etc.

Annexure 1: Global Approaches to Coherence: Post 2015 International Frameworks

In 2015, Members of the United Nations adopted the Sendai Framework for Disaster Risk Reduction 2015-2030, the Paris Agreement for Climate Change and the 2030 Agenda for Sustainable Development. Recognizing the linkages between DRR, CCA and sustainable development, the communities managing the three global processes have started to introduce and promote more coherence in their respective core agreements. For instance, the Sendai Framework notes that DRR is essential for sustainable development as disasters can derail development plans and reverse hard-earned development gains. In addition, the Sendai Framework recognizes climate change as a driver of disaster risk, enhancing the frequency and impacts of disasters.



Source: (UNDRR, 2020)

1. Agenda 2030: The umbrella for coherent sustainable development

The Agenda 2030 for Sustainable Development and its 17 Sustainable Development Goals (SDGs) form the global policy framework for poverty eradication and a sustainable economic and social development. With regard to climate change, SDG 13 on climate action aims at 'strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in all countries' (UN, 2015, p. 23). In addition to this specific goal on climate action, other SDGs also contribute to the aim of strengthening resilience. In particular, UNFCCC (2017) noted that fulfilment of SDGs 1, 3, 5, 6, 14 and 15 is likely to increase resilience to climate change, and SDGs 7, 9, 11 and 12, address the fundamental causes of climate change. On the other hand, there are no SDGs specifically focused on DRR but the Agenda 2030 refers to the

Sendai Framework (UN, 2015, p. 22) and 11 indicators of the SDGs 1, 11 and 13 - No Poverty, Sustainable Cities and Climate Action respectively - are directly related to the Sendai Framework's indicators.

Overall, the Agenda 2030 recognizes that disasters and climate change undermine development gains, and it is necessary to build resilience of people and communities in order to achieve sustainable development. DRR and CCA are therefore ingrained in sustainable development from a conceptual perspective and in a practical manner by the integration of related goals, targets and indicators.

2. The Sendai Framework for Disaster Risk Reduction (2015-2030)

The Sendai Framework does not directly refer to the post-2015 agreements as it was adopted and endorsed before the 2030 Agenda and the Paris Agreement. Nonetheless, through its guiding principles, it promotes policy coherence with other frameworks and agenda in relation to sustainable development, growth, food security, health and safety, climate change and variability, and environmental management (paragraph 19.h). In particular, the Sendai Framework promotes direct engagement with the climate change community under priorities 1,2 and 4 in relation to:

A. The use of climate change scenarios for improved preparedness, response and recovery.

In the Sendai Framework, climate change (CC) is identified as a risk driver, increasing frequency and intensity of disaster risk (paragraph 13). Climate change scenarios, by taking into account long-term climate change and variations, contribute to a better understanding of disaster risks and should be included into comprehensive risk assessments (Priority 1, paragraph 25.b). Ultimately these comprehensive risk assessments which include CC scenarios need to be taken into account when reviewing and updating preparedness and contingency policies, plans and programmes to ensure better preparedness, response and recovery (Priority 4, paragraph 33.a). On the one hand, the variation in temperatures and precipitations have an impact on the intensity and the frequency of hydro meteorological and biological hazards, on the other hand, it increases vulnerability by affecting ecosystems as well as physical, social and economic factors. If the impact on the hazard is widely understood and included, the second aspect is often lacking in planning processes.

B. Improved collaboration at global and regional levels including UNFCCC to address climate change.

Under Priority 2, which aims at strengthening DRR governance, the Sendai Framework recognizes the need to foster collaboration between institutions and tools and across sectors including climate change, biodiversity and environment, amongst others. Nonetheless, this collaboration is limited to global and regional mechanisms and institutions, and does not address governance mechanisms for policy coherence at national and local levels per se. Moreover, the Sendai Framework recognizes that United Nations Framework Convention on Climate Change (UNFCCC) bears the mandate for addressing climate change.

The Sendai Framework puts emphasis on climate change as it is present throughout the document compared to other risk drivers such as urbanization or specific hazards (tsunami or landslides are not mentioned for instance). This shows that climate change is particularly relevant to DRR. Overall the Sendai Framework promotes coherence with climate change actions in particular regarding comprehensive risk assessments and policy development. However, the Sendai Framework lacks a specific reference to the climate change community when addressing the need for investments and use of financial mechanisms for DRR (priority 3).

3. The Paris Agreement for Climate Change

The Paris Agreement is a 10-year binding agreement which aims at strengthening the global response to the threat of climate change by keeping, this century, a global temperature rise well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UNFCCC, 2015). To do so, the climate change community works on two complementary fronts: mitigation and adaptation.

Mitigation measures and policies are interventions aiming at reducing the emissions of greenhouse gases (GHG) including CO2 emissions in order to curb the temperature rise.

Adaptation: At the same time, experts and the international community recognized that humans need to adapt to a changing climate as temperatures are still rising. Thus, people and societies need to adjust to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities (IPCC, 2018).

In the Paris Agreement, there is no direct reference to the Sendai Framework, disasters or to the DRR community. Nonetheless, Articles 7 and 8 which tackles respectively CCA and loss and damage associated with effects of climate change, including extreme weather events and slow onset events, are intrinsically linked to DRR. In addition, Article 8.4 gives an overview of areas of cooperation in order to enhance understanding, actions and support for averting,

minimizing and addressing loss and damage, all of which are core areas of work of the DRR community and part of the scope, priorities and targets of the Sendai Framework. In particular, the Paris Agreement promotes cooperation with other stakeholders on risk assessments, early warning systems and emergency preparedness.

***