Training Module
on
Urban Risk Reduction and Resilience:
A Comprehensive Approach
(Specialized Course for Policymakers)

GUJARAT INSTITUTE OF DISASTER MANAGEMENT
BUILDING RESILIENCE

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Gujarat Institute of Disaster Management

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Message

Dear Readers,

Gujarat has witnessed rapid population growth, especially in urban areas. Cities like Ahmedabad, Surat, Vadodara, and Rajkot have seen substantial increases in population due to migration from rural areas and other states. Gujarat is known for its industrial development, including sectors such as textiles, petrochemicals, pharmaceuticals, and manufacturing. This industrial growth has led to the establishment of industrial clusters and special economic zones, attracting investment and generating employment opportunities.

While urbanization brings several opportunities for economic and social development, it also poses various challenges. Rapid urbanization has put a strain on existing infrastructure, including transportation, water supply, waste management, and healthcare. Inadequately planned and managed cities pose new risks that jeopardize existing development achievements. Insufficiencies in infrastructure and services, unsafe housing conditions, and inadequate healthcare services can transform natural hazards into full-fledged disasters.

Looking to this, a training module on '**Urban Risk Reduction and Resilience: A Comprehensive Approach**' is developed focusing on the crucial task of building resilient cities. It will provide a comprehensive understanding of urban risks, their underlying causes, and effective strategies for risk reduction and management. Further, through interactive training sessions, case studies, and practical exercises during the training based on this module will give insights into best practices and innovative approaches for creating sustainable and resilient cities.

I take the opportunity to thank Shri Mukesh Puri IAS (former Addl. Chief Secretary, UD& UHD) and Shri. Ashwini Kumar IAS, Principal Secretary, Urban Housing and Urban Development Department, for the invaluable support in the development of training module. We are also thankful to Shri. Prakash Dutta, Officer on Special Duty & Joint Secretary, UD&UHD, Shri. D. J. Jadeja, Chief Town Planner, Town Planning and Valuation Department and other officers for their valuable contribution for the development of the module. I appreciate the efforts of GIDM team especially Shri. Nisarg Dave and Mr. Shubham Daberao along with the Resilience Innovation and Knowledge Academy (RIKA) India team - Ms. Ambika Dabral and Ms. Krishnakali Ghosh.

I sincerely hope that this training module will be useful to trainees, researchers and professionals in urban sector. GIDM remains committed to upholding the standards of excellence and will continue to deliver meaningful educational experiences with the aim of BUILDING RESILIENCE in Gujarat.

(Dr. Rajiv Kumar Gupta)
Director General
Gujarat Institute of Disaster Management

Abbreviations

CBDM	Community-Based Disaster Management
CBOs	Community-Based Organisations
CCA	Climate Change Adaptation
CDMP	City Disaster Management Plan
CDP	City Development Plan
DM	Disaster Management
DRR	Disaster Risk Reduction
EbA	Ecosystem-based Adaptation
Eco-DRR	Ecosystem-based Disaster Risk Reduction
GAR	Global Assessment Report on Disaster Risk Reduction
GIDM	Gujarat Institute of Disaster Management
GIS	Geographic Information System
GSDMA	Gujarat State Disaster Management Authority
HFA	Hyogo Framework for Action
HRVA	Hazard Risk and Vulnerability Assessment
HUDCO	Housing & Urban Development Corporation Ltd
ISDR	International Strategy for Disaster Reduction
JICA	Japan International Cooperation Agency
NAPCC	National Action Plan on Climate Change
NBC	National Building Code
NbS	Nature-based Solutions
NDMA	National Disaster Management Authority
NGT	National Green Tribunal
NIDM	National Institute of Disaster Management
NIUA	National Institute of Urban Affairs
SAPCC	State Action Plan on Climate Change
SFDRR	Sendai Framework for Disaster Risk Reduction
TCPO	Town & Country Planning Organization
UDA	Urban Development Authority
UD & UHD	Urban Development & Urban Housing Department
ULB	Urban Local Body
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNISDR	United Nations International Strategy for Disaster Reduction
UNDRR	United Nations Office for Disaster Risk Reduction

Content

About the Training Module

"Make India disaster resilient across all sectors, achieve substantial and inclusive disaster risk reduction by building local capacities starting with the poor and decreasing significantly the loss of lives, livelihoods, and assets in different forms including economic, physical, social, cultural, and environmental while enhancing the ability to cope with disasters at all levels." (NDMA, 2019)

The National Disaster Management Authority has formulated a long-term vision based on resilience for India. As the urban population in India increases each year due to economic growth rates in cities, labor requirements, wages, attracting rural-urban migration it is important to strengthen urban systems to cater to the population. Improvement in disaster risk management and building resilience can minimize losses in the future. Achieving urban resilience requires ongoing capacity building as an iterative process of design-application-learning-adjustment. An essential component of capacity building is training. Because of the nature of the work that needs to be done before, during and after a disaster, training is very important in disaster risk reduction. Climate-related disasters are often exacerbated in cities than rural, majorly by interactions between urban infrastructure systems, growing urban populations, cultures, and economic activities. Most people find it overwhelming to deal with the speed, scope, and damage of a crisis, which lowers the quality of the response. Thus, it becomes crucial to provide the designated responder with focused training and capacity building. On the other hand, disaster management goes beyond the scope of reaction and has an impact on all facets of society.

This training module on Urban Risk Reduction and Resilience: A Comprehensive Approach aims to address the vision and support the policy makers and urban practitioners with an ability to prepare for enhancing urban resilience. It has been developed with inputs from key stakeholders from the Urban Development and Urban Housing Department of Government of Gujarat. The ToT model is envisaged to act as multiplier of trainers in the state; thereby creating a self-sustaining process involving knowledge transfer. The module is divided into three parts: Basic Course, Specialized Course for Policymakers, and Specialized Course for Practitioners.

Context

Cities are becoming hotspots of extreme events with increased concentration of people, economic activity, social and cultural interactions, as well as environmental and humanitarian effects. This poses enormous sustainability challenges for housing, infrastructure, basic services, food security, health, education, decent jobs, safety, and natural resources, among other things. The United Nation's Decade of Action highlights the need for urgent action on sustainable development, including in the area of urban resilience. Several SDGs are directly related to urban resilience, including SDG 11, which calls for inclusive, safe, resilient, and sustainable cities. The temperature targets set by Paris Agreement to limit global warming to below 2 degrees Celsius above pre-industrial levels need actions to improve the resilience of urban areas which are vulnerable to the impacts of climate change extreme weather events, and heatwaves.

The number of disasters occurring around the world has increased by a factor of five over the last 5 decades, acerbated by rapid urbanization, extreme weather, and climate change. The Centre for Research on the Epidemiology of Disasters reports states that around 3.9 billion population was exposed to various natural hazards in the year 2018 (EM-DAT, 2019). It also reports Asian continent is the most vulnerable to hazards events, owing to various factors such as population, location, and so on. In India, the urban population is rapidly increasing with over 34% of the population living in urban

areas with a significant proportion of the population living in informal settlements, which lack basic services, such as water, sanitation, and waste management, and are highly vulnerable to disasters and climate impacts. Similar circumstances exist in Gujarat, where 2.57 crore people, or 42.6% of the state's total population, live in urban areas (Census 2011). Gujarat is one of the most urbanized states in India with the urban population increasing from 34 percent in 1991 to 48 percent in 2020.

As rapid urbanization becomes a key driver for the state's economic growth it is essential to have an integrated and accountable urban governance system that can create greener urban footprints, and improve disaster risk management and resilience to climate change. A disaster results in death, property loss, loss of assets and livelihood, as well as destruction and devastation. A proactive, well-coordinated administrative framework is necessary for disaster management, as is a community that is alert, informed, and engaged. Preparing a group of skilled and dedicated employees at all levels may create a proactive, effective, and integrated administrative system. The personnel assisting in a catastrophic situation must draw on their understanding of best practices and intervention techniques. Personnel from Urban Local Bodies (ULBs) will become more aware of the unique demands and activities needed after receiving training on the many manifestations of urban disasters. This training will complement novel frameworks such as SFDRR encouraging building the knowledge of government officials at all levels, and thereby helping in achieving global and national goals. The overall objectives of the training are:

- Provide knowledge of urban systems and their resources, resilience, and impacts of climate and disaster risks, and thereby act as a spring for further knowledge multiplication
- Familiarize participants with tools, legislation, and frameworks for the assessment and development of urban resilience
- Infuse informed decisions and systems thinking for improving the quality, efficiency, sustainability, and resilience of urban services
- Improve the readiness of local administrators and stakeholders inter alia increase their knowledge on the key roles and responsibilities to build urban resilience
- Provide participants with the knowledge to formulate effective city development, management plans, and policies for climate change and urban resilience

Target Users

Trainers in the disaster management and/or urban development sector can employ this training module for providing state and local government officials with training on urban risk reduction and resilience. Professionals in the fields of urban development and disaster management can use the module for independent study as well. The key target users are:

- Officials from departments like Urban Development and Urban Housing Development Department, Town Planning and Valuation Department, Gujarat State Disaster Management Authority, Commissionerate of Relief etc.
- Practitioners like Engineers, Architects, Planners from autonomous bodies, and urban local bodies (ULBs)
- Policymakers like Chief Officers and Municipal Commissioners
- Elected officials of urban local bodies, and
- NGOs working on urban issues

Structure of Training Module

The Training Module is designed to cater to varied stakeholders and users at the state and local levels in the state of Gujarat. The participants are expected to belong to diverse academic backgrounds, professional fields, and even different nations. Considering their varied level of understanding and familiarity with DRR and CCA, the Training Module offers three types of courses, namely, Basic, Specialized for Policymakers, and Specialized for Practitioners. Each course comprises a number of training sessions, exercises and case studies. Tables below provide the overall structure of the Training module detailing the type of courses offered and constituent sessions and learning units under each course. The learning hours of each course are also indicated.

The entire Training Module is divided into three parts namely: Basic, Specialized for Policymakers and Specialized for Practitioners. This document covers the Specialised Course for Policymakers.

Basic Course

Day 1	Day 2	Day 3

• **Introduction to DRM and CCA**
  • Key concepts in Disaster Risk Management and Climate Change adaptation (60 minutes)
  • Global frameworks and policies (60 minutes)
  • Disaster Ethics and Humanitarian Actions (30 minutes)
• **Introduction to urban systems, their interdependencies and associated risks**
  • Risk profile of Gujarat in the urban context (60 Minutes)
  • Urban systems and associated risks (60 Minutes)
  • Case study/Group Exercise - Interdependencies of urban systems (60 minutes)
	• **Urban Resilience, Framework for Urban Resilience: Case Studies, Methodologies and Tools**
	  • Urban resilience and its components (30 minutes)
	  • Key instruments for urban resilience (60 minutes)
	  • Tools of Resilience Analysis/Assessment (60 minutes)
	  • Group exercise on resilience tool (60 minutes)
	• **Good Practices in Building Resilient Cities and towns**
	  • Case studies on building resilient towns and cities (60 minutes)
	  • Sectoral experience sharing and group discussion (60 minutes)
		• **Urban Resilience and Governance**
		  • Mainstreaming Disaster Risk Management and Climate Change Adaptation into Urban Development Planning (60 minutes)
		  • Multi-sectoral risk management (60 minutes)
		  • Group Exercise – Drafting institutional mechanism for urban risk governance (60 minutes)
		  • Field Visit (120 minutes)
		  • Group discussion (30 mins)

Specialized Course for Policymakers

Day 1	Day 2
•**Introduction** •Role of policymakers in disaster risk management (30 minutes) •Group activity- Gaps and challenges in urban policies and implementation from lens of DRR and resilience (60 minutes) •**Mainstreaming Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) into Urban Development Planning** •DRR and CCA frameworks in the urban context (45 minutes) •Case studies: integration of DRR & CCA through national and state schemes and policies (45minutes) •Group discussion (30 mins)	•**Transboundary Governance** (30 minutes) •**Disaster Grievance Redressal Mechanism** (30 minutes) •**Disaster Risk Financing** •Key concepts and existing instruments (30 minutes) •Group exercise - Tabletop on strategy planning for integration of DRM and CCA (60 minutes)

Specialized Course for Practitioners

Day 1	Day 2	Day 3
•**Introduction** •Role of practitioners in disaster risk management and resilient urban development (30 minutes) •**Understanding Critical Infrastructure and systemic risk** •Relevance of critical infrastructures for disaster resilience (30 minutes) •Risk and Resilience Assessments of Critical Infrastructure and Resilience building (45 minutes) •Case study- Resilience building measures for Critical Infrastructure (30 minutes) •Disucssion (15minutes)	•**Land Use Planning for Urban Resilience** •Key concepts and tools (60 Minutes) •Case studies on application of the tools(30 Minutes) •**Grey-Blue-Green Infrastructures for Urban Resilience** •Key concepts (45 Minutes) •Introduction to SIA and EIA (30 Minutes) •Case studies (30 Minutes) •Discussion (15minutes)	•**Technologies for urban resilience** •Technologies and Application in Urban Planning (60 Minutes) •Open Data for Urban Resilience (30 Minutes) •**Group Exercise** – Scenario-based ward planning (60 minutes)

Guide to the Trainers

The training module was created with a framework that encourages participation. The trainer may take into account the following recommendations in addition to the knowledge and skill inputs described in the technical sessions to make the programme interactive, thorough, and exciting and ensure that trainees retain inputs after the course is over:

- Write a welcome note to the potential participants once the participant list has been finalized. The note should include information on the institute's location, directions to the site, the reporting time for training, the current weather, the required attire, and a warm welcome.
- The participants should be required to complete an online registration form containing their name, address, and contact information, among other information.
- After the training has begun, the list of participants with their contact information should be passed

around to check for any errors before being finalised.

- To start conversation, a group activity involving all participants should be planned as guided in the module.
- Every day, short-duration discussions should be planned, especially for the post-lunch session (no more than 5–10 minutes).
- Change the groups for group projects as often as you can to promote stronger peer interaction

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Specialized Course for Policymakers

Having completed the comprehensive Basic Course on Urban Risk Reduction and Resilience which introduced the learners to the key concepts, legislations, frameworks, tools and practices of disaster risk management, climate change adaptation, urban systems and associated risks, urban resilience and urban governance, the focus of the Specialized Course for Policymakers is to dive deeper into specific aspects where the urban policymakers can play a crucial role.

For effective learning and take away from the current course, it is expected that the participants have duly completed the Basic Course before getting enrolled for this course. The current course is a fast-paced two days course of six hours total dedicated for the urban policy makers from the Urban Development and Urban Housing Department, Government of Gujarat along with key policy/decision makers from varied Municipal Corporations, Municipalities, Urban Development Authorities of the state.

Technical Session 1: Introduction

Introduction, Overview & Perspectives

The focus of this technical session is to introduce the learners who are primarily urban policy and decision makers to the key roles they can play in Disaster Risk Management (DRM) and Climate Change Adaptation (CCA). Further, the session strives to provide a platform to the learners for having a discourse on prevailing gaps and challenges they face while laying down urban policies and/or implementing them from the lenses of DRR, CCA, and resilience building and way ahead in this regard.

- Learning Unit 1.1: Role of urban policymakers in Disaster Risk Management (DRM) and Climate Change Adaptation (CCA)
- Learning Unit 1.2: Group activity- Gaps and challenges in urban policies and implementation from lenses of DRR, CCA, and resilience building

The primary objectives of this technical session are:

- To familiarize with the key roles of urban policymakers in DRM and CCA
- To discuss and enlist key gaps and challenges faced by urban policy and decision-makers in undertaking the discussed roles
- To brainstorm on the way forward to address these gaps and challenges

Duration: 90 minutes

Methodology

- Lecture-based learning
- Group activity
- Discussion
- Q & A session

Trainers' Note

The trainer through the technical session should be able to provide a broad understanding of the roles urban policy and decision-makers can play for DRR and CCA. For the broad categories of roles, associated lessons, and case studies in LU 1.1, the trainer should add more examples from his/her experience or those from participants. Further, the trainer should promote an active discourse among

the learners during the LU 1.2 to capture learners' perspectives on the gaps, challenges, and bottlenecks they face in assuming the roles discussed. The trainer should encourage the learners to categorize the identified gaps and challenges into broad themes and handhold them to brainstorm on thematic ways ahead to address the mapped gaps and challenges. The trainer should also strive to provide a linkage between the way ahead with the next Technical Session on Mainstreaming Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) in Urban Development Planning.

Learning Unit 1.1: Role of Policymakers in Disaster Risk Management (DRM) and Climate Change Adaptation (CCA)

Brief Description of the Learning Unit

The learning unit puts forth broad categories of roles that urban policymakers can undertake for DRM and CCA and dwells on different cases from India and abroad to illustrate the same. Further, the unit helps the learners understand some of these roles as laid down under the global, national, and local instruments on DRR and CCA through a group exercise.

Learning Objectives

- To familiarize with the key roles of urban policymakers in DRM and CCA
- To understand the different policy-related roles laid down in global instruments and mapping of associated stakeholders

Duration: 30 minutes

Methodology

- Lecture-based learning
- Case study-based learning
- Group discussion and exercise

Detailed Description

The four broad categories through which urban policymakers can play a crucial role in DRM and CCA while undertaking their routine roles and responsibilities are illustrated below in figure 1.

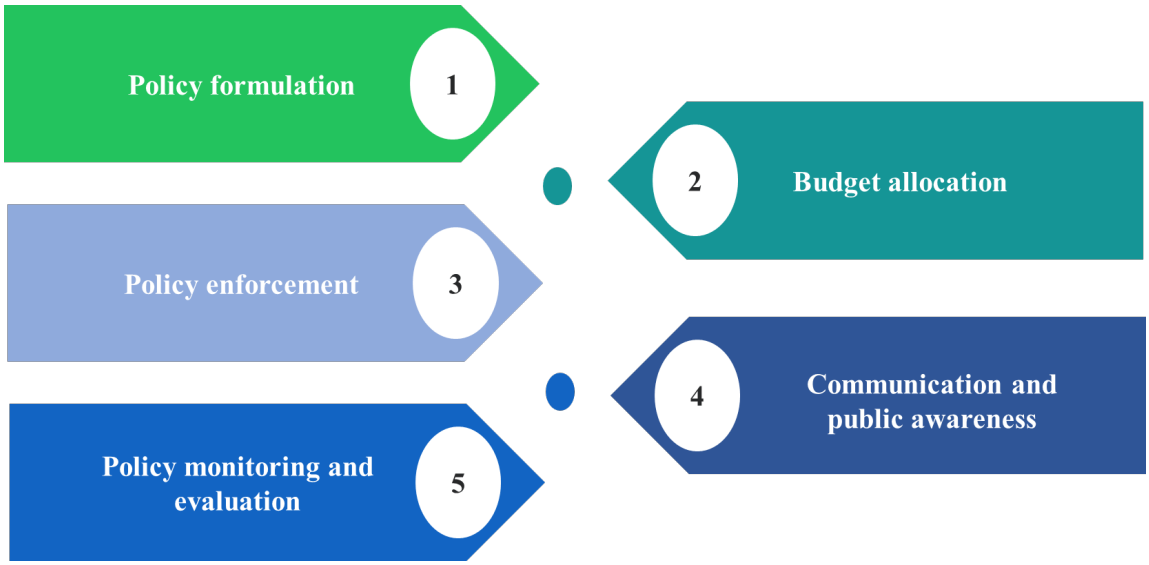

Fig 1. Categories of the role of urban policymakers in DRM and CCA

1. Through **policy formulation**, policymakers, at the very onset of the policy process can:

- Include the considerations of varied existing, emerging, and new urban risks in urban policies and plans
- Duly inform the policy processes of risks through technical and scientific studies such as that on hazard, exposure, and vulnerability analysis and climate change projections

- Ensure two-way integration of DRR and CCA policies into sectoral policies such as those pertaining to land use, urban planning, housing, transport, infrastructure development, etc.
- Target the specific vulnerable groups such as women, children, elderly, and differently-abled persons and ensure their inclusion in policy decisions
- Integrate the components of resilience building into the day-to-day functioning of different sectors
- Bring about the policy change and imbibe the principle of building back better and greener, especially when undertaking policy revisions in the aftermath of major disasters

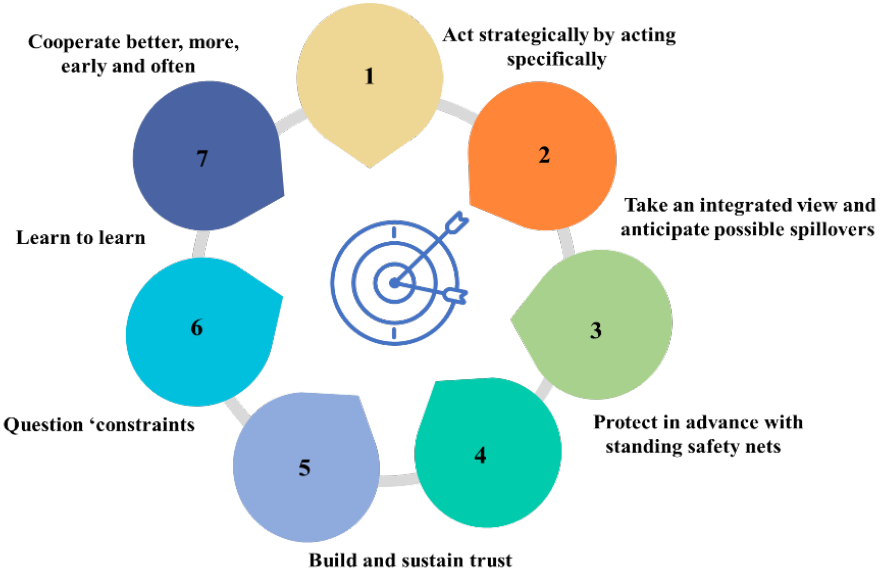

Fig 2. Seven lessons for development policy from COVID-19 (UNDP, 2021)

Some examples to elaborate on the seven lessons:

Act strategically by acting specifically: Economic and social impact of the COVID-19 lockdown was lower in countries with targeted regulations like extra protection for the elderly in Japan.
Take an integrated view and anticipate possible spillovers: A disaster can lead to impacts on many sectors requiring an integrated view. Committees like the Scientific Advisory Group for Emergencies (SAGE) in the UK faltered to consider the economic aspect of COVID-19 due to a lack of specialist input from the sector.
Protect in advance with standing safety nets: Robust social protection infrastructure is immensely important. With the lack of access to markets, MSMEs faced challenges in business continuity in India during the lockdown. Crop insurance can prevent untimely losses due to climatic events.
Build and sustain trust: Human development approach puts importance on open and participatory methods of public decision-making like public review for development plans that have great relevance as these can aid in efficacy by considering diverse values and collective procedures.
Question 'constraints': To ensure easy access to facilities freeing intellectual property rights for commodities like vaccines etc can support countries with some economic constraints.
Learn to learn: Policies and projects have the chance of greater success when they allow for revision over time. With a proper framework for collecting data, such revisions can help develop learning orientation.
Cooperate better, more, early, and often: Cooperation between governments can both pool efforts and allocate tasks efficiently to take advantage of varying capabilities.

Case study: Regulation for hospital- 2011, Urban Development and Urban Housing Development Department, Government of Gujarat

The trainer may facilitate a short discussion among the learners on how the considerations of disaster risk and disaster risk management have been included to ensure the resilience of a critical infrastructure, namely, a hospital through the Regulation for hospital - 2011.

2. **Budget allocation:** Policymakers can use budget allocation and earmarking of resources to address the identified risks and associated conditions of exposure and vulnerability. Guided by technical and scientific studies, policymakers can use the tool of budget allocation to prioritize investments based on risk prioritization and local contexts.

Case study: Policy changes to address gaps of risk identification in inter-related urban systems and resources allocation

In the aftermath of the 2007 Earthquake in south Peru, vulnerabilities owing to the interconnectedness of critical sectors such as water and health, electric power, and health came to the forefront. Considering the mammoth infrastructural damage and the complexities involved therein, a new law (Law No 29078) was enacted to create an autonomous Fund for the Reconstruction of the South (FORSUR) and along with authorization of supplementary credit of USD 31.6 million to enable the reconstruction of public infrastructure in the affected areas.

Scaling this up to the national level, Law No 29951 was passed which provides for the specific allocation of resources to finance risk identification activities for the environment, health, housing, and water and sanitation sectors. The law further allows the earmarking of resources for financing risk reduction in the agriculture, health, housing, education, and transportation sectors. Thereafter, a major restructuring was also undertaken in the country's emergency management and disaster risk reduction systems for bringing adequate focus and financial resources for both risk identification and reduction and preparation and response processes.

(Source: Inter-American Development Bank, 2017)

3. **Policy enforcement:** The effectiveness of any laid down policies rests primarily on the compliance mechanisms it puts in place for ensuring its acceptance and sustained enforcement on the ground. This is all the more crucial for policies targeting safety and resilience building through urban development and planning because failure or inadequate compliance of the same can result in significant life loss, infrastructural and assets loss and damage, and the creation of new risks.

Case study: Sustainable waste management in Indore

Ranked at 149 in the Swachh Survekshan in 2014, the city of Indore has a population of over 3.2 million people and generates around 1,100 metric tons of waste daily. Before 2016, the city faced major challenges in waste management which led to the presence of unhygienic conditions, increased pollution, and creation of public health risks in the city. With the launch of the Swachh Bharat (Clean India) campaign in 2014, Indore Municipal Corporation (IMC) undertook transformational steps for effective waste management. These included "an overhaul of existing infrastructure, policies, and community engagement initiatives to create a more efficient and environmentally friendly waste management system".

Key mechanisms and initiatives for successful enforcement of mandatory waste segregation policy:

- Mandated the households to separate the household waste into wet (biodegradable) and dry (recyclable)

- Deployment of over 600 GPS-enabled vehicles for door-to-door collection of segregated waste daily from all households and commercial establishments
- Investing in modern waste processing infrastructure
- Strict monitoring of policy enforcement through regular inspections, fines, and introduction of incentives
- Massive awareness campaigns for educating the public; thereby enhancing active engagement of the community and their support for the waste management program. This included bringing on board local celebrities, schools, and religious institutions in such campaigns.

Results:
Waste segregation: Household-level waste segregation was observed in more than 90% of households > significantly enhancing the efficiency of waste collection & processing, and lessening the burden on landfills

Waste processing: With a 95% waste recovery rate of the waste processing facility (which manages 1,000 metric tons of waste daily), substantial reduction is recorded in the usage of landfill > mitigating the potential environmental and public health-related impacts

Cleanliness: Since 2017, Indore has consistently been emerging as the country's cleanest city in the annual Swachh Survekshan survey

Health and environment: Substantial decline (60%) has been observed in the cases of vector-borne diseases since the implementation of this policy; enhanced air quality has also improved due to the resultant reduction in incidences of open burning of waste > creating a healthier environment and enhanced overall quality of life for the city's residents *(Source: Earth5R)*

4. **Communication and public awareness:** A crucial part of policy making is also ensuring that the policy is well communicated to the relevant stakeholders including civil society members and organisations, academia, the private sector, and the larger public. During the process of policy making, this is important to make the policy more inclusive and informed by the contexts and perspectives of varied stakeholders and diverse community groups and to mitigate any unwanted potential impact of the policy decision on these groups. Post policy formulation, the role of policy makers pertaining to communication and public awareness is important to educate the wider public on aspects of underlying risks and vulnerabilities of urban areas and the need for the policy for addressing these along with enhancing urban resilience. Further, it helps in ensuring an increased understanding, active participation, and acceptance of the policy and resultant initiatives by the public which is pertinent for their successful implementation and also in promoting community-based monitoring of the initiatives undertaken.

Group discussion and exercise: The following table enlists some of the key policy-related actions/guidelines enshrined in the SFDRR. An open discussion among the learners on these roles should be facilitated by the trainer to understand which of these roles have already been undertaken by them and the roles that are new to them. It is also encouraged that a mapping of relevant stakeholders required to effectively fulfill these roles is also undertaken for promoting an all-of-government and all-of-society approach. Trainers are also suggested to develop similar tables on other global, national, and local instruments such as the Paris Agreement, National Disaster Management Plan, and Gujarat State Disaster Management Plans which can then be filled by different groups of learners and discussed during the group exercise.

Action/ guidance	If familiar role, share examples of how these are undertaken.	If a new role, discuss how can this be achieved.	Stakeholders for effective fulfillment of the role
To inform the policy and practice by a holistic understanding of risk in all its dimensions (vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment)			
To facilitate a science-policy interface for effective decision-making by promoting dialogue and cooperation with scientific and technological communities			
To complement scientific knowledge with traditional, indigenous, and local knowledge during policy development and implementation			
To develop and use global systems and services for the exchange of information on good practices, cost-effective and easy-to-use DRR technologies, polices, plans, and practices			
To mainstream and integrate DRR within and across all sectors			
To formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster risk-prone zones, subject to national law and legal systems			
To promote transboundary cooperation to enable policy and planning for the implementation of ecosystem-based approaches with regard to shared resources, such as within river basins and along coastlines, to build resilience and reduce disaster risk, including epidemic and displacement risk			
To allocate the necessary resources, including finance and logistics, as appropriate, for the implementation of DRR strategies, policies, plans, laws and regulations in all relevant sectors			
To promote disaster risk assessments into land-use policy development and implementation including urban planning, land degradation assessments and informal and non-permanent housing, and use of guidelines and			

Action/ guidance	If familiar role, share examples of how these are undertaken.	If a new role, discuss how can this be achieved.	Stakeholders for effective fulfillment of the role
follow-up tools informed by anticipated demographic and environmental changes			
Including the needs and concerns of vulnerable groups in the design of policies and plans			
To prepare/review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders			
Use post-disaster reviews to enhance learning and inform public policy			

Session Plan

Content	Trainer's Note	Duration
Broad categories of roles of policymakers in DRR and CCA	Introduce the learners to the four categories and associated case studies through which they can play significant roles in DRR and CCA	15 min
Group discussion and exercise	Facilitate the group discussion and exercise using the tabulated policy-related action/guidance laid down in the SFDRR	15 min

References

- Regulation for hospital- 2011 https://udd.gujarat.gov.in/pdf/L/Policy/Regulation_for_hospital2011.pdf
- Sustainable Waste Management in Indore: A Case Study https://earth5r.org/sustainable-waste-management-in-indore-a-case-study/
- Seven Lessons for Development Policy from the COVID-19 Pandemic https://www.undp.org/asia-pacific/publications/seven-lessons-development-policy-covid-19-pandemic
- Sendai Framework for Disaster Risk Reduction https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

Additional Reading Material

- Disaster risk reduction integrated in development planning and budgeting https://udd.gujarat.gov.in/pdf/L/Policy/Regulation_for_hospital2011.pdf
- Advancing Policy Reforms in Peru to Reduce Risk from Natural Hazards https://www.worldbank.org/en/results/2021/11/05/advancing-policy-reforms-in-peru-to-reduce-risk-from-natural-hazards

Notes

Learning Unit 1.2: Group Activity - Gaps and Challenges in Urban Policies and Implementation from Lenses of DRR, CCA and Resilience Building

Brief Description of the Learning Unit

This learning unit will familiarize learners to the existing gaps and challenges in urban policies, using the climate and disaster lenses. It will allow learners to brainstorm through global, national and state interventions in the urban planning sphere and gauge the entry points for interventions.

Learning Objectives

- To familiarize with different types of gaps and challenges in urban policies and implementation
- To brainstorm on thematic ways ahead to address the mapped gaps and challenges

Duration: 60 Minutes

Methodology

- Exercise
- Discussion

Detailed Description

For this purpose, the team needs to identify the gaps and challenges in urban policies and implementation. The following steps need to be taken as a part of the exercise:

- Divide learners into three groups for various sectors like infrastructure, housing, health, education, etc.
- Ask learners to list some key urban policies on the levels of:
    - National
    - State
- Ask each group to identify the main gaps and challenges in urban policies and interventions that prevent the integration of DRR and CCA. They should take into account the various challenges like budget, continuous upgradation, stakeholder coordination, gender, vulnerabilities, common frameworks, as well as emerging risks, etc. that are preventing mainstreaming of DRR and CCA into these sectoral policies.
- Have each group brainstorm a set of measures or interventions that could help integrate the DRR and CCA lens into the identified policies and programmes. These measures could range from advocacy, project designing, mutual learning, policy reforms, etc. based on the context.
- Invite groups to share their findings and discuss the gaps and challenges and measures that could be integrated and coordinated across various levels of governance.

Session Plan

Content	Trainer's Note	Time
Exercise	Focus on identifying gaps and challenges in urban policies and implementation practices	20 min
Discussion	Present the ideas on integrating DRR and CCA lens to urban policies	40 min

Notes

Summary

The Technical Session 1 guides the learners on:

- Key roles and responsibilities of policymakers at national, sub-national, and local levels in DRR and CCA
- Key gaps and enablers in the implementation of urban policies with consideration of DRR and CCA

Technical Session 2: Mainstreaming Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) into Urban Development Planning

Introduction, Overview & Perspectives

The technical session offers to introduce the learners to the key aspects of mainstreaming DRM and CCA into urban development at various stages. It discusses available frameworks and instruments that allow policymakers to change the way to deal with hazards and integrate disaster risk management into interventions. The session would take the learners through the various case examples from around the world where mainstreaming risk management strategies and climate change adaptions were the focus for policies in urban planning.

- Learning Unit 2.1: DRR and CCA frameworks in an urban context
- Learning Unit 2.2: Case studies: Integration of DRR & CCA through national and state policies and schemes

The primary objectives of this technical session are:

- To have a better perspective on the relevant DRR and CCA frameworks
- To enhance knowledge on ways to integrate resilience into urban development policies

Duration: 120 minutes

Methodology

- Lecture-based learning
- Discussion
- Case studies

Trainers' Note

This technical session consists of one lecture-based learning unit followed by a case studies-based learning unit and discussion. It should be conducted to provide conceptual clarity about ways for mainstreaming DRR and CCA to encourage resilience building using various tools and methods by the cities. The trainer should aim for an understanding through the active participation of learners through discussion and question-and-answer sessions. It is recommended that while explaining and using examples on the same, trainers should strive to link the general concepts to the urban contexts of Gujarat.

Brief Description of the Learning Unit

This learning unit introduces learners to the policies, plans, and strategies for integrating disaster risk management and climate-resilient actions into urban planning projects. It strives to guide the learners to best direct their efforts toward considering development through a climate lens and make their cities risk-informed. It develops an understanding of how various frameworks have supported the development of cities in a resilient manner. This would also enable the learners to identify areas for integrating their learning within their spheres of work.

Learning Objectives

- To have a better perspective on the relevance of DRR and CCA frameworks in an urban context
- To enhance knowledge on ways to mainstream strategies for development planning

Duration: 60 mins

Methodology

- Lecture-based learning
- Discussion

Detailed Description

DRR and CCA frameworks in the urban context refer to strategies and measures that aim to reduce, manage and adapt to the risk of disasters and climate change in urban areas. Urban areas are particularly vulnerable to disasters due to their high population density, complex infrastructure, and environmental factors such as climate change. Therefore, it is crucial to develop effective DRR frameworks to protect the lives and property of urban residents. The Paris Agreement; the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction set the course for a transition to low-carbon, disaster, and climate-resilient societies allowing countries to pursue the three global agendas collaboratively.

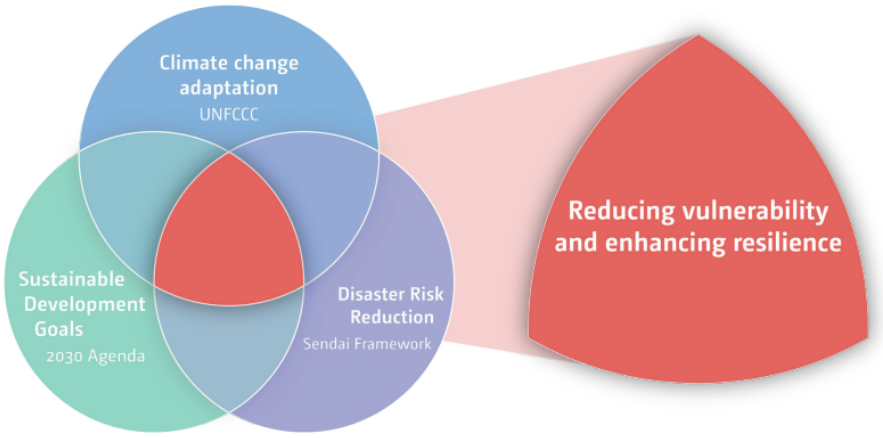

Fig 1. Integration of DRR CCA and SDG (UNFCC, 2017)

Development and disasters have complex linkages where development is a positive (+) aspect and disaster is a negative (-) aspect. Development programs can initiate vulnerability reduction through strengthening urban systems, deploying disaster-resistant building techniques, and undertaking capacity building, etc. as reflected in the (++) quadrant. Urban development can increase vulnerability through dense urban settlements, development in hazardous sites, technological failures, etc. as

reflected in the (-+) quadrant. Disaster can hold up development by damage to assets and resources, changing the investment climate affecting the informal sector, etc. as reflected in the (--) negative realm. Disasters can also provide development opportunities by highlighting the underlying systemic vulnerability and risk conditions and creating an atmosphere of acceptance to change and building back better and greener as reflected in the (+-). In general, Agenda 2030 acknowledges that disasters and climate change can impair development achievements and that to achieve sustainable development, people and communities must be made more resilient. DRR and CCA are thus conceptually and practically embedded in sustainable development through the incorporation of relevant goals, targets, and indicators.

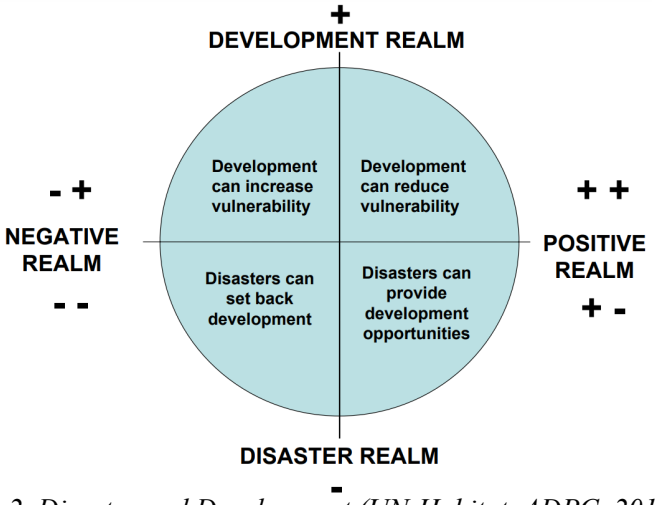

Fig 2. Disaster and Development (UN-Habitat, ADPC, 2014)

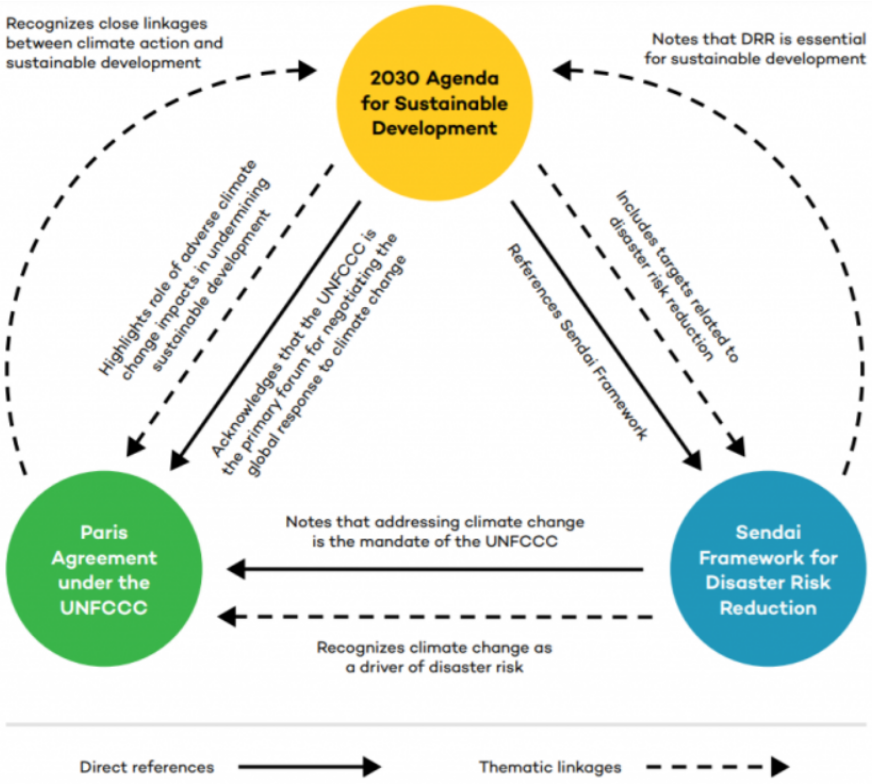

Fig 3. Linkages between SFDRR, Paris Agreement, and Agenda 2030 (IISD, 2016)

Risk-informed governance focuses on preventing new and reducing existing disaster risks as well as managing residual risks. For effective management and recovery at all levels of society, risk-informed

governance also refers to incorporating DRR strategies into development planning, land-use planning, investment decisions, urban development processes, and economic growth plans. Therefore, effective governance systems are needed to manage disaster and climate risk. These systems should be exemplified by pertinent laws and policies, strong leadership, institutions, and coordination mechanisms, as well as by clearly defined roles and responsibilities, resources, monitoring, and accountability systems established across all levels and sectors.

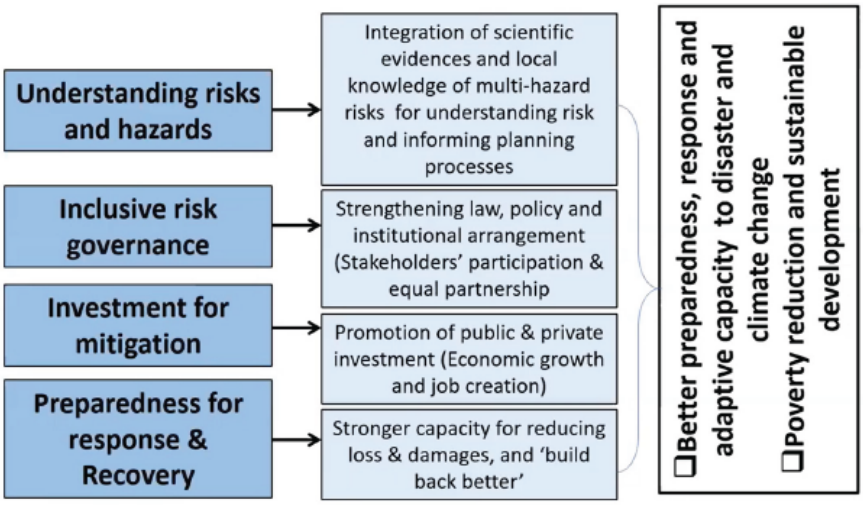

Fig 4. Risk-informed development planning (GFDRR, 2020)

The failure to prioritize DRR and CCA with the resulting absence of their inclusion in national and sub-national development policies, planning, and implementation leads to new or heightened patterns of disaster risk, reduced resilience to climate impacts, and ultimately the loss of lives and livelihoods. The process of integrating DRR and CCA at all levels of decision-making including national, provincial, and local government and community levels is referred to as mainstreaming DRR and CCA (ADPC, 2014).

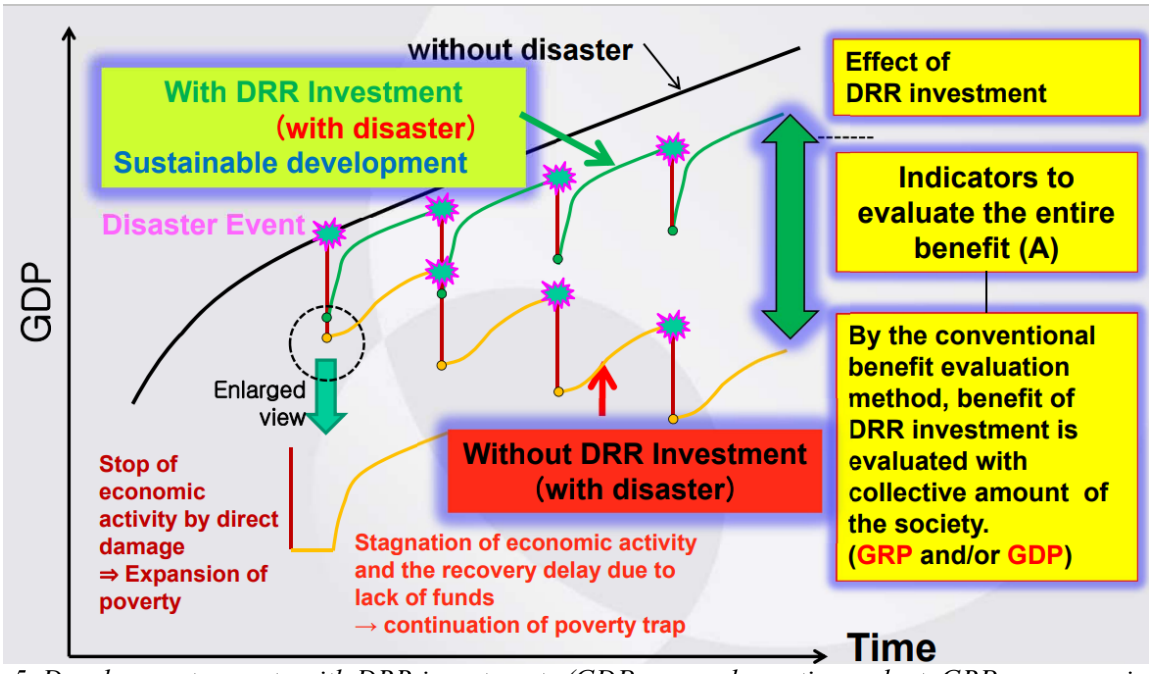

Fig 5. Development aspects with DRR investments (GDP: gross domestic product, GRP: gross regional product) (JICA, 2013)

Risk management is of utmost importance in urban planning, an interdisciplinary field that includes housing, flood plain management, zonation, drainage, and emergency services. For instance, risk-informed investments in the housing industry can be a significant strategy to lessen susceptibility and risk exposure. Houses are common spaces where people frequently face the greatest risk to their lives and assets. Living in unsafe neighbourhoods, such as slums or illegal settlements in high-risk locations, is especially common among the poor and marginalised. Retrofitting people's houses, enabling insurance of possessions and assets, and creating alternate livelihoods could be among the main focus of investments.

The U20 chair calls for city-level actions to respond to global agendas: (1) encouraging environmentally responsible behaviours, (2) ensuring water security, (3) accelerating climate finance, (4) championing local identity, (5) reinventing frameworks for urban governance and (6) planning and catalyzing digital urban futures. This can be achieved through actions that mainstream DRR and CCA among others.
Example of frameworks such as the Urban Sustainability Assessment Framework (USAF) by UN-Habitat allows cities to evaluate their conditions based on indicators including climate resilience and disaster risk management. These allow for integrating themes of DRR and CCA into the planning process for a city.

SCAN ME

Video: Making Indian Cities Future-Ready | Urban Sustainability Assessment Framework (USAF) by UN-Habitat **https://www.youtube.com/watch?v=pA6y2WYKkKc&t=64s**

Discuss with learners: *How have disasters impacted the development goals of the country? What actions have been taken in their jurisdiction, if anything, to reduce disaster risks? Does DRM and CCA form an integral part of policy priorities and are there relevant policy initiatives?*

Some of the key aspects to be considered for mainstreaming DRR and CCA into urban development projects (UNDP, 2020):

- Successful when processes take a “whole-of-government” approach which is country-driven, and countrywide processes to embed risks in existing development policy
- Starting from within the development agenda, the process should improve current development paradigms. The integration of DRR and CCA into policies, plans, projects, and budgets must therefore be championed by important development actors at the national, state, and local level, with the assistance of DRR and CCA actors.
- Undertake a multi-stakeholder process with many levels of intervention across sectors and system
- Follow accepted risk governance principles such as equity and inclusion, participation, responsiveness, and transparency at the national, state, and local level (UNDP, 2014)
- Flexible and non-linear. E.g. if progress in one point stalls for reasons like political, funding, etc., work can move forward on other entry points in the meantime
- All goals can be revisited and targeted on an ongoing basis so that changes in context are given due consideration. E.g. review of building plans depending on the changing risk landscapes, consideration of extreme weather conditions, etc.
- Depending on variables including the degree to which a move from a reactive to a more proactive risk management approach has already occurred within existing national and sub-national institutions, the mainstreaming DRR and CCA process in urban policies will begin differently in each country or state and encounter different problems.

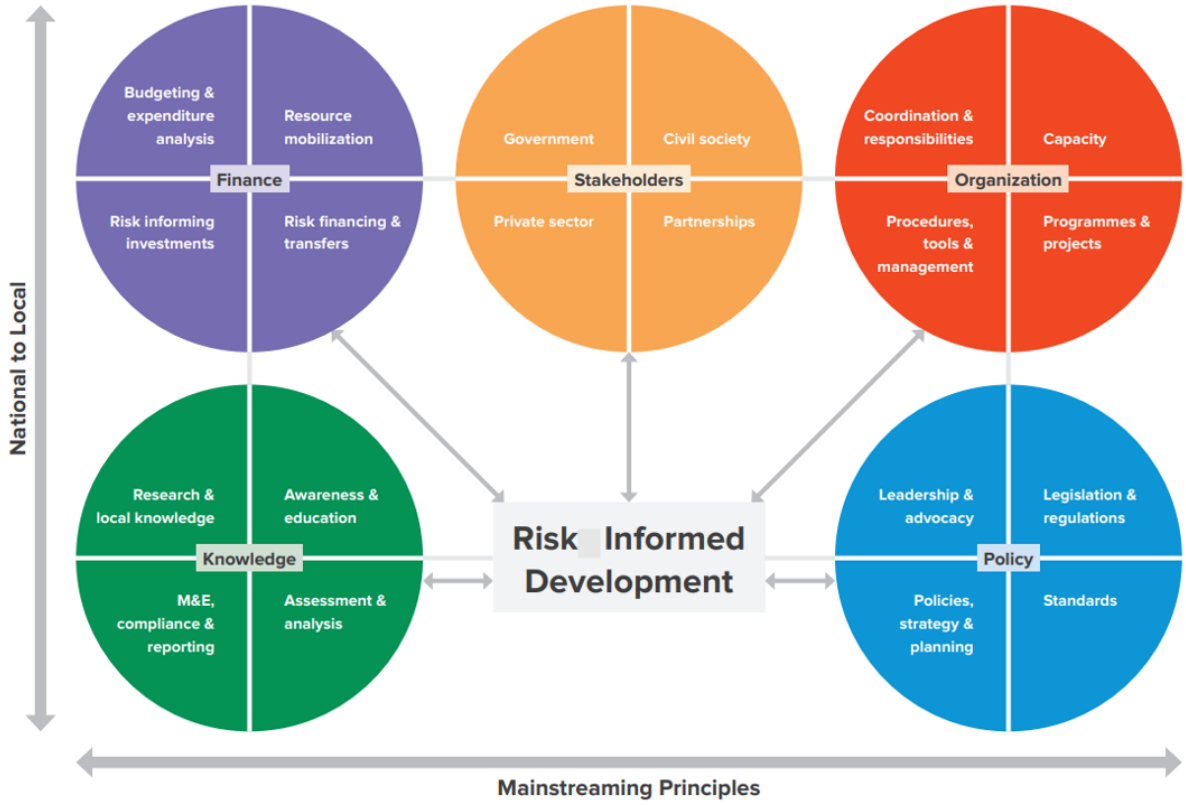

Fig 6. Components for integrating DRR and CCA into Development (UNDP,2021)

Given the cross-cutting nature of disaster damage and losses, which can affect infrastructure, housing, health, and education as well as life, and livelihoods, at the same time, all departments are required to work in coordination. Since government departments are set up around specific sectors, the only appropriate course of action to mitigate and manage the potential effects of disaster and climate change on varied sectors is to integrate DRR and CCA into all development projects and programmes across all the crucial sectors. Under the **Ministry of Housing and Urban Affairs**, to drive economic growth and advance the quality of life of people by enabling local development, the Climate Smart Cities Assessment Framework was introduced. Covering the key thematic areas of – Energy and Green Buildings, Urban Planning, Green Cover & Biodiversity, Mobility and Air Quality, Water Management, and Waste Management, the framework allows cities to assess their current climate situation and provides a roadmap for cities.

National Mission on Sustainable Habitat 2021-2030 focusses on making cities sustainable through improvements in energy efficiency in buildings, management of waste & public transport. By using a variety of strategies to both mitigate and adapt to climate change, it essentially aims to make urban areas more climate-friendly and less vulnerable to climate change. It targets:

- The creation of robust development strategies based on sustainable habitat requirements that also address climate change-related issues.
- The creation of municipal development plans that fully address issues about mitigation and adaptation
- The creation of thorough mobility plans that allow communities to carry out long-term, cost-effective, and energy-efficient transportation planning
- Increasing capacity to carry out Mission-related activities

Fig 7. Climate Smart Cities Assessment Framework (NIUA, 2019)

Discuss with learners: *What are the priority sectors for the integration of DRR and CCA? Identify some schemes and policies relevant to the urban context (health, livelihood, area planning, basic services, etc.).*

What are the potential activities to integrate DRR and CCA in these schemes and policies? List the intended outputs and outcomes.

Session Plan

Content	Trainer's Note	Time
Interrelation of DRR CCA and development	Focus on explaining the aspect of DRR and CCA in urban development, its relation to GDP, and risk-informed development planning	20 min
Frameworks	Focus on recent advancements, and assessment frameworks in the urban context of India	25 min
Discussion	A brief discussion on how urban policies can be included in DRR and CCA frameworks	15 min

References

- UNFCCC (2017). Opportunities and options for integrating climate change adaptation with the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction 2015–2030 https://unfccc.int/sites/default/files/resource/techpaper_adaptation.pdf
- UNDRR (2020). Disaster Risk Reduction in India Status Report 2020. https://www.undrr.org/media/48528/download
- UNDP (2020). Risk-informed development A Strategy Tool for Integrating Disaster Risk Reduction and Climate Change Adaptation into Development. https://www.undp.org/publications/risk-informed-development-strategy-tool-integrating-disaster-risk-reduction-and-climate-change-adaptation-development
- NIDM (2012). National disaster management toolkit for urban planning. https://nidm.gov.in/pdf/pubs/DRR-Urban.pdf
- MoHUA (2021). National Mission on Sustainable Habitat 2021-2030 https://mohua.gov.in/upload/uploadfiles/files/NMSH-2021.pdf
- MoHUA (2016). Disaster Risk Reduction: A Handbook for Urban Managers https://ndmindia.mha.gov.in/images/pdf/DRRHandbookUrbanManagers.pdf
- ADPC (2013). Integrating disaster risk management into urban management. Disaster Risk Management Practitioner's Handbook Series https://www.adpc.net/igo/category/ID409/doc/2013-w06Evi-ADPC-ADPC_DRM_Practitioners_Handbook_-_Urban_Management.pdf

Additional Reading Material

- Mitchell et. al. (2010). Assessing Progress on Integrating Disaster Risk Reduction and Climate Change Adaptation in Development Processes https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/2511/Assessing%20Progress%20on%20Integrating%20Disaster%20Risk%20Reduction.pdf?sequence=1&isAllowed=y
- UNDRR (2020). Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework https://unsdg.un.org/sites/default/files/2020-08/Integrating-DRR-CCA-in-CFs-web.pdf

Notes

Learning Unit 2.2: Case Studies: Integration of DRR & CCA Through Global, National and State Interventions

Brief Description of the Learning Unit

This learning unit will familiarize learners with the global, national and state interventions which integrate DRR and CCA into urban planning and thus promote resilience of cities. The unit will detail the wide range of actions that are being undertaken to ensure disaster resilience. It also delves into the ways of making upcoming projects disaster and climate-resilient.

Learning Objectives

- To familiarize with interventions integrating DRR and CCA
- To enhance knowledge of global and Indian good practices

Duration: 60 Minutes

Methodology

- Case studies
- Discussion

Detailed Description

1. International Urban Cooperation- Surat and Rotterdam

The International Urban Cooperation (IUC) programme activities, which are funded by the European Union, support the accomplishment of bilateral policy goals as well as key global agreements on urban development and climate change, including the Paris Agreement, the Sustainable Development Goals, and the Urban Agenda. To connect city decision-makers with possible donors, the IUC initiative collaborates with significant international financial institutions and partners. For actions related to the components of sustainable urban development and innovative cooperation for local and regional development, EU businesses are crucial partners.

Under this Surat and Rotterdam have entered as city to city pairing with Rotterdam sharing its experience of managing water resources and Surat sharing its experience on scalability of climate resilience and adaptation activities. One of the key goals of the pairing is to improve the water quality from the Tapi River and prevent flooding incidents in Surat. Surat faces significant issues of industrial, and agricultural run-off, as well as untreated sewage. Improving the river's water quality is a top priority due to its rapidly expanding population and the need for significant stocks of drinkable water. In addition, flooding is a problem that would become worse with sea level rise brought on by climate change. The cities in pair are investigating ways to protect Surat from floods, notably through building river banks more appealingly and securely. The delegation from the City of Rotterdam visits Surat and vice versa for mutual learning experiences. Surat is gaining from Rotterdam's water management expertise. Through the exchange, Surat receives not only motivation but also practical assistance, especially from Dutch companies, to help it overcome its water-related problems. This supported the use of an integrated approach for local action plans.

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

2. Gujarat Solar Power Policy

The State Government to encourage the use of renewable energy developed this policy so that there will be less reliance on fossil fuels in the future. The State is aware that using renewable energy may also greatly improve both the State's and the Country's energy security. The policy promotes green and clean power and targets to reduce the overall carbon emission. The State Government's top priority through this policy is to give its citizens access to a healthy environment that is sustainable.

Gujarat Solar Power Policy by the Energy and Petrochemicals Department, Government of Gujarat.

Can you identify interventions related to this policy in your jurisdiction?

3. National Action Plan for Climate Change – India

It elaborates on the effort to mainstream climate change adaptation as a part of national development planning in India, various missions under the NAPCC, and specific state-level actions.

India: National Action Plan for Climate Change Process Country Case Study by GIZ

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

4. AMRUT Scheme -India

With a vision for enhancing climate change mitigation and adaptation by improving the microclimate and enabling groundwater recharge, the MoHUA has allotted INR 176.8 billion for the creation and renovation of parks and green spaces. Under the AMRUT scheme, 1,770 parks have been built at a cost of INR 9.9 billion, and work is currently being done to build another 650 green areas and parks at a cost of INR 5.2 billion. The creation of parks and natural spaces with specific provisions for kid-friendly elements has made sure that amenities are accessible, that carbon footprints are reduced, that groundwater levels are raised and that inhabitants' quality of life is improved. To encourage planned

and sustainable urban expansion, 25 cities have participated in a pilot programme for Local Area Plans/Town Planning Schemes (LAP/TPS) for INR 0.5 billion ($500,000). By enabling the redevelopment of the existing built environment, creating a new layout with improved infrastructure, and allowing for planned urban growth, the plan will improve the public realm (public spaces, areas under highways, etc.).

Can you identify interventions related to this scheme in your jurisdiction?

5. **Nepal Risk Reduction Consortium** to integrate disaster risk management plans, policies, and programmes at the national, district and local levels and strengthen the enforcement and compliance of building codes.

Video: NRRC Flagship 5: Policy & Institutional Support for Disaster Risk Management https://www.youtube.com/watch?v=ShufMhhb9m8

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

6. **Integrating Disaster Risk Reduction and Climate Change into National and Municipal Laws in the Philippines**

The Philippine government made a transition from post-disaster reaction to prevention and risk reduction in 2010. It successfully institutionalized a thorough and integrated approach to risk reduction by passing the Disaster Risk Reduction and Management Act and a Strategic National Action Plan for DRR. To achieve a thorough knowledge of the local government's role in risk management, it was decided to hold a National Summit for Local Chief Executives in 2013. The Philippines is currently seeking the integration of climate resilience into municipal ordinances, policies, and plans while placing a priority on the improvement of local-level governance. The government planned to continue to focus on mainstreaming with specific emphasis on integrated disaster risk management and climate resilience into the Comprehensive Land Use Plan and other local laws, policies and plans (UNISDR-GETI, 2016).

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

7. CARICOM- Caribbean Community – Comprehensive Disaster Management Strategy

It is carried out by a group of 20 countries where CCA and DRR have been mainstreamed into the comprehensive disaster strategy. The goal is to "strengthen regional, national and community level capacity for mitigation, management, and coordinated response to natural and technological hazards, and the effects of climate change," as stated in a plan with a "results-driven" structure. The four priority results are as follows: (a) increased institutional support for clean development mechanisms programmes at national and regional levels; (b) the establishment of a successful mechanism and programme for managing comprehensive disaster management knowledge; and (c) the mainstreaming of disaster risk management at the national level and integration into vital national economies (such as tourism, health, agriculture, and nutrition).

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

8. Risk informing national and district development plans in Tajikistan

The Tajikistan National Development Strategy (2016-2030) and the mid-term national Development Programme (2016-2020) both incorporate DRM, thanks (majorly) to the UNDP Disaster Risk Management Programme (DRMP). This has something to do with current efforts to include DRR in District Development Plans (DDPs) created and carried out by District authorities. A risk management technique was approved as part of the normal development planning process in consultation with Government authorities and a variety of other stakeholders. 36 district DDPs have integrated DRR to date.

What are the key learnings from this case study? Can you identify similar interventions in your jurisdiction?

Discuss with learners: *What are the agencies, economic actors, and community stakeholders that are important for DRR and CCA integration in urban context?*

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What are the gaps at present in India and what should be the key considerations for future?

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Session Plan

Content	Trainer's Note	Time
Case studies	Focus on developing an understanding of various activities, schemes, and partnerships that support integrating DRR and CCA followed by a brief discussion.	60 min

References

- IUC (2018). Rotterdam and Surat take an integrated approach to resilient water management https://www.ieup.eu/assets/knowledge-bank/230220210.42567600%201614081703.pdf
- Gujarat Solar Power Policy https://suryagujarat.guvnl.in/Gujarat-Solar-Power-Policy-2021.pdf
- NAPCC http://www.nicra-icar.in/nicrarevised/images/Mission%20Documents/National-Action-Plan-on-Climate-Change.pdf
- AMRUT guidelines http://amrut.gov.in/content/innerpage/guidelines.php
- OECD. Common Ground Between the Paris Agreement and the Sendai Framework - Climate Change Adaptation and Disaster Risk Reduction https://www.oecd-ilibrary.org/sites/4ec0f8bc-en/index.html?itemId=/content/component/4ec0f8bc-en
- CDEMA (2016). Regional Response Mechanism (RRM) https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/rrm_booklet_final1_7.29.16_1.pdf

Additional Reading Material

- UNDRR (2022). Principles for Resilient Infrastructure https://www.undrr.org/media/78694/download
- UNDRR (2019). Words Into Action. Developing National Disaster Risk Reduction Strategies https://www.preventionweb.net/files/65095_65095wianationaldrrstrategies100520.pdf

Notes

Summary

The Technical Session 2 guides the learners on:

- Importance of mainstreaming DRR and CCA into policies and interventions in India
- Identification of entry points and ways to initiate integration of DRR and CCA into urban policies
- Good practices present at state, national and international levels have mainstreamed DRR and CCA

Technical Session 3: Transboundary Governance

Introduction, Overview & Perspectives

This technical session aims to provide learners with an understanding of the need for transboundary governance for DRR and CCA. It will further discuss examples of cooperation and coordination among different countries and states for disaster risk reduction and climate change adaptations. It will help learners unravel the ways of initiating dialogues for communicating risks and challenges and undertake initiatives to strengthen transboundary cooperation. Overall, this technical session will equip learners with the knowledge needed to understand transboundary governance and ways to build resilience using various cooperative initiatives.

The primary objectives of this technical session are:

- To develop an understanding of the transboundary governance and its need for DRR and CCA
- To gather knowledge on how transboundary cooperation can build resilience

Duration: 30 Minutes

Methodology

- Lecture-based learning
- Discussion

Trainers' Note

While introducing learners to transboundary governance, trainers can plan questions seeking learners to identify key transboundary governance practices. This will also help understand how well the learners have grasped the concept. Further, the trainers should delve into the different case studies and leverage the diverse experience of the learners in generating discussion.

Detailed Description

The effects of disasters and climate change are felt across boundaries with no regard for national and sub-national jurisdictions as shown in Fig 1. For instance, as a result of climate change, floods, and droughts are becoming more intense and frequent in transboundary basins, necessitating cross-border

and inter-sector collaboration for their management. The incidents of the locust attack on many countries of Central and Southeast Asia in 2020 further showcase such transboundary impacts and underscore the need for transboundary risk governance. The **6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)** underlines transboundary climate risks both within and across borders (IPCC, 2022). The **G20 Summit 2023 (Group of Twente) working group on Disaster Management** highlighted the need for more international cooperation for disaster risk management initiatives. Using a transboundary strategy helps DRR and CCA more effectively by lowering uncertainty through data interchange, expanding the planning area, establishing better priorities, and sharing costs and benefits. This benefits countries and gradually improve conditions on a local level.

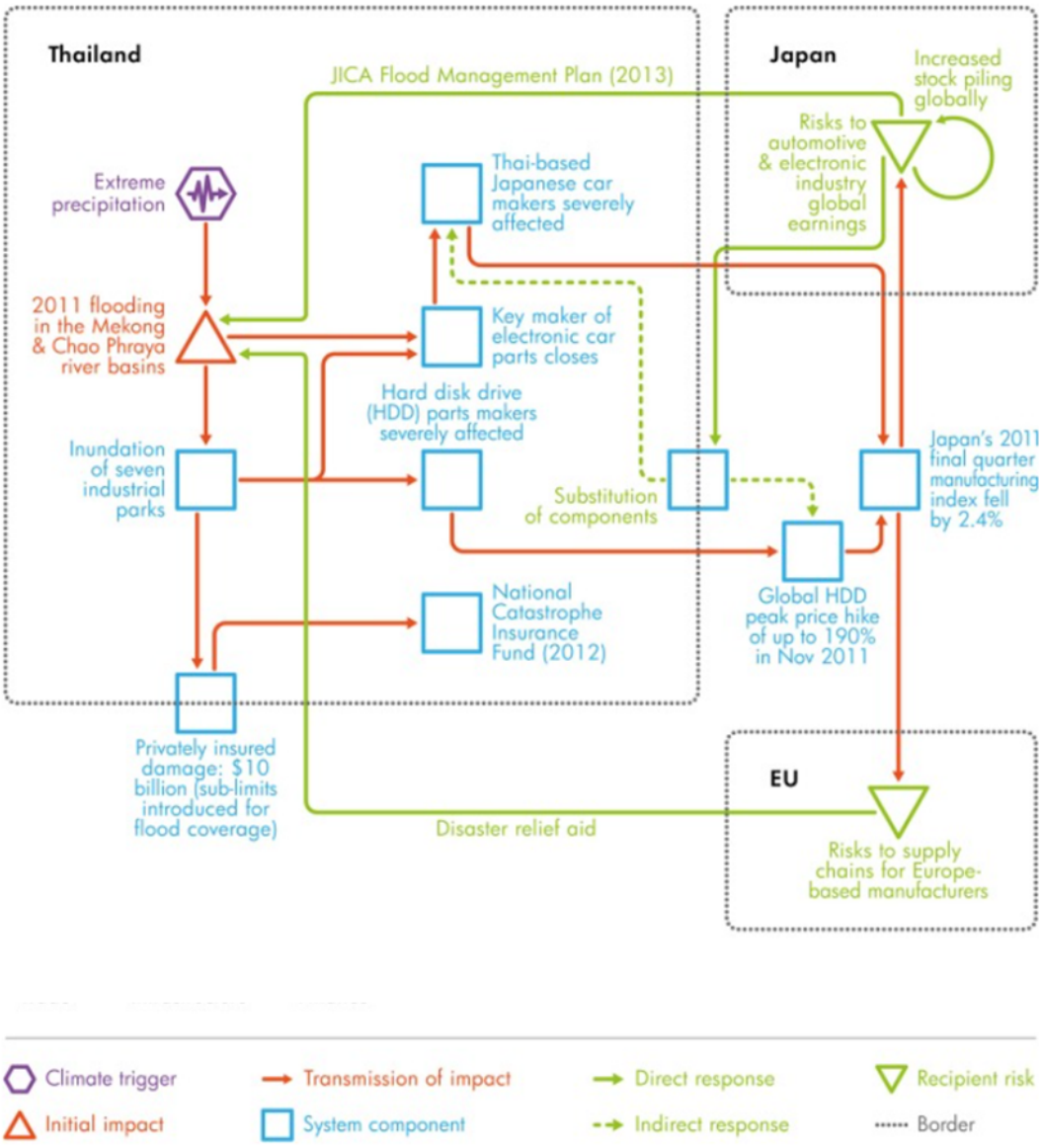

Fig 1. Example of the impact of extreme weather events across countries (Carter et. al. 2021)

Transboundary governance refers to the cooperation and coordination among different countries (or states) to address and manage the risks and impacts of disasters that transcend national (or sub-national) boundaries. **The Sendai Framework for Disaster Risk Reduction 2015-2030** which emphasizes the importance of regional and international cooperation in DRR promotes transboundary governance for DRR. **Paris Agreement** and the decision adopting it mentions the importance of regional cooperation in adaptation. In addition, the United Nations Office for

Disaster Risk Reduction (UNDRR) has launched several initiatives to strengthen transboundary cooperation, such as the **Regional DRR Platforms**. Joint basin institutions undertake a critical function of incorporating DRR and CCA into basin planning and development which is an example of transboundary co-operation.

Urban River Management Plan

Rivers in the Ganga River Basin are facing increasing threats on several fronts. Pollution concerns are escalating and streams are drying up. A common element in all these is anthropogenic factors, especially those associated with disruptive activities more prevalent in urban areas. Therefore, any improvement in the river's state has to be achieved by first addressing the issues and drivers in urban areas. Cities in the basin, therefore, have a central role to play in the rejuvenation and replenishment of the rivers. The Urban River Management Plan is designed systematically and holistically for interventions required to revive and maintain the rivers sustainably. It accounts for checking water quality and community-based river health monitoring mechanisms which would promote proper conditions across cities and states. It can be considered a regional governance plan for maintaining water resources.

(Source: NIUA)

Discuss with learners: *Recollect incidences of transboundary impacts of disasters and climate change. What are some initiatives between Indian states (or among districts/cities in Gujarat) to curb the impacts of disasters and climate change?*

An important advancement is the development of transboundary early warning systems that allow countries to share information and alerts about potential disasters across borders. For instance, the South Asia Flash Flood Guidance System (FFGS) and the Regional Integrated Multi-Hazard Early Warning System (RIMES) are two examples of early warning systems that have been established in the Asia-Pacific region.

There are at least four **key principles** that must be considered to sustain a regional or transboundary plan process:

- The process must be able to recognize transboundary resources and comprehend the effects/impacts of disasters and climate change on them
- It must be able to translate these impacts into mutually agreed-upon regional goals.
- It must be able to help nations/states commit resources to regional and transboundary planning and policymaking.
- It must help ensure that the regional plans and the national plans are complementary.

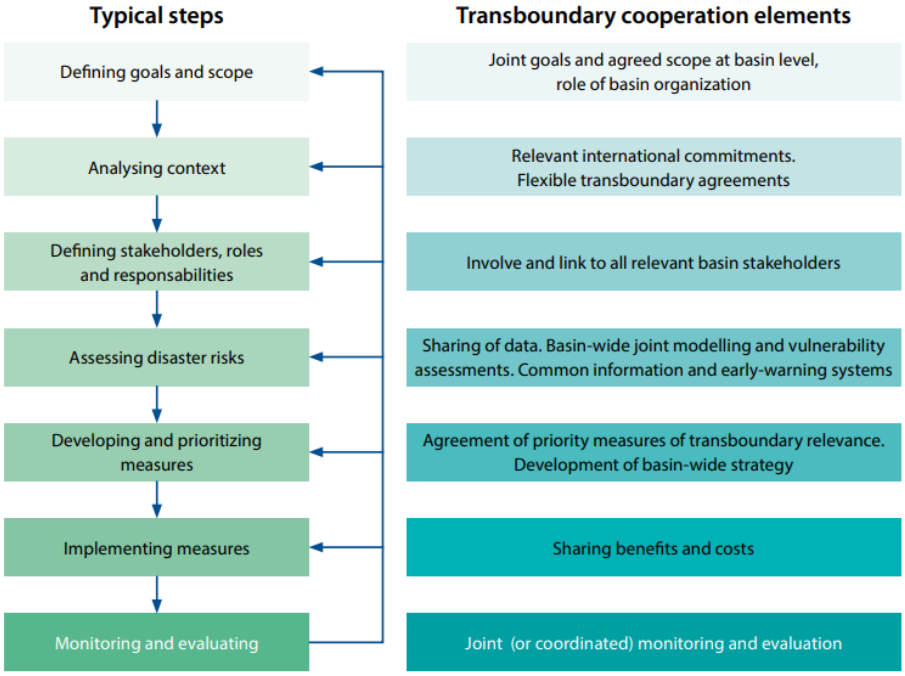

Fig 2. Example of integrating transboundary governance components in disaster risk management for water-related disasters (UNDRR, 2018)

Some examples of Transboundary Initiatives

1. Mississippi River Cities & Towns Initiative (MRCTI)

Communities in the area along the Mississippi River are cooperating to manage the river and the risks that go along with it as part of the Mississippi River Cities & Towns Initiative (MRCTI) (www.mrcti.org), an organization of 80 Mississippi River Mayors from all 10 states that border the river. Concerns addressed by the MRCTI include:

- River water quality, habitat restoration, state coordination for river management and enhancement.
- More effective water-saving techniques.
- Ecologically sound economies.
- A celebration of the river's history and culture.

Mayors from 18 of the river's major cities convened in Washington, DC, in 2017 to lobby Congressmen and White House representatives about the importance of preserving and repairing the infrastructure that controls America's largest waterway. It proposes to sustain critical ecological assets, generate economic activities, create new jobs, support eight sectors of industry, and mitigate hundreds of millions of dollars in disaster impacts.

2. Partner City Affiliation Agreement between Varanasi and Kyoto

The affiliation was signed in 2014 for cooperation on culture, art, academics, heritage conservation, and city modernization. The collaboration targeted for modernization of Varanasi, including the upgradation of services like waste management, urban transportation, etc., drawing upon Japan's expertise and technologies, the application of Japanese practices, techniques and management for the conservation of the rich heritage of Varanasi and exchanges between Kyoto University and Banares Hindu University. Under this, in an attempt to provide base information for building a city's resilience by identifying the root cause of vulnerabilities with a multi-stakeholder approach Climate Disaster Resilience Index was studied.

3. Transboundary Early Warning- Transboundary Rivers of South Asia (TROSA) Project

SCAN ME Video: #LivingRivers | Transboundary Early Warning System (EWS) Oxfam India **https://www.youtube.com/watch?v=QWbavpRe8OY**

4. Otagai Project

The flood in Thailand in late 2011 caused severe damage to the economies of Thailand and Japan and throughout the world, fragmenting the supply chains and suspending factory operations in some industries. This led to a deeper mutual understanding of the importance of strengthening the supply chains and promoting industrial cluster partnerships beyond borders. The Otagai project was launched in 2011 to promote collective and strategic Japanese direct investment in Thailand through industrial cluster partnerships between the two countries.

5. Central Asian Flood Early Warning System

SCAN ME Forecasting Risk: How the Central Asian Flood Early Warning System Will Protect the Region by World Bank **https://www.youtube.com/watch?v=HIFxkgfRy90**

Discuss with learners: *List some of the transboundary governance initiatives that have helped India, the districts in Gujarat and neighboring states adapt to disasters and climate change. Based on the examples share what can be some ways to include DRR and CCA in transboundary governance.*

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Session Plan

Content	Trainer's Note	Time
Transboundary impact of events	Focus on impacts of disasters and climate change across regions, need for governance	10 min
Transboundary governance	A brief on how transboundary governance and cooperation can be established along with existing practices.	15 min
Discussion	Engage with learners to learn how it can be incorporated into their field of work.	5 min

References

- IBC on Environment & Climate Change (2021). Integrating Disaster Risk Reduction and Climate Change Adaptation for Risk-informed and Climate-smart Development https://unece.org/sites/default/files/2021-10/IBC%20environment%20and%20climate%20change_Integrating%20Disaster%20Risk%20Reduction%20and%20Climate%20Change%20Adaptation_2021.pdf
- UNDRR (2018). Words into Action Guidelines Implementation Guide for Addressing Water-Related Disasters and Transboundary Cooperation https://www.preventionweb.net/files/61173_ecemp.wat56.pdf

- MoHUA, BMTPC, UNDP (2016). Disaster Risk Reduction: A Handbook for Urban Managers https://ndmindia.mha.gov.in/images/pdf/DRRHandbookUrbanManagers.pdf

Additional Reading Material

- NIUA (2020). Urban River Management Plan https://nmcg.nic.in/writereaddata/fileupload/48_Urban%20River%20Management%20Plan%20framework.pdf

Notes

Summary

The Technical Session 3 guides the learners on:

- Need for transboundary governance in DRR and CCA and impact of disasters across borders
- Key principles for developing transboundary plans and integration of transboundary governance in existing plans and policies of India
- Ways to engage transboundary governance in building resilient cities through examples of global good practices

Technical Session 4: Disaster Grievance Redressal Mechanism

Introduction, Overview & Perspectives

The fourth technical session, Disaster Grievance Redressal Mechanism (GRM), will look at key approaches to attend to grievances, improve efficiency, and provide adequate assistance to beneficiaries. The session is intended to provide learners with strategies for improving the existing grievance redressal mechanisms.

The primary objectives of this technical session are:

- To understand the frameworks and existing types of grievance redressal mechanisms
- To explore case studies to understand the functioning of GRM

Duration: 30 minutes

Methodology

- Lecture-based learning
- Discussion

Trainers' Note

The trainer for the session should aim to provide learners with the knowledge to improve strategies for the redressal of grievances and minimize challenges. Showcasing successful examples and relevant practices would be useful.

Detailed Description

A grievance redress mechanism (GRM) is a set of arrangements that enable local communities, and other affected stakeholders to raise grievances with the government or investor and seek redress when they perceive a negative impact arising from the activities like plans, policies, and development interventions. It is a key way to mitigate, manage, and resolve potential or realized negative impacts, as well as fulfill obligations under international human rights law and contribute to positive relations with communities and employees (World Bank, 2018).

***Discuss with learners**: List some probable grievances related to disasters and climate change and their management. How are the complaints gathered in your jurisdiction?*

Types of grievance redressal mechanisms include:

- Community-based grievance and dispute resolution mechanisms (Lok Adalat, community meetings after disasters)
- Operational-level mechanisms to handle grievances relating to a specific project
- National human rights institutions that handle more serious allegations (Commission for Women, National Commission for Protection of Child Rights etc.)
- Anti-corruption hotlines, agencies to deal with allegations of corruption, fraud
- Mechanisms associated with international development and climate finance institutions (e.g. the Green Climate Fund's Independent Redress Mechanism and Independent Integrity Unit)
- Sectoral and multi-stakeholder grievance mechanisms that address breaches in commonly agreed standards (e.g. Roundtable on Sustainable Palm Oil)

State Wide Attention on Grievances by Application of Technology (SWAGAT) is the Chief Minister's Online Grievance Redressal System that uses a video-conferencing setup that connects complainants to officials in real-time.

Discuss with learners: *List the probable barriers in filing grievances for various development, DRR and CCA projects. Discuss the probable strategies to remove these barriers.*

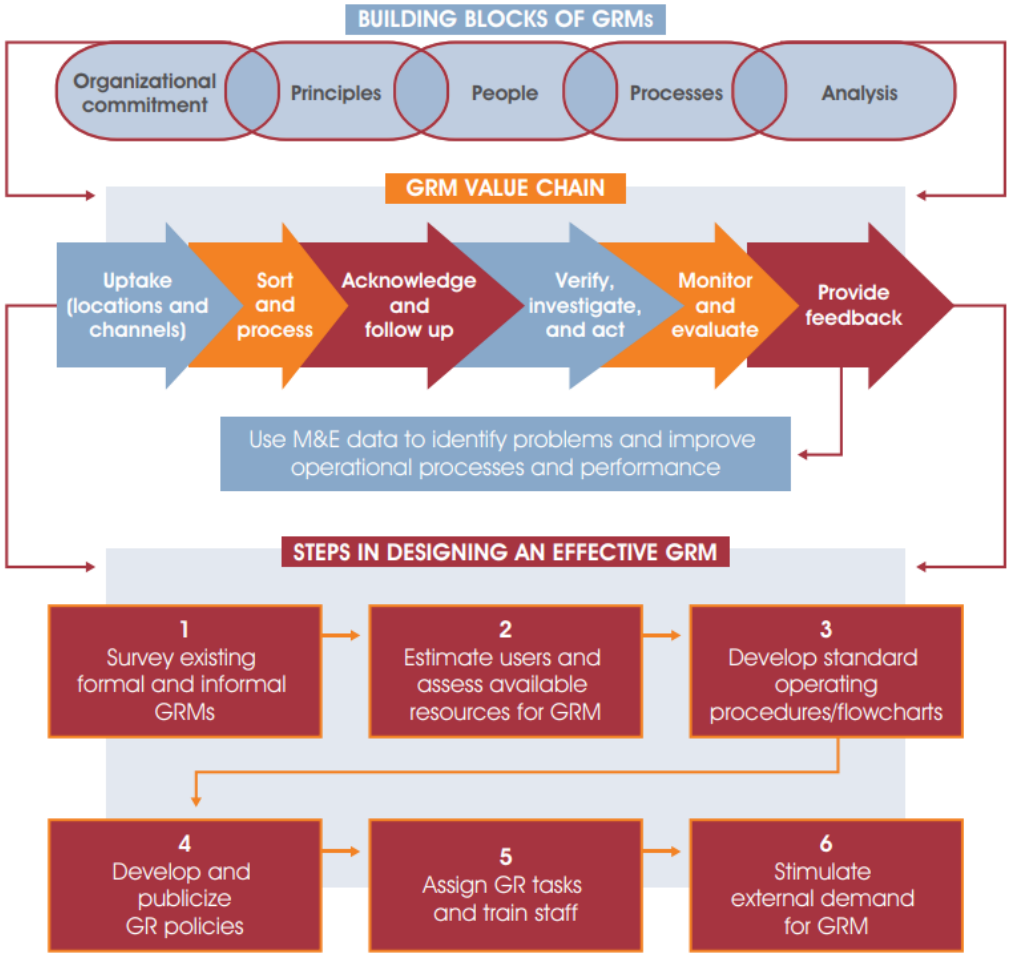

Fig 1. Grievance redressal mechanism framework (World Bank)

An effective grievance redressal mechanism should include the following key points:

Accessibility: The mechanism should be easily accessible to all affected individuals, including those who may have limited mobility, language barriers or other special needs. E.g. Revenue Minister's Helpline Centre Odisha by the Revenue and Disaster Management Department has a dedicated Toll free number, e-Mail ID, SMS and online portal for complaints.

Transparency: The process should be transparent, with clear guidelines for filing grievances, timelines for resolution, and regular updates on the status of the grievance. E.g. GO-NGO Protocol in Assam is bringing transparency in the relationship between government and NGOs and its redressal mechanism has a "do no harm" principle that considers capacities and drivers for peace.

Responsiveness: The mechanism should be responsive to the needs of the affected individuals, with prompt acknowledgment of grievances and timely resolution of complaints. E.g. Andhra Pradesh Road Sector Project has established clear policies for the grievance redressal process where the complaint handling officer is required to acknowledge the complaint within 10 working days of receipt of the complaint and proceed to take remedial action effectively within 30 working days.

Fairness: The mechanism should be fair and impartial, with an independent body overseeing the process to ensure that complaints are handled objectively and without bias. E.g. Kerala High Court directed Permanent Lok Adalat in the state to be treated as the final level appellate authority in the

Grievance Redress Mechanism for persons affected by landslides/floods in relation to benefits announced for them.

Empowerment: The mechanism should empower affected individuals to voice their concerns and seek redressal for their grievances. This can be achieved through outreach and education programmes that inform people about their rights and the available channels for filing grievances.

Coordination: The mechanism should be integrated with other DRR and CCA efforts, with clear lines of communication and collaboration between different stakeholders and agencies involved in the process. E.g. The AMRUT scheme follows National Urban Digital Mission (NUDM) Municipal Grievance Redressal standards for any grievances related to water supply, health, sanitation and other key basic service departments of a city.

Continuous Improvement: The mechanism should be regularly evaluated and refined to ensure its effectiveness and responsiveness to the evolving needs of the affected individuals and communities. E.g., Under the National Urban Digital Mission (NUDM), Municipal Grievance Redressal knowledge standards mention key grievance rating, using data elements for evidence-based governance, etc.

Key performance indicators of a GRM:

- Resolution Rate
- % of grievances resolved within Service Level Benchmark (time, priority etc.)
- Actual grievance resolution time
- Grievance resolved; complainant satisfied and not satisfied number
- Incorrect transfers of the grievance to the other departments
- Most common grievances every month
- Repeat grievances

Session Plan

Content	Trainer's Note	Time
Key framework	Focus on types of grievances in DRR and CCA, stages, grievance redress framework	10 min
Key Features	A brief on the what are the features and key performance indicators for a grievance redressal mechanism and examples from various states	10 min
Discussion	Engage with learners to elaborate the possible development and improvement in GRM	10 min

References

- IFC (2009). Guidance For Projects and Companies on Designing Grievance Mechanisms
- Good Practice Note. https://www.scribd.com/fullscreen/21356198?access_key=key-d387qdvel3wbc9nnmxk
- World Bank (2018). Knowledge Into Action Note Series https://openknowledge.worldbank.org/server/api/core/bitstreams/8570e807-46f9-579a-9d17-72ebabae2384/content
- World Bank. Dealing With Governance and Corruption Risks In Project Lending https://documents1.worldbank.org/curated/en/658351468316439488/pdf/639100v20BRI0F00B

ox0361531B0PUBLIC0.pdf
- Stakeholder Participation Guide. https://climateactiontransparency.org/wp-content/uploads/2020/10/Stakeholder-Participation-Guide_ch9.pdf

Additional Reading Material

- NIUA (2022). National Urban Digital Mission (NUDM) Municipal Grievance Redressal https://niua.in/sites/all/files/MGR%20Knowledge%20Standard_Final%20Draft.pdf
- Establishing grievance redress mechanisms https://climateactiontransparency.org/wp-content/uploads/2020/10/Stakeholder-Participation-Guide_ch9.pdf

Notes

Summary

The Technical Session 4 guides the learners on:

- Aspects integral to grievance redressal and specific types of redressal mechanisms with examples
- Existing grievance redressal mechanism in Gujarat and identification of barriers and enablers for these mechanisms
- Frameworks, features and key performance indicators of a good grievance redressal mechanism

Technical Session 5: Disaster Risk Financing

Introduction, Overview & Perspectives

This technical session aims to provide learners with an understanding of the importance of improving financial resilience, and conscious and planned investments for the prevention of creation of new risks and reducing the existing ones. It will throw light on the ways in which resilience can be strengthened through financial mechanisms. This includes financial strategy, ways to prevent financial exposures, integrating the best practices and mitigating challenges faced in disaster risk finance. It discusses integrating disaster risk finance into developmental plans, and so on. The group exercise will support understanding the strategy for integrating DRR and CCA and ways to build resilience.

- Learning Unit 5.1: Key Concepts and existing instruments
- Learning Unit 5.2: Group exercise - Tabletop on strategy planning for integration of DRM and CCA

The primary objectives of this technical session are:

- To develop an understanding of basic concepts of disaster risk finance and mechanisms
- To analyze the importance of strengthening financial resilience
- To gather knowledge on how to develop strategies for resilience building

Duration: 120 Minutes

Methodology

- Lecture-based learning
- Discussion
- Group exercise

Trainers' Note

While introducing the learners to existing disaster and climate risk financing mechanisms, the trainer can engage in discussion seeking learners to list out the financial mechanisms they are aware of for supporting the integration of DRM and CCA into urban development planning. Further, the trainers should delve into the group exercise to gauge the understanding of the learners and initiate a dialogue for better strategies.

Learning Unit 5.1: Key Concepts and Existing Instruments

Brief Description of the Learning Unit

This learning unit explains the principles of Disaster Risk Finance (DRF), and how to prioritize financing the activities that can support DRM and CCA. It elaborates on ways in which financial resilience can be strengthened. It allows learners to discuss prevalent instruments and mechanisms for disaster risk financing.

Learning Objectives

- To familiarize with the concept of disaster risk financing
- To enhance knowledge of prevalent instruments for disaster risk financing

Duration: 60 Minutes

Methodology

- Lecture-based learning
- Discussion

Detailed Description

Disaster Risk Finance (DRF) is a fast-growing discipline that addresses the financial impacts and economic losses caused by hazards (e.g. cyclones, droughts, landslides, earthquakes, floods etc.) and supports countries to increase their financial resilience to natural disasters. The three fundamental components for the strong foundation of **financial resilience** to disasters are:

- reliable disaster loss data,
- quantitative disaster risk assessments, and
- a DRF strategy adapted to the country's risk profile, fiscal sustainability prospects, and constraints brought on by an aging population

DRF aids nations in becoming more financially resilient to the economic burden that disasters have on their economies. It helps in the preservation of livelihoods and the general advancement of nations. DRF should support all disaster risk management actions, in risk identification, reduction, preparedness, reconstruction, and recovery. The Essential 3 of the **Making Cities Resilient Campaign calls** for understanding the economic impact of disasters and the need for investment in resilience. It directs to identify and develop financial mechanisms that can support resilience activities.

Ex-ante DRF mechanisms are arranged before disasters and mainstream DRR in investment planning. Some ex-ante DRF tools are government reserves, national and state disaster mitigation funds, insurance, contingent credit arrangements and/or catastrophe-linked securities etc. ***Ex-post*** DRF mechanisms are arranged after a disaster. Ex-post DRF tools are through budget reallocations, debt financing, increased taxation, etc. Many governments also adopt an approach that blends ex-ante and ex-post mechanisms.

A **Mid-term Review of SFDRR** highlights that risk-informed preventative financing is lacking and response still weighs heavily on prevention in most countries. This demands for accurately priced financing instruments that account for disaster risks and changing climate. The **G20 Working Group on DRR meeting** brought forth the opinion that priority has to be given to stronger national financial frameworks for increased public and private sector investment in DRR. Some key instruments like the engagement of the microfinance sector, philanthropy, crowdfunding, and remittances are useful in all phases of DRR.

SCAN ME Video: Introduction: Accelerating financing for risk prevention by United Nations Office for Disaster Risk Reduction **https://www.youtube.com/watch?v=7EK5G0zodf8**

Core Principles of Disaster Risk Financing:

- Timeliness of funding: Understanding the timing of needs as the speed of accessing funds matters but not all resources are needed at once
- Disbursement of funds: Governments require dedicated mechanisms and expertise to effectively allocate, disburse, and monitor funds for various phases of disaster.
- Disaster risk layering: Governments and other stakeholders ideally combine different instruments to protect against disaster events of different frequency and severity. This approach of risk layering is part of a comprehensive financial protection strategy.
- Data and analytics: Financial analysis of available risk data and quantitative evidence can empower governments to take risk-informed decisions regarding their financial protection against disaster.
- Caution and transparency should be administered to govern the associated funds

A disaster risk financing strategy reduces the economic and fiscal impact caused by disasters, whilst being cost-effective (OECD 2020). It includes legal and institutional frameworks, resources that can be made available, and instruments specific to the needs.

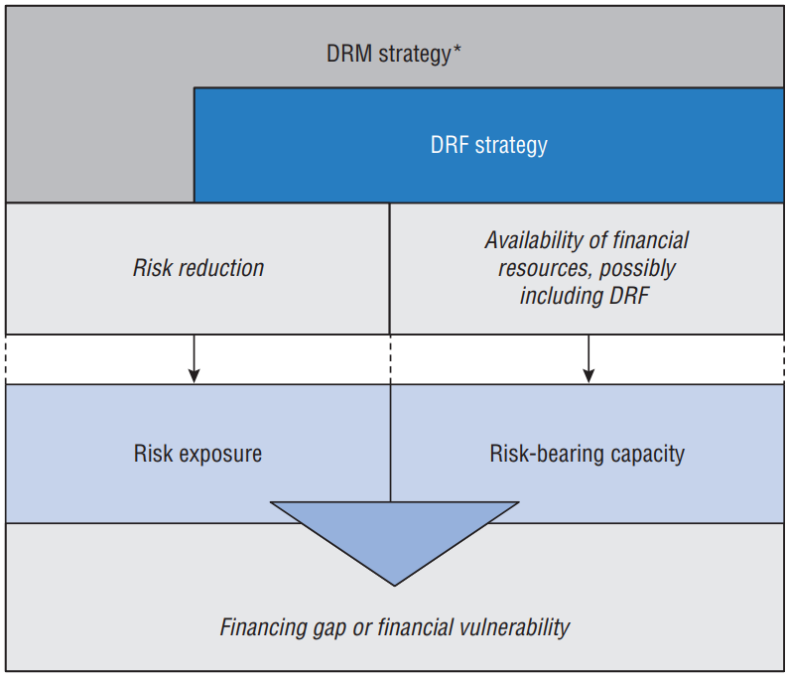

Fig 1. Position of DRF in DRM (OECD, 2015)

Some Instruments for Disaster Risk Financing

- **Sovereign disaster risk financing** schemes are created to offer short-term liquidity and aid during the period immediately following a disaster. The Crisis and Disaster Risk Finance Team of the World Bank assists in their implementation. These finance techniques, which include parametric insurance plans, are intended to guarantee quick payouts to cover emergency response expenses including running shelters, providing food and medication, and clearing damage (World Bank, 2020).

- **Disaster Risk Insurance:** Insurances allow for facilitating investment by transferring risks, enhancing post-disaster response and incentivizing risk reduction. Insurances that include pay-outs that are triggered by an index that represents losses or foregone income are called parametric insurance

  SCAN ME Video: UNCDF Climate Disaster Risk Insurance in the Pacific by UN Capital Development Fund **https://www.youtube.com/watch?v=xlcqdypvAt0**
- **Contingent Lines of Credit:** It is a financial instrument to help governments secure funds in advance of a disaster

  SCAN ME Video: Disaster Risk Financing by Oxfam Pilipinas **https://www.youtube.com/watch?v=gFz2x1VfFjo**

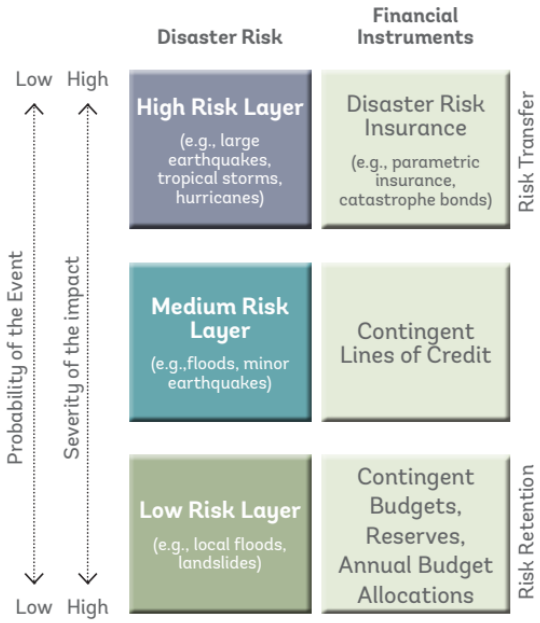

Fig 2. Some instruments of disaster risk financing (OECD, 2020)

Status of DRF in India

The government of India finances disaster risk management and climate action through National Disaster Risk Management Fund (NDRMF) and Climate Funds (routed through the Union Budget); Direct Budgetary Allocations, Mechanisms aimed at leveraging private finance, and so on. The 15th Finance Commission adopted a new methodology to allocate funds for DRM with consideration to:

- capacity (reflected through past expenditure),
- risk exposure (area & population)
- hazard & vulnerability (disaster risk index)

Assuring risk assessment on various types of risks in all projects of pertinent ministries and departments, the **Ministry of Finance** has issued a memorandum to include disaster risk reduction concerns in all expenditure finance considerations and Detailed Project Report (DPR) formats. The project area's susceptibility to risks, the project components' likely vulnerability, a description of the risk, a risk analysis based on the likelihood, repercussions, and an appraisal of the risk for prioritizing are all included in the risk assessment. To facilitate the process of risk assessments within the programmes, it is necessary to have the capability and skills in the pertinent departments.

Some examples of Disaster Risk Financing

1. Financing for Women's groups

The Huairou Commission was established as a coalition of grassroots women's groups and allied advocates as a result of a concerted effort in the context of eradicating poverty and promoting sustainable development, as well as to position local women-led organisations as key players in setting political agendas and influencing public opinion. It started the Community Resilience Funds (CRF) which are a creative and adaptable financial mechanism that directs funding to grassroots women's organisations in vulnerable, high-risk regions. The CRF's goal is to assist local women's organisations in implementing pro-poor strategies for disaster risk reduction and resilience building as well as working with local and federal governments to scale up grassroots and women-led development initiatives. The funds are distributed to existing self-help groups (farmer/producer cooperatives, savings and credit groups, caregiver groups and informal housing and settlement associations).

2. Infrastructure Resilience Accelerator Fund (IRAF)

A $50 million trust fund was announced at COP27, established by the Coalition for Disaster Resilient Infrastructure (CDRI), an international partnership that Prime Minister Narendra Modi established in September 2019 to support "disaster-resilient" infrastructure systems in developing and island nations that face the greatest risks from climate change.

The United Nations Multi-Partner Trust Fund Office in New York will be in charge of managing the IRAF. The governments of India, the United Kingdom, Australia, and the European Union will support it. According to a statement that accompanied the announcement, the fund will provide "tailored technical assistance, capacity building, research, knowledge management, and advocacy across the infrastructure life cycle for countries at all stages of development."

3. Central Sponsored Schemes, India

In India, by using 10% of Central Sponsored Schemes (CSSs) as Flexi-Funds for DRR, the government has opened the door for mainstreaming DRR into development planning. However, due to a lack of explicit instructions and recommendations for each CSS, the project has not yet been fully implemented. Therefore, the Government of India may need to create directions for the State Governments that are particular to interventions and follow-up activities for their execution.

Discuss with learners: *Does your jurisdiction have specific funds for risk management? List few commonly practiced financial protection measures.*

Session Plan

Content	Trainer's Note	Time
Key concepts	Focus on principles, recent progress and key concepts of DRF	20 min
Tools and instruments	A brief on role of DRF in risk management, financial resilience, ex-ante and ex-post DRF tools	20 min
Discussion	Engage with learners to elaborate the global and local practices	20 min

References

- OECD (2020). Disaster Risk Financing and Insurance Technical Assistance Program https://www.gfdrr.org/sites/default/files/2020-08/DRFI%20Caribbean_2020_Main%20Insert.pdf
- OECD (2015). Disaster Risk Financing A global survey of practices and challenges https://www.oecd.org/daf/fin/insurance/OECD-Disaster-Risk-Financing-a-global-survey-of-practices-and-challenges.pdf

- World Bank (2020). Crisis and Disaster Risk Finance Short Notes on COVID-19 https://documents1.worldbank.org/curated/en/917061608185462156/pdf/Crisis-and-Disaster-Risk-Finance-Short-Notes-on-COVID-19.pdf

Additional Reading Material

- Radu, D (2021). Disaster Risk Financing: Main Concepts & Evidence from EU Member States https://economy-finance.ec.europa.eu/system/files/2021-10/dp150_en.pdf
- ODI (2022). Potential for Anticipatory Action and Disaster Risk Finance https://start-network.app.box.com/s/pkdsgl96gksywh96i3koqd0mslqi6ndr
- Building a Climate-Resilient City: Economics and finance https://prairieclimatecentre.ca/wp-content/uploads/2017/04/pcc-brief-climate-resilient-city-economics-finance.pdf

Notes

Learning Unit 5.2: Group Exercise – Table-Top on Strategy Planning for Integration of DRM and CCA

Brief Description of the Learning Unit

This learning unit will cover the strategic planning for the integration of DRM and CCA into urban development planning and coordination procedures for a given scenario.

Learning Objectives

- To discuss interdependencies in urban systems and services
- To identify the critical nodes of urban systems and services
- To identify resource sharing needs and obstacles pre-, during-, post-disaster and practice coordination and communication
- To identify common gaps in resolving the above issues and integration of DRM and CCA in the present policies and schemes
- To suggest ways to cap these gaps

Duration: 60 Minutes

Materials Needed

- Flip chart paper for each group
- Coloured markers

Methodology

- Table-top exercise
- Discussion

Trainer's Note

The trainer should engage learners in an open, low-stress, no-fault environment for this exercise to take place. Learners should reply to the scenario using their knowledge of current interventions and capabilities and insights derived from experience and training. Dialogue to exchange varying viewpoints and disagreements should be encouraged. This exercise is a chance to discuss and present multiple options and possible solutions. The problem-solving efforts for integrating DRR and CCA should be the focus.

Detailed Description

The heat wave is becoming more severe in India. In the last two decades, a loss of around 259 billion hours of labor annually due to the impacts of humid heat has been reported. To provide a direction, the government has decided to strategically plan the integration of DRR and CCA in the plans and policies that can benefit the access to basic services for the urban poor. For this purpose, the learners need to participate in the table-top exercise following these steps:

Impact of the heat wave on the critical services in the city

Divide each group with one service (water, transport, health, electricity, education)

- Each group will identify the interdependencies of other services on their assigned service
- What are the critical nodes of failure?
- What are the direct indirect and wider impacts of the failure?
- To identify resource sharing needs and obstacles pre-, during-, and post-disaster and practice coordination and communication
- To identify common gaps in resolving the above issues and integration of DRM and CCA in the present policies and schemes

- To suggest ways to cap these gaps from a policy perspective
- Invite groups to share their findings and discuss commonalities and differences across different sectors. Facilitate a conversation on how these measures could be integrated and coordinated to ensure a holistic and effective integration of DRR and CCA.

Session Plan

Content	Trainer's Note	Time
Introduction	A brief on the scenario and expectations from the exercise	10 min
Table-top exercise	Focus on groups developing their strategies for integrating DRR and CCA	30 min
Discussion	Engage with learners to elaborate their ideas and strategies	20 min

Notes

Summary

The Technical Session 5 guides the learners on:

- Need to enhance financial resilience and role of disaster risk financing for development
- Core principles of disaster risk financing, mechanisms and its position according to SFDRR and national agencies.
- Instruments for disaster risk financing like insurance, bonds, credit schemes etc. and the use of specific instruments based on disaster severity and probability.
- Aspects integral to mainstreaming DRR and CCA through strategic planning

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