



Cities and Climate Change Training Series

Capacity Development for Local Partners

Introduction to Cities and Climate Change

The generations to come will have no choice but to live in a predominantly urbanised and constantly warming world. By 2030, it is expected that out of a global population of 8 billion, around 5 billion people will live, but most of them would just “survive” in cities. And by 2050, the world could be experiencing, on an average, 2 to 4°C warmer temperatures than in pre-industrialisation times.

Urbanisation is a powerful and permanent process modifying the face of the earth and climate change is said to be one of the greatest challenges of our times. These two inter-related issues are very critical especially to developing and emerging countries. The urbanisation process and urban areas contribute to climate change and the impacts of climate change will deeply hit urban areas.

Cities, as home to over half of the world’s population, and as hubs of economic activities, drive the future patterns of energy consumption and greenhouse gas emissions. A great part of the economic and social assets that are vulnerable to climate change are located in the urban areas, wherein the poor are the most affected and least capable to cope with the impacts.

Local governments are challenged to think long-term and begin the changes needed to tackle not only climate change but also the urbanisation challenges. They need to develop and implement mitigation and adaptation actions, giving priority to measures with social, environmental, and economic co-benefits.

For that, good governance is the key. In order to achieve a low carbon and climate resilient urban development, municipalities rely on the involvement of various local stakeholders. The community, private players, non-governmental organisations, research institutes, and others need to join forces to find possible solutions and put them into practice. Strong support from national and sub-national governments, as well as a better recognition of the role of cities in the international processes are also essential.

Our Approach

GIZ has vast experience in supporting cities in developing and emerging countries in the areas of climate change, urban development, infrastructure and environmental management. The new challenge posed by climate change is the development of an integrated advisory approach, where the expertise from all sectors comes together. This is particularly relevant when it comes to encouraging and advising adaptation and mitigation strategies at the local level. As a result, cities should be able to improve their energy performance, strengthen their adaptive capacities, become economically more competitive and secure urban assets in better ways.

Services provided include:

- Advise partners at the national/subnational level in the development of mitigation/adaptation strategies and their integration into local policies, accompanying also implementation and pilot projects;
- Advise local partners on climate change resilient and climate-friendly urban planning,

building and infrastructure development and services, efficient provision and use of public transport, energy, waste, water and wastewater treatment, as well as environmental management;

- Promote integrated municipal adaptation and mitigation strategies (assisting in the design and organization of planning processes, e.g. development of climate action plans) that benefit local economies, citizens and the environment;
- Facilitate the development/adjustment and use of tools for assessing greenhouse gas emissions related to the urban infrastructure and services (e.g. GHG-Inventories), as well as tools for Urban Vulnerability Assessments;
- Support municipalities in making use of financing mechanisms for implementation of measures, including access to national and international funding
- Build and strengthen related capacities at national/subnational and local level, including provision of trainings;

The Working Group Cities and Climate Change

Within GIZ's Sector Network "Transport - Environment - Energy - Water" in Asia, (TUEWAS), a Working Group on Cities and Climate Change has been initiated in 2009. The sector network TUEWAS is a cross-national, professional network for exchange of experience and knowledge in the sectors of transport, environment, energy and water in Asia.

Besides making the case for climate change mitigation and adaptation activities in and by cities, the working group's objective is to support the development of integrated approaches to mitigate climate change and to adapt to its impacts in cities. The main issues are related to transport, waste, energy, buildings, industry as well as impacts and vulnerability assessment, risk management and financing, to name a few.

The members of the group are linked to technical cooperation programs commissioned by the BMZ (Federal Ministry for Economic Cooperation and Development) or the BMU (Federal Ministry for the Environment, Nature Conservation and Nuclear

Safety). Countries covered are India, Indonesia, China, the Philippines, Bangladesh, Vietnam, Thailand, among others, as well as regional programmes. The working group is also supported by two global projects at the GIZ Head Office in Germany, and cooperates strongly with other networks: Working Group on Water and Sanitation in Asia and Working Group on Nationally Appropriate Mitigation Actions within the TUEWAS Sector Network, and Working Group on Urban Opportunities of the GIZ Sector Network on Governance in Asia.

Introduction to the Training Series

One of the main activities of the Working Group Cities and Climate Change has been the development of a **Capacity Building Tool for Local Partners**, the **Training Series on Cities and Climate Change**.

The concept of the Training Series

The **main audience** include middle/senior administration officials, consultants and practitioners in the field of climate change, urban development and environmental management as well as high-level decision makers and elected representatives.

The series started with an introductory training focusing on **sensitisation** of relevant local stakeholders. However, over the years, based on the experiences gained from several applications and on the concrete demand from partners, **additional trainings** have been developed, with the aim of providing more detailed and technical knowledge relevant to the issues of mitigation of and adaptation to climate change.



5 Trainings currently available

- **Training: Introductory Knowledge on Cities and Climate Change**
- **Training: Local Urban Governance for Climate Action**
- **Training: Financing Climate Actions in Cities**
- **Training: Urban Waste Management and Climate Change**
- **Training: Flood Risk Management in Cities**

The **methodology** of the trainings focuses on **practice-oriented and interactive learning**. It has the background of the Harvard Case Method, which conveys teaching messages mainly through interactive practical work done by the trainees. The training is usually facilitated by two or more trainers, and is offered to a range of 10 to 25 trainees.

Different modules compose each of the trainings and most of them follow the same sequence, including the **elements** (and complemented by games, movies, action learning exercises):

- A brief **introduction** given by the trainer provides the necessary theoretical background and introduces participants to their task in the case work/activity.
- The **case work/activity** gives participants the opportunity to work in groups through the different aspects linked to cities and climate change.
- The **plenary/wrap up discussion** is the space to reflect on what has been learned, to share experiences and for mutual learning. Trainers guide through questions and consequently offer alternatives and corrections where necessary. In a **final reflection**, the participants reassume their own real-life position to link the gained findings into their own experience.

The entire course is designed for a maximum **duration** of 2 to 3 days, for the introductory training, and 1 to 1,5 day for each of the other 4 trainings. Due to its modular structure, the trainings can be 'tailored' for shorter training events, or combined for example with real cases examples (presented by practitioners), site visits or other events. The selection of which trainings and which respective module to apply is done according to the training

needs of the expected audience and the overall scope available.

To support the learning/teaching activities, a set of **training materials** has been developed:

- A library of **Slides** (to be presented by trainer) supports the introductory input for each module.
- The main material to be used by participants is the **Training Manual**, which contains the instructions and necessary information for the case-works and exercises.
- Participants are also provided with **Handouts**, which provide additional information (publications and links) as well as summary of key messages.
- A **Trainer's Handbook** is also available. Besides the basics on participatory training methods (part 1), it also provides necessary information for running each module as well as the Action Learning exercises (part 2) and some information on running a train of trainers (part 3).



Trainings' Objectives

Training: Introductory Knowledge on Cities and Climate Change

This training focuses on initial sensitisation of relevant stakeholders in relation to the challenges and opportunities in integrating climate change issues (mitigation and adaptation) into local policies. It comprises of the following modules:

Module 1. Background on Climate Change and Cities: Provides an overview of climate change issues and their relevance in the urban context and discusses about the challenges related to taking climate action at the local level.

Module 2. International Context: Overviews the processes and structures related to climate change at the international (and national) levels and discusses about the importance of the local-national governance linkage in the context of international processes, and how this linkage could be improved.

Module 3. Co-benefits and Mainstreaming: Focuses on understanding development and climate change linkages, analysing the co-benefits of climate actions and the ways to integrate mitigation and adaptation concerns into local development actions.

Module 4. Relevant Information and Tools: Reviews data and information needed and possible assessment tools and instruments available. It highlights key terminology and relevant information related to mitigation and adaptation at the local level.

Module 5. Mitigation and Adaptation Measures: Highlights the importance of integrated thinking and deals with concrete mitigation and adaptation, their feasibility (technical, financial, political/institutional) as well as the possible low-hanging fruits options in different sectors.

Module 6. Cities' Roles and Levels of Control: Focuses on the different instruments and roles of local authorities (modes of governance), the levels of control local authorities have, and the dependence on other government levels.

Module 7. Actors and Processes: Concentrates on stakeholder analysis and different forms of involvement, as well as designing the planning and implementation processes, including the possible organisational structure.

Module 8. Sources of Financing: Overviews and exemplifies the possible financing options for mitigation and adaptation available for cities; discusses the options already successfully used by cities.

[Training: Local Urban Governance for Climate Action](#)

This training provides an understanding of good governance principles and specific challenges and opportunities for governance when dealing with climate change, building up especially on Module 7

of the introductory training. It comprises of the following modules:

Module 1. Challenges and Opportunities for Good Governance and Climate Action: Overviews the Good Governance Principles (accountable, transparent, responsive, equitable and inclusive, effective and efficient, follows the rule of law, participatory, consensus oriented) and their relation to climate change aspects.

Module 2. Stakeholders – Roles and Interests: Focuses on understanding the roles and interactions of stakeholders involved in a climate process in a city, as well as in elaborating a detailed stakeholder map, analysing possible cooperation or conflicts among stakeholders.

Module 3. Structures for a Participatory Process: Focuses on understanding the options to establish institutional structures and processes that support climate actions, and are in line with the principles of good governance.

Module 4. Getting Things Implemented - Entry Points: Highlights the interaction of various functions in city management with the goal to promote climate action (in other words, mainstreaming an urban climate action plan into other city processes/plans).

Module 5. The Way Forward - Good Governance Action Plan: Summarises the previous findings and brings participants to analyse the gaps and challenges in relation to several important good governance aspects in their own cities.

[Training: Financing Climate Actions in Cities](#)

This training analyses in greater detail about the financing needs for mitigation and adaptation actions in cities and ways to respond to these needs, building up on Module 8 of the introductory training. It comprises of the following modules:

Module 1. Background and Examples on Financing Climate Actions: Focuses on understanding the financial needs for municipal low carbon and climate resilient investments, the actions that can be easily financed and their approximated cost levels.

Module 2. Public Financing: Provides an overview regarding which public financing sources can support mitigation and adaptation at the city level and of the rationale of investment and operating costs for economic sustainability.

Module 3. Private Sector and Capital Markets: Outlines the possible options for private sector investment and discusses the criteria for successful public-private partnerships.

Module 4. International Climate Financing: Overviews the possible sources of international climate financing and discusses about the “readiness factors” and criteria necessary to access bilateral and multilateral climate financing options.

Module 5. The Way Forward: Efficient Climate Financing for Cities: Focuses on understanding the measures necessary for a city administration to optimise the financing of climate related actions and developing a roadmap for efficient financing of climate actions.

Training: Urban Waste Management and Climate Change

This training explores options to integrate mitigation and adaptation to climate change into municipal solid waste management strategies. It comprises of the following modules:

Module 1. Background and Examples on Waste and Climate Change: Introduces the linkages between Municipal Solid Waste (MSW) and climate change in general terms, the options to promote mitigation and adaptation in the sector and analyse co-benefits of climate actions with other goals.

Module 2. Options for Mitigation in the Waste Sector: Provides an in-depth understanding on options for mitigation in the waste sector and to make use of the SWM-GHG Calculator.

Module 3. Options for Adaptation in the Waste Sector: Focuses on understanding the options for adaptation and to make use of the Climate Proofing Tool.

Module 4. Integrating Climate Change into Municipal Solid Waste Planning: Overviews the objectives and dimensions of integrated solid waste management and ways of integrating mitigation and adaptation into waste management planning at the urban level.

Module 5. The Way Forward: Discusses gaps and challenges in participants’ cities and concrete options to overcome them, based on findings from the previous modules.

Training: Flood Risk Management in Cities

This training covers the main challenges and tasks with relation to flood issues (prevention measures, emergency preparedness) aiming at a more effective management of flood risk in cities. It comprises of the following modules:

Module 1. Managing Flood Risk in Cities: Focuses on understanding and discussing the main challenges and tasks for urban decision makers regarding flood risk management in cities.

Module 2. Understanding the Causes and Risks of Flooding: Aims at providing the basic definitions related to adaptation and performing a rapid vulnerability/risk assessment of your city, in order to understand the causes and risks of flooding (including underlying impacts of climate change).

Module 3. Flood Prevention and Management Measures: Identifies flood prevention and management measures (physical & policy measures) and the ways to integrate them into urban planning.

Module 4. Emergency Preparedness: Reviews the actor/organisation’s roles and responsibilities when planning for effective emergency preparedness.

Module 5. The Way Forward: Discusses the gaps and challenges in the participants’ cities, and concrete options to overcome them, based on findings from the previous modules.

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Registered offices
Bonn and Eschborn, Germany
T +49 228 44 60-0 (Bonn)
T +49 61 96 79-0 (Eschborn)

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de

Responsible: TUEWAS / SNGA TURbOCliC Working Group (formerly TUEWAS Cities and Climate Change Working Group and SNGA Urban Opportunities Working Group)

Joint Speakers:
For TUEWAS: Vaishali Nandan (vaishali.nandan@giz.de)
For SNGA: Eva Ringhof (eva.ringhof@giz.de)

The training Flood Risk Management in Cities was jointly developed with the TUEWAS Working Group Water and Sanitation in Asia.

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