



Vertically Integrated Nationally Appropriate Mitigation Actions (V-NAMAs)

Tools and Resources

Introduction

A wide range of practical tools and resources exist to support political decision-makers at all levels of government in making well-informed choices for planning and implementing climate action. By using such tools, planners and decision-makers can be more effectively guided through the processes needed to establish and implement environment and climate sensitive policies and strategies at local, regional and national level.

We provide here an overview of some key tools and resources specifically relevant for efforts to enhance integration of climate action between national and sub-national levels. They include training and planning tools developed by GIZ and ICLEI together with other sector focused support (e.g. sector-specific handbooks and training).

The *first* section provides policy makers with information on tools to better understand the relatively new fields of:

- Nationally Appropriate Mitigation Actions (NAMAs);
- Measurement, Reporting and Verification (MRV) plans and systems; and
- Low-Emission Development Strategies (LEDS);

The *second* section contains information on relevant programmes, tools and services, developed by ICLEI and in the *third* section, information is included on sector-specific handbooks covering various sectors such as: waste management, buildings, and transport systems.

GIZ Tools

The series of tools described here provide developers and implementers of NAMAs and LEDS with brief step-by-step instructions and guidance on how to develop them. Additionally information on the successful establishment of a MRV-system is also included. The tools that were developed by GIZ include success factors, relevant steps and strategies for the development and potentially for the future implementation of LEDS, NAMAs and MRV systems, while keeping the provincial and local levels in mind.

Two GIZ-implemented programmes that are supporting the Federal Ministry for Economic Cooperation (BMZ) in the global climate negotiations and the secretariat of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) of the International Partnership on Mitigation and MRV, respectively, have collaborated to develop these three tools. The tools were supported by the International Partnership on Mitigation and MRV. They are publicly available at:

www.mitigationpartnership.net



International Partnership
on Mitigation and MRV

The tools also form the basis for two-day trainings with presentations and working groups, which GIZ is now offering to interested partners. For more information:

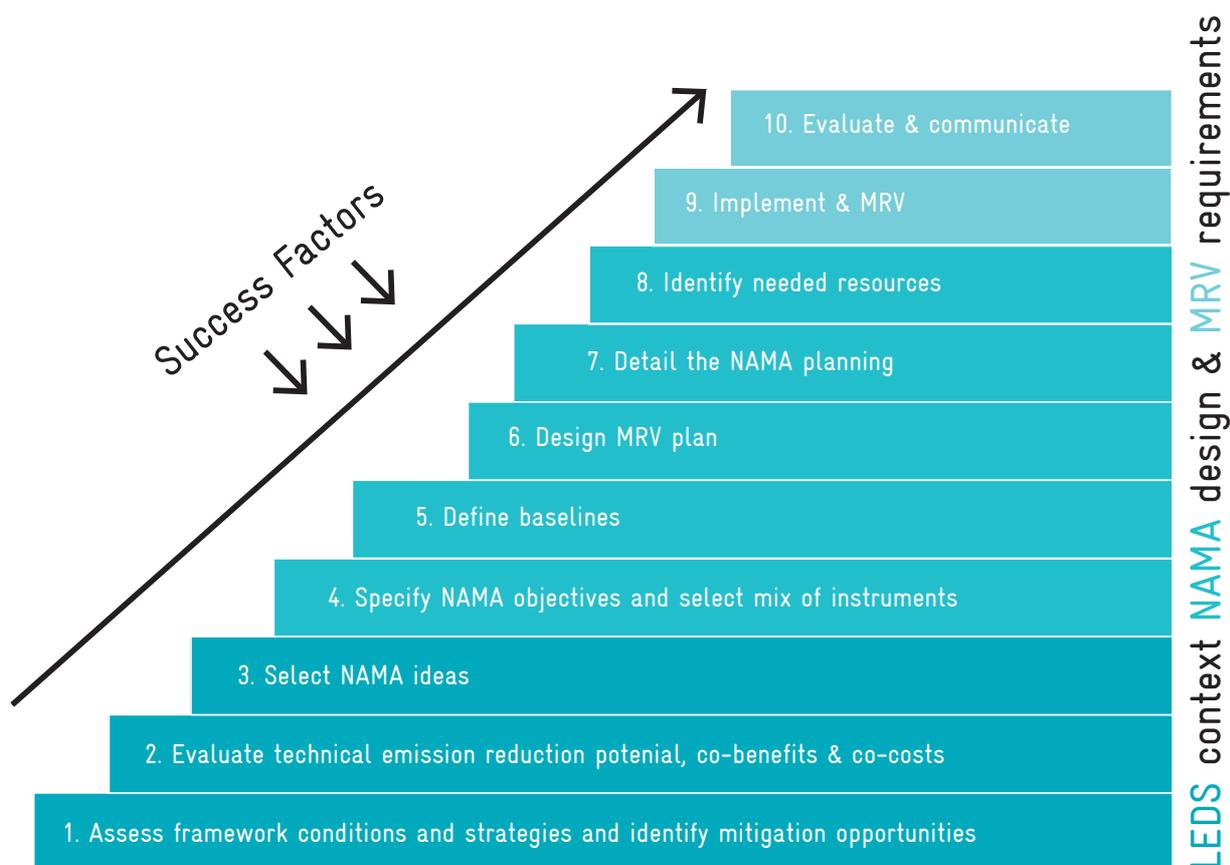
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On behalf of:



In collaboration with:

10 Steps to a NAMA



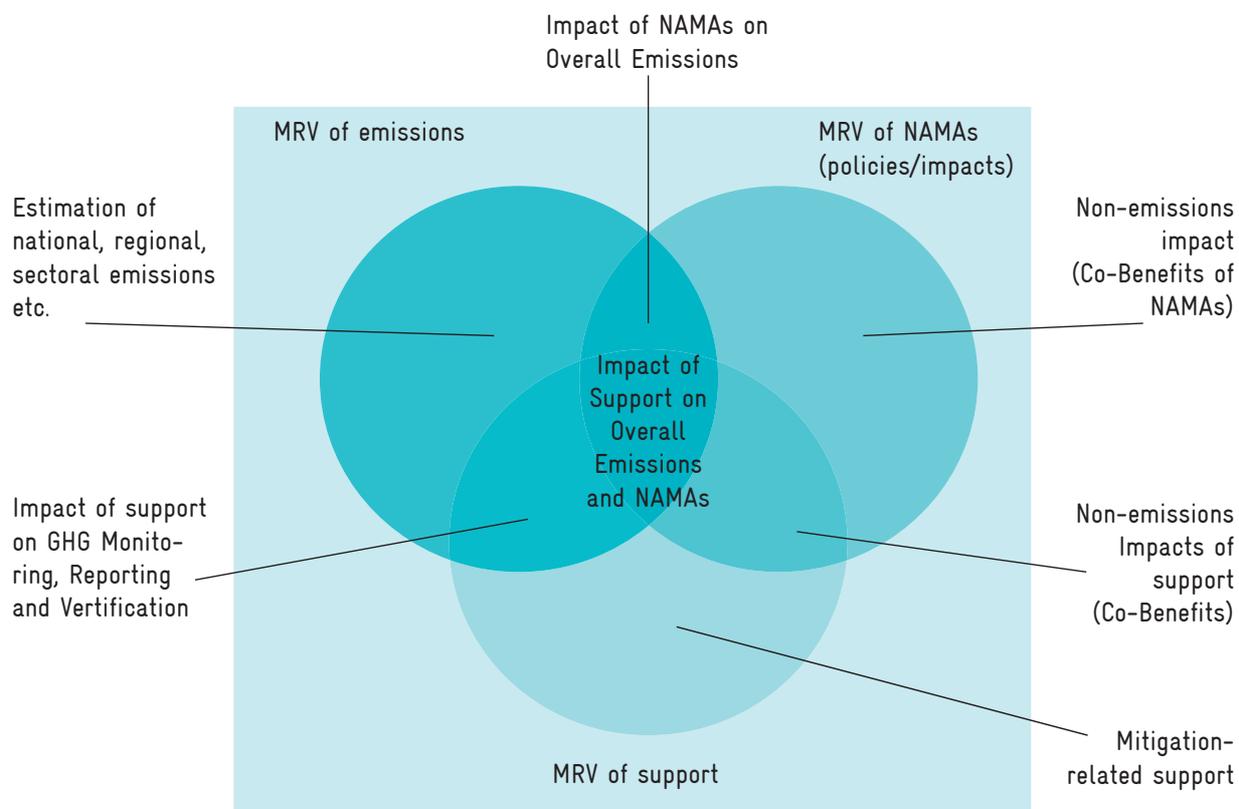
NAMA-Tool

An increasing number of developing countries have ambitious national climate strategies and have proposed to develop and implement NAMAs. The NAMA-Tool guides practitioners through the process of developing and implementing NAMAs with brief step-by-step instructions. It guides users to relevant information, knowledge, instruments, and publications available.

The tool presents the process of NAMA development in ten steps: This approach is designed to supply users with data and accessible instruments for each aspect of the NAMA development process. The tool is designed to help prepare for implementation of NAMAs, but is first and foremost a navigation tool, guiding practitioners through the process of developing a NAMA. It is not an instrument for the implementation of NAMAs itself and does not provide sector

specific instructions, but includes links to sector-specific expertise and handbooks. References to available sector-focused handbooks are discussed in greater detail below. As cities have extensive influence over key greenhouse gas (GHG) emissions sectors (e.g. buildings, transport, waste) the NAMA-Tool will address the integration of multiple levels of government in the process of NAMA design and implementation and will show how sub-national levels can successfully contribute to delivering national GHG mitigation targets.

The National MRV-System: Interaction between MRV of emissions, NAMAs and Support



MRV-Tool

Measurement, Reporting and Verification (MRV) is a term used to describe the process which governments take to collect data on emissions and mitigation actions, to compile this information in reports and inventories, and to subject these to some form of international review or analysis. Like the NAMA-Tool, the MRV-Tool is constructed as a step-by step guide. It provides developers and implementers of NAMAs with instructions on how to develop a MRV system that also covers the city and local level.

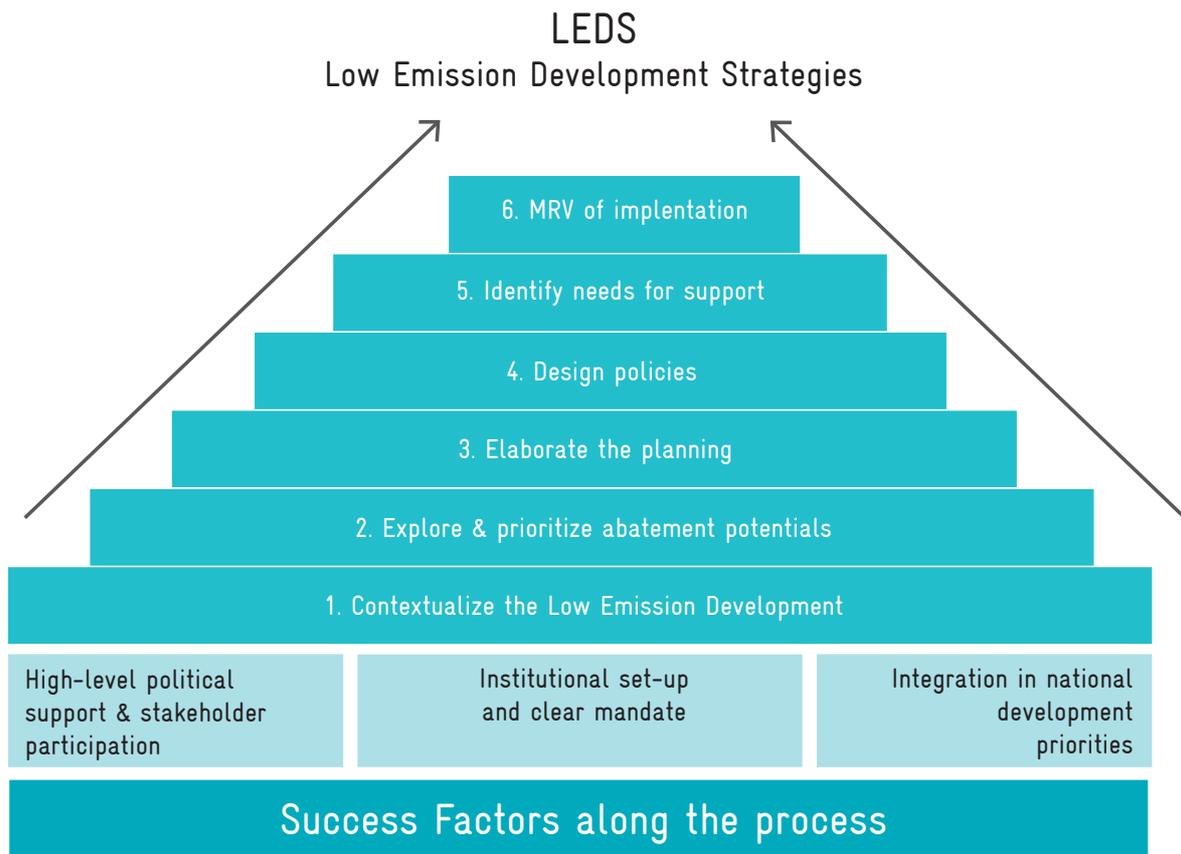
In this regard, the tool will provide an introduction to GHG Measurement, Reporting and Verification for local governments. It will provide sub-national GHG inventories and resources for local GHG-MRV to showcase the relevance of sub-national climate actions and appropriate climate mitigation actions at city level. Some of the described inventories for sub-national climate mitigation such

as the *carbons Cities Climate Registry (cCCR)*, *HEAT+* and the *Global Protocol on Community-Scale Greenhouse Gas Emissions (GPC)* to account and report emissions on city level are discussed in more detail below.

The MRV-Tool is structured into three key sections covering:

- MRV of Emissions
- MRV of NAMAs
- MRV of Support

This structure was applied to supply users with more data and accessible instruments for certain aspects of the development of MRV systems.



LEDS-Tool

Low-Emission Development Strategies (LEDS) are long-term national strategies for reducing emissions while promoting sustainable development. They can provide an overall framework for the development of NAMAs. The LEDS-Tool guides practitioners, developers and implementers step-by-step through the process of developing and implementing a LEDS. The process is structured into six steps: The six step approach is designed to lead users to relevant information about accessible instruments for the various aspects of LEDS development.

ICLEI Tools: focused on sustainable urban development

ICLEI provides programmes and a broad range of tools to help cities develop more sustainable urban management, covering the topics of urban design, eco-budgeting, urbanisation, sustainability management and eco-procurement. ICLEI offers different tools, methods and instruments to assess various kinds of information regarding adaptation and mitigation and to enable and facilitate assessing GHG emissions at sub-national level.



GreenClimateCities

GreenClimateCities (GCC) is a climate change mitigation programme that offers local governments a clear and flexible methodology covering three phases: Analyse, Act and Accelerate. It outlines how low emissions options can be identified and integrated into urban development policies, plans and processes providing local government with:

- a process and tested methodology, tools, guidance and technical support;
- multi-disciplinary expertise built on more than 20 years of experience;
- a global network of cities committed to Low Emissions Development;
- platforms to improve local-national dialogue and co-operation to effectively plan, implement, monitor and evaluate local climate action;

See: <http://www.iclei.org/our-activities/our-agendas/low-carbon-city/gcc.html>

ICLEI: Local Governments for Sustainability

ICLEI is an association of cities and local governments, helps cities to act on climate change mitigation and adaptation by offering standards and guidelines for accounting and reporting greenhouse gas (GHG) emissions, and planning for future local climate actions. www.iclei.org



Carbonn Climate Registry

The Carbonn Climate Registry (cCR) is the world's largest global database of local and sub-national climate actions. It provides an online platform for cities and local governments worldwide to publicly register their GHG emissions reduction commitments, to self-report GHG emission reduction and climate adaptation targets and to showcase their actions and achievements. Thus, cCR promotes transparency, accountability and comparability of local climate action for local and other sub-national governments. The Bonn Center for Local Climate Action and Reporting (carbonn) hosts the cCR and ensures that it remains compliant with the global frameworks such as the Global Protocol for Community-scale Greenhouse Gas Emissions (GPC 2.0), moving towards a standard for community level GHG accounting and reporting.

See: <http://carbonn.org/>

City-level carbon accounting framework: GPC

The Global Protocol on Community-Scale Greenhouse Gas Emissions (GPC) is a city level carbon accounting framework developed jointly with the World Resources Institute, the World Bank Group, the UN-HABITAT and the United Nations Environment Programme (UNEP). It harmonises GHG emissions measurement and reporting processes for cities of all sizes and geographies, and allows them to plan and finance climate action. GPC sets out requirements, and provides guidance for calculating and reporting community-scale GHG inventories, consistent with the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National GHG Inventories. See: <http://www.ghgprotocol.org/city-accounting>



GHG emissions inventory tool: HEAT+

ICLEI's Harmonized Emissions Analysis Tool plus (HEAT+) GHG emissions inventory tool is a web-based software tool for local governments to account and manage emissions. By inputting active data and emission factors, the multilingual online emissions inventory tool helps to account and report GHG emissions, common air pollutants (CAP) and other volatile organic compounds (VOC). HEAT+ enables cities and towns to:

- Prepare a baseline inventory;
- Forecast emissions, e.g. Business-as-Usual (BAU) scenario;
- Prepare climate action plans;
- Track commitments;
- Measure and quantify progress against targets through monitoring inventories;
- Inform policy decisions;
- Report to the Carbon₂₁ Climate Registry (cCR)

It is consistent with IPCC guidelines. The tool can be accessed from: <http://heat.iclei.org>

Handbooks on sector-focused sub-national involvement

Sub-national authorities have key competencies and influence in various sectors relevant for GHG emissions reductions such as waste management, buildings, and transport systems.

This chapter gives a short overview of available handbooks that provide relevant sector-specific instructions focusing on the city level. Some of the handbooks explore vertically integrated and multi-governance approaches.

Training: Urban Waste Management

Within GIZ's Sector Network "Transport - Environment - Energy - Water in Asia" (TUEWAS), a Working Group on Cities and Climate Change, initiated in 2009, supports the development of integrated approaches to mitigate climate change and to adapt to its impacts in cities. The group developed a *Capacity Building Tool for Local Partners* and a *Training Series on Cities and Climate Change* focusing on practice-oriented and interactive learning. The main audience includes middle and senior-level 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. One of the five trainings currently available focuses on *Urban Waste Management and Climate Change*. This training explores options to integrate mitigation and adaptation to climate change into municipal solid waste management strategies. The four other trainings focus on: Introductory Knowledge on Cities and Climate Change, Local Urban Governance for Climate Action, Financing Climate Actions in Cities and Flood Risk Management in Cities.

For more information: climate@giz.de

To learn more about a multi-level government approach and involving sub-national actors in mitigation actions in waste management, the accompanying Indonesian Case Study outlines an effective approach.

Handbook on Cities and Buildings

Buildings offer unique and significant potential for emission reductions and provide many effective and expedient opportunities for GHG mitigation, often with co-benefits. The *Climate Finance for Cities & Buildings - A Handbook for Local Governments*, prepared by ENERGIES 2050 for the UNEP, aims to raise awareness among local stakeholders and policy makers regarding carbon and climate finance mechanisms and their potential and application in the built environment. It also aims to help local authorities to use carbon mechanisms as an opportunity to increase their energy performance, be resource efficient, and be consistent with their climate strategies while creating additional revenue.

The handbook can be downloaded from: <http://www.unep.org/publications/>

To learn more about multi-level governance approaches and involving sub-national actors in mitigation actions in energy efficiency in buildings, the accompanying South African case study on energy efficiency in public buildings at provincial and municipal level also offers further insights.

Handbook on Transport NAMAs

The *TRANSfer* Handbook provides practical guidance on how to develop NAMAs in the transport sector. It comprises a generic section with general information on transport NAMAs concerning policy identification, MRV and financing and a further chapter on co-benefits. The purpose of the handbook is to provide practitioners working in the transport sector around the world with practical step-by-step guidance on how to design and implement climate change mitigation actions in this complex sector. Therefore, this handbook was designed to become a 'living document' aiming to always reflect the latest state-of-play. The final handbook will also comprise a number of case studies based on practical experiences from partner countries: Mexico, Indonesia, Colombia, Chile, South Africa and Costa Rica.

More information and the full document can be accessed at: <http://transport-namas.org/resources/handbook/>

V-NAMA Webinar Discussion Series

To assess options for integrated multi-level governance mitigation strategies, the BMUB-IKI-project 'V-NAMAs', implemented by GIZ and in collaboration with ICLEI, organized a webinar discussion series '*Involving sub-national and city governments in national climate change mitigation strategies*'. The series of webinars aimed to facilitate knowledge sharing among stakeholders working on vertically integrated Nationally Appropriate Mitigation Actions (V-NAMAs) addressing the sub-national dimension. The webinars identify and discuss many of the barriers, challenges and incentives for involving sub-national and city governments in national mitigation actions and provide insights into financing options for sub-national climate action along with current challenges and trends in emissions accounting and monitoring (MRV) at the local level.

Recordings and presentations from each session can be found on GIZ Global Campus 21 (JAVA required): <https://gc21.giz.de/ibt/var/app/wp342P/1966/>

Sessions include:

- Financing options, financing challenges, solutions for sub-national climate action
- Sector specific information: waste management in Indonesia
- Municipal climate protection management in Germany
- MRV for sub-nationals: GHG emissions monitoring and reporting for sub-nationals
- Implications of the UN Climate Summit for vertically integrated climate action.



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