

National Monitoring and Evaluation (M&E) of Climate Change Adaptation

Relevance of national M&E of adaptation

With increasing volumes of adaptation finance, and growing numbers of adaptation activities and strategies at the national level the need for robust monitoring and evaluation (M&E) approaches is growing alike. So far M&E of adaptation has primarily been conducted on the project-level, often based on logframe or results-based monitoring frameworks of donor and technical cooperation organizations. However, governments need information beyond the effectiveness of stand-alone adaptation projects in order to steer and manage the process of climate resilient development. National and more strategic approaches to climate change adaptation have further gained importance in the context of the National Adaptation Plan (NAP) process, established as part of the Cancun Adaptation Framework under the UNFCCC. As national and regional adaptation strategies and plans are moving from the planning to the implementation phase monitoring systems need to be established providing answers to questions like:

- How does climate change evolve? Which climate change impacts require most attention?
- Which adaptation activities are being implemented in our country? Who does what?
- Are these activities in line with our national adaptation and development goals?
- How much money is being spent on adaptation activities and is it spent effectively?
- Which sectors, regions and social groups benefit from these adaptation activities?
- Are we on the right track in order to achieve national adaptation and development goals?
- Do adaptation interventions actually reduce vulnerability of climate-sensitive sectors and highly vulnerable groups?

- Which adaptation approaches work and which do not? Under which conditions and why?

Depending on the objective and complexity of the national M&E system it can help with ...

- increasing **knowledge** on climate change impacts and climate vulnerabilities as a basis for planning and decision making;
- ensuring an **effective resource allocation** to the most vulnerable sectors, regions and social groups;
- tracking, steering and revising **adaptation plans and activities**, e.g. in the context of NAPAs and NAPs;
- improving **accountability and reporting** on adaptation and its effectiveness to domestic and international stakeholders, e.g. as part of the National Communication to the UNFCCC;
- promoting evidence-based **national and international learning** on adaptation.

Challenges and recent progress

M&E of adaptation can build on broad monitoring and assessment experience of different sectors and disciplines. Environmental monitoring, environmental impact assessments, cost-benefit analysis and monitoring and evaluation approaches in the field of disaster risk reduction provide a wealth of tools and indicators M&E of adaptation can build upon.

However, adaptation-specific challenges require adjustments of existing approaches and tools. Climate change adds a new dimension of uncertainty as adaptation efforts aim at addressing future climate variations and impacts in addition to current development challenges. Long-time horizons exacerbate the evaluation of results and effectiveness of adaptation activities. Defining the right metric for measuring adaptation effectiveness is an additional challenge: in contrast to climate change mitiga-



tion, where effectiveness can be measured by using avoided emissions as a single metric, no universally applicable indicator exists. Context-specific indicators are required to measure reduction in vulnerability or other proxies representing the success of adaptation. Complexity further increases on the national level as numerous vulnerabilities of different sectors, administrative subunits and segments of the population have to be considered.

Experience with M&E of adaptation on the national or other aggregated levels like project portfolios is limited in both developed and developing countries. Currently, national and portfolio-wide M&E systems are being developed and tested. Amongst the pioneers are e.g. the Philippines, the United Kingdom, and Germany as well as climate finance mechanisms such as the Adaptation Fund (AF) and the Pilot Programme for Climate Resilience (PPCR), which both defined standard or core indicators in order to measure portfolio-wide adaptation effectiveness.

GIZ's approach to M&E of adaptation

There is no one-size-fits-all approach! Purposes and objectives of M&E frameworks for adaptation differ from country to country, and so do capacities, available resources and data for M&E. GIZ follows a five-step approach (see figure 1) to guide and support countries with the design and implementation of M&E systems for the national, sub-national or transnational level adjusted to country- and region-specific needs and capacities.

GIZ's work on Monitoring & Evaluation of Adaptation

GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) aims at developing and improving tools for Monitoring & Evaluation of adaptation. A particular focus is on monitoring adaptation efforts and results on aggregated levels, i.e. on national, regional or portfolio level. GIZ's work tackles the following fields of activities in order to improve transparency and effectiveness of adaptation:

1. Developing appropriate frameworks and tools for M&E of adaptation on aggregated levels;
2. Supporting partner countries of German development cooperation with the design and implementation of national or regional M&E systems for adaptation;
3. Sharing tools and experiences with partner countries and the international adaptation community to enhance knowledge on M&E systems for climate change

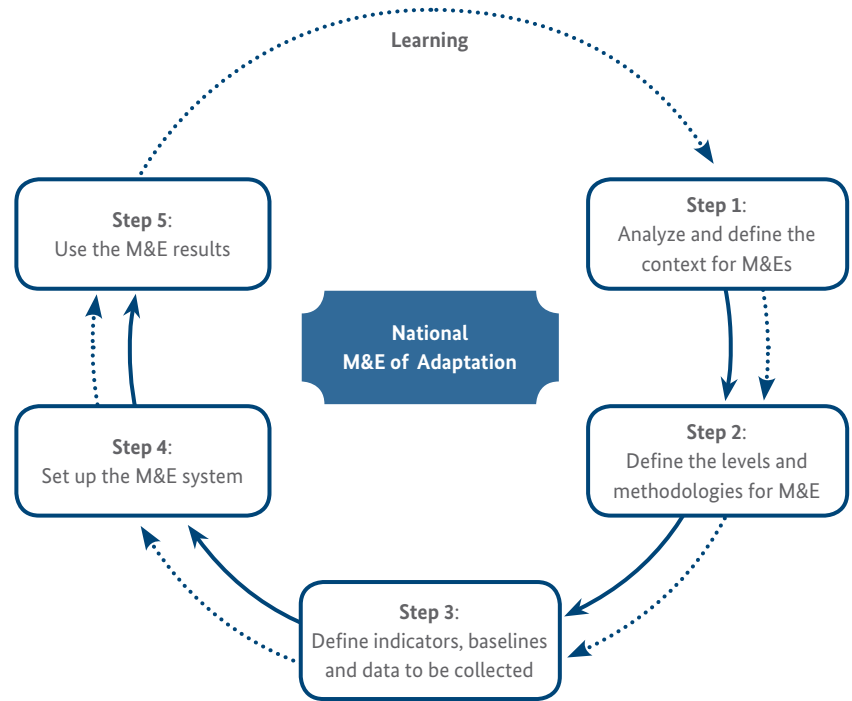
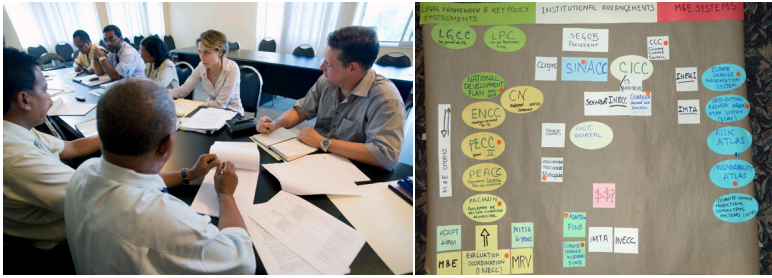


Figure 1: GIZ's Approach for Developing and Implementing M&E for Adaptation on the National Level.

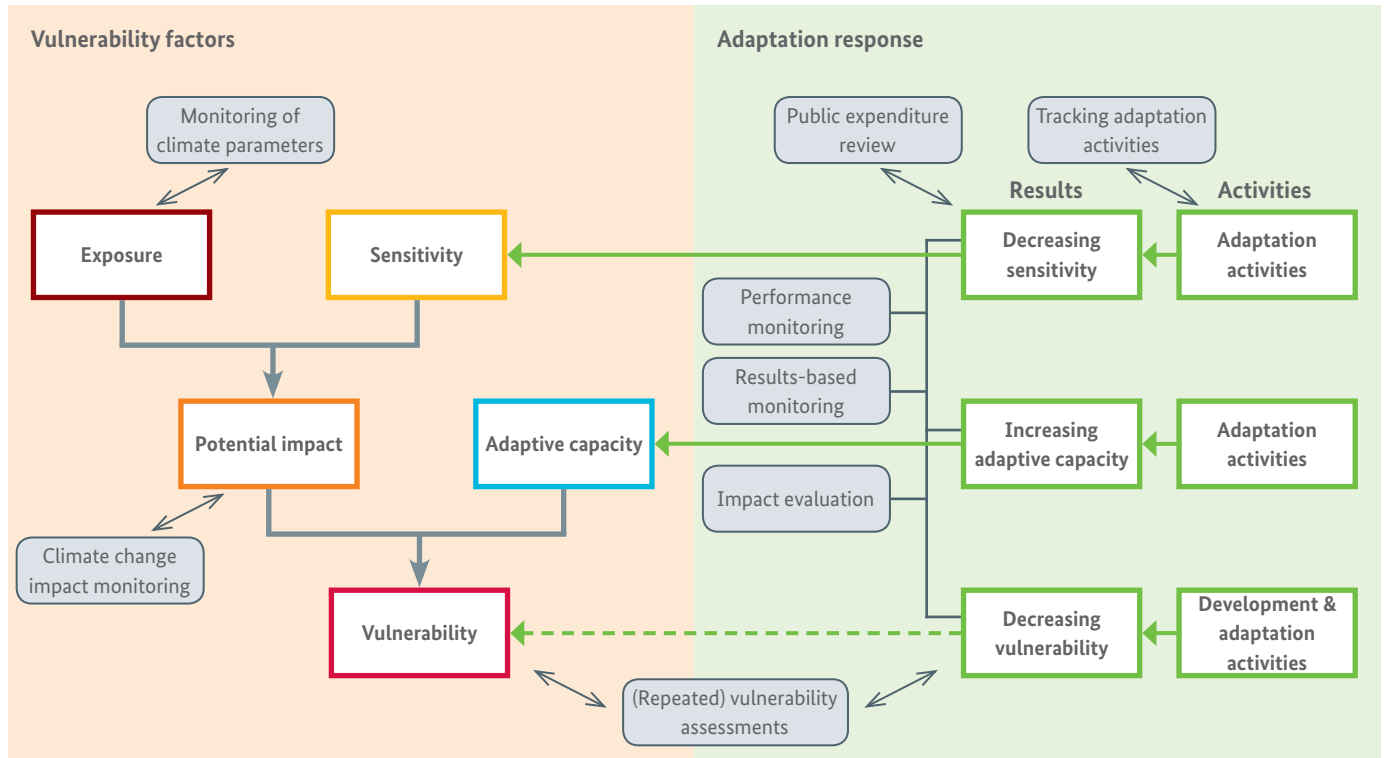
Helping decision-makers to define the objectives of their M&E system is the first essential step: For governments who want to define adaptation activities based on empirical observations, it might be useful to monitor climate parameters, climate change impacts and vulnerabilities of different sectors and social groups. Monitoring systems, which help tracking public expenditures for adaptation, resource allocation to specific sectors and beneficiaries, as well as the adaptation activities of multiple government schemes, donors and non-governmental organizations, provide additional relevant information for adaptation planning. More advanced M&E systems further address the question whether adaptation activities actually contribute to reducing vulnerability and whether vulnerability reduction is achieved in a cost-efficient way. M&E of adaptation can thus be addressed at different levels (see figure 2) providing varying depths of information and having different implications for data requirements and costs of the M&E system.

GIZ supports partner countries in analysing their context and defining M&E objectives and levels accordingly by facilitating multi-stakeholder dialogues and conducting relevant background studies. Conceptual frameworks guiding step-by-step through the M&E process, practical tools and a repository of indicators help formulating indicators for different levels of M&E. Together with leading research institutes GIZ is also testing further metrics to measure vulnerability and quantify adaptation benefits in order to find adequate proxies to measure adaptation effectiveness. Capacity building and trainings on M&E of adaptation further strengthen the skills of partner organizations to design and deploy M&E systems and to use the results for improving decision making and adaptation planning.



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Figure 2: Methodologies for different Monitoring and Evaluation levels



Selected examples from GIZ's Portfolio

On the national level, GIZ supports the Climate Change Commission of the **Philippines** with the development of a results-based M&E system for the National Climate Change Action Plan, including both adaptation- and mitigation-specific indicators. In **Mongolia**, GIZ supports the Climate Change Coordination Office with the development of the National Adaptation Strategy and the integration of indicators to monitor progress and results of defined activities. On the sub-national level, GIZ supports **Morocco** with the integration of a set of climate change impact,

climate vulnerability and adaptation response indicators into existing environmental information systems in two regions of the country. Integrating M&E of adaptation into existing environmental or developmental monitoring systems and building adaptation-specific indicators on data, which are already being collected on a regular basis, have proven very useful. In addition, GIZ also analyses and **documents good examples** of national M&E systems to provide benchmarks and orientation for partner countries.

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