

Policy pointers

Uncertainty surrounding the impact of climate change on development means that specific lessons from programmes should be used to continually adjust and realign activity as needed.

Monitoring and evaluation (M&E) should be developed in a participatory manner, and must be integrated into project design at the outset.

Programme-level M&E of climate adaptation should actively aim to contribute to 'systemic' evaluations at national and regional levels.

Best practice is emerging, and training and knowledge sharing among implementers and other relevant stakeholders can help improve M&E in ongoing programmes.

Global programmes — such as the European Union's Global Climate Change Alliance (GCCA) — should develop policies and guidelines to guide the M&E of all their climate adaptation programmes to help maximise learning from multiple interventions.

Monitoring and evaluating climate adaptation: a review of GCCA experience

Monitoring and evaluation (M&E) of adaptation to climate change is essential but is a young discipline, as yet with no universally agreed standards or practices for measuring how well an intervention reduces peoples' climate vulnerability. However, several multi-country programmes are focusing on supporting adaptation activities in developing countries, and these programmes provide a good opportunity to see how M&E is taking place and to share the lessons. This briefing reports recommendations from a review of the European Union's Global Climate Change Alliance (GCCA) initiative. The review examined how M&E is being undertaken within the GCCA programmes, and how M&E may contribute to national or regional evaluations of climate change adaptation.

Why monitoring and evaluating climate adaptation is important

Policymakers everywhere recognise that climate adaptation is essential. Developing countries are putting national policies and strategies in place to respond to climate pressures. Increased investment in adaptation will help protect livelihoods, lives and vulnerable people's assets, and help make economies more resilient as they move towards overall development goals.¹

However, there are uncertainties as to how, when and how much climate change impacts will challenge development. Determining how best to respond to climate change requires that learning becomes 'hard-wired' into programmes supporting climate mitigation and adaptation. This simply means that specific lessons from a programme should be continually integrated into that particular intervention to ensure that it remains on track, and activities can be reoriented in line with the particular context.

Significant financial resources are pledged to support adaptation activities, such as the new Green Climate Fund. The fund will direct half of its anticipated US\$100 billion annual budget to adaptation in developing countries.² Part of these resources should be invested in assessing adaptation interventions, thereby helping ensure their effectiveness and providing valuable evidence to shape future investments. Policymakers need to be able to understand how well the interventions they put in place are able to eradicate poverty by improving resilience to climate variability and change.³ Adaptation monitoring and evaluation (M&E) is therefore vital.

As an area of practice, adaptation M&E is relatively new, and there is insufficient understanding of how it can be best supported. There are, however, a number of emerging frameworks, toolkits and guides that are attempting to define elements of best practice and support M&E of adaptation activities.⁴

Global public goods and climate change M&E

Reductions in greenhouse gas emissions are tracked using a 'measuring, reporting and verification' (MRV) process. The public good 'value' per unit of emission reductions is the same for all emissions everywhere. M&E is used to record and assess reductions in climate vulnerability achieved through adaptation. Unlike emissions reductions, reductions in climate vulnerability are not immediately global public goods as the benefits accrue to those involved rather than everyone. But the learning about climate adaptation achieved through M&E processes can be widely shared, thereby benefiting a wide number of people. Such knowledge is classified as a global public good.

The Global Climate Change Alliance's M&E

The Global Climate Change Alliance (GCCA) was launched by the European Union (EU) in 2007 and is coordinated by the European Commission (EC). The GCCA supports over forty national and regional programmes on adaptation; mainstreaming climate change issues into policy arenas; and disaster risk reduction.

The GCCA experience is a good opportunity to gather practical lessons on how M&E is undertaken. These lessons can be shared among current GCCA funded programmes, and inform the development of the forthcoming second phase of GCCA, as well as contribute to the global debate and knowledge base.

On behalf of the GCCA, IIED reviewed a number of national and regional programmes to see how they integrated M&E and to identify innovative and successful approaches. The review focused on two levels of M&E across GCCA programmes:

- i) Programme/project⁵ level: how M&E has been integrated into the programmes.
- ii) System level: examining how far programmes are directly or indirectly contributing to regional, national or local systems for adaptation M&E.

Our review used an analytical framework based on M&E 'best practices'⁴ and defined a set of 24 preliminary benchmark criteria, using our Tracking Adaptation and Measuring Development (TAMD) framework as a reference, along with a number of other sources.⁶

Seventeen of the criteria were at the programme level, and six were at the system level. The criteria helped construct an evidence base for a qualitative appraisal of the M&E for each programme, which then received a score (see Figure 1 below). The score was based on evidence of innovation and best practices, but is not an evaluative rating of how well M&E was being undertaken in each case.

Experience from the GCCA

All the reviewed projects did include some design elements specific to M&E of adaptation. For example, a number of the logical frameworks reviewed had indicators to measure how effectively climate risks were being managed through climate-sensitive decision making and the use of climate information. They also featured indicators aimed at measuring adaptation outcomes, and indicators related to climate effects. Indicators did, however, vary widely in specificity and quality of design.

The review also found that the strongest M&E systems were those that were clearly thought

Figure 1. GCCA M&E classification matrix

Programme-level M&E	Established	9 Caribbean, Climdev Africa, Eastern and Southern Africa, Lower Mekong Basin, Benin, Mauritania, Nepal, Rwanda, Samoa	5 Bhutan, Cambodia, Chad, Ethiopia, Uganda	
	Nascent	11 Bangladesh, Belize, Burkino Faso, Gambia, Jamaica, Malawi, Maldives, Mozambique, Tanzania, Timor-Leste, Vanuatu	7 Eastern Caribbean, Haiti, Senegal, Seychelles, Western Africa, Solomon Islands	
	Business as usual			
		No support	Indirect contribution	Specific focus
		Systems-level M&E		

Programme/project level:

Business as usual: no specific focus, approach or tools for M&E of climate change adaptation. M&E is relying exclusively on a logical framework with indicators that are not specifically designed to track the effects of the intervention on climate risk management and/or climate vulnerability.

Nascent: some indicators within the logical framework are clearly aimed at measuring effect on climate risk management and climate vulnerability, but a coherent framework is absent.

Established: a well-developed set of indicators has been developed and is regularly updated; in the most advanced cases, a theory of change is available.

System level:

No support: there is no specific focus on strengthening national climate change M&E systems.

Indirect contribution: programme activities are likely to help developing national systems (eg through vulnerability baseline studies), but there is no explicit vision and focus on this aspect.

Specific focus: developing or reinforcing national systems is one of the objectives of the programme through a dedicated set of activities.

through and set out in a dedicated M&E framework document. Such documents featured well-defined indicators, activities for establishing baselines, and delineated clear roles and responsibilities. There is evidence from a number of programmes, including in Uganda, Rwanda and Nepal, that developing M&E framework documentation can help to build capacity and understanding among stakeholders, as well as helping to improve overall M&E design.

Encouragingly, many programmes offered some contribution to system level M&E. However, programme-level M&E is overall better developed. Programmes that include well-designed M&E systems, for example in Benin and Rwanda, do indeed contribute to national, sub-national and system levels but this systemic contribution is mostly indirect. Few projects had an explicit set of objectives or activities for establishing national, sub-national or regional level M&E systems. However, there were some good examples of direct contribution to system-level M&E in Cambodia (see Box 1).

Best practice in adaptation M&E

Adaptation M&E faces a number of conceptual and methodological challenges. There is a high degree of uncertainty around climate change impacts, and climate adaptation itself is an elusive concept, with no universally accepted definition⁷ or agreed metrics. Nevertheless, best practice is emerging.

Adaptation takes place in a variety of different development contexts, and a broad range of issues affect vulnerability. These factors pose difficulties for adaptation interventions.⁸ Climate impacts are constantly changing, and adaptation will not simply remove climate change damage so that development can take place unhindered.⁹

Adaptation activities should take into account both current climate impacts and anticipated future climatic patterns, even though the effects of a particular intervention may not be fully seen for years. Evaluation within adaptation programmes is often limited to the programme or project cycle, and may offer little tangible contribution to learning beyond that programme's parameters. Best practice recognises a need to shift focus towards longer-term and nationally owned M&E, and more comprehensive evaluation of policies for climate change responses.

Well-designed indicators measure the effectiveness of adaptation and track investments. Quantitative indicators predominate, and this can limit the use of qualitative narratives, which can offer a more holistic monitoring of results and underlying change processes. Making provision for both qualitative and

Box 1. The Cambodia Climate Change Alliance's (CCCA) contribution to the national M&E system

The Cambodia Climate Change Alliance is the only programme within the GCCA that has a specific focus on helping establish a national climate change M&E framework and ensuring it becomes a part of mainstream policy making.

The Cambodia Climate Change Strategic Plan 2014–2023 is the central policy for tackling climate change impacts in the country. The CCCA supported preparation of this Strategic Plan and provided technical assistance and capacity building to the Ministry of Environment on M&E. The Strategic Plan makes explicit provision for establishing a national framework for M&E of climate change activities. There is a vision for integrating the framework into national and sub-national development planning processes through the National Strategic Development Plan (NSDP), as well as sectoral development plans. This is extremely useful as it provides a firm policy foundation for a national climate change M&E system that is clearly linked to development planning.

Such a 'top down' approach has a number of benefits and offers a more coordinated approach to help institutions better harmonise their actions.

Box 2. Adaptation to climate change in Uganda: benefits of establishing a baseline

Uganda's GCCA programme established a baseline for M&E shortly after the programme began, using an extensive participatory process. This accurately identified specific vulnerabilities at the district level, in turn allowing for more accurate measurement of changes that can be attributed to programme actions. In establishing the baseline, it was possible to map climate vulnerability across the districts in the programme and then select the most appropriate communities as the focus for the intervention. The data collected may also be used to measure the impact of other programmes operating in the same areas.

Including local-level stakeholders in establishing the baseline has helped raise awareness around adaptation issues within the communities, as well as improve their knowledge on climate change. The same stakeholders also carry out a number of M&E activities; early engagement helped foster ownership and buy-in, as well as helping to overcome potential implementation challenges. The baseline activities also created an opportunity for the programme team to interact with the primary beneficiaries, and gave programme staff a better understanding of local stakeholders' expectations.

quantitative indicators will help paint a more comprehensive picture. It is also important to strike a balance between upward/downward accountability and learning from an M&E system. A learning M&E dimension (that is, not just exclusively focused on accountability, but rather how M&E findings can be fed back into the programme) featured in only half of the GCCA projects reviewed.

A theory of change (TOC) can be used to map out the logical sequence of a programme or project from inputs to outcomes, and can provide a non-linear way to consider not only what will change, but the underlying dynamics and assumptions around how and why change will occur.¹⁰ Nevertheless, TOCs are often overlooked

when designing M&E systems. Two GCCA projects, in Cambodia and ClimDev Africa, are a valuable part of best practice. A theory of change can offer strategic direction and sets out how an intervention is supposed to work. It will help chart progress against a well-defined 'adaptation roadmap' in which underlying assumptions are made explicit.

Most GCCA projects make reference to using existing data and systems, such as national statistics or census data, and a few have a specific strategy to use these to improve their M&E. Integration with existing national data systems can reduce costs, avoid duplication, and can broaden M&E beyond just the project or programme focus.

It may be the case that data systems in developing countries need supplementary climate change information for more precise monitoring of climate challenges. Often problems arise because national and sub-national data systems are insufficient. Accuracy, as well as reliability and timeliness of data, is important.

Finally, baselines are a crucial aspect of best practice for M&E. A number of GCCA projects did include dedicated baseline studies. The Uganda project benefited from establishing a baseline early in the process. Early participation by stakeholders can help promote local ownership of M&E activities and lead to better understanding of adaptation by the beneficiaries and project staff alike. Yet participatory M&E featured in very few of the GCCA projects reviewed.

Lessons and recommendations

There are a number of possible improvements in the M&E systems of ongoing GCCA projects. These could be addressed first through M&E training for project implementers and other relevant stakeholders.

As in the case of the World Bank's Pilot Program for Climate Resilience, the GCCA global programme can explore the opportunity to develop policies to guide M&E of climate adaptation in its national and regional programmes. These guidelines will help national and regional programmes to address the specific

challenges of M&E of climate change adaptation. Given that the GCCA provides multi-country support, there is an opportunity to develop tools and indicators to assess the cumulative results of the overall GCCA programme.

Developing an M&E approach that spans all the GCCA adaptation programmes could help countries interested in establishing long-term climate adaptation evaluation programmes that integrate with national development M&E systems. This would offer an opportunity to measure progress towards improved resilience at a much larger scale.

M&E of support to climate adaptation needs to be well thought through early on in a project or programme and then well-executed. Interventions need clear objectives and well-articulated results and activities, with clear roles and responsibilities for all stakeholders. The M&E system should form an integral part of interventions from the outset. Whenever possible, this should be set out in formal documentation that has had appropriate participation from all stakeholders.

To drive learning, climate adaptation M&E should be designed to assess changes beyond the programme level and to support moves towards measuring national and regional changes in resilience.

Climate adaptation programme M&E frameworks should also include contributions to the system level through explicit direct support. Although indirect support is indeed useful, a systemic approach to adaptation M&E can move the issue up the political agenda so it, and the learning it informs, is included in national climate change strategies.

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The authors would like to acknowledge Unit C2 (Laura Giappichelli, Aude Charrier, Bernardo Sala and Sophie de Conink) and Delegations of the European Commission Directorate General for Development and Cooperation – EuropeAid for their comments and input into the content of the briefing.



Knowledge Products

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The Global Climate Change Alliance (GCCA) is an initiative of the European Union to strengthen dialogue and cooperation on climate change with developing countries most vulnerable to climate change.

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This research was funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the views of the UK Government.



Notes

¹ United Nations Framework Convention on Climate Change (UNFCCC) Fact Sheet: The Need for Adaptation, October 2010 – available at https://unfccc.int/files/press/application/pdf/adaptation_fact_sheet.pdf / ² See Initial Modalities for the Operation of the Fund's Mitigation and Adaptation Windows and its Private Sector Facility, GCF/B.07/08 12 May 2014, Meeting of the Board, 18-21 May 2014 / ³ Anderson, S (2014) Tracking adaptation and measuring development, IIED Backgrounder <http://pubs.iied.org/17234IIED> / ⁴ See Bours, D *et al.* (2013) Monitoring and evaluation for climate change adaptation: a synthesis of tools, frameworks and approaches. SEA Change Community of Practice/UKCIP. www.seachangepop.org/node/3258 / ⁵ Under the GCCA global programme, initiatives at country or regional level are defined as programmes. The term project is used to identify pilot activities, generally at local level, within a national GCCA programme. / ⁶ See: www.iied.org/tracking-adaptation-measuring-development / ⁷ See Gordon, E and Dilling, L (2009) An empirical approach to defining success in climate adaptation. Center for Science and Technology Policy Research / ⁸ Bours, D *et al.* (2014) Guidance note 1: Twelve reasons why climate change adaptation M&E is challenging, SEA Change/UKCIP. www.seachangepop.org/node/2728 / ⁹ Brooks, N *et al.* (2011) Tracking Adaptation and Measuring Development. IIED, London. <http://pubs.iied.org/10031IIED> / ¹⁰ Barnett, C and Gregorowski, R (2013) Learning about theories of change for the monitoring and evaluation of research uptake. Institute of Development Studies.