Briefing

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Policy pointers

Learning from robust local-level evidence can improve the contribution climate adaptation interventions make to achieving sustainable development now and into the future.

Integrating climate adaptation into devolved national planning will lead to more resilient development and help achieve synergies in climate actions delivery. To leave no one behind, we must know what works where, when and for whom.

Developing bespoke climate adaptation M&E that ensures learning from the local level informs national-level planning and reporting will make national and global assessments more robust.

Although systemising results from a range of scattered local adaptation actions remains a challenge, combining information across scales can improve planning.

How bottom-up M&E insights can inform national adaptation planning and reporting

Most adaptation actions are local and closely related to development needs, so it is important to develop and use local monitoring and evaluation (M&E) systems to capture what is happening on the ground and integrate lessons from this into national and global M&E systems. This briefing explores how learning from the local to national level informs planning and reporting from the bottom up, providing stronger evidence for adaptation assessments. Drawing on experience in Mali, Senegal, Morocco and Kenya, it unpacks how effective vertical integration of subnational and national M&E can improve national planning and lead to more robust reporting while saving time and resources by making use of existing data collection mechanisms.

Assessing adaptation outcomes is complex but necessary. Climate risks can affect past, current and future development. Loss of and damage to lives, assets and infrastructure force people (back) into poverty, affecting progress towards the Sustainable Development Goals (SDG) targets. Ensuring that adaptation measures help address climate risks can make the SDG targets achievable and enduring. With robust, bottom-up monitoring, evaluation and learning mechanisms, governments can improve their decision making on climate resilient development pathways.

Assessing adaptation outcomes at global or national levels does not tell us what is happening locally and what works for those at the frontline. But understanding local adaptation outcomes can offer specific, robust evidence to improve national decisions and planning.

As countries develop a common global climate transparency framework, using information from local adaptation actions will allow them to assess contextualised adaptation outcomes that are closer to reality and offers them the flexibility of demonstrating climate action through existing means and mechanisms. Investing in local M&E can help them choose the most effective adaptation options.

How can local M&E inform national planning?

Local adaptation actions vary from decentralised funds and local plans to community-based resilience programmes or social protection interventions. The methods for assessing them also vary, so capturing the diversity of learning through fragmented M&E processes and using this to inform national planning can be a challenge. But there are advantages of creating such links:

- Local M&E is more context-specific and responsive to local needs, allowing better insights into adaptation on the ground

- Mainstreaming adaptation into subnational development planning increases effectiveness

Local M&E approaches can offer detailed learning from actions on the ground and most adaptation actions are local

in both directions, so it is logical to make local adaptation part of national development M&E

• Because local perspectives on the effectiveness of adaptation actions renders more realistic results, understanding local adaptation outcomes can inform more robust national planning

• Integrating bottom-up adaptation planning into national development planning contributes more effectively to 'leave no one behind' development than devolved authorities carrying out agendas imposed from above.

Effective vertical integration of subnational and national M&E

We can use adaptation M&E to track progress, learn what works for whom, assess effectiveness and/or ensure transparency and accountability. When assessing adaptation through a local lens, tracking progress and learning what works for whom are the most relevant. Our examples from Morocco, Mali, Senegal and Kenya explore different approaches to using local adaptation assessment to inform national planning and reporting and the adaptation parameters they developed and used.

1. Linking sub-national M&E to national adaptation planning (NAP)

Morocco is piloting an adaptation M&E system that is integrated with the country's Regional Information System of Environment and Sustainable Development (SIREDD). The pilot uses adaptive capacity, output and outcome indicators to assess the implementation of adaptation measures in three regions and their impacts on vulnerability and wellbeing (see Box 1).

Each region's monitoring system identifies climate vulnerability in core sectors — water, biodiversity and forests, agriculture or tourism — based on their exposure and sensitivity to climate risks. Using participatory mechanisms to establish theories of change or causal links between sectoral vulnerability and impact, regions establish their indicators based on available data. This ensures low-cost, unduplicated monitoring that builds on the existing SIREDD.

Once rolled out to all regions, the programme will generate Morocco's annual state of the environment report and inform its NAP. Although a practical and sensible method of assessing adaptation progress, it does not track progress at the lowest administrative (commune) level, but this method will be strengthened in the next phase. The Secretariat of State for Sustainable Development has reviewed existing SIREDD data with the aim of harmonising and upgrading it into a national information system.

2. Measuring resilience and wellbeing in community-prioritised projects[1]

A DFID Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) project in **Senegal and Mali** aims to build resilience by enabling communities to implement public good investments that are prioritised and funded through locally manged climate adaptation projects. All BRACED projects have to assess adaptation against the UK's International Climate Fund's key performance indicator number 4 (KPI4) and work with beneficiaries to develop context-specific project outcome indicators, based on bespoke dimensions of resilience.[2] Implementing partners report against these indicators to demonstrate changes in resilience attributed to the project.

In Mali and Senegal, they use information on climate risk management from IIED's Tracking Adaptation and Measuring Development (TAMD) scorecards and household survey data, theories of change, resilience scales and self assessment to measure the performance, outcomes and impact of community-managed funds (see Box 2).

This approach may offer some useful insight from a methodological perspective. It gives flexibility within a broader M&E system to identify and develop resilience indicators measured at project outcome level, allowing the use of different approaches and methodologies according to context and capacity.

BRACED guidance provides for using climate data, measuring project impacts and linking outcome-level resilience indicators with impact-level wellbeing indicators. Analysing climate

Box 1. Adaptation parameters developed and used in Morocco

• **Process indicators** to measure adaptive capacity: multi-risk agriculture insurance and global monitoring of the state of crops through an agricultural information system

• **Output indicator** to track adaptation measures: cultivated surface with drought-resistant varieties

• **Outcome indicators** to measure vulnerability or resilience: yield of rain-fed cereals and farmers' income in rain-fed areas

• **Impact indicator** to measure wellbeing: regional agricultural GDP

• **Data sources:** regional database collecting data on these indicators annually and SIREDD.

data alongside context-specific resilience indicators allows us to measure development performance against a backdrop of climate change, which we can interpret as a measurement of adaptation success.

3. Using subnational M&E to reform national climate M&E and development planning[4]

Kenya developed a national monitoring, reporting and verification plus system (MRV+) with adaptation and mitigation indicators in 2013, and its NAP in 2016. But changes in climate policy and delays in implementing the Climate Change Act meant that adaptation M&E was not operational until 2018.

During 2013–2015, the Adaptation Consortium[5] used TAMD scorecards and existing data systems to develop and test a county-level M&E system. This feasibility assessment provided robust insights into how subnational governments could measure adaptation benefits.

Isiolo County used TAMD to measure how well its government was managing climate risks, resilience and wellbeing. In consultation with local pastoral communities, technical local government staff developed indicators and theory of change pathways based on the impact of climate risks on these communities (see Box 3). Many are climate-relevant development indicators that they can use for different purposes.

When developing its NAP indicators and refining the MRV+, the national government drew lessons from the subnational system, selecting similar parameters to aggregate subnational ones nationally. The NAP indicators are based on a theory of change linking climate resilience with national development and economic and social transformation. Lessons from subnational evidence also guided national and county governments when tracking the implementation of medium-term and county-integrated development plans.

Recommendations for integrating local adaptation M&E into national development planning and reporting

1. Use local information to inform national planning:[4] it is clear that local systems are better suited for filling information gaps when assessing adaptation at national and global levels, particularly in countries that are less able to demonstrate adaptation in the short run. Because local M&E uses more context-specific parameters, it provides richer insights. Local M&E approaches can offer detailed learning from actions on the ground and most adaptation actions are local, so it makes

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> **Box 2. Adaptation parameters developed and used in Senegal and Mali**
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> - **Process indicators** to measure institutional performance of community-managed funds: use of climate information; integration of climate into planning; coordination; financing and budgeting; participation; and awareness among stakeholders
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> - **Outcomes:** improved resilience of beneficiaries in livestock communities; access to climate information through forecast, radio, TV, newspaper and the meteorological department; access to and management of natural resources including dry pastures, agricultural land, flooded pastures, fishing waters
>
> - **Impact indicators** to measure improved beneficiary wellbeing:[3] household income; nutritional status; and herd numbers.

sense to capture local lessons nationally and for subnational M&E to inform the design of national systems, enabling more robust national planning and M&E.

But systematising results from a diverse range of local adaptation actions remains a challenge. The examples in this briefing show how, with a high level of synchrony between development and adaptation planning, we can integrate local M&E systems into national development planning from the bottom up. In Kenya, subnational adaptation M&E has informed the country's NAP and MRV+ and Morocco's pilot programme will generate annual state of the environment reports and inform its NAP.[6,7]

The Paris Agreement stipulates that countries must report information on adaptation.[8] Using information from local M&E systems to inform country reporting is a good way to integrate bottom-up results and information into national assessments and thus potentially into the global stocktake.

2. Use local information to assess the adaptation goal: Article 7 of the Paris

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> **Box 3. Adaptation parameters developed and used in Kenya**
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> - **Process indicators** to measure climate risk management at county level: institutional knowledge or capacity to manage climate risks; use of climate information; extent of climate coordination; budget allocated to addressing climate change issues; and integration of climate change into development planning
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> - **Outcome indicators** to measure resilience of livestock communities in Isiolo County: quantity of livestock; access to water during dry season; months when water is available from constructed water points; and prevalence of livestock disease outbreaks per year
>
> - **Impact indicators** to measure wellbeing: household expenditure patterns; number of families migrating due to climate hazards; number of families under food relief.

Agreement established the global goal on adaptation of "enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the global temperature goal." Yet there is little consensus around how to assess effective adaptation and the parameters for doing so. Unlike mitigation, it will be difficult to establish a common metric because adaptation is context-specific, and countries define it and its outcomes according to their level of risk and exposure to climate change. But generic national and subnational categories of information to assess adaptation can be useful. Our example countries use four main generic categories (see Boxes 1–3), which other countries can draw on:

- **Adaptative capacity or a system's ability to manage climate risks:** assessing institutional ability to deal with climate risks is directly relevant to the adaptation goal.

- **Improved resilience or reduced vulnerability:** in the long term, the main test of resilience to climate change will be the extent to which a country, population or system continues to function and thrive despite evolving climate stresses and shocks. In the short term, we can measure resilience to evolving climate hazards with indicators representing factors that enable individuals, communities and systems to manage the hazards they face and are likely to face in the future. Although it is difficult to identify indicators that can be applied across multiple scales,[9] the use of KPI4 in Senegal and Mali shows that we can aggregate highly context-specific resilience indicators across contexts, giving this approach potential for application at national and global levels. KPI4 can bridge the gap between context specificity and generalisability. If the aim is for national actions to create opportunities for adaptation and resilience at subnational scale, evidence of how national systems influence adaptation at local level is critical for the global adaptation goal and stocktake.

- **Improved wellbeing:** standard development wealth, health or income indicators can show improved wellbeing or reduced losses despite climate change. Morocco and Kenya both built on existing data systems to show how adaptation is contributing to sustainable development.

- **Climate data** can help us track the intensity of climate hazards and trends — such as intermittent precipitation or prolonged dry seasons — that can affect development.

3. Use existing data to reduce the reporting burden: linking adaptation M&E indicators to development indicators can promote government buy-in and facilitate data collection and aggregation at national level. The ultimate purpose of adaptation is to secure and improve human wellbeing and development in the face of climate change, which could otherwise undermine and reverse development gains. So, the ultimate measure of adaptation success is the extent to which development performance and wellbeing exhibit stability or improvement under climate change.

Several countries are building on national data systems to develop local wellbeing or resilience indicators. By choosing development indicators that already existed within their national or regional information systems, Morocco and Kenya increased coherence between national and subnational data processes. Under the Paris Agreement, communication and reporting should build on existing systems and tools to reduce the reporting burden, particularly on developing countries. Integrating subnational and national systems is a good way to harmonise data. But systematising local-level information or using it more effectively for national planning and reporting remains a challenge and developing countries have different levels of ability in demonstrating reduction in vulnerability. Governments should synergise data infrastructure and monitoring systems and link up local and national planning and M&E systems.

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Notes

[1] McPeak, J and Abdella, J (2017) Self-assessed resilience and its correlation to specific indicators. See: https://tinyurl.com/yb6a6m3y / [2] https://tinyurl.com/BRACED-KPI4 / [3] Fisher, S and Anderson, S (2018) Developing meaningful local metrics of climate adaptation: learning from applying the TAMD framework at local scales. In: Christiansen, L, Martinez, G and Naswa, P (eds) Adaptation metrics: Perspectives on measuring, aggregating and comparing adaptation results. UNEP DTU Partnership. / [4] Karani, I (2018) Development of national and sub-national adaptation metrics in Kenya. In: Christiansen, L, Martinez, G and Naswa, P (eds) Adaptation metrics: Perspectives on measuring, aggregating and comparing adaptation results. UNEP DTU Partnership. / [5] www.adaconsortium.org / [6] GIZ (2017) Morocco: adaptation monitoring and evaluation as part of the Regional Information Systems. See: www.adaptationcommunity.net / [7] Dazé, A, Price-Kelly, H and Rass, N (2016) Vertical integration in national adaptation plan (NAP) processes: a guidance note for linking national and sub-national adaptation processes. International Institute for Sustainable Development. Winnipeg, Canada. See: www.napglobalnetwork.org / [8] UNEP (2017) The Adaptation Gap Report 2017. Towards Global Assessment. www.unenvironment.org/resources/adaptation-gap-report / [9] Leiter, T (2015) Linking monitoring and evaluation of adaptation to climate change across scales: avenues and practical approaches. *New Directions for Evaluation* 147, 117–127.