Briefing

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Policy pointers

Countries can build robust evidence upon which to base sustainable development policies in the face of increasing climate risks, using forward-looking evaluation approaches.

Evaluation commissioners and decision makers can provide guidance in evaluation policies, frameworks and terms of reference for identifying relevant past, present and future climate risks to each relevant intervention.

Evaluators can use mixed methods to triangulate findings from data sources, encompassing diverse perspectives and considering innovative approaches such as Natural Capital Accounting and geospatial or remote sensing data.

Evaluation commissioners and decision makers can ensure interventions remain relevant under future climate scenarios by prioritising adaptive management. Lessons from evaluations should inform and improve subsequent policy and planning.

Integrating climate futures into evaluation

Climate shocks are occurring more often and with greater intensity. These impacts risk undermining or even reversing sustainable development progress both locally and globally. Existing monitoring, evaluation and learning (MEL) systems fail to provide an adequate basis for understanding how future sustainable development interventions can withstand the impacts of climate change. Solutions that work now may not be suitable for the future. There is therefore an urgent need for countries and the international community to move from looking at 'what works' to evaluating 'what will work'. This briefing calls on evaluation commissioners and decision makers in government, the donor community, civil society and academia to invest now in evaluations that explore the viability of policies and programmes under increasing climate uncertainty.

Address rapidly evolving climate risks

In September 2015, the United Nations (UN) General Assembly adopted the 2030 Agenda for Sustainable Development. In December that year, 193 Parties signed the Paris Agreement on climate change. Seven years later, the world has changed dramatically. The COVID-19 pandemic has hit economies and health systems, while the climate emergency has begun to cause environmental disruptions, threatening the lives and livelihoods of millions.[1]

Climate change, biodiversity loss and global health crises also have huge implications for evaluative practice. These compounded crises create increasing yet unpredictable global shocks and changes, continually shifting baselines and undermining previously observed progress. Solutions that have worked in the past will no longer be viable for the future, nor can previous development performance predict future progress in the face of rising uncertainty.

With the global climate heading rapidly towards 'overshooting' the 1.5°C threshold, there is a clear need to rethink MEL systems and evaluation designs in favour of forward-looking assessments with sustainability at their core. It is now possible and urgent to assess the future fit of interventions. In other words, we need to move as soon as possible from 'what works?' to 'what will work?'.

Current evaluation approaches don't yet ask the questions needed to make appropriate planning decisions for policies and interventions to withstand the impacts of climate change, coherently advance different pillars of the sustainability agenda and avoid maladaptation. Few sustainable development interventions systematically integrate climate risks across the planning cycle, and even fewer evaluations explore the extent to which such risks are integrated. This is because a narrow focus on net effects, contribution and causal chains has diverted resources from key questions about the

long-term consequences of policies and programmes, along with their social, economic and environmental sustainability.

We need to move as soon as possible from 'what works?' to 'what will work?'

Randomised controlled trials, once dubbed the gold standard of evaluation, do not produce adequate evidence to inform future policies given that past precedents and comparisons are of limited use as environmental, and therefore development, contexts change.[2]

Decision makers need to better prepare for the future and invest now in evaluations that ask the right questions. Correctly framed, evaluations are an excellent tool to support climate-resilient sustainable development policies. Evaluation is a learning and action-oriented management tool and organisational process for improving both current activities and future planning, programming and decision making. It is the key step for moving from progress monitoring towards learning and adaptive management. As the climate crisis compels us to rethink evaluation timeframes to consider long-term outcomes and impacts, there is increasing need for learning and adaptive management to sustain the delivery of benefits and adjust programming accordingly.

Learn from countries' practical experiences

In 2021, IIED interviewed MEL experts and practitioners in national governments and specialist organisations in nine countries (Bangladesh, Colombia, Costa Rica, Fiji, Germany, Kenya, Mexico, South Africa and Uganda) to document their experiences and progress made in integrating climate risks into national evaluation of sustainable development. This study formed the basis for a comprehensive practical guide to integrating climate risks into sustainable development evaluation, published in July 2022.[3]

Through the interview process, we found climate change is increasingly becoming a focus of MEL practices. There is strong awareness and acceptance of the need to address climate risks — but also a wide spectrum of experiences and challenges in attempting to mainstream climate issues in evaluation. Methodological, technical and financial constraints often lead countries to focus on monitoring and reporting on key climate indicators rather than evaluating the future fit of interventions.

Some countries are nonetheless starting to build an evidence base on climate and sustainability by evaluating selected policies or programmes linked to climate and environment (see, for example, Box 1). This is a potential first step towards gaining sector-specific understanding before applying a climate lens systematically, but there are often capacity and institutional barriers to mainstreaming, horizontally across sectors and vertically within all levels of government. Integration of climate considerations is often ad hoc, and typically depends on the topic.

Obtain the right evidence

Evaluation commissioners and decision makers can follow four key recommendations below to ensure climate risks are embedded in evaluation frameworks, policies and terms of reference. Practical steps for evaluators are further explained in IIED's guide to integrating climate risks into sustainable development evaluation.[3]

Frame evaluation criteria in sustainable values

Criteria and principles frame evaluation design. They represent the context and commissioners' differing normative views on what would be a successful outcome for an intervention. The Organisation for Economic Co-operation and Development Development Assistance Committee (OECD-DAC) evaluation criteria, last reviewed in 2019, are the most commonly used way to measure this: relevance, effectiveness, efficiency, impact, sustainability and coherence.[4] While these are often used off-the-shelf, evaluators should decide how to employ each criterion creatively.

Evaluators can adapt and complement the OECD-DAC criteria or define their own to align with their values and views of success. In fact, several frameworks derive evaluation criteria from principles for sustainable development, climate adaptation and low-carbon development. For example, the framework for 'Framing and tracking 21st century climate adaptation' presents six general principles for adaptation derived from Article 7 of the Paris Agreement.[5] While overlapping in content with the OECD-DAC and other sets of criteria, these principles emphasise national contexts, with a focus on transparency, accountability, gender, the needs of the most vulnerable and genuine participation: adaptation interventions that make the best use of both conventional scientific information and local, traditional and indigenous knowledge. Similarly, the guide 'Evaluation to connect national priorities with the SDGs' proposes a seven-part framework to support national SDG evaluation.[6] This includes principles like resilience and environmental sustainability: strongly emphasising climate adaptation and sustainable use of resources.

Box 1. Kenya's thematic evaluations of public programmes

In Kenya, thematic evaluations have helped identify sector-specific climate change impacts and have been used to assess the compatibility of development programmes with climate objectives. A study on climate change in the maize production sector has revealed that changing rainfall patterns and rising temperatures experienced in Kenya between 1970 and 2014 undermined food security and rural livelihoods.[10] These findings highlight the urgent need for climate adaptation and mitigation, and helped inform Kenya's climate change policy.

Regarding energy and transport, the Monitoring and Evaluation Directorate of Kenya's State Department for Planning is contemplating an evaluation of how effective rural electrification has been in addressing greenhouse gas emissions. The objective would be to investigate whether energy access can be expanded without causing environmental degradation. This is one example of more forward-looking evaluations into whether policies and programmes coherently integrate sustainable development actions in the context of climate change. Evaluation should be used to capture whether and how climate risks affect progress and whether working towards sustainable objectives is compatible with mitigation and adaptation goals.

Source: M&E specialist Dr Samson Machuka, IIED interview, 2021.

It is critical that evaluators embed values for thinking about long-term climate risks in the definition and contextualisation of their evaluation criteria and principles.

Use mixed methods that integrate climate risks

Climate change and variability can result in risks to sustainable development activities and risks from sustainable development activities to people and the environment. Addressing both requires creative, mixed methods that are both retrospective — considering what has worked — and forward-looking — assessing what will continue to work in the future.

Many innovative methods based on the use of remote sensing and geospatial observation have recently emerged and gained international buy-in and institutional traction. In 2017, the UN launched a System for Environmental Economic Accounting. This aims to advance both the knowledge agenda and the development of policy applications of environmental-economic accounting.[7] More than 90 countries are working on systems for producing natural capital accounts (NCAs) that are compatible with their systems of national accounts. These aim to track the changing stocks of natural capital and benefit flows from forests, fisheries, farmland, water bodies and protected areas. Additionally, NCAs can estimate both economic and environmental performance of specific policies and programmes by tracking their effects on policies and fiscal measures in light of risks and uncertainties caused by climate change. The use of innovative methodologies like NCA and remote-sensing data can help evaluators identify the risks and effects of climate change for eco-forecasting, predict land cover changes, monitor marine environments, and assess the effects of environmental disasters and risks such as drought and flooding.

Box 2. Five types of climate risks to and from sustainable development activities

1. **Risks to implementation and outputs:**
   - Damage to or destruction of infrastructure
   - Reduced access to or availability of critical resources
   - Reduced access to target areas and populations, and
   - Delayed implementation and increased costs.

2. **Risks to intended outcomes:**
   - Declines in the availability of key resources such as water, productive land, flora and fauna, and
   - Increases in hazard frequency and/or intensity so that infrastructure maintenance becomes economically unviable, or economic activities become too risky.

3. **Risks to vulnerable groups:**
   - Reduced access to key resources and assets (including dry season grazing, alternative food and livelihood sources) resulting from displacement, land enclosure/privatisation, exclusion from conservation areas and urbanisation
   - Exclusion from the benefits of development initiatives due to capture by local elites, and
   - Increased exposure and vulnerability or constrained adaptation options (such as from displacement to places where hazards are severe or resources scarce).

4. **Risks to vulnerable environments:**
   - Increased environmental stress, degradation, fragmentation or increased emissions.

5. **Risks from systemic 'maladaptation':**
   - Dependence on resources, systems or activities that are not viable in the long term, and
   - Locking in of systems and behaviours that undermine necessary transitions.

To improve evaluation design, evaluators must identify which types of climate risk are most relevant to the context of the intervention, its intended outcomes and the associated timeframes. Commissioners and decision makers can ensure such guidance is provided in evaluation policies, strategies and terms of reference, for example using the proposed typology of climate risks in Box 2, to consider how climate change affects sustainable development activities and how these activities impact people, systems and the environment.

Identify the right data

Appropriate data are critical for understanding climate risks (see Box 2), addressing the complexities of sustainable development and designing successful interventions. Commissioners and decision makers must invest in data provision from diverse sources in evaluations, with particular attention to local voices and lived experiences.

Most evaluations will triangulate results by using both quantitative and qualitative data in a mixed-methods design. This combination of sources can improve evaluations by ensuring that the limitations of one type of data are balanced by the strengths of another. Specific consideration should be given to the proliferation of geospatial observation and remote sensing environmental data, which have become widely and freely accessible via the coordinated efforts of geospatial institutions. For example, the platform Global Earth Observation System of Systems (GEOSS) has created a set of coordinated and interacting Earth observation and processing systems that provide access to diverse information for climate monitoring and adaptation, disaster risk management and eco-land forecasting. These types of data can be used also by evaluators to predict climate scenarios and assess the future

fit of interventions. Actors can learn more about these new types of data and methods thanks to new capacity-development programmes launched by prominent geospatial agencies, such as the online Applied Remote Sensing Program (ARSET) led by NASA, or online training sessions developed by the Copernicus programme of the European Union.

Enable learning for adaptation

Without appropriate dissemination and learning, there is only limited potential for positive adaptation and improvement in interventions. Generating lessons is a crucial part of evaluations, yet the most overlooked step in practice.[8]

To address what will work in evaluations, commissioners and decision makers must commit to learning that can inform subsequent policy, planning and programming across all levels of decision making.

By supporting a dynamic system of improvement, innovation and impact across the policy cycle, learning enables decision makers to adapt interventions to new circumstances as implementation advances. This is vital for delivering transformational changes in governance, behaviour, resource management and economic systems to confront the climate crisis, improve resilience and avoid maladaptation.[9]

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Knowledge Products

Notes

[1] Masson-Delmotte, V, Zhai, P, Pirani, SL, Connors, C, Péan, S, Berger, N, Caud, Y, Chen, L, Goldfarb, MI, Gomis, M, Huang, K, Leitzell, E, Lonnoy, JBR, Matthews, TK, Maycock, T, Waterfield, O, Yelekçi, R, Yu, K and Zhou, B (eds), IPCC (2021) Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. www.ipcc.ch/report/sixth-assessment-report-working-group-i / [2] Deaton, A and Cartwright, N (2018) Understanding and misunderstanding randomized controlled trials. *Social Science and Medicine* 210, 2–21. https://doi.org/10.1016/j.socscimed.2017.12.005 / [3] Beauchamp, E, Marsac, C, Brooks, N, D'Errico, S and Benson, N (2022) From what works to what will work. Integrating climate risks into sustainable development evaluation — a practical guide. IIED, London. http://pubs.iied.org/21026iied / [4] OECD (2019) Better Criteria for Better Evaluation: Revised Evaluation Criteria Definitions and Principles for Use. www.oecd.org/dac/evaluation/revised-evaluation-criteria-dec-2019.pdf / [5] Brooks, N, Anderson, S, Aragon, I, Smith, B, Kajumba, T, Beauchamp, E, D'Errico, S and Rai, N (2019) Framing and tracking 21st century climate adaptation: Monitoring, Evaluation and Learning for Paris, the SDGs and beyond. IIED, London. http://pubs.iied.org/10202iied / [6] D'Errico, S, Geoghegan, T and Piergallini, I (2020) Evaluation to connect national priorities with the SDGs: A guide for evaluation commissioners and managers. IIED, London. https://pubs.iied.org/17739IIED / [7] See: https://seea.un.org/home/Natural-Capital-Accounting-Project / [8] Pringle, P (2020) Why Learning is Essential for Climate Adaptation Monitoring and Evaluation. NAP Global Network. https://napglobalnetwork.org/2020/12/why-learning-is-essential-for-climate-adaptation-me/ / [9] Eriksen, S, Aldunce, P, Bahinipati, CS, Martins, RDA, Molefe, JI, Nhemachena, C, O'Brien, K, Olorunfemi, F, Park, J, Sygna, L and Ulsrud, K (2011) When not every response to climate change is a good one: Identifying principles for sustainable adaptation. *Climate and Development* 3(1), 7–20. https://doi.org/10.3763/cdev.2010.0060 / [10] Kariuki, GM, Njaramba, J and Ombuki, C (2020) Maize output supply response to climate change in Kenya: An econometric analysis. *European Scientific Journal* 16(3) 63–63. https://doi.org/10.19044/ESJ.2020.V16N3P63