Briefing

Climate change; Policy and planning

Keywords:
Monitoring and Evaluation (M&E), public policy response, climate resilience, Sustainable Development Goals (SDGs)

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EVAL SDGs "EVALUATION TOWARDS "THE WORLD WE WANT"

DEval GERMAN INSTITUTE FOR DEVELOPMENT EVALUATION

Issue date
September 2020

Policy pointers

Responses to COVID-19 demonstrate that governments can act decisively and rapidly based on scientific and evaluative evidence; this show of political will offers lessons for improving policy responses to the climate crisis.

Governments can use evaluations to integrate complex evidence into decision making and plan according to different scenarios, enabling better policy design for uncertain futures.

Using evaluations and learning allows policymakers to make sense of changing contexts, avoid unintended consequences and adapt interventions as they occur.

Evaluations can generate recommendations and engagement that support large-scale behaviour change, which is critical to respond to climate risks and progress the Sustainable Development Goals.

The climate crisis: four ways evaluations can strengthen policymaking

The handling of the COVID-19 crisis has shown that governments can take prompt evidence-based actions to protect people, livelihoods and the economy. The political will to implement drastic policies during the pandemic provides a benchmark for progressive actions to accelerate and strengthen responses to another crisis: climate change. Governments must learn from the policy gaps exposed by COVID-19 to establish better processes for using science and evidence. Applying evaluation approaches throughout policy cycles, from planning to implementation, can achieve systematic, integrated responses to climate policy; policies capable of considering different scenarios and absorbing complex evidence. Evaluations can also promote accountability and learning to identify socially just solutions and transformational approaches to addressing climate change. This briefing outlines four key ways in which evaluations can accelerate progress towards effective climate policy.

In 2020, the COVID-19 pandemic hit the world on an unprecedented scale. Within weeks, countries adopted entirely new international and national policies to address the crisis, including closing borders, banning non-essential travel and quarantining entire populations. The costly actions taken in response to the pandemic show that governments are able to enact prompt and drastic evidence-based actions across sectors to mitigate public health threats and save lives.

As countries continue to manage the ongoing impacts of COVID-19, governments are also preparing their next set of policies for building more resilient societies; policies that not only address future global health emergencies but are also aligned with the ongoing climate crisis. While evidence of climate change abounds, the political and social accountability needed to drive accelerated responses to the crisis has failed to materialise. Most governments are yet to propose (let alone implement) innovative and effective policies to build more resilient societies and systems that can better anticipate, adapt to and recover from shocks and changes in a fair and equitable manner.

The pandemic has highlighted the role of — and gaps in — the use of science to support difficult policy choices in times of crisis. It has also emphasised the importance of global, national and localised evidence in shaping policies that can best address varied challenges in different contexts. While good practices for evaluations are well-established in theory, integration of these practices and lessons in policy cycles remains rare and is usually project-based. As the world designs new policies and processes to help rebuild healthier and

more resilient societies, we explore four ways in which evaluations can support this process to accelerate progress in addressing the climate crisis and supporting sustainable development in general.

Evaluations can play a key role in designing what resilient societies look like, by providing spaces to understand complexity, learn and adapt better

Integrate different approaches to produce evidence in complex settings

Climate change affects all sectors of society; responses must address not just the environment but also poverty, livelihoods, health, food security and other factors. Additionally, climate programmes must be designed to affect outcomes over generations, adding to their complexity. To make sense of all this, policymakers must use a range of evaluation methods, integrating different types of data and using multiple methodologies. Evaluations can shed light on the processes by which outcomes are attained and provide an understanding of results achieved, beyond just the measurement of indicators and targets. This helps to point to solutions that are relevant to the specific situation and more likely to be sustainable.

Evaluations that assess the effectiveness of interventions and policies can help identify good practices and lessons learned from past mistakes, showing us what works, how and for whom within certain circumstances.[1] This knowledge is critical to designing effective new interventions. Yet because crises tend to unfold in unpredictable ways, previous data and experiences are only one of many evidence sources that should inform future policy. Policymakers must integrate evaluation approaches that look back, as well as predictive (or anticipatory) ones, into plans for climate interventions, to help anticipate shocks and pre-empt their impacts.

Within evaluation processes, various approaches can be used to conceptualise and explore what the future may look like.[2] **Conceptual models**, such as theories of change, can help anticipate how an intervention will play out from input to impact. With ongoing monitoring, this approach can help anticipate risks, plan for appropriate strategies and identify when interventions lead to unexpected outcomes.

Mechanistic models, such as global climate model simulations, can help policymakers predict how socio-ecological systems would respond to new circumstances and design policies accordingly.[3] This includes, for example, predicting habitat loss and sea level rise according to different emission trajectories.

All anticipatory approaches come with a degree of uncertainty and policymakers should be aware that policies should not be based on a single prediction of the future. Ensuring that **scenarios** form part of intervention design and assessment, along with related adaptation and mitigation strategies, is an important step in planning for the climate crisis.[4]

Individual behaviour is another important element for national and local authorities to factor in when designing policies to mitigate and adapt to the climate crisis. Empirical data showing how people anticipate changing according to different scenarios, or more sophisticated **agent-based models**[5] (which can capture the behaviour of individuals within an environment), are especially useful to demonstrate the potential impacts of different policy decisions.[6] **Expert knowledge** is another important evidence source that must be integrated into evaluations of the best options during crises, especially when limited evidence is available.

Improve policy coherence and cooperation across scales and sectors

Planning interventions to address global crises is challenging because actions and impacts go beyond national boundaries and affect all sectors. For example, a country's decision to open or close borders during the pandemic can affect neighbouring countries' public health, economy and mobility. Similarly, climate action (or inaction) in one country affects global levels of emissions. While policies remain primarily bound within a country or sector, evaluations help make regional and global cooperation possible by providing common metrics and guidelines for incorporating climate in a systematic approach.[7]

Effective implementation of strategies across all sectors depends on policy coherence and cooperation at all levels of society and across sectors. This is why evaluating whether the impacts of different policies are together reinforcing, neutralising or even negatively affecting their intended results is key.[8] This type of evaluation can help assess the predicted impacts of policies across different groups and sectors, and determine how we can achieve win-win situations and multiple benefits, for example meeting targets for both mitigation and adaptation (see Box 1). Another example would be renewable energy: by providing both a low carbon and low pollution solution to energy needs, this intervention contributes to better health and to resilient livelihoods.

Evaluations can also point out the trade-offs between different places, people and time. For example, policies aimed at improving food

security for populations in the face of climate change can lead to adverse effects for biodiversity in the short- and long-term. An appropriate policy to increase food supply would need to balance agricultural expansion or intensification with the potential risks of increased deforestation or of biodiversity loss. Governments must evaluate trade-offs in impacts specific to the socio-ecological environment that the policy seeks to target.[9]

As we address issues critical to climate change, policymakers must also ensure that climate interventions are aligned with national and regional development priorities.[10] Recognising and addressing trade-offs between sectors is particularly relevant for progressing and evaluating the Sustainable Development Goals (SDGs), in line with the universality principle of Agenda 2030: 'all countries have a responsibility to address global problems, their responsibility should reflect their level of contribution to the problem and their capacity to contribute'. To meet this expectation, providing coherent responses to the climate crisis entails systematically accounting for climate risks and uncertainties across sectors (see Box 2).

Promote flexible policies and learning for sustainable solutions

The COVID-19 crisis has shown that governments can successfully implement socially unpopular measures for a certain period in the interest of public wellbeing. However, having the buy-in of a critical mass is also necessary for sustainable and resilient solutions. Governments must engage with the public to understand their experiences and reflections on climate evidence. More systematic and inclusive use of evaluations, and of their results, can make climate evidence more accessible to the public and help develop policy solutions that are better targeted at people's daily realities.

Given the extent of changes required to stabilise the global climate, policymakers must engage with all levels of society to design resilient and sustainable policies. While top-down policies often fail to accurately capture what works on the ground and for whom, evaluations can highlight success factors and challenges across different contexts and help identify transformational results. Governments can address this by engaging key and representative stakeholder groups in evaluations that catalyse learning from previous experiences. Engaging different groups to interpret evidence on what is working helps to create long-term appropriate solutions to adapt and transform our environments and behaviours, while increasing the transparency of the policy process.[11] This has already been applied in Finland: the government used participatory workshops,

Box 1. Why evaluate mitigation and adaptation policies together?

Countries, policymakers and practitioners use two core strategies to address climate change: mitigation and adaptation.[14] They are currently treated as two separate policy types within international negotiations and financing mechanisms, yet robust actions under both strategies are necessary to tackle the climate crisis. Effective climate planning must integrate and evaluate mutual benefits and trade-offs of both strategies at the design stage to be successful, while also considering the effect on sustainable development priorities.[15]

Evaluations can assess the performance and approaches of both mitigation and adaptation strategies, towards specified outcomes, simultaneously. For example, the Mitigation Action Plans & Scenarios programme (MAPS; http://mapsprogramme.org) uses evaluation tools and methods including 'probabilistic models' (based on the theory of probability and multicriteria decision analysis, or 'MCDA'). These approaches can assess multiple, conflicting criteria to develop climate change mitigation policies that also focus on adaptation through economic development and poverty alleviation.[16] MAPS originated in South Africa and now supports government-mandated processes in Brazil, Chile, Colombia and Peru.

Box 2. Example from Latin America — Costa Rica's evaluation of climate and biodiversity funding

Over the last decade, Costa Rica has received considerable international assistance for climate change mitigation, adaptation and biodiversity conservation, supporting the country's pursuit of a low-carbon green development agenda. As part of its National Evaluation Agenda, Costa Rica is currently evaluating its management of the overseas development aid and whether the funding has met its objectives.

The exercise, one of the few country-led evaluations of overseas development aid in Latin America, is being led by Costa Rica's Ministry for Planning and Economic Policy (Mideplan) with the involvement of the Ministry of Environment and Energy. The evaluation is supported by DEval, the German Institute for Development Evaluation, via its FOCELAC project.[17]

As a first step, Mideplan created a comprehensive database of interventions funded by international donors on biodiversity and climate change. This provided a detailed cross-sectoral overview, facilitating the inclusion of sectoral representatives in the evaluation's technical steering committee. In light of COVID-19-related travel restrictions, the steering committee asked the consulting team to identify and adopt novel methods for data gathering. These included online focus groups and virtual meetings, adapted interview techniques and digital surveys, working with two skilled local evaluators to limit travel.

Costa Rica's evaluation aims to share learnings and practices across Latin American countries on approaches for analysing and improving how funding for climate change, biodiversity and the wider SDGs are allocated. With this aim in mind, a parallel learning process (the 'systematisation' approach[18]) has been set up. This multi-stakeholder engagement approach aims to extract lessons from ongoing learning experiences and use them to:

- Inform evaluations and policies as they are developed
- Generate collective evidence
- Enhance governance mechanisms through which limited cooperation funds are channelled.

advisory groups and interviews to engage with different stakeholders and understand their varying interests across a range of policy solutions related to national sustainable development priorities.[10]

Planning for engagement and learning moments is critical; this informs new actions and evidence that can then be incorporated into rapid responses to unexpected events and crises. This process enables **adaptive management**, an approach in which iterative decision making taken in the face of uncertainty is monitored, assessed and reviewed for learning, to adapt and improve interventions over time. Evaluations such as multicriteria decision analysis can also help move from firefighting responses to systematically structuring adaptation processes to assess new elements of a crisis. They allow interventions and stakeholders to adapt as situations occur, making sense of changing contexts and avoiding unintended consequences.

Help identify opportunities for socially just transformation

Like the pandemic, the climate crisis exacerbates inequalities between and within communities, countries and regions.[12] But while the impacts of climate change are increasingly felt by the most vulnerable people and communities, their voices are the least heard in high level policy dialogues. To achieve the targets set by SDG13 (action on climate change), climate policy responses must achieve ambitious mitigation and adaptation goals in equitable ways. This will challenge current social dynamics.

Robust evaluations can help promote mutual accountability, from policymakers and local stakeholders, in terms of how they fulfil their roles in achieving climate and development outcomes.

Evaluations must include multiple evidence types if they are to support a fair judgement of the value of the policy or intervention being assessed. In this sense, evaluations can help to clearly define and assess 'what good means' based on the ethos of the original objectives. For example, climate actions and their related evaluation systems can follow the principles embedded in the Paris Agreement, such as being participatory and transparent.[13] In pursuit of coherence between agendas, climate policies should adhere to the values entrenched in sustainable development's Agenda 2030, such as universality.[6]

Conclusion

Evaluations can play a key role in designing what resilient societies look like, by providing spaces to understand complexity, learn and adapt better. Embedding evaluative processes is also critical to maintain or introduce adaptive management in policy planning; this approach helps to adjust interventions to new shocks and crises. Going forward, policymakers can use evidence-based processes and evaluations to collectively reflect on opportunities for global societal transformation and shape a new era of human interactions. The proactive use of evaluations can generate recommendations and engagement to support large-scale behaviour change to respond to climate risks and make progress across the SDGs.

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The authors would like to thank Ericka Valeria of Mideplan for her contribution to the content of Box 2.

Notes

[1] Pasanen, T and Barnett, I (2019) Supporting adaptive management: Monitoring and evaluation tools and approaches. ODI, London. / [2] Travers, H, Selinske, M, Nuno, A, Serban, A, Mancini, F, Barychka, T, Bush, E, Rasolofoson, RA, Watson, JEM and Milner-Gulland, EJ (2019) A manifesto for predictive conservation. *Biological Conservation* 237, pp. 12–18. doi: 10.1016/J.BIOCON.2019.05.059. / [3] Hayhoe, K, Edmonds, J, Kopp, RE, LeGrande, AN, Sanderson, BM, Wehner, MF and Wuebbles, DJ (2017) Chapter 4: Climate models, scenarios, and projections. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. U.S. Global Change Research Program, Washington, DC, USA, pp. 133–160. / [4] Arnell, NW, Lowe, JA, Bernie, D, Nicholls, RJ, Brown, S, Challinor, AJ and Osborn, TJ (2019) The global and regional impacts of climate change under representative concentration pathway forcings and shared socioeconomic pathway socioeconomic scenarios. *Environmental Research Letters* 14(8), p. 084046. / [5] Bonabeau, E (2002) Agent-based modeling: Methods and techniques for simulating human systems. *Proceedings of the National Academy of Sciences* 99(SUPPL. 3), pp. 7280–7287. / [6] An, L (2012) Modeling human decisions in coupled human and natural systems: Review of agent-based models. *Ecological Modelling* 229, pp. 25–36. / [7] Barrett, S, Anderson, S and Nebsu, B (2020) How can standardised evaluation metrics increase climate resilience? IIED, London. pubs.iied.org/17745IIED / [8] Singh, GG, Cisneros-Montemayor, AM, Swartz, W, Cheung, W, Guy, JA, Kenny, T-A, McOwen, CJ, Asch, R, Geffert, JL, Wabnitz, CCC, Sumaila, R, Hanich, Q and Ota, Y (2018) A rapid assessment of co-benefits and trade-offs among Sustainable Development Goals. *Marine Policy* 93, pp. 223–231. / [9] UNEP (2019) UNEP Frontiers 2018/19. Emerging Issues of Environmental Concern: Maladaptation to Climate Change. https://bit.ly/2X6cc6G / [10] D'Errico, S, Geoghegan, T and Piergallini, I (2020) Evaluation to connect national priorities with the SDGs. IIED, London. pubs.iied.org/17739IIED / [11] Van Epp, M and Garside, B (2016) Solving 'wicked' problems: can social learning catalyse adaptive responses to climate change? IIED, London. pubs.iied.org/17390IIED / [12] Hanif, N (5 May 2020) Build back better with risk-informed development cooperation. www.devinit.org/blog/build-back-better-risk-informed-development-cooperation / [13] 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. IIED, London. pubs.iied.org/10202IIED / [14] Mitigation that includes interventions to reduce the emissions sources or enhance the storage of greenhouse gases, for example reducing deforestation and controlling industrial emissions. Adaptation includes interventions and 'adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities'. / [15] Uitto, JI, Puri, J and van den Berg, RD (2017) Evaluating Climate Change Action for Sustainable Development: Introduction. In: *Evaluating Climate Change Action for Sustainable Development*. Springer International Publishing, pp. 1–12. doi: 10.1007/978-3-319-43702-6_1. / [16] Cohen, B, Blanco, H, Dubash, NK, Dukkipati, S, Khosla, R, Scrieciu, S, Stewart, T and Torres-Gunfaus, M (2019) Multi-criteria decision analysis in policy-making for climate mitigation and development. *Climate and Development* 11:3 pp. 212–222. / [17] For more information on DEVal's FOCELAC project (Fomento de capacidades en evaluación en Latinoamérica), see: www.deval.org/en/projekt-focelac-kopie.html / [18] See for example: 'Shared learning and participatory evaluation: The sistematización approach to assess development inverventions' by Tapella and Rodríguez-Bilella (2014).

Knowledge Products

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DEval is the German Institute for Development Evaluation; through its evidence-based evaluations and related work, the institute aims to increase the impact of German development cooperation and thereby to enhance its legitimacy.

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ISBN 978-1-78431-825-3

This briefing was developed in partnership between IIED and EVALSDGs, and funded by EVALSDGs.