IPAM Statement on Adaptation Metrics for Global Goals

Contributors

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1. The Importance of Metrics in Adaptation

The International Platform on Adaptation Metrics (IPAM) is dedicated to the proper and effective use of metrics to support adaptation to climate change and, as our website states, "The formulation of standardized adaptation metrics is one of the great trans-disciplinary challenges of our time."

Broadly, there are two uses for metrics:

- At all spatial levels - subnational, national, and global - metrics are required to track progress towards meeting adaptation goals.
- At the level of projects and programs, metrics are used to track the effectiveness of specific interventions aimed to meet the above goals. This allows investors, implementers, and stakeholders to improve performance and to select the most appropriate interventions. IPAM views project adaptation metrics as an important challenge.

This statement focuses on metrics for global goals.

NOWHERE IS THIS CHALLENGE MORE CRITICAL THAN IN THE DEVELOPMENT OF A SUITE OF METRICS FOR THE GLOBAL GOAL ON ADAPTATION AND FOR THE GLOBAL STOCKTAKE AS REQUIRED BY THE PARIS AGREEMENT TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC). OTHER GLOBAL GOALS, SUCH AS THE SUSTAINABLE DEVELOPMENT GOALS, AND THE SENDAI FRAMEWORK ON DISASTER RISK REDUCTION, ALSO INCLUDE ADAPTATION. HAVING COMMON METRICS THAT SPAN THE GLOBAL GOALS IS IMPORTANT TO SUPPORT POLICY COHERENCE AND MINIMIZE REPORTING BURDENS.

BOX 1: DEFINITION OF METRICS

> *Metrics refers to a group of values (measures) that taken together give a broader indication of the state or the degree of progress to some desired state (IPCC, p.837). IPAM defines adaptation metrics as "the group or groups of values that give an indication of the degree of progress towards adjustment to climate and its effects."*

2. Categories of Metrics

To measure the effectiveness of adaptation, there needs to be a comprehensive assessment of actions that are being undertaken and what difference they are making. A logic model comprising five main components can be helpful in assessing the effectiveness of adaptations (as well as other measures). The components will have different degrees of relevance; for example, tracking at the regional level compared with analyzing the effectiveness of specific interventions. The five components are:

- ***Context****:* This includes: the current climatology and expected changes; current resources; and the capacity of human and natural systems.
- ***Inputs:*** Labor, technical expertise, funds, equipment, and activities. These represent the 'enabling conditions.

- ***Outputs:*** The products, capital goods and services which result from development interventions (OECD-DAC[1]).
- ***Outcomes*:** The likely or achieved short-term and medium-term change and effects of intervention outputs (OECD-DAC).
- ***Impact:*** Positive and negative, primary and secondary, long-term effects produced by development interventions (OECD-DAC).

The relevance of each component differs across scales. For example, at the project level, a focus on outcomes is most feasible while global metrics tend to track inputs and outputs due to data constraints.

IPAM recommends taking a sequenced approach - initially emphasizing inputs while building capacity to assess outcomes over time. But the end goal should be for global adaptation metrics to reflect all components, demonstrating vulnerability reduction. This requires long-term partnership across data providers, technical experts and policymakers.

The following examples illustrate why measuring across input-to-impact is necessary to fully capture adaptation effectiveness – both context-specific interventions and system-wide change are crucial. A robust metrics system tracks progress across this logic chain.

BOX 2: EXAMPLES OF LOGIC MODELS FOR ADAPTATION-RELEVANT INTERVENTIONS

	Flood-resistant seed variety program	**End-to-End Early Warning Systems**
Context	Frequent flooding and drought, with most vulnerable farmers on riskiest land	Infrastructure exposure; vulnerable populations
Inputs	Research on resilient seeds; testing; partnership building for dissemination	Investment in sensors, communication systems, capacity building
Outputs	Farmers adopt flood/drought-resistant seed varieties	Operating forecasting, warning communication flows
Outcomes	Higher and stable crop yields after climate extremes	Early actions by communities minimize climate hazard damages
Impacts	Increased farmer incomes and food security; reduced poverty	Lower economic losses; reduced mortality and morbidity

A comprehensive adaptation metrics system will measure aspects of all these components.

Metrics should have the following attributes:

- ***Identification with Climate Change Adaptation:*** Metrics need to clearly demonstrate progress on adapting to climate change and that implemented adaptation measures are reducing human and ecosystem vulnerabilities. This might be through reducing exposure or sensitivity of systems to climate risks so that they can be better absorbed or avoided by systems; or by enhancing adaptive capacity so that systems can proactively respond to climate impacts, such as making them more resilient or capable of changing.

[1] OECD. 2023. "What Are Results?" Organization for Economic Cooperation and Development. https://www.oecd.org/dac/results-development/what-are-results.htm. Accessed: November 13, 2023.

- ***Wide applicability:*** Metrics should be applicable across all nations, particularly in developing countries, using data that can be readily collected, while accounting for differing national contexts, data environments, and capacities. Where appropriate, international organizations such as the UNFCCC Secretariat, UNDP, UNEP, and donor nations should provide technical and financial assistance to enable all countries to be able to develop, record, and report metrics.
- ***Scalable, comparable, and aggregable:*** *Metrics should, where possible, be applicable at different scales ranging from global to local - even household - levels in some cases. They should allow for comparison across different locations and scales and be aggregatable so results can be summed up at national, sub-continental, continental, and global levels and disaggregated from global and continental to national and sub-national scales.*

3. Aligning Adaptation Metrics to Serve Global Adaptation Goals

IPAM welcomes the UNFCCC Global Goal on Adaptation and the Global Stocktake (GGA and GST), which will take place during COP-28 in The United Arab Emirates. Among other relevant activities, the UNFCCC Secretariate convened a "Technical Dialogue of the First Global Stocktake."2 IPAM welcomes the dialogue's report submission, which should promote a constructive dialogue on the GST leading up to the COP. On adaptation, the Technical Dialogue report mentions the measurement of adaptation planning including mainstreaming, finance, and climate information. IPAM supports the development and application of metrics regarding these measures—all necessary measures which will support development and implementation of climate-related adaptation.

However, IPAM is concerned that the focus of the GGA and GST appears to be primarily on inputs to the adaptation process (such as recording the existence of adaptation plans or amounts and distribution of adaptation finance). While this focus may be helpful in the short term, in the long run, metrics for global goals also need to measure outputs, i.e., the adaptations that are being implemented and ultimately the effect of those outputs on outcomes such as human health, the economy, distribution of impacts, and natural ecosystems. A comprehensive system of metrics is required to measure the effectiveness of adaptation needs to assess all of these areas – inputs, outputs, outcomes, and impacts – in order to provide relevant information on the progress that adaptation measures are making towards meeting Sustainable Development Goals, the Sendai Framework, and a number of other global initiatives with linkages to adaptation.

4. IPAM's Technical Collaboration Plan on Global Adaptation Metrics: IPAM's Proposed Work Program

IPAM proposes to support the GGA and GST, along with other global adaptation frameworks over the 2020s through a program of analytical work. IPAM is a member-led group of Southern and Northern experts with the aim of serving as an international reference platform for adaptation metrics. IPAM

[2] UNFCCC. "Technical dialogue of the first global stocktake: Synthesis report by the co-facilitators on the technical dialogue." United Nations Framework Convention on Climate Change. Subsidiary Body for Scientific and Technological Advice and Subsidiary Body for Implementation. FCCC/SB/2023/9. 8 September, 2023.

does not represent any party, industry, or set of stakeholders or initiatives, besides the promotion of improving adaptation metrics. It created the Adaptation Metrics Mapping Evaluation Framework (AMME)[3] to support the robust and transparent development and evaluation of metrics and metrics frameworks.

In addressing the many and varied needs for global scale adaptation metrics, IPAM proposes a coordinated and flexible program of analytical work in conjunction with other initiatives that are considering adaptation metrics that serve global adaptation decision making. IPAM has already started work critiquing metrics framework options, analyzing metrics considerations in agriculture, water, and cities, and has outlined potential boundaries in metrics between adaptation and loss and damage. It is actively supporting various global work programs including, amongst others the GST Technical Dialogue, the Race to Resilience, and the Adaptation Research Alliance.

IPAM envisions working together with other parties in intensifying and making its global metrics efforts more systematic. The work program could adopt the following process:

- Identify and convene a group of stakeholders to look specifically at metrics in the GST and GGA as defined at COP 28.
- Analyze gaps and opportunities for complementing other initiatives in analytical work that considers metrics for global goals.
- Review global metrics frameworks and approaches at different scales that could be applied to global goals such as:
    - Country targets and supporting metrics to consider bottom-up approaches, especially output and outcome-based metrics.
    - Sectoral targets, such as the GAP-Track Initiative[4] coastal pilot
    - Private sector/investment approaches and taxonomies such as the Race to Resilience Metrics Framework and Adaptation for the Climate Bonds Initiative.
    - Projects: explore, for instance, applicability for metrics aggregation, and metrics supporting climate rationales for funding and national reporting

The work program would advance in reference to and along with the broader international process of accessing progress through to after the 2nd Global Stocktake in 2028.

To advance IPAM's proposed work plan, partnerships with technical, political, and funding groups will be key and a consensual governance structure will be required.

[3] International Platform on Adaptation Metrics (2021). AMME Framework: Adaptation Metrics Mapping Evaluation. V 1.1. Rabat, Morocco. Available online at: https://adaptationmetrics.org/sites/AMME-Framework.pdf

[4] See 'Assessing global progress on climate adaptation: GAP-Track' available at https://www.iddri.org/en/project/assessing-global-progress-climate-adaptation-gap-track

About IPAM

The International Platform on Adaptation Metrics (IPAM) was launched in 2020 as the culmination of adaptation metrics convenings launched by the Moroccan Presidency of Conference of Parties to the UN Framework Conventions on Climate Change (COP22). IPAM currently includes 15 Member Organizations and 103 individual experts from 32 countries in 4 continents.

The aim of IPAM is to serve as an international reference platform for adaptation metrics. It seeks to co- develop metrics and tools in response to emerging adaptation needs, and IPAM also to create synergies among its members. IPAM structures its work in dedicated sector-oriented committees such as agriculture, cities, and water. It also addresses challenges such as cross-sectoral metrics harmonisation, and the identification and application of appropriate techniques and tools for metrics.

IPAM actively welcomes collaboration with organizations at all levels - UN bodies, national statistics offices, NGOs, research institutes - to jointly advance work on adaptation metrics.

For further information:

Please visit adaptationmetrics.org or contact the IPAM Secretariat at: ipam@aaainitiative.org

5. ACKNOWLEDGEMENTS

The contributors to this policy paper are all individual IPAM members.

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work mainly involves quantitative analysis and metrics. He has been serving as lead author and reviewer in climate related assessment reports such as IPCC, UCCRN-ARC3.3, and IPBES.

Dr Paul Forte is based in the UK and has worked as an independent consultant and academic primarily in the field of planning and management for health and social care. 'Whole system' thinking and approaches underpin his thinking and work and, in recent years, he has extended this to the field of climate change adaptation metrics. Together with Karl Schultz, he has developed the AMME Framework for adaptation metrics evaluation.

Karim Anegay has more than 20 years of international field experience as a zoologist/ecologist He served as a coordinator for the Scientific Committee of CoP22 in 2016-2017, and organized since then four international conferences in Morocco dedicated to Adaptation Metrics, on behalf of COP22 and GiZ He now serves as IPAM secretariat

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