

# Peru's Roadmap to Develop and Operationalize Its Monitoring and Evaluation System for Adaptation



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## Key Messages

- Peru's national adaptation plan (NAP) includes 84 adaptation measures, each with associated indicators and goals to assess both the progress and the effectiveness of climate change adaptation.
- A key feature of Peru's monitoring and evaluation (M&E) system is the synergy and strong alignment between the NAP, nationally determined contribution (NDC), and other national climate change adaptation policies. The priority adaptation measures in the NAP were developed based on the country's NDC.
- To guide the development and operationalization of a national M&E system for adaptation, Peru has created a detailed roadmap for M&E, divided into four phases and focused on seven sectors: water, agriculture, fisheries and aquaculture, forest, health, tourism, and transport.

## Introduction

Peru launched its first NAP in 2021. It serves as the primary tool to guide climate change adaptation efforts and reduce associated risks and vulnerabilities for the benefit of its people, nature, and economy.

Peru is particularly vulnerable to climate change due to its diverse geography, which includes the Amazon rainforest, Andean mountains, and a long Pacific coastline. Alongside this biological diversity, the

country is also exposed to a range of climate change impacts that are already visible, such as glacial retreat, droughts, floods, landslides, and increases in vector-borne diseases like dengue, among others.

The 2021 NAP document included five priority sectors: health, water, agriculture, fisheries and aquaculture, and forestry. In subsequent years, tourism and transport were added as priority sectors in Peru's NAP process, expanding the total to seven sectors. These areas are critical due to their direct impact on Peru's socio-economic stability and ecological balance. The NAP is structured around three cross-cutting priorities: gender, intercultural equity, and intergenerational equity, recognizing the importance of inclusive and equitable adaptation. It sets out three primary objectives and 84 adaptation measures in the priority sectors.<sup>1</sup>

Peru is developing an M&E system to systematically track the progress and effectiveness of its climate change adaptation measures. A key feature of this system is

### Box 1. Peru's NAP at a glance

**Time horizon:** 2030 and 2050

**Lead ministry:** Ministry of Environment

**Priority sectors:** Health, water, agriculture, fisheries and aquaculture, forestry, transportation, and tourism

**Number of identified priority adaptation measures:** 84

its strong alignment between the NAP, the NDC, and other national climate policies. Indicators have been identified for each measure based on the NDCs, and the NAP guides their implementation toward Peru's adaptation goals for 2030. This process supports both short-term objectives and a long-term vision for 2050 as outlined in the country's Long-Term Strategy. By aligning adaptation actions with national and international commitments under the Paris Agreement, the M&E system provides essential feedback for continuous improvement.

## Roadmap for an M&E System for Adaptation

Creating a roadmap to guide the development and implementation of a monitoring, evaluation, and learning (MEL) system for national adaptation is considered good practice for effective planning (Beauchamp et al., 2024). This approach ensures that the entire process, which often takes years, is both participatory and inclusive, actively involving stakeholders and strengthening their capacities along the way. By breaking the process into smaller, manageable phases, the roadmap also allows

for a more structured approach to securing funding, as different stages can be supported by various funding sources. This phased strategy helps make the overall development more achievable and sustainable.

Peru's Directorate for Adaptation to Climate Change and Desertification within the Ministry of Environment (Ministerio del Ambiente, or MINAM), which leads the NAP process, conceived a roadmap in accordance with the following:

<sup>1</sup> The 2021 NAP document includes 92 adaptation measures, but this number was later revised to 84 in 2023.

Furthermore, the requisite measures pertaining to the tourism and transport sectors have not yet been formally introduced or presented.

- The **Regulations of the Framework Law on Climate Change**, which mandates the creation of a System for the M&E of Adaptation and Mitigation Measures, coordinated with the National Environmental Information System and other monitoring systems. This law is a cornerstone of Peru’s climate policy, establishing legal frameworks and responsibilities for addressing climate change (Government of Peru, 2021a).
- The **National Competitiveness and Productivity Plan** (2019–2030) of the Ministry of Economy and Finance, which in its Priority Objective 9, outlines goals for the

operationalization of the M&E platform for adaptation and mitigation in the NDC. This plan aims to enhance Peru’s economic resilience and sustainability by integrating climate adaptation measures into national productivity strategies (Government of Peru, 2021b).

The roadmap outlines a process divided into four well-defined phases (see Figure 1):

1. The **Analysis** phase is intended to identify the requirements for the M&E system for adaptation. This includes stakeholder consultations, reviewing existing data systems, and developing indicator sheets.

**Figure 1. Peru’s roadmap for the M&E for adaptation**



Source: MINAM, internal document.

2. The **Design** phase is intended to develop the logical and physical design and the specifications for the M&E system for adaptation measures. This phase involves creating detailed system architecture, operational models, and data flow diagrams.
3. The **Development** phase is aimed at designing inputs, outputs, databases, and interface procedures and ensuring interoperability with other systems. Activities include capacity development, software development, database creation, and integration with national and sectoral data platforms.

4. The **Implementation** phase, which aims to operationalize the M&E system for adaptation by conducting tests, trainings, and audits. This includes pilot testing, deploying the system, and the development of progress reports.

Each phase comprises several activities distributed across the seven sectors (health, water, agriculture, fisheries and aquaculture, forestry, transportation, and tourism) and is planned for completion by 2030, at which point the M&E system for adaptation is expected to be fully operational.

## Advancing the Design Phase

Between 2022 and 2023, Peru made significant progress in the design phase of its roadmap through four key activities supported by the NAP Global Network:

- development of the final project design of the M&E system for adaptation. This includes the design and coding specifications for the platform, as well as the estimation of investment, operation, and maintenance costs. This document serves as a blueprint for future M&E activities.
- proposal for system interoperability, outlining how the M&E system will integrate with existing data platforms such as the National

Environmental Information System and sectoral monitoring systems, ensuring seamless data exchange and comprehensive monitoring.

- technical sheets of indicators and operational models for the M&E for adaptation in the transportation sector, detailing specific metrics, data sources, and methodologies for tracking adaptation progress in transportation.
- establishment of a baseline for the indicator for loss and damage<sup>2</sup> included in the NAP, providing a reference point for measuring the impacts of climate change and the effectiveness of adaptation measures.

## Lessons Learned and Next Steps

Building on these advancements, Peru is now poised to reflect on lessons learned and outline the next steps to further enhance its M&E system for climate change adaptation.

- Peru's M&E system will draw on information and reporting from a variety of existing sources and platforms. Because of this, it has been designed to work well with different

<sup>2</sup> The indicator of loss and damage measures the impact of climate emergencies on populations, infrastructure, crops, and ecosystems. It reflects both the negative effects of climate change and the level of adaptation in a region.

systems (termed “interoperability”) to facilitate how the M&E system collects data and information on an ongoing basis.

- To ensure the sustainable operation of the M&E system, each institution involved must formalize or establish a team responsible, with clearly defined tasks and associated activities related to the M&E system, including a communication strategy. These clearly defined roles will ensure clarity and successful implementation.
- By developing a robust M&E system for adaptation, Peru is enhancing

national expertise, building capacity to track and report adaptation progress in line with international best practices, and contributing to the Global Goal on Adaptation under the Paris Agreement.

- As a next step, Peru seeks new opportunities for technical and financial support to ensure the continued development of its M&E system. Importantly, this does not replace the need for the Peruvian State to earmark national budget for the implementation of this M&E system.

## References

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The NAP Global Network was created in 2014 to support developing countries in advancing their NAP processes, and help accelerate adaptation efforts around the world. sNAPshots highlight examples of how countries are currently approaching different aspects of the NAP process. If interested in participating the NAP Global Network, please [sign up online](#).

The opinions, findings and conclusions stated herein are those of the authors and do not necessarily reflect those of the Network's funders.



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