

Executive Summary

Climate policy has emphasized the contributions forests make to mitigating global climate change through carbon sequestration and reducing greenhouse gas emissions due to forest loss. This focus has meant that **the critical, multifaceted role of forests in climate change adaptation has been overlooked**, jeopardizing forest ecosystems and the well-being and resilience of billions of people who rely on them worldwide. **The Global Goal on Adaptation (GGA) established as part of the Paris Agreement offers a vital opportunity to correct this imbalance.** Effective monitoring systems under this goal, including an emerging indicator framework, must capture the full spectrum of forest benefits (e.g., food and water security, hazard protection, cultural services). Indicator selection for this purpose critically shapes investment priorities. The communities that manage and depend on forests should be involved from the outset in defining targets and metrics, leveraging community-based monitoring (CBM) to align high-level reporting with bottom-up lived experiences. Such participation and inclusion

of key forest related indicators will strengthen GCA implementation and effectiveness. This brief presents three key recommendations for leveraging forests for global climate adaptation based on recent research and expertise shared at the 2025 FLARE Annual Meeting in Lima, Peru.

Key Recommendations

- Integrate forests, trees, and the people who rely on them explicitly in climate adaptation policies given the critical role of forests and tree-based systems.
- Adopt metrics within the GGA Indicator Framework that can be adapted across scales and that reflect local contexts, ecosystems and priorities.
- Establish sustainable finance and multi-level coordination for long-term community-based monitoring (CBM) that links data on local forests and forest proximate communities with national climate reporting.



Background

Nearly half the world's population lives in areas that are vulnerable to climate change. Many of these communities rely on forests for climate adaptation (water, food, livelihoods and resilience). Climate policy related to forests, however, has traditionally focused on mitigation, leaving a significant gap in support for adaptation. **The Global Goal on Adaptation (GGA) provides a critical opportunity to elevate forests' full adaptive role.** Our research analyzes how climate adaptation indicator selection impacts investment and how to align forest monitoring across global and local scales.



EVIDENCE:

INDICATORS AND THE ADAPTATION REALITY

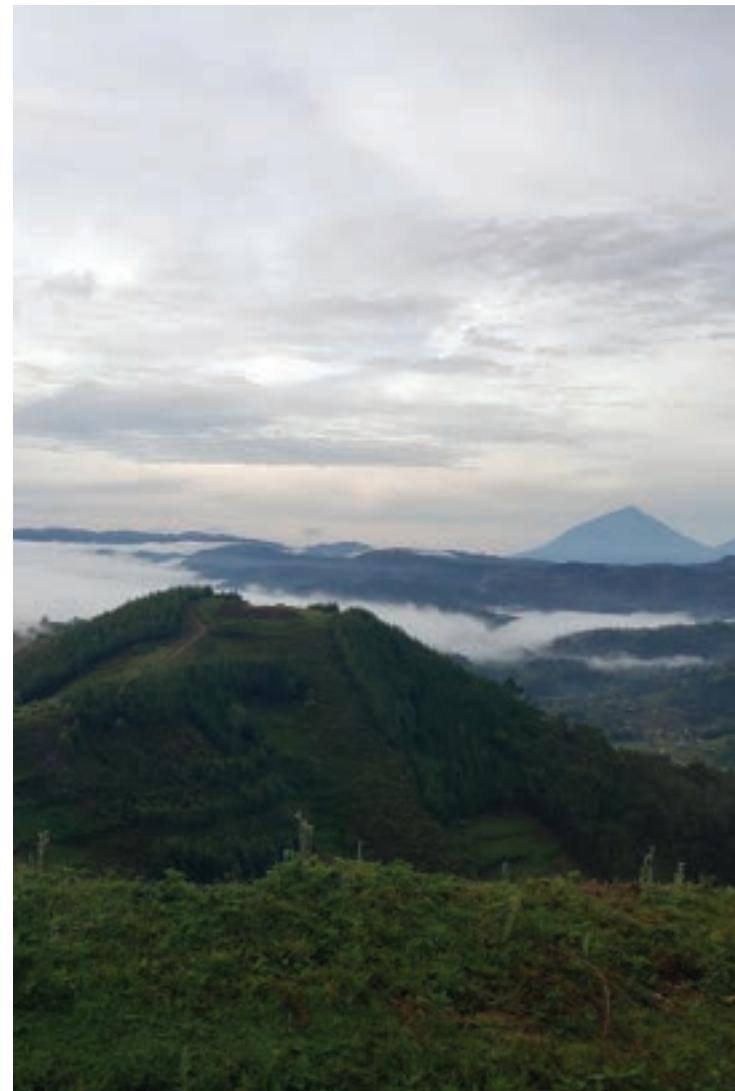
Adaptation is complex, demanding metrics for livelihoods, water security, food production, hazard protection and cultural identity—unlike mitigation’s simplified metric of carbon dioxide equivalent.

Though knowledge on the role of forests in supporting climate adaptation has grown exponentially, many climate analyses still focus on carbon only, overlooking forest regions critical for adaptation.

Our research demonstrates how indicator selection emphasizing climate adaptation can dramatically shift prioritization and investment. In contrast to indicators focused on biodiversity and carbon storage, indicators of water, climate vulnerability, and forest-proximate people highlight the importance of **climate “lifeline” areas**, including regions overlooked in carbon priority maps like East India and Southeast Africa¹.

Results confirms the need for diverse social and ecological metrics for the GGA. Additionally, effective Monitoring, Evaluation, and Learning (MEL) systems must bridge top-down reporting with bottom-up data, as remote sensing can miss key on-the-ground data on forest health and resilience (e.g., tree mortality) as well as the local contexts that shape adaptation goals and outcomes. For example, a successful program highlighted in Peru developed CBM with the leadership of Indigenous Peoples’ organizations that mobilized drones,

mobile apps and emergency alerts that not only fill data gaps but also were configurable to meet local priorities. Thus, the program not only delivered key reporting data but also benefitted communities, e.g., by enabling them to monitor illegal incursions into community managed forests and use the data to assert local territorial governance^{2,3}.



Policy Recommendations

1. Adopt Diverse Metrics for the GGA Indicator Framework

- **Target Actor:** Parties involved in developing and tracking of the Global Goal on Adaptation (GGA) indicator framework.
- **Recommendation:** Adopt metrics that include water, food, livelihoods, and human vulnerability to direct policy attention to regions with the greatest adaptation need, and where sustainable forest management can deliver multiple benefits to enhance the resilience of people and ecosystems. Monitoring maps based only on carbon and biodiversity metrics is insufficient.

2. Link Local Forest Data and Priorities to National Climate Reporting

- **Target Actor:** National and subnational government bodies, especially environment and forestry ministries.
- **Recommendation:** Ensure data, information and knowledge on diverse forests and trees, like other crucial ecosystems, are recognized as allies in climate change adaptation and integrated throughout emerging MEL systems aligned with the GGA. MEL systems should link government reporting requirements to the concrete territorial and security priorities of local communities, as in the community-based monitoring projects in Peru.

3. Sustainably Fund Community-Based Forest Monitoring

- **Target Actor:** International finance bodies (e.g., Green Climate Fund), INGOs and philanthropies, and national governments (ministries of environment, agriculture, finance).
- **Recommendation:** Prioritize sustainable funding to overcome a primary bottleneck (finance) identified by forest stakeholders for the successful uptake of CBM into forest-based climate adaptation and monitoring. Improve integration and coordination across government ministries to effectively channel existing resources and ensure successful programs can continue to provide the community benefits and quality data needed to understand climate impacts on forests and the contributions of forests to locally-led adaptation.

References

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