













based on a decision of the German Bundestag

Evolving Participatory Information System For Nature-Based Climate Solutions (Epistem)

Duration: 4 years (June 2024-June 2028)

Introduction

Evolving Participatory Information
System for Nature-based Climate
Solutions (Epistem) is an opensource initiative delivering adaptive
land use and land cover monitoring
tools. It aims to provide relevant and
accessible data to meet the diverse
needs of NCS actors and stakeholders.

The limited availability of high-quality, open, and publicly accessible maps hinders planning and complicates efforts to secure funding and implement forest protection and restoration. Despite their different roles and needs, key stakeholders – including civil society organizations, restoration project implementers, funding institutions, advocacy organizations, and government agencies – commonly face these challenges.

To address these challenges, Epistem will promote the adoption of standardized, open, and publicly accessible landscape mapping technology among key actors involved in deforestation prevention and forest and landscape restoration in Indonesia. These efforts require balancing trade-offs among multiple benefits, such as carbon sequestration, biodiversity conservation, and improved human livelihoods and well-being, to achieve the desired outcomes agreed upon by stakeholders in a landscape. Ultimately, EPISTEM will enhance data-driven decision-making, streamlining efforts to prevent deforestation and restore degraded forests and landscapes across Indonesia.

Location and Partners

Epistem is implemented by:

- The International Institute for Applied Systems Analysis (IIASA) as the global coordinator.
 - World Agroforestry (ICRAF) Indonesia as the implementation coordinator in Indonesia.
 - World Resources Institute (WRI) Indonesia

Project area:

Epistem activities are designed to meet **national** needs. The initial consultation phase has started in South Sumatra.

Objectives

Impact(s)

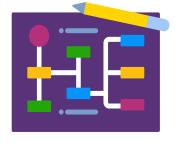
In Indonesia, avoiding deforestation (including through sustainable trade mechanisms) as well as forest and landscape restoration are being successfully implemented at scale, delivering balanced trade-offs and multiple benefits including carbon sequestration, biodiversity conservation/enhancement, and human livelihood/well-being enhancement.

1 Griscom, Bronson W., et al. "Natural climate solutions." Proceedings of the National Academy of Sciences 114.44 (2017): 11645-11650

Outcome

- The use of standardised and accessible landscape monitoring technology is being mainstreamed among key actors of forest and landscape and avoiding deforestation.
- Resulting in enhanced quality and transparency of data for planning, implementation and monitoring.

Output



1. Landscape Mapping Technology

Open-source, adaptive, relevant and scalable landscape mapping technology is made publicly available for avoiding deforestation and forest and landscape restorations actors in Indonesia.



2. Community of Practices

The envisioned mapping technology is provided to key actors in Indonesia to meet salient organisational needs pertinent to their roles in avoiding deforestation and forest and landscape restoration.

Target Groups



In Indonesia, Epistem targets various institutions with specific data needs for forest restoration and landscape monitoring, including:



 Civil society organizations and restoration agencies that use data for activity planning.



 Advocacy organizations and verification bodies that rely on data for monitoring and transparency.



 Funding institutions that utilize data for investment decision-making and risk assessment.



 Government institutions that require data for policy evaluation and formulation.

In addition to stakeholders in forest and landscape restoration, this initiative also targets producers, intermediaries, and downstream companies in the agricultural commodity sector. These beneficiaries will gain access to accurate mapping data to ensure compliance with deforestation-free regulations and other supply chain certification requirements.

CIFOR-ICRAF Indonesia Program

The Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) harnesses the power of trees, forests and agroforestry landscapes to address the most pressing global challenges of our time – biodiversity loss, climate change, food security, livelihoods and inequity.



