

Factsheet

Enhancing resilience of socio-ecological production landscapes with agroforestry in Southeast Asia (RISE-SEA)

Duration
2023–2026

Socio-ecological production landscapes in Indonesia, the Philippines and Viet Nam face escalating economic and ecological shocks, including climate change, natural disasters and market shifts. Many rural communities depend on agriculture for livelihoods, making them particularly vulnerable to these shocks.

The RISE-SEA project explores how agroforestry systems can strengthen the resilience of farming landscapes and communities. By integrating trees with crops and livestock, agroforestry can improve productivity, diversify income sources, enhance ecosystem services and support sustainable land management.

Explore | RECOFTC | LANDSCAPE ALLIANCE | Sweden Sverige

Ongoing work focuses on:

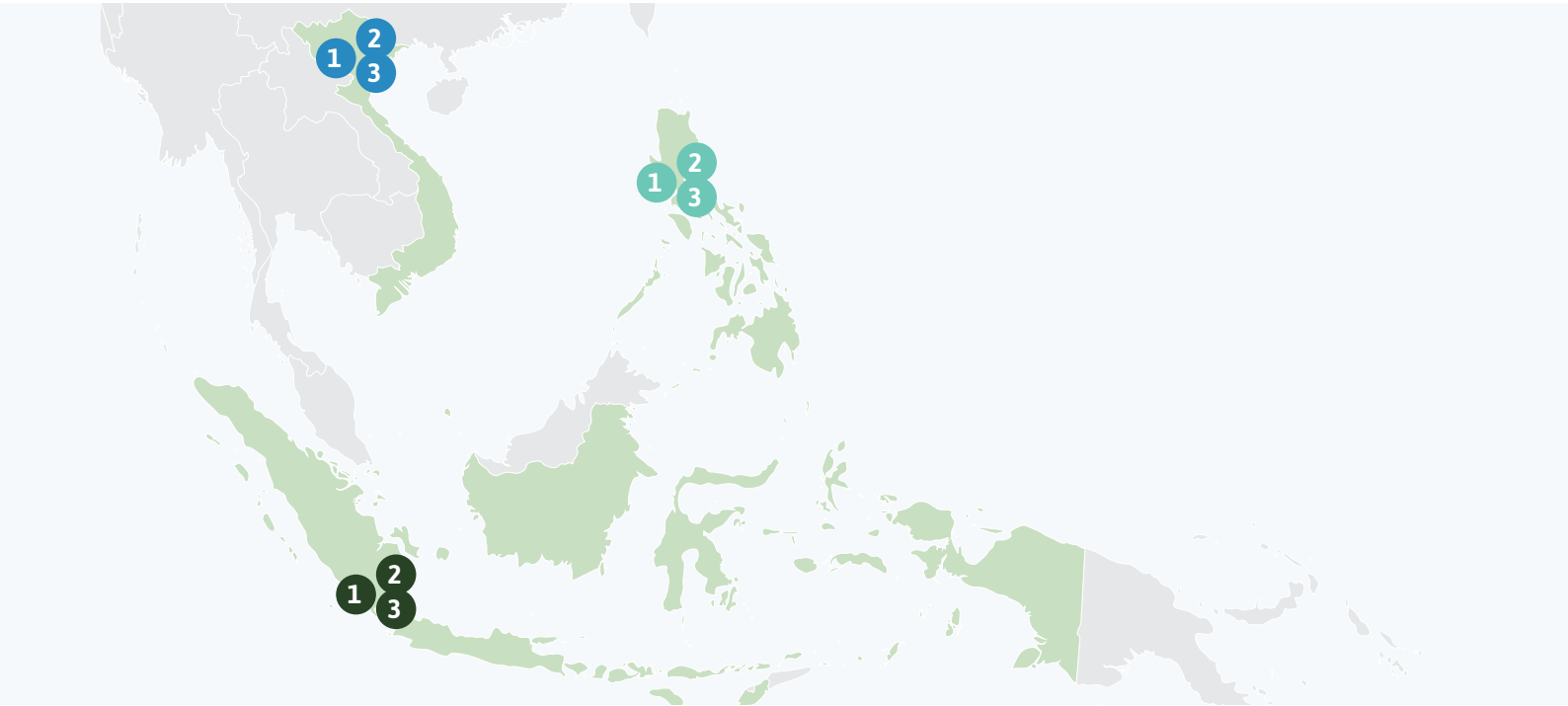
- assessing community resilience focusing on farming systems and the ecological conditions of socio-ecological production landscapes across an altitudinal gradient
- analyzing gender roles and participation in farming systems
- assessing land capability for agroforestry and identifying appropriate agroforestry systems
- quantifying the economic and ecological outcomes of agroforestry systems
- developing agroforestry development plans for socio-ecological production landscapes in Indonesia, the Philippines and Viet Nam

The outcomes and impacts of this work include:

- increased awareness among policymakers of the benefits of agroforestry
- integration of agroforestry into local development and land-use planning
- improved capacity of communities and local stakeholders to adopt agroforestry practices
- enhanced ecological and livelihood resilience in target landscapes

Methodology

The study applies a participatory action research framework with a mixed-methods approach. It engages stakeholders via local facilitating teams for data collection and analysis. Key tools include household surveys, focus group discussions and key informant interviews to assess socio-economic and gendered roles. Biophysical characterization involves soil sampling and vegetation analysis to establish ecological baselines. The Agroforestry Land Capability Assessment and Mapping Schemes (ALCAMS) tool provides GIS-based land-capability mapping, while the Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST) model quantifies ecological and economic outcomes. Finally, the analytic hierarchy process is used to prioritize resiliency indicators, ensuring inclusive and site-specific agroforestry development plans.



Selected outputs

Published

Presented at the 5th International Conference on Agroforestry in 2024, this presentation shares findings from the Philippine study site in the Santa Cruz Sub-Watershed, examining its biophysical and socioeconomic conditions and the vulnerabilities, challenges and opportunities facing local farming communities.[1]

Forthcoming

Journal articles on agroforestry, resilience and socio-ecological production landscapes

Forthcoming

Policy briefs with evidence-based recommendations for local decision-makers in each socio-ecological production landscape

Forthcoming

Agroforestry farming guides to support the adoption of locally appropriate agroforestry practices

Forthcoming

Site-specific agroforestry development plans developed through participatory stakeholder engagement

Study sites

Indonesia

1. Air Bakoman village, Tanggamus district, Lampung province
2. Tresno Maju village, Pesawaran district, Lampung province
3. Mulyo Sari village, South Lampung district, Lampung province

Philippines

1. Patimbao village, Santa Cruz municipality, Laguna province
2. Baanan village, Magdalena municipality, Laguna province
3. Luquin village, Liliw municipality, Laguna province

Viet Nam

1. Dong Phuc commune, Thai Nguyen province
2. Cho Don commune, Thai Nguyen Province
3. Bach Thong commune, Thai Nguyen province

Team focal points

Principal investigator

Leila D. Landicho

University Researcher
University of the Philippines Los Baños,
Philippines, ldlandicho@up.edu.ph

Co-principal investigator

Tran Quoc Hung

Lecturer
Thai Nguyen University of Agriculture
and Forestry, Viet Nam
tranquochung@tuaf.edu.vn

Co-principal investigator

Rommy Qurniati

Faculty Member
University of Lampung, Indonesia
rommy.qurniati@fp.unila.ac.id

Partners

Philippines

- University of the Philippines Los Baños, (UPLB)
  uplb.edu.ph

Indonesia

- University of Lampung
  www.unila.ac.id

Viet Nam

- Thai Nguyen University of Agriculture and Forestry (TUAF)
  tuaf.edu.vn

The Philippines component is co-funded by

Forest Foundation Philippines
Let's grow together.

1 Canilan, R. S. C., Landicho, L. D., Castillo, A. K. A., Ocampo, M. T. N. P., Cabahug, R. E. D., Abadillos, M. A. G., Ramirez, M. A. J., & Baliton, R. S. (2024, November 27–29). Vulnerabilities, challenges and opportunities of communities within the socioecological production landscapes: Case of Santa Cruz Sub-Watershed [Conference presentation]. 5th International Conference on Agroforestry (ICAF), Maejo University, Chiang Mai, Thailand

Supported by the Government of Sweden through Explore, this research project is one of eleven to receive grants, awarded in 2022 and 2025 to improve forest landscape governance in the Asia-Pacific region.

Explore is a research network and community of practice supporting forest landscape governance research in Southeast Asia through participatory action research, capacity building and policy engagement. It advances inclusive, practice-based collaboration among researchers, practitioners and communities, while strengthening connections between research, policy and practice across the region.

The Explore Secretariat at RECOFTC, in collaboration with partners, provides support, training, mentorship, technical input and opportunities for cross-learning throughout the research cycle.

For more on Explore, visit recoftc.org/projects/explore or write to us at explore.secretariat@recoftc.org.

RECOFTC 2026