

POLICY RESEARCH FOR SUSTAINABLE UPLAND SYSTEMS

Poster prepared by Ms. Yanti Kusumanto, Dr. Thomas P. Tomich, & Dr. David E. Thomas

AGROFORESTRY & OTHER LAND USE SYSTEMS

Policy questions: Is it economically feasible to raise productivity of smallholder land use systems? If so, what are the environmental consequences?

DATA & METHODS

To assess the ability of different land use systems to substitute for the economic outputs and environmental benefits of natural forests:

- A. Economic and financial analyses are carried out using the policy analysis matrix (PAM) framework
- B. Carbon stocks, greenhouse gas (GHG) emissions, above and belowground biodiversity, meso-scale externalities (siltation, hydrology), and indicators of agronomic sustainability are measured.



LAND & TREE TENURE

Policy question: What (if anything) can governments do to better support efficient and equitable functioning of tenure institutions?

DATA & METHODS

- A. To ensure that land and tree tenure are conducive to sustainable natural resource management, participatory, process-oriented research is used to identify workable models for institutional reform.
- B. Econometric analysis is used to obtain basic insights about the evolution of land and tree tenure institutions.



Photo by T. Tomich

What policy changes are needed to reduce deforestation driven by slash-&-burn *and* to reduce poverty of farmers dwelling at the forest margins



NATIONAL POLICIES

POLICY QUESTIONS

- A. How much deforestation is caused by smallholders? How much is caused by large-scale operators?
- B. What factors influence land use changes as a result of road construction?
- C. How do macro-economic and trade policies affect land use change?

DATA & METHODS

- A. Geographic information system (GIS) analysis of causes and consequences of deforestation is used to assess the role of smallholders and large-scale operators
- B. To assess the impact of infrastructure investments on land use changes, GIS-based spatial econometric models are used
- C. Effects of macro-economic and trade policies on land use changes are assessed by way of a regional computable general equilibrium (CGE) model.



Photo by H. de Foresta

The project's participatory, client-driven approach & multi-disciplinary collaboration enhance prospects for constructive impact on institutional development & policy reform.

OUTPUTS:

- Policy recommendations and institutional innovations conveyed to policymakers in brief memoranda and informal meetings.
- Case studies and cross-country comparative research on strategic policy questions.
- Enhanced capacity for policy research through collaborative research, workshops, and training courses.

POLICY IMPLICATIONS



World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES

This collaborative venture involves scientists from research consortia in Indonesia, Thailand & the Philippines as well as international research organizations.

Funded by :

- Asian Development Bank
- Ford Foundation
- Global Environmental Facility / UNDP
- Government of Japan
- Danish International Development Agency