



Formation of an Informal IFM Network

To launch this research initiative, the ICRAF S.E. Asia Programme hosted a workshop on "Indigenous Strategies for Intensification of Shifting Cultivation in South East Asia" in Bogor, Indonesia on June 23-27, 1997. This event brought together about 120 scientists, practitioners and policy makers from across S.E. Asia. There were 67 case studies reviewed where swiddenists have successfully developed their own technologies to intensify their agricultural system through managing fallow land more productively.

Building on the momentum of the workshop, a regional IFM Network was formed as a forum for collaboration and sharing of experiences between 5 core institutions. They represent those areas where stressed swidden systems are most endemic: Vietnam, Northern Lao P.D.R., Northeast India, South West China and the Northern Philippines. A complimentary and parallel research programme is also being developed with national partners in Indonesia.

This informal network was forged on the assumption that there are advantages in working together towards solving common problems. The partner institutions intend to undertake a series of parallel research activities on the most promising IFM practices and use the network to exchange literature, share proven methodologies, and findings, and facilitate cross-visits. The network is evolving in keeping with the nature of the network as a voluntary association of scientists and practitioners. Its activities evolve naturally as its members identify new needs and ways to work together.

Maximizing Networking Opportunities

The IFM Research Programme is in the early stages of development and welcomes collaboration with other networks, institutions or individuals similarly concerned with swidden stabilisation and intensification issues across S.E. Asia. Outside scientists (post-docs, secondments) or students (Masters and Ph.D. level) with strong overlapping interests in these issues, field experience, a proven ability to work independently, and access to funding resources, may wish to explore the possibilities of an attachment to ICRAF S.E. Asia to work directly within the IFM Programme.

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Why "Indigenous fallow management (IFM)"?

The preconditions that have historically underpinned the sustainability of long-fallow swiddening - large tracts of forested lands, sparse population densities and few pressures to produce surpluses for outside markets - have largely vanished. Main pressures put on fallow land systems are population growth, development of protected forest areas, and state policies to sedentarize agriculture, by discouraging the use of fire and fallows. Nowadays, swidden systems are converging into more permanent forms of land use.



Technical approaches to stabilising and improving productivity of shifting cultivation systems in the sloping uplands of Southeast Asia have not been successful in identifying technologies widely adoptable by farmers. As most research was centred on the cropping period, the way farmers manage the fallow vegetation was ignored.

Farmer rejection of such researcher-driven solutions has led to greater recognition of farmer practices and constraints such as access to labour, land and capital, or access to planting materials. This experience clearly underlines the need for participatory, on-farm research approaches to identify solutions sharply focused to farmer circumstances practices.

Learning from farmer-generated technologies

Swidden communities have developed their own strategies to cope with different pressures from a larger socio-economic and political economy. These strategies are based on a close participation with and dependency on natural processes.

In all cases the way fallow vegetation is managed plays a valuable role.

For upland communities where food security is the primary concern, more effective or accelerated fallows

often provide an intermediate step in a transition towards permanent cultivation of annual crops.

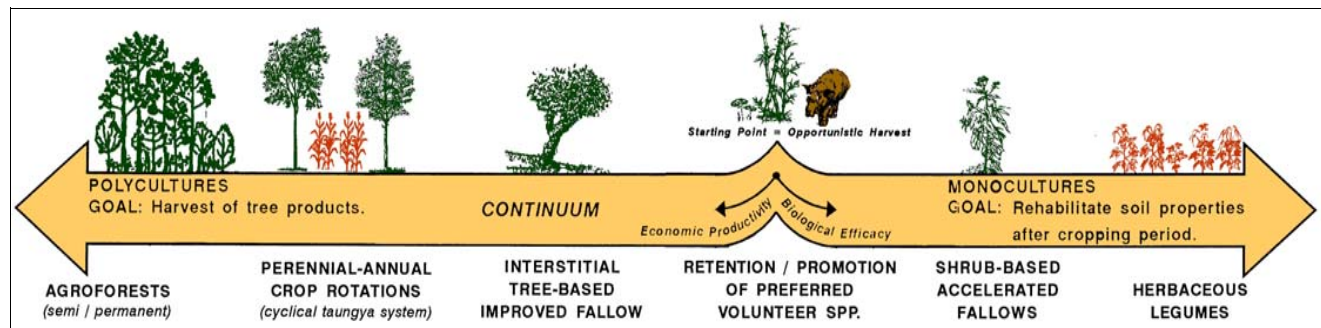
Alternatively, in more productive fallows the phase of reopening and cultivation of annuals may eventually be foregone altogether as the farmer chooses to plant and protect perennial vegetation. The endresult being the development into semi/permanent agroforests. This option is attractive in the presence of strong market opportunities for tree products and the ability to purchase food crop needs.

Summarising, farmer responses to intensification pressures may generally be classified as innovations to achieve:

- more 'effective' fallows – where the biological efficiency of fallow functions is improved, and the same or greater benefits can be achieved in a shorter time frame;
- more 'productive' fallows – in which fallow lengths stay the same or actually lengthen as the farmer adds value to the fallow by introducing perennial economic species; and
- combinations of the two trends, where a degree of both biophysical and economic benefits may be accrued.

Rethinking the nature of "Fallow Land"

The spectrum of indigenous approaches to modify "fallow vegetation" in S.E. Asia



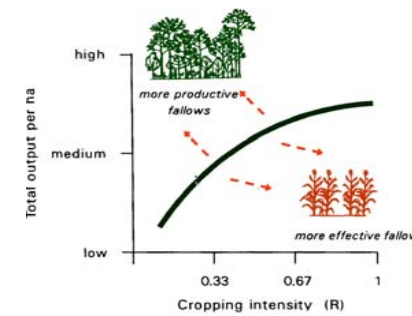
The term "fallow" may be a problematic term, because of its close association with what is officially perceived as unproductive, abandoned fields where no planting or sowing is done. This misconception will be challenged as further case studies are examined and a growing body of literature documents farmer's practices to actually manipulate and manage fallow vegetation to achieve biological and/or economic benefits. This evidence suggests that fallows are far from

"abandoned" fields. They provide both protective and productive functions within a wider land use system.

Strengths of an IFM Approach:

- By building on farmer practices and indigenous knowledge, chances of adoption of (refined) technologies are greatly enhanced.
- By permitting an intensification of land use through managed fallows, it will ameliorate agricultural pressure on adjacent forest margins. Ex situ it plays a valuable role in biodiversity conservation.
- A sharp decrease or even elimination of field burning accompanies this intensification as more of the woody biomass is harvested for small diameter timber and firewood. More of the landscape is planted to economic perennials and

Evolution of Intensifying Swidden Systems



- State recognition and normalisation of indigenous land tenure institutions will remove uncertainty and further encourage farmers to invest in intensified management of fallow lands.

Developing a Regional Research Thrust

To obtain a more holistic perspective on possible development pathways for intensifying swidden systems, the Programme focuses its research efforts on the following issues:

- Understand the (socio-economic and biophysical) conditions that contribute to the evolution of managed fallow systems, and the process of how farmers adopt innovations.
- Understand the science underlying farmer practices in improved fallow management.
- Understand the objective of the systems from a farmer's point of view.
- Evaluate if farmer innovations are situation-specific or are replicable in other stressed swidden agroecosystems in the SE Asian uplands.
- Suggest opportunities for further technological refinements.
- Develop a common research approach for a set of parallel studies of fallow management in the region.
- Establishment of a collaborative structure that will enable a regional research thrust.
- Sensitise donor agencies about the potential of IFM technologies to contribute pragmatic solutions to upland problems.



local communities have a strong vested interest in protecting them. The frequency of wildfires will be reduced.

- This resonates strongly with government policy to encourage permanent forms of land use and may widen the political space for a more liberal interpretation of what constitutes "agricultural land".