SHIFTING CULTIVATION

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What is shifting cultivation?

- swidden, *Shwe Pyaung Taung-ya*, rotational agroforestry, long fallow forest cultivation, low input sustainable agro-forestry
- Oldest farming system in the world
- cultivating a series of plots sequentially; after cultivating a field it is left to fallow for several years, typically long enough for pioneer tree growth.
- In South East Asia predominantly practiced by politically marginalised upland ethnic minority peoples
- Agricultural system combines private and common tenure systems
- High diversity in cropping

Often misunderstood

- Criticised since colonial times – largely misunderstood by scientific foresters wanting to exploit timber resources
- Scientific consensus since 1950’s that S.C can be a perpetually sustainable cultivation system
Popular across the World

Across the Asia-Pacific region about 15% of the population are considered ‘forest dependent’, (or ‘forest enabled’) many are shifting cultivators.

*Jhum* in Bangladesh and North East India; *Khoriya* in Nepal, *Lunxi di* in China, various local names in Indonesia, and Papua.

contributes to the livelihoods of millions of citizens - a solution to upland food security
Shifting Cultivation Process

Photos courtesy Dr. K Barney
Simplified diagram of a Shifting Cultivation System on a 7 year fallow
Rotational agriculture and NTFP

• Found that more than 90 types of food plants and 28 types of animal meats available in the community.
• Approximately 54 percent of food plants come from the rotation farming fields, while 33 percent is from terraced paddy fields and the rest is available from the community forest and tea gardens.

Photos courtesy Dr. K Barney
Cropping / fallow balance

- Critical – determines whether or not the system suffers a net loss of nutrients and erosion.
- If fallow periods are maintained the system is agronomically sustainable in perpetuity and highly resilient.
- If the fallow period is shortened be less time for soil recovery processes and vegetation successions.
- Change occurs in fallow vegetation; secondary forests may be reduced to shorter, thinner stemmed, fewer woody species.
- Critical changes also occur in the soil, resulting in declining crop yields.
Extensive Agricultural System

![Graph showing the relationship between families in a village and the total land area required. The graph has a y-axis labeled "Total Land Area Required" ranging from 0 to 2500 and an x-axis labeled "Families in Village" ranging from 10 to 140. There are four lines representing different land areas: 8ha, 10ha, 12ha, and 15ha. Each line shows an increase in total land area required as the number of families increases.]
Policy Pressures

- Across Asia there is near conformity in official government policy to eliminate and ban shifting cultivation.
- Fallow areas referred to as “waste land” “degraded land” or “barren land”.
- Follow such designation, fallow areas are subject to acquisition for land concessions through agri-business interests.
Impact of large scale agribusiness on shifting cultivation systems

Year 8

Year 7

Year 6

Year 5
Shifting cultivation must be recognised as an agricultural and an adaptive forest management practice which is based on sound scientific and ecological principles...

Regional, national and local policies ... need to be reappraised and ... reformulated.”