

CHALLENGES FOR SWIDDEN CULTIVATION IN RELATION TO REDD SCHEMES: LESSONS FROM INDONESIA

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Abstract

Swidden cultivation, along with pastoralism, have been the basis of land use for thousands of years and are still practiced by the communities living in and around the remaining tropical forest, who normally have low incomes. With increasing population density and the associated reduction in fallow length, swidden systems change. In stead of being part of sustainable forest management, swidden systems become viewed as threats to the forest. In many Asian countries, national development programs include targets to transform swiddens into permanent cultivation systems. Similarly, the Government of Indonesia (GoI) perceives swidden cultivation as no longer suitable for current conditions and as destructive of environmental integrity; it is seen as a driver of deforestation and as backward agricultural practice and culture, without support for economic growth. The heavy smoke from land clearing fires, especially on peatlands, affects people's health, hinders socio-economic activities and affects relationship with neighboring countries. Distinctions between 'swidden' and 'slash and burn' land clearing for plantation establishment are not made.

In contrast to this policy perspective, studies in South East Asian countries indicate that swidden cultivation is a dynamic system, has an economic rational in the returns to labour it provides and can be environmentally sound, culturally accepted, with continued technological innovation and further adaption (Fox. 2000, Mertz. 2000, Noordwijk et al. 2008, Nugraha. 2005, Palm et al. 2005, Tomich et al. 1999). Swidden systems evolve, not merely by shorter fallows and more intensive annual crop production, but also through modification and enrichment of the fallow towards tree based (rubber and fruit trees) livelihood systems in the form of agroforests. The resulting agroforests, such as 'jungle rubber', can retain considerable species diversity (Rahayu. 2009, Tomich et al. 1999, Tata et al this meeting) as found in Sumatra and Kalimantan. Cycle lengths can increase to 30-50 years, and C storage can increase over systems that focus on annual crops.

Such findings provide a basis for including swidden agriculture and its dynamics in schemes to Reduce Emission from Deforestation and Degradation (REDD). Major challenges exist, however. They include:

- 1) Forest definitions and scope of REDD; the internationally accepted forest definition allows 'temporarily unstocked' areas to be part of 'forest', and thus ensures that swiddening is not a driver of deforestation; yet, forest institutions don't interpret it this way;

- 2) Intensifying agriculture and short-cycle tree plantations in one part of the landscape and extensifying forest management (increasing management cycle lengths) elsewhere can contribute to overall emission reduction; it requires a landscape-scale assessment rather than focus on 'forest',
- 3) The voice and perceptions of local stakeholders involved in swiddens and its alternatives needs to be heard; the strong perceptions and values of dominant 'public/policy ecological knowledge' prevent a fact-based approach,
- 4) Current implementation procedures for REDD in Indonesia focus on forest management and planning procedures that are difficult to achieve for local stakeholders; a stronger focus on outcome-base ('bottomline') approaches and less reliance on input-planning is needed to bring local stakeholders on board and achieve fairness + efficiency in REDD value chains.

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