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Land sparing or land sharing for forest conservation and livelihood improvements: Reconciliation in science with little impact on policy-implementation

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The idea that intensified agriculture in areas where local people depend on forests for livelihoods will spare the forests for further disturbance have been around in policies and development projects for a long time. It has in the past decade spurred increasing academic debates on whether the 'spared' landscape with intensive agriculture and pristine forests clearly separated is better for biodiversity and other ecosystem services than 'shared' mosaic landscapes composed of a mix of old-growth and secondary forests, agricultural fields, grassland, plantations, etc. Several review papers have reconciled the rather polarized debates by stressing that both shared and spared landscapes have a role to play, depending on the context. However, it appears that this reconciliation may not have been translated into policy-making and implementation in many countries. In this paper, we use examples from Laos (Huaphan Province) and Malaysia (northern Sarawak) to illustrate how classical 'land sparing' policies in fact result in neither shared nor spared landscapes, but lead to wholesale conversion of forested landscapes to commercial agriculture. In both cases, studies were based on semi-structured interviews with local authorities and two communities combined with remote sensing based analysis of land use change. In Laos, maize cultivation is rapidly expanding and grown under contract-farming with strong support from the government of Laos as part of poverty alleviation and land development policies – including efforts to reduce shifting cultivation. At the same time the government attempts to increase nationwide forest cover and prepares for REDD+. We examined how local authorities react to the rapid land use changes and navigate contradicting policies that have clear land sparing goals. We found that communities have increased maize cultivation areas and have achieved an increase in both income and household assets. Maize has replaced upland rice cultivation but also primary and secondary forests inside and outside a large tiger conservation area. Consequently, although the government policies aim to spare land for forest conservation by intensifying agriculture, the result is rapid agricultural expansion and no spared forest. Moreover, the traditional land-sharing landscapes with forest, fallows, and fields are being transformed, creating landscapes that are increasingly dominated by agriculture. Similarly, we examined the oil palm expansion in Sarawak, where both large scale and smallholder plantations have now largely replaced the traditional shifting cultivation landscape with strong government support. Smaller protected areas are found in the area, but they exist as islands in vast plantation landscapes and without connecting forest corridors – despite that corridors are stressed by the government as essential for maintaining biodiversity and other ecosystem services. The secondary forests of the 'shared' shifting cultivation landscapes provided such corridors, but with their disappearance, the result is uniform plantation landscapes and maintenance of isolated protected areas of limited conservation value. In conclusion, it is clear that we are beyond simply discussing whether land sharing or sparing is beneficial and should focus on how policy implementation can favor at least one of those approaches to conserve forests without compromising opportunities for poverty reduction.