5.4 Tropical forest rehabilitation and certification

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Poorly managed logging and unsustainable land-use practices have created large areas of degraded secondary forest and abandoned agricultural land throughout the tropics, which has drastically reduced biodiversity. This raises two questions: first, can some of this degraded and under-used land be reforested? Second, can this be done in a way that generates some conservation benefits?

Tree planting is expensive to carry out and it often has a substantial opportunity cost. This means that many land-owners are likely to find other land uses more attractive. Any financial incentive, including certification, could have substantial benefits if it was able to help tip the balance in favour of reforesting degraded land and away from alternatives such as oil palm plantations.

THERE SHOULD BE SCOPE ... TO REWARD PLANTATION OWNERS WHO MANAGE THEIR PLANTATIONS TO IMPROVE CONSERVATION OUTCOMES AT BOTH A SITE AND LANDSCAPE LEVEL.

Forest rehabilitation can take many forms. Not all of these are equally valuable from a biodiversity conservation viewpoint. Most people would agree, for example, that a simple monoculture established by clearing secondary forest is a poor trade-off. Under the rules of most certification schemes such a forest would not be certified. On the other hand, a monoculture established at a degraded grassland site might qualify for certification, although it would probably not generate as many conservation benefits as a mixed-species planting. The landscape context is also important, however, and perhaps has not been given as much attention as it deserves.

A timber plantation in Sabah, Malaysia illustrates the importance of this issue. The plantation uses *Acacia mangium or Eucalyptus grandis,* both exotics grown in simple monocultures on short rotations. Most of the timber produced is used for wood pulp, although some areas will also be used to produce sawlogs. The plantations are being established on land presently occupied by logged-over tropical rainforest. This would normally prevent any certification from being achieved, but there appear to be extenuating circumstances.

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The logging operation in much of the area was so poorly managed that there is little likelihood of a second cutting cycle being carried out in the immediate future. In addition, the structure of the forest has been dramatically changed by logging, and its conservation value is now unknown. The concession held by the company covers 288,000 hectares; the new plantation will occupy 38 percent of this area, leaving 62 percent as permanent natural forest. The unplanted component includes hilly areas and riverine strips. In these locations the logged-over forest will be protected and allowed to recover (Woof 2009).

The company has been refused certification under the Malaysian scheme because natural forest is being cleared to establish the plantation. This is regarded as having a negative effect on local biodiversity. The company's view is that the forest they propose to clear has been badly damaged by government-sanctioned logging carried out by other organizations, not them, and that its present biodiversity value is limited. They also argue that the 38:62 ratio represents a good compromise between production and conservation, and that further conservation benefits will be generated across the landscape as the now-protected remnant forests are allowed to regenerate.

Needless to say, their approach stands in stark contrast to that of companies who plant oil palm in areas where all remnant forest is completely removed. The timber plantations will not affect logging in natural forests elsewhere (most of which is now complete) but they will act to protect some large areas of secondary forest.

The dilemma is that nobody knows exactly what conservation value these secondary forests actually have. What can be said, however, is that the concession area will conserve some substantial patches of regrowth forest and these patches will be linked by a network of corridors. Both of these factors should help conserve biodiversity across the landscape and allow the area to become an increasingly important conservation reserve as the logged-over forests recover. Might not these advantages be taken into account when assessing whether to certify these plantations?

Many ecological processes operate at a landscape scale and the populations of many species depend on access to large forest areas. As noted earlier, rehabilitation is expensive and often has high opportunity costs for land-holders. Other things being equal, there should be scope within a certification scheme to reward plantation owners who manage their plantations to improve conservation outcomes at both a site and landscape level.

Reference

Woof, W. 2009. SFI's experiences in plantation forestry. Presented at the seminar on the current state of plantation forestry in Malaysia, November 18–20, 2009, Sandakan, Malaysia.