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**Biodiversity for ACP rural development**  
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**Does forest certification work for biodiversity conservation?**  
**Prof. René Boot – Tropenbos International**  
**Executive Summary**

Forest certification is widely seen as an important component of strategies for conserving the world's forests. During the 1990s concern about the loss of biodiversity in logged forests was a key driver behind the emergence of forest certification. It was thought that production forests could play a bigger part in conserving the high biodiversity of tropical forests, if these were to be managed in a way that reduces logging damage and stimulates forest regeneration. In the course of time, stakeholders including forest managers and conservationists agreed on a variety of certification schemes and forest management standards that consider the effects of logging and other forest management activities on biodiversity (among other objectives). Since the introduction of forest certification more than 300 million hectares of forests have been certified, although less than 20 million hectares are in the tropics. The majority of certified forests in the tropics were certified by the Forest Stewardship Council (FSC).

Although interest in forest certification has waxed and waned, it remains a cornerstone of forest policies. But does it work? To maintain the credibility of forest certification and wise forest management as strategies for biodiversity conservation in tropical forests, claims of positive certification impacts must be backed up by evidence from the field. More than 15 years have passed since the first certificate was issued, and it should be possible to evaluate the effectiveness of certified forest management by comparing the conservation performance of certified forests and non-certified, conventionally managed forests.

***Definition of biodiversity and forest management***

Giving a clear answer to this simple question proves to be difficult. 'Biodiversity' is a complex and elusive concept— even in its simplest definition as the number of species in an area and their abundance. Different species, even related ones, respond in different ways to logging, and their study requires different research protocols. Moreover, the short-term effects of logging may be very different from the long-term effects. Conclusions about the changes in the number of species present in a forest may fail to reveal important underlying shifts, for example the shift from forest specialists of a high conservation value to more common habitat generalists.

Similarly, 'certified forest management' is a complex topic. Forests differ from place to place, and management practices vary. Differences in logging intensity, logging pattern and timing, the size and variety of trees harvested, extraction methods and post-harvest activities all contribute to different responses by plants and animals.

***Biodiversity benefits***

In 2009, Tropenbos International conducted a review of published studies on biodiversity in certified forests, with the purpose of answering the question whether certification matters for conserving forest biodiversity (see box).

Only a handful of researchers have directly assessed the effects of certified forest management on a number of plant and animal species. However, certification is usually associated with the application of certain management practices, such as reduced-impact logging (RIL) and the protection of streamside reserves and biodiversity reserves, and many more studies have considered their effects on trees, birds, mammals and a

range of other species. In general, they concluded that applying these measures help to conserve more species than conventional management methods, although the variability in results is high.

In general, review confirms that forest certification and associated practices have positive biodiversity benefits. Despite the apparent differences in the rigour with which biodiversity concerns are addressed under different certification systems, the planning, supervision and basic good management practices required by all of them serve to mitigate many of the harmful environmental impacts of logging and other forest management activities. Similarly, these studies confirm that despite their better performance, certified forests are not fully equivalent to undisturbed or primary forests in terms of biodiversity.

The study also revealed the difficulty of providing a clear answer to the question whether forest certification works for biodiversity. In most certified forests the data needed to assess the effects of management on biodiversity are not systematically collected. Data from non-certified forests, which are needed for comparison, are even harder to find. The scientific community has not yet risen to the challenge of providing evidence of the effects of certified forest management on a comprehensive scale. Studies focus on different species, use different protocols and do not address the large temporal and spatial scales covered by tropical production forest. The review also shows that the impacts of certified forest management on biodiversity are hard to assess without a clear idea of the relative value of different species for ecosystem functioning and for sustaining livelihoods.

### **Recommendations**

- As different species may be valued differently by different stakeholders – based on considerations of rarity, vulnerability, endemism, distinctness, economic, religious or spiritual value – formulating appropriate functions of production forests in conserving biodiversity requires debate and negotiation at the local level (but without dismissing global interests);
- The results of these discussions must be translated into practical management activities for achieving specific, measurable biodiversity objectives. These must be subject to periodic revision to accommodate changes in value perception and in the state of biodiversity in the forest;
- To further inform the trade-offs between biodiversity and the social and economic interests of forest management accepted by certifiers, scientists will have to provide quantitative, field-based evidence of species responses to forest management practices, and to propose modifications if that is required;
- Finally, biodiversity monitoring and audits of certified forest management should focus on these management objectives rather than on general, unspecified biodiversity goals. Such goals are almost impossible to measure and, if they can be measured, hard to interpret.

The challenge for forest managers, certifiers and biodiversity researchers is to promote forest certification from a credible proposition to a demonstrated asset in the suite of instruments available for forest biodiversity conservation.

### *Literature survey*

Commissioned by the Planbureau voor de Leefomgeving (PBL, or Netherlands Environmental Assessment Agency), TBI examined the literature describing the effects of certification and good management practices on a range of plants and animals in tropical, temperate and boreal forests. A total of 67 studies were included in the survey, 25 of which concerned tropical forests. The study differs from other certification impact studies in considering the direct, measured effects of forest management on species richness and abundance, rather than the changes in management brought about by forest certification. The results were published in a report *Effects of Forest Certification on Biodiversity*, Tropenbos International, Wageningen. It can be downloaded from [www.tropenbos.org](http://www.tropenbos.org)