

Science for Environment Policy

Payment for forest ecosystem services: a case study in Finland

Tourists would be willing to pay for increased biodiversity and reduced clear-felling in forests, a recent Finnish case study suggests. In a survey of over 900 visitors to Lapland, most stated that they felt landscape quality and biodiversity were important, and that they would be happy to pay their share for preserving these qualities.

Forests provide numerous ecosystem services. In addition to timber, they provide benefits which are not marketed, such as carbon storage, recreation and [biodiversity](#). However, different uses of the ecosystem can come into conflict: clear-felling to extract timber reduces biodiversity and can also affect recreational activities. [Payments](#) for these ecosystem services have been suggested as a mechanism to reflect the value of these less marketable benefits, and ensure their protection.

In this study, researchers focused on the Finnish Lapland, where many forests are privately owned for timber production, but also provide recreational services, as tourism is the dominant industry in the area. They investigated the possibility of a scheme which collects revenue from tourists as payment for recreational qualities, perhaps entailing a reduction in clear-felling near hiking trails, for example. This revenue could then be used to compensate landowners for any income lost.

The researchers asked tourists to fill out a survey in which they made a series of choices about changes to forest services and indicated how much they would be willing to pay for these. Recreational services were represented by the length of trails in the forests and the quality of landscape (e.g. amount of clear-felling on the route). Biodiversity was also included, as well as carbon uptake and storage by the forest. Payments for these services were assessed in terms of addition to accommodation costs in euros per week.

Overall, 922 responses were collected, 25.3% of these were from tourists from outside Finland, representing 30 countries in total. Ninety per cent of participants agreed or strongly agreed that 'biodiversity should be preserved' and more than half (57.5%) felt that 'tourists should pay their share for preserving the landscape'.

The survey also suggested that tourists were willing to pay for both quality of the landscape and biodiversity, but not carbon capture and storage, or extension of trails. The greatest willingness to pay was associated with a clear improvement in landscape quality (€12.17 per week) and with an increase of biodiversity (€10.24 per week). A possible decrease of biodiversity is perceived as a major loss of welfare by the respondents.

When asked how payments should be collected most participants favoured adding the charges to the price of accommodation. Interestingly, over half (51.4%) said that the payments should be compulsory rather than voluntary.

These results suggest that a scheme to charge tourists for the benefits of forest ecosystem services could be successful in this area. However the study's authors warn that many other issues would also need to be explored. For example, the amount that tourists are willing to pay must balance the loss in revenue by the landowners and an organisation would need to be set up to collect payments and distribute compensation.



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Contact:
liisa.tyrvaainen@metla.fi

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