## Securing quality of landscapes through market-based mechanism between forestry and tourism in Finland

Liisa Tyrväinen, Finnish Forest Research Institute, Finland, liisa.tyrvainen@metla.fi Ville Ovaskainen, Finnish Forest Research Institute, Finland

In the Nordic Countries, the traditional public right of access allows access to all undeveloped areas for recreation and traditional use of nature regardless of the ownership. In northern Finland, for example Levi and Ruka, tourism resorts are surrounded by private lands and therefore, tourism is dependent on the recreational quality of the forests. As the aesthetic and recreational functions promote tourism and enhance economic development in rural areas, and therefore maintaining or enhancing landscape amenities is an important objective in forest management in tourism areas (e.g. Ahtikoski et al. 2011). Although management practices have been improved to take landscape and recreation values into account, concerns around landscape deterioration are repeatedly raised into public debate. Market-based mechanisms have been suggested as a new approach to balance the provision of private and public forest benefits.

This paper presents the main idea of a landscape in scenic value trade suggested to be implemented in private forests with high tourism and recreational use pressures in Finland. Moreover, key results of two studies conducted in the Ruka-Kuusamo tourism area in northeastern Finland assessing the possibilities of starting a trade dealing with landscape and recreation values between forestry and tourism sectors will be presented.

## What is landscape and recreation value trade?

In Finland suggestions for models for landscape and recreation values trading (LRVT) in private lands have been launched by forestry and landowner organizations some years ago. Recently, a procedure involving a large number of landowners and tourism entrepreneurs in tourism areas has been suggested (Tyrväinen et al 2013). Financing would be collected from the beneficiaries (i.e., users of landscape and recreational values) in connection to the prices of tourism services such as accommodation (Figure 1). Forest owners would be rewarded with payments for undertaking the specified measures that could include a range of forest management options.

An LRVT contract would define areas important for recreation and tourism within private forests, typically along outdoor recreation routes, roads, resting places and shores, in which the scenic and recreational quality would be secured. The emphasis would be on mitigating the landscape effects of final fellings by delaying the felling or using for example selective harvesting. Crucial to a feasible mechanism is a cost-effective solution for collecting the funds from the tourists and/or tourism enterprises.

Preconditions for trading landscape and recreation values in Kuusamo tourism area

The demand study (Choice experiment survey) focused on domestic as well as foreign tourists' demand for and willingness to pay (WTP) for enhanced forest amenities, in particular landscape values and biodiversity, in private forests. The data for the tourists survey were collected during winter-spring and summer-fall season, resulting in a data set with over 900 observations. Foreign tourists' represented 25% share in the data. Ruka is the largest ski resorts in Finland. Annually around one million tourists visit Kuusamo area.

The results support the idea that tourists are willing to pay for selected improvements in the quality of outdoor recreation environments through adjustments in forest management. Both foreign and domestic tourists were willing to pay for improvements in the forest landscape, in terms of less frequent clear-cutting and site preparation areas along the routes, as well as for increased biodiversity. Foreign tourists' willingness to pay was significantly higher than domestic tourists'. Neither group would pay for extended outdoor recreation routes or increased carbon sequestration.

The supply study investigated forest owners' willingness to participate and their compensation claims related to the provision of enhanced forest amenities in the tourism area. The survey was targeted to reach all landowners that had property within or nearby Ruka-Kuusamo tourism area. Considering the novelty of the idea, relatively many forest owners were generally interested in the suggested scheme. The willingness to participate is strongly dependent on the payable compensation as well as other terms of the contract, such as duration and harvesting restrictions. Long contract durations and the stringent "no harvesting at all" restriction increased the compensation claims.

## Conclusions

The studies conducted in Ruka-Kuusamo area suggest that the basic prerequisites for the proposed LRVT scheme seem to be fulfilled. The tourists showed a significant willingness to pay for enhanced forest amenities such as the landscape. One of the most important improvements in the landscape for tourism would be mitigating the negative effects of final fellings and regeneration. In scenically sensitive areas small scale harvesting practises would be used instead. Moreover, regarding the design of the LRVT scheme, payments charged in connection with accommodation prices was the most widely accepted way of collecting funds to guarantee the payment of compensations to forest owners.

Moreover, relatively large share of forest owners were generally interested in participating in the suggested scheme. The details of the possible contracts, however, such as duration and harvesting restrictions have the effect on the acceptable amount of the compensation. The next step will be to conduct a pilot study in Ruka-Kuusamo area, to develop a more detailed mod with local stakeholders and pilot the model in the region.

## References

Ahtikoski, A., Tuulentie, S., Hallikainen, V., Nivala, V., Vatanen, E., Tyrväinen, L. & Salminen, H. 2011. Potential trade-offs between nature-based tourism and forestry, a case study in Northern Finland. Forests 2(4): 894-912.

Kroeger, T., Casey, F., 2007. An assessment of market-based approaches to providing ecosystem services on agricultural lands. Ecological Economics 64, 321–332.

Tyrväinen, L., Mäntymaa, E. & Ovaskainen, V. (2013). Demand for enhanced forest amenities in private lands: The case of the Ruka-Kuusamo tourism area, Finland. Forest Policy and Economics. DOI: 10.1016/j.forpol.2013.0