Windpower in a nature-based tourism area – green energy or landscape disturbance?

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Introduction

The demand for nature-based tourism has created new economic opportunities within regions rich in natural amenities, such as Northern Europe. In Finnish Lapland, for example, tourism has become the most important economic sector, now providing more job opportunities than the forest sector. Nature and landscape quality is one of the pull factors of Nordic nature-based tourism and therefore, it is important to understand people's experiences and perceptions of their recreation environment and what type of changes are not desirable from a tourism point of view. Natural scenery, experiences of nature, authenticity and service quality are identified as factors that attract tourists to resorts in rural and peripheral areas, both in Finland and elsewhere in Europe.

In recent years in Finland, government policy measures have strongly encouraged renewable energy production, including the construction of windparks in various regions in Finland. One of the most controversial environmental effects of windpower is, however, its impact on the quality of the landscape. Concerns around landscape deterioration are currently high on the agenda in public debate among summer cottage owners, recreationists and nature-based tourism entrepreneurs. In Finnish Lapland, the relationship between windpower and nature-based tourism is a timely issue, as almost twenty windparks are currently planned for development in Lapland. At the same time, the Lapland tourism strategy aims at doubling the amount of foreign visitors by 2020. So far there are few studies that address the acceptability of windpower from the nature-based tourism point of view in the Nordic countries (e.g. Hörnsten, 2002; Heiberg, Aall and Tveit, 2009). Therefore, a deeper understanding of the synergies and conflicts between nature-based tourism and windpower is needed to improve land-use planning and allocation of windpower parks in regional planning.

This presentation reports on the main results of a survey among foreign and domestic nature-based tourists regarding attitudes towards windpower development in Finnish Lapland. The main goal of the study was to evaluate the impacts of the construction of Mielmukkavaara windpark, located in the Muonio tourism region in northern Lapland. The study investigated the effect of the windpower park on the quality of recreation experiences and on the attractiveness of the destination for nature-based tourism.

Methodology

The data consisted of 252 onsite interviews in Lapland during the winter and spring seasons 2010–2011. 71 per cent of the respondents were foreign and 29 per cent were domestic visitors. An additional 150 responses from domestic tourists were collected during autumn 2011. The respondents were asked about the characteristics of their trip, motivations to choose Muonio as a travel destination, and their general attitudes towards wind power development. The respondents also evaluated 16 original and edited photographs presenting views of the planned Mielmukkavaara windpark with and without turbines, in order to assess the impact of the park on recreation and tourism activities. Moreover, foreign and domestic tourists were interviewed using the focus group method to get a deeper insight regarding windpower development in Muonio. A total of 27 people participated in the interviews.

Results of the visitor survey

In general, the tourists considered windpower to be an environmentally friendly energy production solution. The international tourists, however, were somewhat critical of the acceptability of windpower in the vicinity of nature-based tourism areas. The evaluations of the original and edited photograph images showed that wind turbines would reduce the area's suitability for recreational and tourism activities. Thus, the majority of the international respondents thought that Mielmukkavaara windpark should not be built.

Moreover, the proposed Mielmukkavaara windpark was assessed to have a negative effect on the image of Muonio as a nature tourism destination (Figure 1). Foreign tourists – from the Netherlands, Belgium and the UK in particular – felt that that windpark would weaken the image of the Muonio region as a tourist destination. From all the respondents, 60 per cent stated that a windpark in Mielmukkavaara would significantly or somewhat worsen the image of the area as a nature tourism destination.

Compared to international visitors, Finns were more willing to accept windpower development in Lapland and the construction of Mielmukkavaara windpark. Among the domestic respondents, the share of advocates for the windpark was larger than the share of those who were against the building of Mielmukkavaara windpark. Some of those that were in favor even thought that wind turbines can act as landmarks which aid orientation in the wilderness.

Discussion

The results show that foreign tourists have a somewhat critical attitude towards wind power in the Muonio area. This is partly understood by the fact that safari entrepreneurs currently use the proposed area for development for various types of safari, which are mainly used by foreign tourists. Moreover, the negative attitudes may be a result of intensive

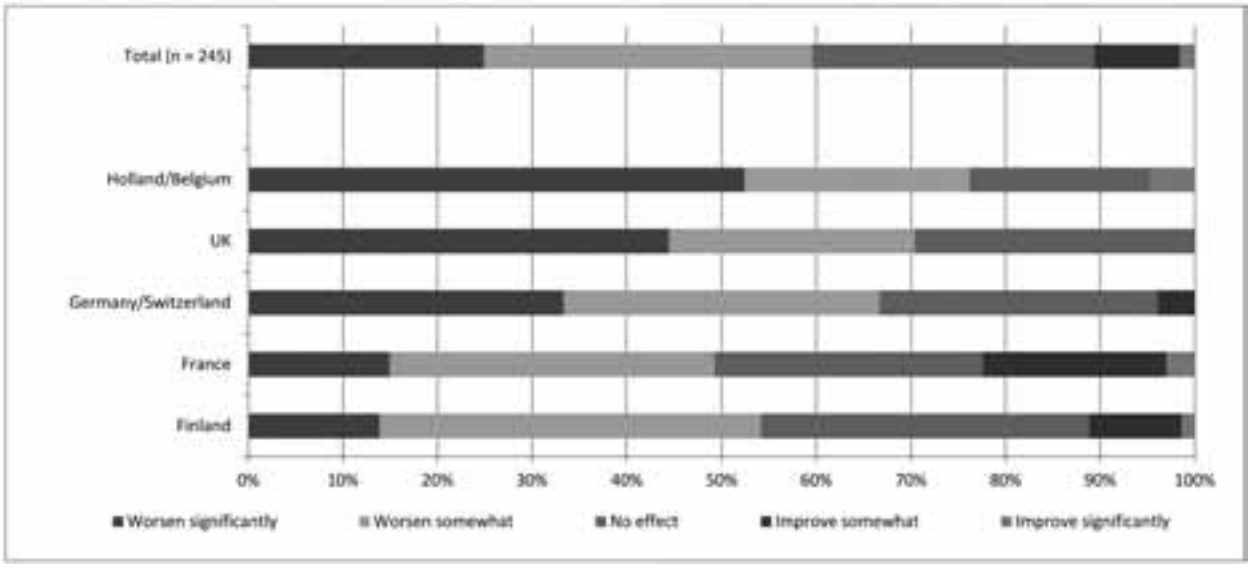

Figure 1. The respondent's assessment of the impacts of Mielmukkavaara windpark on the image of the Muonio area as a nature-based tourism destination.

wind power development in the clients' home countries.

The findings call for the definition of more specific criteria for planning and allocating wind power parks in nature tourism areas. It is suggested that the proposed Mielmukkavaara windpark would have negative effects on safari tourism, which is largely dependent on foreign tourists. The importance of foreign tourism is particularly significant in Muonio; it represents two-thirds of all overnight stays in the region. The most commonly mentioned reasons for the negative effect of windpower are related to its visual impact on the landscape. These effects could be mitigated to some extent by changing the route networks used by safari entrepreneurs where possible.

Heiberg, E., Aall, C. and Tveit, E-M., 2009. Vindkraft, reiseliv og miljø – en konfliktanalyse. Vestlandsforskingsrapport nr. 1/2009.

Hörnsten, L., 2002. Turisters attityder till vindkraftverk i fjällen. Hållbar utbyggnad av vindkraft – metodutveckling för fjällområdena. Working Paper 2002:1, ETOUR.

Tyrväinen, L., Järviluoma, J., Nikkola, K. & Silvennoinen, H. 2012. Selvitys matkailijoiden suhtautumisesta Mielmukkavaaran tuulipuistohankkeeseen. Working Papers of the Finnish Forest Research Institute 237. 47 p. http://www.metla.fi/julkaisut/workingpapers/2012/mwp237.htm