

How to maintain naturalness in nature-based tourism resorts?

Marja Uusitalo
Natural Resources Institute Finland

Abstract

It is a challenge to initiate resorts' growth in nature-based tourism when undeveloped nature is the key attraction. The thesis focuses on the resorts' naturalness that is essential, especially when the resorts target summer tourists. The issue is approached through four methods of landscape research. Two of the methods generate user perception-based knowledge and the rest some ecological knowledge to be combined for deeper understanding of the effects of land use on the quality of landscapes. Geo-referred ecological data, tourists' preferences and mental maps were collected in Levi and Ylläs tourism resorts. The thesis shows that nearby nature matters to tourists in the resorts where land use has been reasonably sustainable so far. This demonstrates that infill development, i.e. land-use eco-efficiency, is a complex issue. The analysis suggests a re-evaluation of land-use strategies to promote tourists' nature experiences.

Keywords: nature-based tourism, tourism resort, land use, landscape ecology, landscape perception, nature experience, growth strategy, Lapland

How to promote tourism growth without degrading natural attractions and losing the destinations' naturalness? This is often a dilemma that tourism operators face when they are making land-use decisions to promote sustainable tourism and to protect wilderness areas around nature-based tourism resorts. Is the implementation of eco-efficient land use, which leads to infill development and affects the quality of natural landscapes, the best solution? Nowadays, resource-efficiency is integrated into community planning and smart growth of urban cities. Should this practice be adopted into resort planning too?

When nature experiences function as the major purpose of travel, tourists seek destinations where they can enjoy natural landscapes and wildlife. How would the tourists react if the outcome of the infill of the developed land is that nearby nature is pushed further away from the doorsteps of the accommodations? Can we expect that the tourists are willing to travel to

eco-efficient urban-like centers that promote sustainable tourism through increase of resource productivity of land use?

These types of questions motivated this thesis, which introduces new approaches to assess landscape quality for tourism planning. In order to solve the dilemma of the destination management, impacts of land use on landscape quality are assessed. The thesis focuses on those resorts that emphasize year-round tourism. Summer products rely even more than winter products on natural attractions. Hence, tourists' nature experiences enhanced by high environmental quality are a necessity.

The landscape quality is assessed from two aspects in the thesis: ecosystems' functioning and tourists' perceptions of landscape quality. The thesis is a multi-scientific landscape study that uses landscape architectural and landscape ecological assessments as complementary methods to explore how landscape strategies affect ecosystems' functioning. So far only a few studies have focused on how tourists perceive the spatial structure of a destination driven by land use. Furthermore, there has been hardly any discussion on compact land-use patterns, even though they may change the perceived quality of nature in built-up areas of nature-based tourism resorts. Therefore, the thesis also introduces cognitive and psychophysical paradigms of environmental psychology to practical tourism planning, which usually places a strong emphasis on expert knowledge of landscape quality.

The thesis answers the question of how nature-based tourism resorts could maintain naturalness and promote tourists' nature experiences while also building the capacity to accommodate an increasing number of visitors. It also pursues knowledge of the suitability of eco-efficient land use in the resorts. Hence, taking tourists' perceptions of compact building patterns into consideration is part of the solution. It is believed that this type of approach that combines user perception-based knowledge with ecological knowledge would better serve the land-use zoning of the resorts.

Four sub-studies were carried out in the Levi and Ylläs tourism resorts in Finnish Lapland. The case study areas were selected as being representative of the traits of the development and growth targeted by many other Nordic destinations. A bigger picture of landscape quality was created with the help of several indicators. First, land use at the high altitudes of the fell landscape, which reflects land-use impacts on ecological carrying capacity in the resorts, was studied. Second, connectivity of wildlife habitats, as well as wilderness quality of landscapes and their accessibility via summer trails were explored. The assessments of landscape structure involved landscape character zoning and Least-Cost Path (LCP) -modelling. The methods are based on multisource data and Geographical Information System (GIS) that are quite typical of landscape assessments.

The analysis of tourists' spatial perceptions of the resorts was based on the relationship between their landscape preferences and the amount of nature in different building patterns. The issue was examined through the use of a questionnaire, which involved image-edited photos of the patterns. Furthermore, the different perceptions of the environment were interpreted based on the contents and structures of the mental maps of the resort. Of particular interest were the symbols of nature areas and natural elements included in the maps, which were sketched by tourists and locals.

Based on the results, it seems that people expect to view landscapes with some wilderness qualities in nature-based tourism resorts. Wilderness quality refers to aspects of the landscape that people perceive as being affected primarily by the forces of nature. Wilderness quality is not that different from naturalness, which refers to the resort's closeness to nature. Based on the tourists' landscape preference, it is apparent that they wish to have their accommodations close to nature. Accordingly, compact districts are disliked in general. It implies that land-use eco-efficiency is a complex issue, which does not necessarily address tourists' landscape preferences.

Healthy ecosystems are related to the tourists' landscape preferences. When flows of energy and material between ecosystems are not prevented, ecosystems can maintain their basic functions and better tolerate the impacts of tourism development, which is essential in the northern latitudes where ecosystems recover from the human-induced changes very slowly. The ecological assessments showed that land use in the resorts has fostered ecological functions until now, but land-use strategies are not sufficient for promoting sustainability.

A process of dual growth was identified. While a resort increases land use in the existing built-up areas in lower altitudes, it is concurrently building new districts in higher altitudes without noticing that they function as drivers of the ecological and hydrological processes of the whole landscape ecosystem. Also the infill development evokes some concerns regarding the resilience of the ecosystems. For example, it breaks down or narrows habitats of wilderness and arctic-alpine species in the frontcountry of a resort. The diversity of nature experiences in the area where first-time visitors, seniors and families with young members are likely to spend lot of time is decreased as a result. Moreover, there is a threat that the growing numbers of tourists, particularly newcomers, start to consider nature areas less accessible when natural elements become increasingly rare in the built-up areas.

In other words, it is time to reconsider the growth strategies of nature-based tourism resorts and to make them more proactive, long-term and broad-scale. First, abundant and broad connections between ecosystems are needed in the northern latitudes to maintain resilience. In order to create as many links between ecosystems as possible, land-use planning should take place on the landscape scale. Second, high altitudes need to be protected from further construction. Additionally, regular monitoring of land use is needed in order to proactively pursue anticipated ecological and visual changes.

As follows, the thesis suggests that the growth of nature-based tourism goes hand in hand with landscape planning and green infrastructure (GI), which fosters functional connectivity of ecosystems. The GI functions to maintain the high altitudes in their natural state, to limit land-use intensification and to provide a basic structure for the trail network in the frontcountry. In other words, the growth should be based on the existing built-up areas of lower altitudes that are filled with a new infrastructure up to the limit set by the GI. Second, high landscape quality of nearby nature is enhanced by landscape ecological planning. It involves that siting of new lots is guided by an ecological greenspace design, which creates patterns of new infrastructure as small clusters just outside of existing built-up areas. The pattern leaves coherent greenspaces between new building lots to function as habitat patches, stepping stones or corridors for wild-

life. This also ensures favourable natural window views. In addition, the design provides room for natural drainage to minimize runoff and for a trail network, which is designed for year-round use and displays biodiversity and visual diversity of the area. Consequently, the expertise of landscape architects and landscape ecologists are recommended in the planning of resorts' land use.

Nearby nature in urban environments has many advocates due to its wellbeing and health benefits. Finally, the thesis suggests that the significance of nearby nature is not underestimated in nature-based tourism resorts that are surrounded by large wilderness areas or located in the vicinity of national parks. The built-up area of a resort is not just a base camp, i.e. a supplier of equipment, food, guide services and accommodation, which prepares tourists for tours and expeditions to wilderness or national park. Its nature areas should be considered as an important part of natural servicescapes that provide high quality trails to ensure nature experiences, to encourage tourists to enter into nature areas of backcountry, and to stay on trails for habitat protection.

The dissertation is available at: <https://lauda.ulapland.fi/handle/10024/62842>.