

Ecological improvement and sustainable development in European skiing resorts by adapting the EU-Eco-Audit

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1 ABSTRACT

The range of environmental problems in European skiing resorts caused by winter sports, agriculture and summer tourism are all well known. The issues and management challenges relate to sensitive ecological conditions, construction activities, deficiencies in visitor management and an land use conflicts during summer.

One new approach to manage these problems is the EU-Eco-Audit. In test sites in Switzerland, Liechtenstein and Austria a successful adaptation of the EU-Eco-Audit framework to ski resorts has been developed. The implementation of the Audit framework at these test sites led to positive effects concerning visitor and ecological management. One influencing factor for the future development is the positive public image concerning environmental aspects. Crucial to the implementation of the Eco-Audit-framework is whether it will assist ski resorts in their competition with other destinations for hosting international events.

Finally the acceptance of the certificates or awards by skiers is discussed. It will be argued that due to the increasing relevance of information provision and marketing of wintersport destinations via the internet, the auditing or award concept contributes to a positive image of these enterprises and destinations in the market place.

2 INTRODUCTION

Over the entire alpine region in the centre of Europe, downhill skiing is one of the main tourist attractions, and therefore one of the major economic sectors of the region. During the 1980's, downhill skiing started to be perceived as a contentious activity because of its negative effects on the natural environment. When ski slopes are developed, problems arise with regards to erosion, degradation of the natural vegetation and disturbance of animals. Several studies, which analysed a total of 32 ski resorts in the Bavarian Alps (Pröbstl et al 2000, Bayerisches Staatsministerium für Landesentwicklung und Umweltfragen 1997) showed an additional factor of concern: the overlapping of wintersport, the agricultural use and summer tourism. In these studies it was demonstrated that if these different forms of landuse are not coordinated, increasing charges are to be expected.

On the other hand, there are several studies which describe how an improvement of the natural integrity of wintersport resorts can be achieved (see Ammer, Pröbstl 1991, Leicht, Dietmann, Kohler 1993, Ammer, Pröbstl 1997, Bayerisches Staatsministerium für Landesentwicklung und Umweltfragen 1997, Roth 1997). The main recommendations range from the restoration of small areas of threatened vegetation to a longterm strategy of enhancing the entire management concept of the slopes in summer and winter.

The challenge is how the responsible enterprises can be encouraged to start those measures or to implement a new sustainable landuse management

To improve the situation, two options have been considered in the past:

certificates or awards for skiing resorts with good condition, and

restrictions and regulations based on environmental and nature conservation legislation.

Under the system of awards and recognition, ski resorts with fairly natural slope conditions receive awards for ecologically sound management practices.

On the other hand, resorts that introduced heavier disturbances when constructing ski slopes, such as intensive levelling of the slopes and heavy earth movement, will not receive any of these rewards.

Management approaches relying on restrictions and regulations alone, such as nature conservation legislation, lead only to a few changes, but not really to a more advanced ecological management of the ski resort.

3 THE EU-AUDIT-PROCESS

A new approach for managing ski slopes and mitigating their ecological effects is the adaptation of the EU-Eco-Audit framework to the environmental management of ski resorts (Pröbstl, et al. 2000). This framework represents a market-based economic instrument, which enables companies in different sectors to show environmental awareness and adopt environmentally responsible behaviour, while at the same time the companies strive to optimise their operational procedures. The EU-Eco-Audit system represents a less forceful approach than traditional regulations to monitor and guide the further development of ski resorts in an environmentally sound manner. By adopting that system, a ski resort needs to accept its own role and responsibility in environmental management. Crucial to this audit framework is a permanent monitoring system. The framework has already been implemented in several industrial and administrative applications (e.g. breweries, senior homes), and appears to be sufficiently flexible to be adjusted to almost any situation. Also, any operation under the EU-Eco-Audit needs to repeat its evaluation and redefine its evaluative framework every three years. These efforts are also likely to have positive effects on publicity and attract new target groups. In contrast to North American auditing-systems, the EU-Eco-Audit represents a proactive environmental management system with a more preventative perspective (Williams et al. 1997).

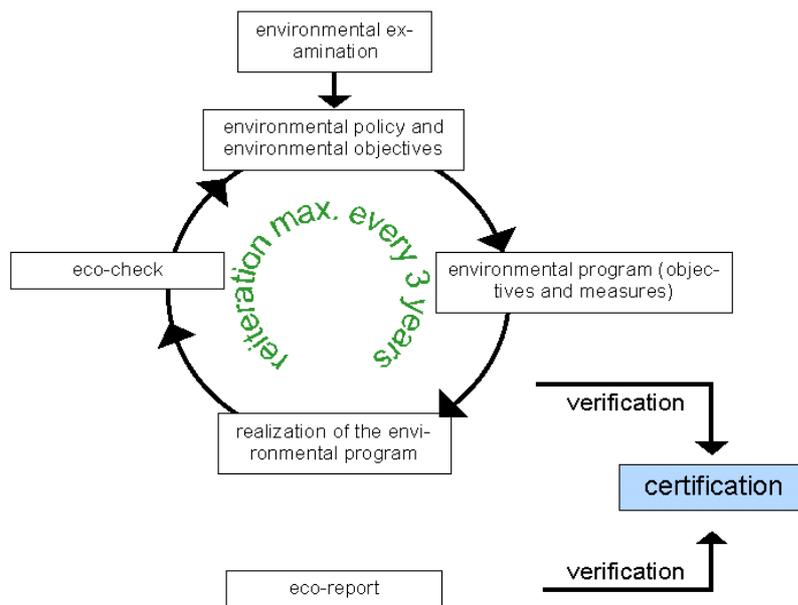


Fig. 1: Model of the EU- Eco Audit process

In order to test the applicability of the EU-Eco-Audit framework to downhill skiing operations, an international collaborative project was initiated and supported by the foundation „pro natura pro ski“ of Liechtenstein (Pröbstl, et al. 2003). Three representative areas in three different alpine countries (Schladming, Austria; Adelboden, Switzerland; Malbun, Liechtenstein) were selected to adapt and test the directive. Additional scientific knowledge was available from past ecological research in several skiing resorts of Bavaria.

It was shown, that the enterprises profit from the Eco-Audit in different ways (see fig 2):

Positive effects for the ski resort

Competition	Reduce cost	Reduction of risk	Improved organizational structure
increased attractiveness for environmentally aware clients	reduced cost for compiling support materials for permits	increased knowledge of potential damages over entire ski area	increased knowledge of grooming personal
environmental concerns are positioned as key criteria for the company	reduced insurance premiums	more thoroughly documented chain of decisions in case of legal challenges	more detailed knowledge about the affects of management on nature and landscape
improved positive image with resource management agencies	lower bank rates		reduced bureaucratic efforts
improved competitive position during applications for mega-events	reduced requirements of expensive recultivation in case of wider damages		increased knowledge about contribution of winter- and summer tourism

Fig. 2: Potential advantages for ski resorts when adapting the EU-Audit framework (SCHNEIDER et al. 2002)

4 EXPERIENCES WITH THE IMPLEMENTATION OF THE AUDIT IN WINTERSPORT RESORTS

Our investigation revealed that the main difficulty was to increase the level of awareness about ecological issues with the employees of the various enterprises, and to identify the responsible departments within the enterprises and to initiate the actual auditing process. It is important that employees of all levels and all departments of the company participate in the process. This needs to include slope grooming, as well as advertising and marketing, and service and management. All participated in an analysis of strengths and weaknesses, and in a discussion to determine an environmental policy for the company, and the formulation of goals and principles for environmental management. This broad participation in the initiation of the auditing framework is essential for its successful implementation. Thereafter it is essential to develop a framework specific to the peculiarities of a ski resort. Beyond the analysis of ski slopes and lifts, the framework should account for the entire affected area beyond the slopes. For example, noise affects a much larger area, as do off-piste skiers. Therefore we decided in the implementation of our framework that it is essential to map the following ecological phenomena and human influences for each ski area: geology and soils, climatic issues, hydrology, vegetation, fauna, building measures, damages distinguished by causes and land use all the year round. In addition, visitor management and ecological information offers were evaluated to learn about the already existing environmental activities of the skiing resort.

In the three ski resorts that we analysed, the implementation of the audit framework leads to the following improvements:

enhanced consideration of habitats for bird species that are particularly sensitive to disruptions during the winter season, i.e. the capercailli and black cock;

eliminate intensive agriculture in sensible higher alpine areas;

changed summer uses (e.g. hiking, mountain bike on the ski slopes) for improved regeneration;

protected valuable habitats;

improved management of water resources;

Besides the ecological improvements, which, in mountain environments will become obvious only after many years, the adoption of the auditing framework also leads to significant short term improvements to the organisational structure, in data capturing and analysis, as well as to a reduction of cost of slope maintenance and other improvements. For example the contracts with farmers concerning the maintenance of the ski resorts include special clauses to consider ecological requirements. At the same time such actions reduce total maintenance costs. A more sophisticated data capturing system of water management concerns, such as snow making, contributes to a more sustainable use of water resources.

Furthermore, the auditing system also leads to an introduction of environmental concerns to the image and the advertising strategies of the company. This approach is enhancing new ideas and innovation within the enterprise. Implementation of the auditing framework also increased the sense of belonging for employees, and increased their motivation to work for the corporation.

5 ACCEPTANCE OF AUDITING AND CERTIFICATION BY WINTERSPORTS CLIENTS

The main idea of the auditing process is that for the wintersports clients it makes a difference to ski in a resort that is managed sustainably and is controlled by a certification. But does this marketing effect really occurs in practise?

Schmid (2003) tried to find out whether the client is recognizing the certification or ecological awards and whether the skiers are attracted by these offers. For the study in the winter season 2003 in the ski resort 284 skiers have been asked to answer a questionnaire. About 80 % of them were tourists, 20% were daily visitors. The main questions have been whether

a certified destination is more attractive for its clients, and

the certification has a positive effect on the decision making process if it is communicated via marketing and advertising differently.

To answer these questions the questionnaire included several questions to differentiate between different types of skiers. For example, they were asked about their favorite wintersport resort, their environmental attitude and important attributes of a wintersport resort.

The main finding can be summarized as follows (see fig.3). Three main types of skiers can be differentiated:

Type 1: The motivated one. This group of clients are highly motivated to take certification into consideration. If there is an environmental certification they tend to chose the certified offer. In the test site (Schladming, Planai Bahn) about 16% of all the respondents belong to this type.

Type 2 The interested one. These group is basicly interested in environmental certification. They may take it into consideration if the concept is well communicated and the effects clearly stated. In the test site (Schladming, Planai Bahn) about 30% of all the respondents belong to this type.

Type 3 The indifferent one. These group is not much interested in environmental information or certifications. Even with additional information it cannot be expected, that members of this group will consider the certification of a ski resort when selecting the destination. In the test site (Schladming, Planai Bahn) about 42% of all the respondents belong to this type.

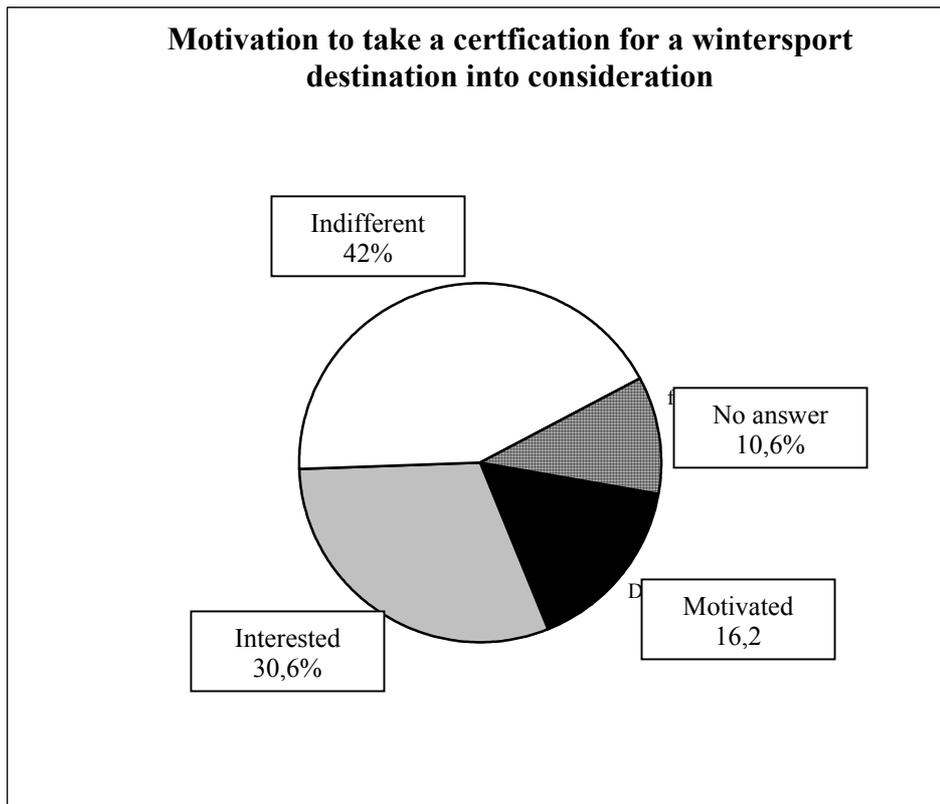


Fig. 3: Only about half of the visitors of a skiing resort will consider a certification when they choose a destination.

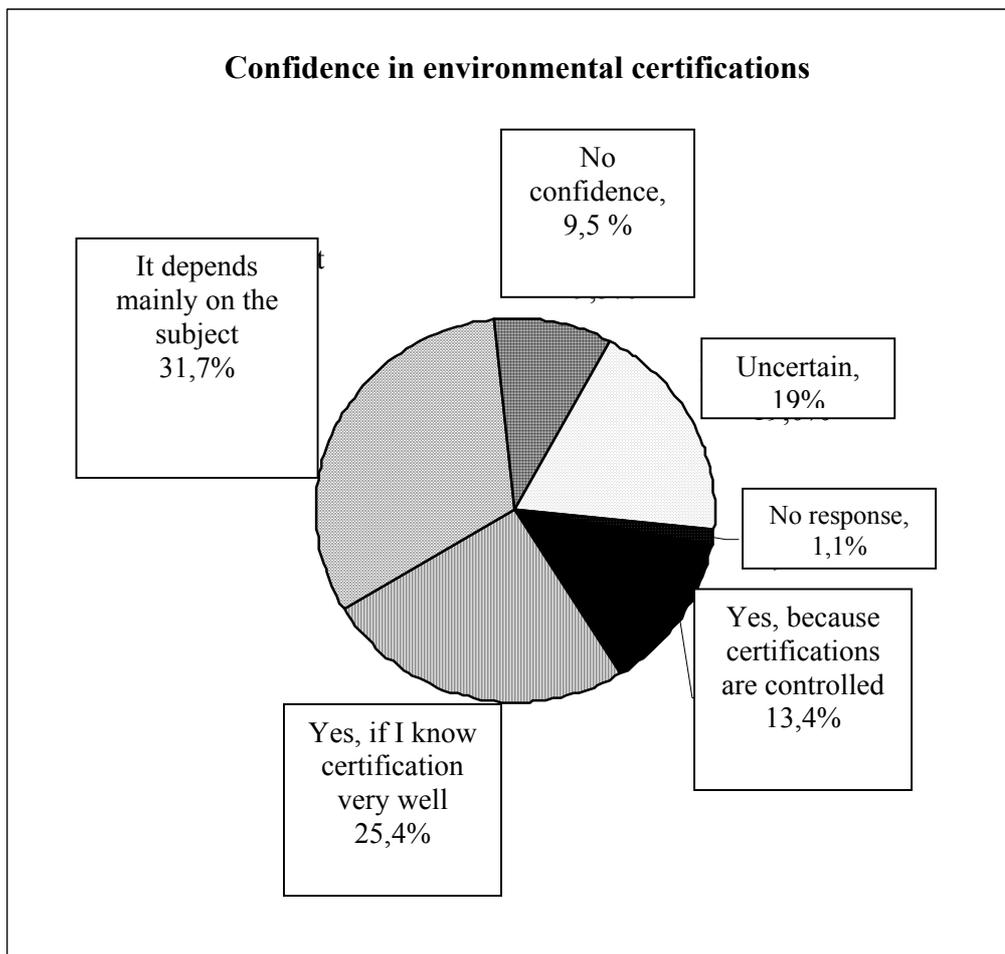


Fig. 4: The confidence in environmental certifications depends on its recognition.

One reason for this low rate of acceptance could be the general attitude towards awards and certifications. Fig. 4 shows that more than the half of all respondents only trust certification if they have additional information.

Related to the EU-ECO-Audit we see, that competitive advantages for those enterprises which join the auditing process can only be expected if it is accompanied by an intensive marketing effort illustrating the main idea, the effects on the environment, the involved experts and clearly stating who is responsible for the certification process. Despite all this effort one must keep in mind that for most winter clients the environmental certification is only one additional attribute of a winter destination and not an essential one (such as snow assurance).

Due to the increasing relevance of information on wintersport destinations via the internet, the auditing and award program can increase in significance for the enterprise. More than 75 % of the skiers in this test site stated that they regularly check the internet to get more and updated information on the ski resort. Therefore the internet should be used to introduce this new tool for an ecological improvement and sustainable development for European skiing resorts.

6 SUMMARY AND OUTLOOK

Combined with a Geographic Information System, the EU-Eco-Audit proves to be an excellent method for undertaking an ecological improvement close to practice. In contrast to more conventional restrictions and regulations, the audit process entices the enterprise to become pro-actively involved in environmental management on a continuous basis and to make it an integral component of their management routine. This may also lead to reduced costs and improvements in the organizational structure.

Furthermore the Audit contributes to a positive, "green" image of the ski resort and increases its attractiveness during international competitions to host mega events.

Despite this positive balance that can be drawn from working in different regions, a widespread realisation of this idea will depend on the question, if the immediate benefits of managing ski runs and marketing also will be profitable to local tourism. Also, it is to be expected that the awarding of international skiing competitions will more and more be associated with the existence of a credible ecological concept and a sustainable management. At the same time, the importance of the Audit for sport competition venues will gain in significance. This is especially valid because of the rating that competition venues grab with international sport contests, considerable for the weight and the touristic commercialisation within international comparison.

The participation of the FIS (Federation internationale du ski) in the design and implementation of these new Audit-guidelines indicates that the Auditing process may play a most significant role in the future.

To start the process of a widespread implementation in the alpine chain the newly developed framework for the auditing process for skiing resorts have been translated in all languages of the alpine chain as well as into English. A detailed teaching and dissemination concept is in preparation and will be supported by the Alpine Convention.

With this financial and political support of all alpine countries and a clear marketing concept we hope that the auditing will help both the enterprises and the alpine environment.

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