

Methods of monitoring the visitors inside the natural protected areas

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ABSTRACT

The monitoring activity represents a part of the management plan which is constantly evaluating the actions inside a protected area. The tourists' monitoring is made through specific means that are established on a scientific basis. It can be done by the staff of the protected area, after an appropriate training or by scientists in joint programs. This process requires considerable resources, time and effort, collecting, processing and interpreting the data, how they will be used and the obtained results. This process also requires time, effort and the availability of the visitors.

The information collected from visitors, if they are collected by appropriate means, can support the initiation of educational and interpretation activities within the protected area. Therefore, monitoring should include tourism and educational activities as from its results it could develop long-term trends and ways to be followed in this domain.

KEYWORDS

monitoring, experience, information, communication, natural protected area

JEL Classification

O13, Q26

1. Introduction

The monitoring of tourists inside the natural protected areas appears as a result of the travel intensification to these destinations and also the number of visitors. Because these areas are sensitive, they shelter valuable species of plants and animals, some of them endangered, there is always the need of a permanent monitoring of the activities developed and also their impact on the resources and to take urgent measures to protect and conserve when it is required. The monitoring represents a part of the management plan that is constantly evaluated inside the protected areas. The monitoring of the tourists and the resources is done through specific means, which are established on a scientific basis. It can be done by the staff of the protected area, after appropriate training or by scientists in joint programs.

2. The visitors experiences – component of the monitoring process

An important element of planning and management of protected areas is to understand the **experiences of the visitors**. If it is well managed; the visit can generate social, cultural and economic benefits and also preservation for visitors of protected area and local community. Without a strategic planning, the activities of visitors can cause a wide range of negative impacts such as destruction, degradation, pollution, costs and lost opportunities.

The natural protected areas allow the development of a variety of recreational activities which improve the health and the individual well-being, offer opportunities of social interaction, generate economic benefits associated with the services offered to tourists inside and outside the protected areas, promote appreciation of natural and cultural heritage and increase awareness of conservation attitudes and existing resources. The managers of protected areas satisfy and prevent the expectations of the visitors

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without compromising or neglecting natural and cultural heritage which is the main purpose of protection of natural areas in question.

The visitors' experience has many dimensions and varies depending on location, season, and length of stay, resource structure, existing services and visitor behavior.

Regarding location, the experience affects tourists in terms of:

- Typology of the protected area (terrestrial and marine wildlife area, national park, natural park, Biosphere Reserve etc.);
- Surface (large, medium, low);
- Activities permitted;
- Developed activities (spiritual experiences, solitude, relaxation, visiting various tourist attractions, picnic with family and/or friends, camping, special celebrations, shape building through walking, hiking, climbing, cycling, adventure, field orientation, rafting, mountain-biking, riding, skiing, fishing, swimming, boating, diving, professional pursuits and hobbies such as photography, painting, writing, poetry, educational visits for schoolchildren, students, master, special groups);
- Infrastructure and facilities available to tourists.

The season influences the economic efficiency of the species of flora and fauna, the landscapes that can be viewed and photographed, the personal comfort and the satisfaction of tourists.

The length of stay can vary from a short trip to a prolonged stay.

The travel partners (organized/semi-organized groups, individuals, with family, friends, school, with various groups) can influence the number and the satisfaction of the other tourists while visiting the area with similar or different purpose. An inappropriate behavior of one person can affect the level of satisfaction. The safety or risk perceptions or an excessive control of the park managers may have an effect on visitors' experience.

Given all these factors, the monitoring system must clearly establish goals and objectives, the method of monitoring and the obtained results which will be used by the management of the protected area. The monitoring requires considerable resources, time and effort, collecting, processing and interpretation of data, how they will be used and the results obtained. Also, this process requires effort, time and the availability of visitors.

The main reasons for collecting data regarding the number and the experience of visitors are²:

- Understand the expectations of visitors;
- Understand the motivations and the purpose of the visit;
- Understand the efficiency of protected area management;
- Create facilities available to tourists;
- Determine visitors' satisfaction with their experience;
- Determine visitors' satisfaction concerning the facilities and services specific to the protected area;
- Reporting performance on providing services to guests;
- Identify the key factors of visitors' satisfaction in the context of specific areas and activities;
- Establish and follow a profile of visitors from a demographic perspective, preferences, activities etc.;
- Monitoring compliance of the rules and regulations;

² Parks, IUCN, vol. 16, nr. 2, 2006, pag. 27

- Compare the level of use with the impact on the sensitive areas;
- Identify the necessary and specific indicator of the area, the data collection and their processing;
- Preparing the personnel and the maintenance activities;
- Determine the impact of the informational materials and promote guided walks in order to appreciate and understand the values of the site;
- Identify any problem, such as safety of visitors and minimize conflict between different types of use;
- Identify sources of information used by different categories of visitors, both before travel and within the protected area;
- Identify the characteristics of travel (group size and structure, transportation used, accommodation options, categories of activities developed);
- Identify the importance of social, economic and political development of recreational use of the protected area.

Monitoring the number of tourists should be made every day, regardless of the availability of staff involved or visitors, their schedule, time of day of the week, the month of the year, holidays etc. .. For example, in Italy, during the National Day, tourists have free access at any museum in the country. However, tickets are issued for every tourist in part just to keep accurate records and correct the number of visitors. It is a practice that could be also used during the visits to protected areas.

Because a protected area (especially for those located in a mountainous area) natural access routes (paths) are numerous and difficult to monitor, the best way would be to monitor tourists in the camping areas or accommodation.

In addition, during weekends, holidays, or full tourist season, when the number of visitors is much higher, should be increased also the number of people involved in monitoring (rangers, guides, mountain police, environmental police) which will verify the most used areas and tourist routes.

Issuing tickets to all visitors to the access roads should be a must.

The clarity of goals, the methods, techniques and tools used must ensure comparability over time and for different areas. In order to manage appropriate social conditions, the impact of visitors is important not only for monitoring but visiting patterns and spatial distribution of tourists. GPS (Global Positioning System) can also be used to provide visitors with their movements in time and space.

3. Techniques of monitoring the visitors

In order to determine the indicators mentioned above, it is needed to gather general information used to monitoring the tourists who visit a natural protected area.

The summary of monitoring techniques of visitors

Table no 1

Technique	Appliance	Advantages	Disadvantages
Counting visitors - includes automated devices, recording inflows by selling tickets, manual counting, book of impressions, travel records and aerial photographs.	Traffic monitoring devices (traffic counters) that can be placed on most roads used by vehicles, aerial photographs can be used for marine areas and those areas difficult to access. Such method can be used to estimate the use of specific areas of the route.	Provides a simple measurement of distribution and utilization of natural resources. The automated monitoring system is one of the most reliable ways to estimate the number of visitors.	Many of the methods offer only estimations; the automatic monitoring systems can be expensive and some of them may have significant error margins.

Technique	Appliance	Advantages	Disadvantages
Questionnaires and personal interviews	The most effective use is where there are necessary detailed information on visitors and their visit characteristics, preferences and expectations. They are needed for planning and impact management.	The questionnaire provides comprehensive information about visitors, the activities and expectations. They are widely used which makes the results comparable with those obtained elsewhere.	They can be expensive in terms of development, information collection, management, analysis and interpretation of results. The error may be significant as the sample is representative.
The observation of visitors	It is the most efficient use regarding the number and the behavior of visitors, when no other means are available.	It is appropriate and useful to count the visitors, when other methods are not available. The observation of the behavior can be correlated with other techniques, especially with reports of their visitors.	The simple counting and identification of some features (such as sex, mode of travel) are suitable methods. The observation of visitors is expensive and the training of the observers is essential.
The focus group and other interactive techniques	There are used various methods for natural areas that are large and complex, with multiple interested parts.	They are effective means of accessing a range of ideas at the same time (focus group) or an attempt to determine and harmonize the various indicators and standards over time (other methods).	Time consuming for the organization and administration. Data analysis can be difficult if there is no consensus and not necessarily a representative sample.

Source: Parks, IUCN, vol. 16, nr. 2, 2006, page 28

In general, visitor monitoring practices in protected areas should focus on the following aspects:

- The satisfaction level of visitors in general and also individually, concerning the services and facilities in protected areas;
- the importance of various services and facilities which influence the quality of the visitor's experience;
- visitors' expectations on services and facilities;
- the main reasons or motivations for visiting;
- the existing global and national patterns of visiting a protected area;
- demographic profile of visitors to determine the categories of people who visit a protected area;
- the reasons behind non-attendance of natural protected areas by various segments of the community.

4. Results and actions of monitoring

In general, the interventions in a protected area are either related to diversification in the area aimed in order to increase the number of visitors or, rather to restrict the demand by reducing the negative impact on the natural environment. The methods most often used for rationalizing the flow of visitors are³:

1. A first method refers to *limiting the number of tourists* when the demand is greater than the supply, as follows:

- Issue a limited number of permits for visiting and camping;
- Make advance reservations;

³ Tehnică și management în ecoturism-experiența internațională și a României (Gestiunea ariilor naturale protejate), <http://www.scritube.com/geografie/turism/TEHNICA-SI-MANAGEMENT-IN-ECOTU532371015.php>

- Limit the size of the groups;
- Fines for visitors who don't comply with the established route;
- Limit the length of stay for the whole period or only for certain fragile areas.

2. A second way refers to *tourist's dispersion in time and space*, in order to avoid congestion and to reduce the impact. The dispersion can be done as follows:

- Increase the distances between groups within the same site;
- The concomitant and controlled use of several areas of the park by small groups;
- The display of visitors over time, with or without changing the spatial distribution.

This can be achieved by establishing the routes, control the access through accurate and efficient methods, by educating the tourists and force the groups to be accompanied by authorized guides. On the other hand, these measures should be used with caution because they can be in opposition with the objective of increasing the level of satisfaction of tourists.

3. Another way to streamline the flow of visitors is *the seasonal limitation*, some ecosystems are fragile at certain times of the year, for example, when wild animals are vulnerable or when soil is saturated with water, therefore the leisure time should be limited in such periods.

4. Finally, a special zoning has functional importance by separating different uses (e.g. areas for camping, parking, bike rides, picnics etc).

Another management technique widely used is the introduction of access charges, symbolic, in some cases, lower in spring and autumn, to encourage the practice of the season. The main goal is to raise awareness about the value of park and, in this way, generating a positive behavior and interest. Also in this respect is the system which encourages voluntary contributions of money and pointing visitors to certain sums of money to specific local needs, particularly the actions of conservation and protection of areas visited. This can occur by requesting donations, confident visitors to the park or a project sponsor, adding to the bill of an extra holiday package for conservation, for which the visitor can choose whether or not charging for an event or volunteer access to a certain area, etc.

In the context of diversification of travel habits and increase the interest for the destinations in nature, a strategy for management of protected areas is increasingly necessary, in order to achieve the main objective – to preserve and protect the natural resources. Therefore, there must be a monitoring program and a management plan that would reveal the activity of tourism in protected areas, supported by certain management techniques and an appropriate marketing.

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