Abstract

In ecotourism, as a specific form of tourism, conscientious individuals and groups participate, who by its influence on nature are trying to reduce effects produced by so called mass tourism. Ecotourism product should be developed on the contemporary tourism trends, with full respect of local specificity which represent commitment in regard to competitive destinations. Existence of receptive factors, such as facilities for accommodation, nutrition, entertainment and recreation, represent one of the basic prerequisites for the development of any ecotourism destination. Ecotourists seek accommodation which is ecologically acceptable, modest but cozy at the same time and provides unique experience in natural surroundings. In accordance with these demands protected areas all around the world offer its visitors high quality Ecolodge facilities, which are fully submerged into nature. During their construction and management strict criteria of protection of the environment are followed with optimal waste and energy management. Montenegro has enviable spacious potential for this kind of accommodation in protected areas, especially in its five national parks, so this form of accommodation has to find its place in the future development of tourism. Designing and construction of ecotourism facilities has to be strategically planned and the
fact, that it is not enough just to have attractive location but also specific content it has to offer, has to be respected. Ecolodge facilities should be designed and built in accordance with traditional architecture and surrounding materials, to influence as little as possible on the environment and to use alternative energy sources. In other words, it is necessary to provide sustainability of these facilities.

**Key words:** Ecotourism; Ecolodge accommodation; Protected Areas; Montenegro;

1. Introduction

Ecotourism is mostly practiced in protected areas or in their proximity i.e. in places of very delicate and fragile ecological balance. That is why the responsibility of all stakeholders is far greater than in any other branch. Special attention must be paid to the designing of ecotourism infrastructure because this is, apart from preserved natural surroundings, one of the key prerequisites needed for ecotourism to develop so that ecotourists could practice their preferred activities such as hiking, biking, bird watching, or water sports etc.

Construction of infrastructure facilities in protected areas has its good and bad side. As Jovičić and Ivanović (2006) have pointed out, constructing in national parks is a very risky activity, especially if we are talking about economy facilities, such as hotels. There are even more radical authors who oppose any kind of construction in protected areas. They claim that constructing in protected areas is an act of violence against nature and forerunner of many damaging consequences for the environment. Their arguments are that tourist accommodation is often too intrusive and that very often brings potential pollution. In addition to this goes the fact that once started tourism construction is very hard to stop.

Through management zoning, borders of acceptable usage and development are determined (Young and Young, 1993). Zones point out where construction can or can not be carried out. Therefore, zones suggested for each protected area must be in accordance with goals set for each protected area. From ecology point of view it is desirable that when ever possible, hotels, restaurants, shops and objects like, be placed on protected area’s periphery or outside of strictly protected areas. However, decisions on location of these facilities are often conditioned by various
other issues, especially financial. Construction expenses are always higher in remote areas where construction season is usually very short.

There are also authors whose arguments go in favor of ecotourism construction in protected areas, especially if areas are large. Main arguments in favor of construction in protected areas as pointed out by Eagles and coauthors (2002) are:

- Managers of protected areas have higher control over accommodation and behavior of visitors.
- Visitors are grateful for spending most of their time in protected areas and because of this they will use transportation much less.
- Nicely designed facilities for accommodation and services will attract more visitors to unexploited areas.
- Through taxes and other financial arrangements protected area gains benefits from money spent on food and accommodation.

Regardless of their position ecotourism facilities should influence the environment as little as possible, they need to fit in the environment, they need to be constructed in accordance with traditional architecture and surrounding materials and to use alternative energy sources.

2. Methodology

This paper analyzes views, both domestic and international authors, about the importance and characteristics of ecotourism and ecolodge accommodation facilities in protected areas. The initial hypothesis is: In Montenegro there is significant potential for ecotourism development and developing infrastructure that supports ecotourism, including Ecolodge accommodation, would secure additional valorization of tourism potential in protected areas.

3. Designing and constructing sustainable infrastructure in protected areas

It is clear that without tourism facilities it is not possible to develop tourism anywhere, especially in protected areas. If in these areas do not exist facilities for food, accommodation and other activities they have to be designed and constructed, because in every category of these areas, except for Ia (strictly protected reservation), exists a need for some kind of tourism
infrastructure. Regardless of kind of facility, during their designing and construction certain attention has to be paid to the harmonizing of tourists’ destination offer with the desired experience of visitors from targeted markets, because the most important thing for tourists is the experience. During their visit to the natural surroundings tourists seek to become one with the nature and culture of that area.

Ceballos-Lascuráin (1996) points out that is required new approach to architectural design and construction technology is for the physical planning of ecotourism centres. Ecotourism centres are often located in or very near natural areas that are characterized by a fragile and delicate ecological balance. They are also often located in relatively isolated areas, with difficult access. Considerable thought therefore needs to be applied to the planning of such facilities.

Implementation of ecotourism demands infrastructure different from the conventional, especially if the infrastructure includes overnight stay and food. For designing the ecotourism infrastructure, such as interpretative paths, camps, ecolodges and interconnected support systems, architects are required with plenty of experience in ecotourism projects. This extremely important work should be entrusted to the individuals who truly understand the importance of designing in accordance with natural forces and ecologic processes (Drumm et al., 2004).

Ecotourism and other infrastructure in protected areas must be carefully designed and constructed in order to leave impression of unobtrusiveness. It should reflect values of protected areas and to be in accordance with management policy. During laying out and construction of tourist facilities new approach in architecture must be applied, known as ecology design or “ecodesign”. Ceballos-Lascuráin (1997) defined ecodesign as “any design that blends in surrounding ecosystem and minimizing negative influences on the environment”.

Architects involved in ecodesign must cherish sensibility towards natural surroundings, which usually connotes that objects fulfill visitors’ demands for pleasure, safety and minimal influence on the surroundings. This means that accommodation for ecotourists must be humble but cozy. Attention must be paid to blending in of the architectonic shapes of the buildings into natural environment, and during their construction nature-friendly technology must be used. All buildings, roads and service systems must be designed in a way to minimize negative influence and at the same time to provide certain level of self sustainability of the objects. It means
that the following must be used: solar energy, gathering and using of rainfall, natural ventilation (instead of A/C), underground power cables, local materials for construction, production and usage of organic food, etc.

One of the main challenges for many planners is finding a way for utilizing new technologies in the process of modernizing existing facilities. Technological breakthroughs, such as energy efficiency, preservation of water resources, noise reduction and pollution of air, managing of solid waste, using non-toxic construction materials, during the last decade have changed the very foundation the process of design. Using the advantage provided by the all new technologies, designers can enhance sustainability of many existing facilities (Patten, 1992; Ceballos-Lascuráin, 1996).

4. Ecolodge accommodation facilities

According to The International Ecotourism Society – TIES, “ecolodge is a term used to point out that tourist accommodation is dependent on the environment and in accord with philosophy and principles of ecotourism.” (Hawkins et al., 1995). This refers to the facilities built and managed in eco-sensitive manner. Critical issues related to Ecolodge refer to closeness of natural and cultural attractions, way of managing a facility, marketing and involving local community into process of ecolodge development.

Term “Ecolodge” was officially used for the first time at The First International Forum on Ecological Accommodation, 1994, on Virgin Islands. The first book that contained the definition of this type of accommodation was International ecolodge guidelines (Mehta et al.), created as a result of International Conference held in Costa Rica in 1995, and five years of international research and overviews (Wood, 2002).

Ecolodge is “an accommodation facility, with 5-75 rooms, with low influence, based on the nature and financially sustainable and helps in protecting sensitive neighboring areas, involves and benefits local community, offers interpretative and interactive experience, provides spiritual togetherness with nature and culture, it is planned, designed, built and acts on ecologically and socially acceptable way” (Mehta, 2006).

We must emphasize that “the main thing concerning Ecolodge is that Ecolodge is not the main thing” (Ceballos-Lascuráin, 1997) but natural surroundings. However, although in Ecolodge tourists dwell for sake of closeness to natural attractions and desired activities, still we have
examples where quality Ecolodge emerges as primarily cause for traveling to a certain destination\(^1\).

Ecolodge represent a kind of tourist accommodation which satisfies the following criteria (Mehta et al., 2002):

- Protects natural and cultural components of its surroundings
- During construction manifests minimal influence on the environment
- Blends in the specific context of the surroundings
- Uses alternative, sustainable means of water consumption
- Secures careful methods regarding waste and waste waters
- Excels in cooperation with local population
- Applies programs of ecologic education on employees and tourists
- Contributes to sustainable development of the local community through research activities.

Today large number of protected areas worldwide offers their visitors this kind of high quality facilities. Ecolodge facilities are fully blended into nature, while during their construction and management environment protection criteria are strictly applied with optimal waste and energy management. They use whole strain of ecologically acceptable options, from solar energy based water heating to systems for gathering rainfall, composite WC and sources of renewable energy such as energy of wind. Visitors are offered organic food, facilities and services intended for knowing and exploring nature. Ecolodge is especially important for sustainable development of communities, because it usually represent small and medium size companies which can generate positive development influence on rural areas where other types of development are hazardous for the environment.

4.1. Types of Ecolodge

Ecolodge classification is mostly based on primarily activities exercised by its visitors. Four types of Ecolodge are identified (Osland and Mackoy, 2004):

1. Dedicated

\(^1\) There are numerous areas in the world where Ecolodge concept has been successfully implemented and the most significant cases happened in Costa Rica, Belize, Ecuador, Peru, Brazil (Amazon area), Venezuela, Australia, New Zealand, Malaysia, Kenya, Tanzania, South Africa, Malawi and Botswana (Ceballos-Lascurain, 2004).
2. Casual
3. Scientific
4. Agri-ecolodges

Dedicated ecolodges are intended for “hard” ecotourists who exercise specialized kinds of activities such as bird watching in areas with poor infrastructure in remote areas.

Casual ecolodges usually can be found in well serviced and easily accessible areas where most of tourists are into relaxation and observing nature. They are mostly wealthy tourists who seek cozy accommodation and relaxation in natural surroundings. Visitors in scientific ecolodges are involved in education and exploring activities.

Agri-ecolodges are based on agricultural households, ranches and farms adapted for ecotourism. Most ecotourist would rather stay in those parts where besides preserved nature also resides agricultural function, i.e. in countryside with recognizable cultural and traditional heritage. So that in today’s literature term “ecoagriturism” can be found more frequently.

4.2. Construction standards for Ecolodge facilities

During the first decade of the new millennium ecotourism has become a global phenomenon that has started to provide palpable benefits in many developing countries. It has become worldwide one of the fastest growing segments of tourism (Ceballos-Lascuráin, 2004). Such dynamic growth of tourism in protected areas, encouraged by increasing interest for preservation of healthy environment and by spreading conciseness about a need for quality lifestyle, has threatened “its own amassment” and by this initiated institutions and interested groups and individuals to take responsibility and to define criteria for sustainability of this form of tourism (Komazec, 2009). Taking responsibility understates a need for introducing proper standards and bringing guidelines for visitors’ management and construction of ecotourism facilities.

Establishing of ecological standards is long process focused on achieving long term strategic goals in the area of sustainable development. Without guidelines, standards criteria and independent monitoring, users can not be certain that the product is environment friendly as stated (Bulatović and Bulatović, 2009).
Although certain destinations have long ago developed standards and gave guidelines\(^2\), today we still can not talk about universal standards for construction of ecotourism facilities in protected areas. This is completely understandable if we take into account size diversity, level of protection, way of managing and number of visitors to the protected areas. Some protected areas are still rarely visited, while in others, number of visitors outstrips the number of local population. The thing in common for all these areas is the need for the new approach to architectonic design and technology of construction of ecotourism centers.

Tourism facilities and programs within protected areas should be standardized regarding design and operations. Good design and operation can at local community and visitors increase consciousness about key values of the areas and show the visitors determination of the manager to protect the area. This can be achieved by (Eagles et al., 2002):

- Minimizing negative influences of services meant for the visitors on the environment
- Creating an atmosphere where visitors can actually feel the particularity of the place
- In addition, by establishing examples of ecologically sensitive design and work operations, educating and presenting values and practicality of sustainable, innovative and efficient solutions.

Basic standards for designing and constructing of ecotourism facilities include:

- Usage of alternative technologies (solar energy, wind energy, low power armature for lightning, roof gardens, A/C and radiators that use HVAC technology)
- Utilization of water preservation techniques (gathering rainfall, usage of household waste waters for irrigation, “dry” bio-toilets, showers with limited water pressure, tap water aerators etc.).
- Usage of ecologically acceptable sewer systems that do not pollute underground waters.
- Usage of autochthonous floral species (exotic kinds spend much more water and are difficult to grow).

\(^2\) National parks service USA (1993) and Tourism Organization of Australia (1998) have published excellent guides for ecotourist design in national parks.
• Usage of ecologically acceptable building materials for construction and interiors (recycled floors, non toxic paints, 100% organic cotton for draperies, etc.).

Necessary amount of details for every aspect of planning and designing depends of specific conditions of every area.

5. Ecolodge facilities in protected areas of Montenegro

Designing of ecotourism development in protected areas of Montenegro demands accordance between tourism offer and desired experience of visitors from targeted markets. Every protected area has its own motif specifics that determine its tourism offer i.e. dominant kind of activity practiced by the tourists (bird watching, hiking, walking, rafting, mountain biking, mountaineering, alpinism...). It is for sure that these kinds of activities cannot be properly set in motion unless protected areas are not managed properly and unless these areas do not have appropriate infrastructure at its disposal.

“In Montenegro management plans for four national parks and other protected properties were a subject of debates subject but they were never materialized. For this council of experts, professional management and sufficient number of employees are needed for all types of protected areas, but today in Montenegro none of it is at the disposal in sufficient measure. As a result of it, there are no eco standards for tourism facilities and rules on protection of environment are often violated” (UN economic commission for Europe, Committee for environment protection policies, 2007).

The above stated statement from UN economic commission for Europe report, 2007 indicates the problems that protected areas of Montenegro face with. In the meantime, Montenegro has expanded its list of protected areas (National park “Prokletije” and several more areas of different categories). Significant efforts have been invested in overcoming the indicated problems, but the situation is still far from satisfying.

In all of five National parks, Lovćen, Durmitor, Prokletije, Biogradska Gora and Skadar Lake, as in the rest of the protected areas, lack of quality tourism infrastructure is evident, firstly in accommodation which is supposed to satisfy the needs of ecotourists. For now, ecotourists, due to the lack of Ecolodge facilities, mostly choose private accommodation at
nearby towns, which is not always ecologically acceptable. This leads us to the conclusion that in many cases these tourists would probably accept more ecological alternative, i.e. Ecolodge accommodation (Bulatović, 2011).

Developing infrastructure that supports ecotourism and other forms of tourism based on nature, including Ecolodge accommodation with proper sport activity and rest contents, would secure additional valorization of tourism potential in protected areas. That is why Ecolodge as a form of ecotourism accommodation that provides unique experience in the natural surroundings, surely must find its place in the future tourism development of our country. In every national park we should construct high quality Ecolodge with markings specific for that location and fully blended into nature and in accordance with highest international standards for quality and environment.

Within efforts for establishing standards and guidelines for construction of ecotourism objects, Ministry of Tourism and Environment together with Ministry for Economical Development, with the support of GTZ (German technical cooperation) and University of Montenegro (Architectural Faculty) has created a guidebook “Eco Lodge concept for Montenegro” (2007). This guidebook is intended for municipalities, national parks managements and investors. The guidebook provides information and ecolodge concept for Montenegro. Two theoretic Ecolodge models are presented, including measures of energy efficiency for national parks “Durmitor” and “Skadarsko jezero” (see figure 1 and figure 2). Ministry of Tourism of Montenegro in cooperation with GTZ has also created guidebooks for accommodation facilities in mountain parts of Montenegro in 2009, named “Accommodation in wild beauty”. This guidebook, intended for the investors, architects and planning engineers, gives ideas on how to construct this kind of tourism offer in accordance with typical construction styles and architecture of the region, keeping in mind preservation of the environment. Guidebook is focused primarily on two kinds of “wild beauty” accommodation facilities: “wild beauty” resort and “wild beauty” Ecolodge. However, until this day, not a single facility has been constructed according to this concept.
Designing and construction of Ecolodge facilities must be approached strategically with strong commitment towards protection of the environment and integral development. Ecolodge must be treated through documentation regarding area planning, plans of special intent, location studies and other planning documents. This naturally connotes interdisciplinary approach and involvement of all relevant experts and representatives of local community in order to make future Ecolodge destination sustainable in economic, ecologic and socio-cultural aspects.

Potential areas for the development of Ecolodge facilities must be chosen by analysis of availability, attractiveness and contents, under the condition that its development will not obstruct environment or any of the already existing contents.

After determining of potential zones for Ecolodge development, it is necessary to construct certain analyses in order to determine one or more most suitable micro locations within every potential zone. It is very important that number of these objects must be controlled in order to
prevent cumulation and repetition of contents, which would lead to mass tourism.

**Figure 2:** Ecolodge for National park Skadarsko jezero

Designing and construction of Ecolodge facilities should be based on traditional Montenegrin culture and architecture in combination with energy efficient modern projects and technologies and utilization of the local construction materials, this is the only way for Montenegro to become a unique ecotourism destination. These objects must be in accordance with ambient characteristics of the location and achieve maximum possible harmony. For construction and development of Ecolodge facilities it is necessary to solve problems related to water supplying, management and disposal of hard waste, agricultural development and organic food production. Issues related to energy efficiency are one of the weakest links of these facilities.

For successful functioning of Ecolodge and its sustainability, besides attractive location and properly built objects, the way inside activities are lead, is very important. This connotes work with the local communities, buying products and food from local markets, natural and cultural
activities interpretation in Ecolodge, professionally trained guides with knowledge of foreign languages, advertising material, kindness and openness of local population, etc. so, active participation of local population, its education and preparation for this kind of tourism offer plays a key role in this process.

6. Conclusion

Developing infrastructure that supports ecotourism and other forms of tourism based on nature, including Ecolodge accommodation with proper sport activity and rest contents, would secure additional valorization of tourism potential in protected areas. In accordance with strategic orientation of Montenegro for the development of sustainable tourism, defining of tourism offer in protected areas plays a key role. Development of infrastructure that supports ecotourism and other forms of tourism based on nature, including accommodation capacities with appropriate content for sport activities and relaxation will secure additional valorization of tourism potential in protected areas. Attraction of new targeted groups of tourists in pursuit for active vacation amidst natural beauties in ecological surroundings is one of the main goals and will contribute to the sustainable development of these areas. Ecolodge as a kind of ecotourism accommodation surely must find its place in future tourism development of Montenegro, and will take into account that ecotourism facilities cannot overpower the surrounding nature because natural and cultural/historical heritage represent the main motifs for tourist to come and visit protected areas. Designing and construction of these facilities should, in the biggest extent, be based on traditional Montenegrin culture and architecture in combination with energy efficient modern projects and technologies and with usage of local materials. This is the only way for Montenegro to become a unique and prestigious ecotourism destination.
List of References


