

# Protected areas and tourism development on Croatian islands: coexistence or divergence?

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## Abstract

Protected areas are locations which receive protection because of their recognized natural, ecological and/or cultural values. There are several kinds of protected areas, which vary by level of protection depending on the enabling laws of each country or the regulations of the international organizations involved. The term “protected area” also includes marine protected areas, the boundaries of which will include some area of ocean.

In the Republic of Croatia, 9.5% of total territory is proclaimed a protected area and the largest part of that area, i.e. 79%, belongs to the national parks and nature parks, which, together with strict nature reserves, according to the Croatian Law on Nature Protection are under highest protection regime. Out of 8 national parks and 11 nature parks, 3 national parks and 2 nature parks are located on the islands and their marine surroundings. Being extraordinary in terms of tourist attractiveness, protected areas, especially those situated on islands, represent the object of ever rising growth of tourist demand. Hence their carrying capacities are overburdened and the very essence of their existence is endangered.

This paper deals with the analysis of the possible threats and benefits that tourism development poses to the protected areas located on Croatian islands which are, as far as economic orientation is concerned, dominantly focused on tourism. Hence, by analysing problems island protected areas face regarding an ever growing pressure of tourism demand, some recommendation will be given concerning possible policies and measures that ought to be implemented in order to keep both the island protected areas and tourism development sustainable.

*Keywords: protected areas, sustainable tourism, Croatian islands.*



## 1 Introduction

According to the International Union for Conservation of Nature (IUCN) definition, protected area is “an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means” [1]. Within this broad IUCN definition, protected areas are in fact managed for many different purposes which can be numbered within two broad categories:

- **Ecological purposes** (to ensure the long-term viability and maintaining the genetic diversity of marine species and systems; to protect depleted, threatened, rare or endangered species and populations; to preserve habitats considered critical for the survival and/or lifecycles of species, including economically important species; to prevent outside activities from detrimentally affecting the protected areas),
- **Human purposes** (to provide for the continued welfare of people affected by the creation of protected areas; to preserve, protect, and manage historical and cultural sites and natural aesthetic values for present and future generations; to facilitate the interpretation of ecosystems for the purposes of conservation, education and tourism; to accommodate with appropriate management systems a broad spectrum of human activities compatible with the primary goal and to provide for research and training, and for monitoring the environmental effect of human activities).

To help improve understanding and promote awareness of protected area purposes, IUCN has developed a six-category system of protected areas identified by their primary management objective. Some kind of recreation and tourism is likely to occur as a management objective in every category of protected areas except for the strict nature reserve, which is a category I park. Hence, sites under this category are given the highest ranking and have the least visitation. However, category II parks, typically called national parks, often have very high visitation levels due to their exceptional natural resources and high public profile [2]. This means that biodiversity protection, though a critically important function of many protected areas is far from the only purpose and is often not the primary purpose of the protected area. Marine protected areas are covered by the IUCN definition and categories system but it was not until recently that they gained prominence as the need for the protection of marine environments became more widely recognised. It is indicated [2] that there are over 2,000 protected area sites with some marine element worldwide, covering approximately 2.5 million km<sup>2</sup>. Marine Protected Areas (MPAs) are not just marine based, they also include terrestrial protected areas that contain border shorelines, estuaries or wetlands; thus their boundaries encompass an oceanic shoreline, thereby providing coastal protection [3]. MPAs may be given special protections for natural or historic marine resources by local, state, territorial, native, regional, or national authorities.



## 2 Protected areas and tourism development

Tourist demand interest for different types of nature based tourism offer rises up at an ever-growing rate, which is proved by the following numbers [4]:

- Demand for nature based tourism makes 7% of the total world's tourism demand; its annual growth rates range from 10% - 30%;
- Eco-tourism demand, which is a synonymous for tourism in protected areas makes between 7% and 10% of the total world's tourist demand with the annual growth rates between 2% and 4%;
- Adventure tourism demand, also nature based, grows annually by 8%.

Considering the above presented trends, it is obvious that special attention has to be paid to protected areas management in terms of enhancing process of planning and control to avoid possible conflicts over nature protection and tourism development. This is particularly important for the protected areas on the islands which constitute unique geographic space from an ecological and human development perspective and because of that are very popular tourist destinations.

Benefits tourism produces in the protected areas might be of three kinds:

- **Financial and economic benefits:** it increases jobs for the locals and/or people from the gravitating area as well as income, stimulates and diversifies local economy, encourages local manufacture of goods, generates local tax revenues, etc.;
- **Socio-cultural benefits:** it promotes aesthetic, spiritual, and other values related to well-being, supports environmental education for visitors and locals, establishes attractive environments for destinations, for residents as much as visitors, improves intercultural understanding, encourages the development of culture, crafts and the arts, etc.
- **Environmental benefits:** protects ecological processes and biodiversity, protects, conserves and values cultural and built heritage resources, creates economic value and protects resources which otherwise have no perceived value to residents, transmits conservation values, through education, etc.

However, the costs related to tourism development within protected areas may often jeopardize the benefits it produces. These costs might also be of **financial and economic nature** (increased costs in terms of safety, additional personnel and facilities needed by tourists), as well as of **socio-cultural** (related to different conflicts between tourists, tourism development objectives and resident population) and **environmental nature** (deterioration of natural resources if impact exceeds carrying capacities; disruption of wildlife and habitats, pollution, etc.) [5, 6]. Luckily, most of the costs resulting from tourist visitation can be competently managed and alleviated.



### 3 Tourism development in marine protected areas in the Republic of Croatia

#### 3.1 Tourism on Croatian islands – a curse or a blessing?

Republic of Croatia has over a thousand of islands out of which 66 being inhabited, although the trend of depopulation is evident. Though many of the inhabited Croatian islands have once been self-sustained due to agriculture and/or fishing, increased globalization of the economy has put them at a disadvantage as the importance of traditional activities have declined. They instead turned towards tourism embracing it as a panacea. However, it didn't take too long to realize that tourism can't be a magic medicine that could cure dying island economies on a permanent basis. It can help to a certain extent, but due to its seasonal character, higher costs of development, and consequently prices that are higher compared to the mainland destinations, its economic effects are limited. Hence it cannot be a reliable support for an overall development of island communities on a whole year basis. In the same time, exclusive orientation to summer tourism, brings Croatian islands to the serious problems evident not only in terms of environmental damages, but in socio-cultural and consequently to economic ones as well. Namely, ecological and sociological problems created by an ever-growing trend of tourism demand and respective tourism supply, if not properly internalised, can create considerable economic costs that in the long run are transferred to the whole of community [7].

From data presented in the table 1 it is evident that intensive tourism demand on Croatian islands occurring within a short period of summer season puts upon their socio-economic and eco systems a terrible pressure.

Although none of the islands had done a carrying capacity assessment (except for the island of Vis [8], which has, unfortunately never been put in action), it is evident that the present concept of tourism development cannot be sustained in the long term. Namely some of the inhabited Croatian islands (especially Krk, Cres, Pag, Rab, Lošinj, and Hvar) are suffering from heavy tourist pressure which can be seen by the indicators on the number of tourist overnights per resident or per km<sup>2</sup> on the basis of the whole season and/or per day. It must be noted that the term "season" here refers to the period of at most 120 days in average (from June to the end of September), as for the rest of the year almost no tourist traffic occurs whatsoever (col. 5 and 7).

Not all of the Croatian islands are under the regime of protection. Among those that are protected by Nature Protection Act [12], 3 have the status of **national park** i.e. Brijuni archipelago, Kornati archipelago and the island of Mljet, and 2 are declared as **nature parks**, i.e. Telašćica bay and Lastovo archipelago. Moreover, they all belong to marine ecosystems and differ in terms of the number of population, size, tourism pressure, and related problems.

#### 3.2 Croatian marine protected areas and tourism – the state of the art

The Nature Protection Act [12] specifies eight categories of protected areas in the Republic of Croatia and clarifies roles and responsibilities of key actors.



Table 1: Indicators of tourism demand pressure on Croatian islands.

Island	Surface in km <sup>2</sup>	Population (census 2011)	Total number of nights	Total number of nights/ km <sup>2</sup>	(Col. 4/120)	Total number of nights/ resident (Col. 3/2)	Col. 6/120
	[9]	[10]	[11]	(col. 3/1)		(Col. 3/2)	
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
Brač	395.57	13.987	1.179.872	2,982.7	24.9	84.35	0.70
Cres	405.70	2.853	694.546	1,711.9	14,3	243.44	2.02
Dugi Otok	114.44	1.688	95.904	838.0	6.9	56.82	0.47
Hvar	299.96	10.948	1.132.982	3,777.1	31.5	103.48	0.86
Korčula	276.03	16.136	643.018	2,329.5	19.9	39.85	0.33
Krk	405.78	19.286	2.209.950	5,446.2	45.4	114.59	0.95
Lastovo	46.87	792	31.594	675.4	5.6	39.89	0.33
Lošinj	74.68	8.070	1.722.917	23,070.7	192,3	213.49	1.78
Mljet	100.41	1.086	70.002	697.2	5.81	64.45	0.54
Pag	284.56	9.228	2.016.032	7,084.7	59.0	218.47	1.82
Pašman	63.34	2.095	179.100	2,827.6	23.6	85.48	0.71
Rab	90.84	7.994	1.020.431	11,233.3	93.6	127.65	1.06
Šolta	58.98	1.675	99.102	1,680.3	14.0	59.16	0.49
Ugljan	50.21	7.020	279.676	5,570.1	46.4	39.84	0.33
Vir	22.38	3.032	366.895	16,393.9	136.6	121.00	1.01
Vis	90.26	3.429	184.801	2,047.4	17.1	53.89	0.45

Within the framework of this Act, and led by Ministry of Environmental Protection, Croatia has taken steps to protect its ecosystems. State level protection is offered to eight national parks and eleven nature parks while other, smaller or less important biodiversity sites are given county level protection and managed by county public institutions. A public institution is established for the management of each of the national and nature parks. It is important to mention that 7 out of 8 national parks and 6 out of 11 parks of nature are located in the Adriatic coastal area. Putting this into a context of the fact that more than 90% of the Croatian tourist demand is concentrated on its coastal zone, gives us a clear picture of the danger posed to these fragile areas by too heavy tourism industry [6]. Croatian protected areas have evidenced growth of the number of their visitors by the annual rate of 13% compared to the annual growth rate of 7% related to the number of visitors in Croatia in general [4].

Although demand for protected areas continuously grows, tourist consumption is still relatively poor due to the lack of appropriate supply. Consequently, they are in a constant lack of financial means, which obstructs possibilities to implement system of integral management. For the illustration, an average daily consumption in one of the most visited national parks, i.e. Plitvice lakes is only 17 Euros per person; in Marine Park Brijuni is only 24 Euros per person and in Marine Park Kornati is 12 Euros per person. As for the parks of nature, visitor consumption is even poorer, in average around 7 Euros per person daily [4].

In order to give a deeper insight into problems faced by island (or marine) protected areas, following cases are to be presented.

**The Brijuni island group** with its 14 islands and islets covers an area of 7.42 km<sup>2</sup>. Due to its extraordinary beauties it was declared national park already in 1983. The present day boundaries of the National Park were set in 1999 and comprise the land, the surrounding sea with the seabed and cover an area of 33.9 km<sup>2</sup>. The length of the coastline of all the islands is 46.8 km. The archipelago of Brijuni is an extraordinary blend of natural, historical and cultural heritage and therefore is one of the most attractive tourist destinations in Croatia. It used to be holiday residence of the former Yugoslav president Tito, but even today hosts celebrities. It is known after golf tourism as well as numerous cultural manifestations. Brijuni archipelago is not permanently inhabited, although a number of people from the mainland is in a possession of land on the islands. As far as tourist infrastructure is concerned, there are 4 villas and 2 hotels with 136 rooms at disposal, together with the yacht port. Due to the former president Tito who, when travelling around the world on his political missions, was gifted wild animals, Brijuni park is inhabited by a number of non-autochthonous species such as elephants, gazelles and so on. In 2010 the archipelago was visited by 145,152 visitors, out of which 91,872 or 63% were foreign ones [9]. Number of overnights realized in accommodation facilities was 28,762 and number of yachts in the marina was 2,264. The average use of accommodation facilities was only 75 days per year [13]. The reason for such bad results lies in the fact that most of the accommodation within the borders of the National park is very old and has neither been privatized nor restructured. However, despite this situation Public Institution that runs National park Brijuni has realized positive business financial results for both 2010 and 2011 due to the tourist related services (accommodation, visitor entrance fees, yacht charges as well as tickets for recreational fishing and diving [14]. In 2011, Brijuni national park had 268 people employed on different types of jobs, mostly ones related to tourism and catering. It evidently operates as a tourist enterprise, mostly because of the long tourist tradition of both the Istrian region and the park itself. Moreover it was just recently that Istrian County and the Republic of Croatia had jointly founded a company named “Brijuni rivijera Ltd.”, with the goal of creating conditions for implementing and managing the Brijuni coastland as an integrated tourist resort declared. Having this in mind, it is evident that National park Brijuni is to become a focus of this new tourist region situated on a coastal line parallel and very close to the National park, with a huge prospective growth of tourism demand.

In the central part of the Croatian Adriatic, on the meeting point of Šibenik and Zadar islands, a separate and by many a specific group of islands, called **Kornati**, is situated. Because of its exceptional landscape beauty, interesting geomorphology, diversity of the coastline and especially because of the rich biocoenoses of the marine ecosystem, greater part of the Kornati maritime zone has been declared a national park in 1980. The area of the national park was originally covering 26.200 hectare, spreading through two counties at the time, Šibenik and Zadar County. In the year 1988 by the new law the north-western part of the NP “Kornati” (up to the boundary of the two counties) was separated from the park and named Nature Park “Telaščica”, and the south-eastern part of

the park retained the status and the name the National Park “Kornati”. In 1997 the territory of the park was cut to 21.800 hectare (220 km<sup>2</sup>) and 89 islands, islets and cliffs, altogether with a coastline about 238 km long. Despite this relatively large number of islands the continental part of the park forms only 1% of the total area, while everything else belongs to the marine ecosystem [15]. This most developed island ecosystem in the Adriatic Sea has been attracting attention of many boaters, divers, hikers and other people who love nature and things nature has to offer for a long time. According to Census 2011, 21 men live on the island on a permanent basis. During the last few decades tourism, as a new economic activity, has taken a dominating position. Today, officially there are 30 tourist beds offered at 6 locations for the purpose of the so called “Robinson tourism” and 20 restaurants and taverns offering local cuisine mostly to the nauticians who are the most numerous guests in Kornati Park. In the Park anchoring and spending the night is allowed in 20 provided bays. Fishing is forbidden except for the land and house owners but under special rules. There are 28 people employed in the Park out of whom 6 are working on tourism related jobs [16]. In 2010 there were 86,163 visitors of the Park, out of which 49,940 were foreign ones (or 58%) [9]. The managers of the Park are strongly committed to protect it as much as possible through cooperation and partnership with different scientific and environmental institutions and organisations (from the country and abroad) on the activities on research and monitoring [16].

**Mljet** is the most south-easterly of the larger Adriatic islands of the Dalmatia region of Croatia with 1,086 inhabitants. The National Park covering an area of 54 km<sup>2</sup> was established already in 1960 not only because of its natural beauties but also due to the abundance of remains from different historical periods (Illyrians, Greeks, Romans, Dubrovnik Republic, Austria, and Napoleon). Today, Mljet is an unavoidable destination not only for the daily visitors but also for the nauticians and stationary tourists as well. In 2010 there were 1,526 tourist beds available on the island, out of which 350 were in the hotel Odisej, 80 were in two camps and 1,096 in so called private accommodation (in 102 houses) [17]. Some of the accommodation facilities are situated in the very national park as several settlements are situated within the park boundaries. Total number of arrivals in the Park was 96,891, out of which 78,899 or 81.4% were foreign visitors [18].

The **Telašćica bay**, after which the whole Nature Park got the name, is situated on the south-eastern part of the island Dugi otok. It is retracted into the land about 8 km and on its south side is the widest part of about 1.6 km. That part of the bay which is turned towards the south-east is open towards the neighbouring Kornati islands. The bay itself is very indented with 25 bays, capes and 5 islands. Telašćica is one of the largest and best protected natural harbours on the eastern coast of the Adriatic. It consists of three parts which are separated by constriction. The bottom of the bay is mostly covered with communities of sea-flowering plants and habitats extremely rich on animal life and very important for the reproduction of many fish species [19]. There are several restaurants in the area of the Nature Park where a visitor can enjoy traditional specialities. Tourist can be accommodated in rented houses of traditional

construction as well as renting smaller boats, bicycles and scooters. Anchoring and overnight stay on boats is allowed in natural bays. Camping is strictly prohibited in the area of the nature park. However fishing and hunting are permitted but with special permits which are to be paid with regard to duration and/or type of bag. The number of visitors to the park in 2010 was 80,163 out of which 61,726 or 77% were foreign ones [9].

On September 12<sup>th</sup> 2006 the Croatian Parliament declared the **Lastovo islands** a Nature Park. Thereby the Croatian nature parks family is increased by one more pearl; the Lastovo Islands – 195.83 km<sup>2</sup> broad archipelago with 44 islands, islets, rocks and reefs and with 4 lighthouses at its borders. The need for the protection of Lastovo was specified in strategic documents of Republic of Croatia already in 1999. Not long after, this intention was supported by The World Wide Fund for Nature (WWF) which declared it (together with the islands Mljet and Vis) the best preserved island on the Mediterranean. Lastovo islands and their water surroundings are of exceptional beauty and well-preserved plant and animal diversity not only due to geographical isolation but also due to the fact that being under military jurisdiction of the Yugoslav army for almost half a century it was not visited by too many visitors. The human presence on the island is evident already from the Stone Age (8,500 years before Christ). Later it was inhabited by the Illyrians, Romans and different other rulers, each of them leaving their specific influence on the island's way of living. Today Lastovo has only 792 permanent residents and realizes 4.710 visitors and 31.594 overnights [9]. The island offers 140 beds in one hotel, 22 beds in a hostel, 513 beds in private accommodation, 90 beds in a camp, and 22 beds in a lighthouse that also serves as an accommodation facility. There are also 45 berths offered to nauticians in two small ports. There are 20 catering objects as well, out of which 13 belong to the traditional type of restaurants, so called “konoba” [20].

## 4 The governance of Croatian protected areas

Pursuant to the Nature Protection Act [12] the governance of protected areas in the Republic of Croatia is based on the annual programme of protection, maintenance, conservation, promotion and use of a protected area. The annual programme is passed by the Executive Council of the public institute managing the protected area. The Ordinance on internal order regulates in detail the issues of, and stipulates the measures for the protection, conservation, upgrading and use of a protected area. The organisation of areas, terms of use, intent and protection of areas in national parks and nature parks are regulated under physical plans of special characteristics which assess the natural, landscape, cultural and historical values of the area [21]. The management plans are for the first time mentioned by the Nature Protection Act in 2003, and since then are done and adopted by several national parks (Paklenica mountain park, Plitvice lakes, Risnjak mountain park, North Velebit mountain park) and nature parks (Lonjsko polje, Velebit and Učka). The plans are near adoption in Vransko Lake, Žumberak-Samobor and Kopački rit nature parks. All other protected areas, including the ones which are the object of this research are still in the process of





its preparation. Management plans are very important documents as they trace strategy of overall development, protection and conservation of protected areas with the goal of achieving sustainability. They are covering the period of 10 years with the operational measures on a yearly basis.

It is important to mention that Croatia has recently joined an international initiative aimed at improving the management effectiveness of Marine Protected Areas (MPAs) in the south and east of the Mediterranean and supporting the creation of new ones. It is so called MedPAN South Project, which is led by World Wildlife Fund (WWF) Mediterranean. It has made a network of more than 20 national and international organizations to deliver an ambitious programme of support for the MPAs and relevant authorities in the 11 Global Environment Facility (GEF) eligible countries of the south and east of the Mediterranean.

The MedPAN South Project aims to enhance the effective conservation of regionally important coastal and marine biodiversity features by supporting 11 countries in the south and east of the Mediterranean to improve the management effectiveness of their existing MPAs and establish new ones, and by strengthening MedPAN, the Mediterranean network of MPA managers [22].

## **5 Some recommendation regarding implementation of sustainable tourism development model in marine protected areas in Croatia**

Croatian Marine protected areas involved with the MedPan South Project are: Brijuni, Mljet, Kornati, Telašćica and Lastovo. The very act of joining this initiative proves that the selected MPAs are facing lots of problems, such as:

- Lack of well defined conservation objectives and management plans;
- Insufficient funds;
- Insufficient and poorly trained field staff;
- Insufficient information about protected areas status and basic ecological issues that allow for an appropriate management;
- Weak networking and capacity sharing among MPA managers, practitioners and responsible authorities;
- High interference with other human activities occurring in coastal zones, mainly tourism and fisheries;
- Weak MPA integration into landscape and broader development plans;
- Lack of local support because of little information available and participation.

To these general problems we should add some particular ones that MPAs under research are faced with:

- Municipal authorities are often not keen to enforce national laws, if it means that local interests or short-term economic improvements are jeopardized;
- Due to the low level of social capital development, local communities tolerate illegal activities (fishing, hunting and so on) as they might mean the source of additional income;
- Fines for those who do not respect the rules are too small;
- No measures have been developed to address the resulting conflicts [23].



Besides the necessity of strengthening social capital of the local communities (of all stakeholders) so they become capable to participate in the management process and enhancing institutional framework especially in the area of implementation and control, development of a good management plan is also a “*conditio sine qua non*”. This has been declared one of the most important objectives in both the Croatian Nature Protection Act and the MedPAN South Project. The good management plan requires tourism management plan be integrated within it together with other plans for the protected area, such as wildlife management plan, fire management plan, risk management plan. Whether a separated tourism plan is required and the breadth and level of detail in it will depend upon the complexity of issues to be considered. This plan may detail specific tourism management practices to be deployed, facility location, policies to guide tourism operations, levels of fees charged to tourism operatives etc. The topic may be further developed through still more specialised plans or strategies intended to guide tourism and recreation within the protected area. Examples are a Visitor Use Plan, the Visitor Activity Management Process (VAMP), the Tourism Organisation Management Model (TOMM), the Limits of Acceptable Change (LAC) or a Visitor Impact Management Plan (VIM) [2].

Once a plan or a policy has been agreed upon, it must be implemented and monitored. Implementation involves the carrying out of the plan, and involves the deployment of financial and human resources. A first step in the process of plan implementation relates to the protection and use of the existing built heritage (existing structures and artefacts, particularly old villages or houses (often abandoned, that could be restored as accommodation facilities). Cultural heritage only really comes alive for the visitor through well-designed interpretation that analyzed parks (as well as all the others) currently lack of. Where necessary Parks should pay special attention to the transportation infrastructure as well as the types of transportation (presuming the need to implement electrical vehicles everywhere is possible; Brijuni has already done this). An important component of the Parks’ tourism management plan is dealing with risks. Many recreational activities occurring in the parks include quite a lot of potential risks. Although risk always has some elements of chance to it, a quality “risk management” involves foresight and control. Unfortunately lots of accidents and injuries happen, especially during the summer season, partially due to the lack of proper tourist information and partially because there is no well-organised system of rescue services [6].

Most of the problems the protected areas face concerning tourism activities come out of the fact that there is no proper visitor management plan. Many variables other than level of use may affect the use/impact relationship in the Park (e.g. behaviour of visitors, travel method, group size, season, and biophysical conditions). There are many issues involved in employing limits to use, such as choosing appropriate allocation or rationing techniques. A number of sophisticated techniques and measures had been developed so far to provide a structure for the management of protected area visitation and tourism [24, 25].

## 6 Conclusions

Protected areas are complex to manage. In recent years a dilemma exists for many countries in that the absolute costs of protecting the environment is too high for under developed country and the opportunity costs of not developing it for economic use is too high to ignore. Tourism growth can be a solution. The ideal is not in exploitative, unsustainable development, uncontrolled or unplanned tourism but in carefully managed and limited tourism development.

The tourist industry, conservation groups and protected area management must cooperate to ensure that the policy and marketing of tourism incorporates the conservation ethic [6]. The cases presented here, to a higher or lesser extent share the same problems as all the other protected areas in Croatia. Many of these problems arise from the institutional premises, but also from the lack of knowledge and empowerment among all the stakeholders in the surrounding communities. It would therefore be of utmost importance that parallel processes are run in terms of:

- Completing the adjustment of the institutional framework related to the management of the protected areas to the EU practice;
- Enhancing expertise and knowledge of the protected areas' management to fully comprehend their role in both the PAs and local community so they can fulfil the expectations of both;
- Empowering local community for better participation in the process of the protected areas management so they could learn in which way they could reach their own goals, without compromising ecological sustainability of the area.

## References

- [1] International Union for Conservation of Nature (IUCN). Guidelines for Protected Area Management Categories. Gland, Switzerland and Cambridge, UK, 1994.
- [2] Eagles P. F. J., McCool, S., Halpenny, E. A., Moisey, R. N., *Tourism in National Parks and Protected Areas: Planning and Management*. CAB International, Wallingford, Oxon, 2002.
- [3] Tisdell, C. and Broadus, J. M., Policy issues related to the establishment and management of marine reserves. *Coastal Management*, 17: 37-53, 1989.
- [4] Institut za turizam. Stavovi i potrošnja posjetitelja - nacionalni parkovi i parkovi prirode, Zagreb, 2007. [www.mint.hr/UserDocsImages/TOMAS06NPPP.pdf](http://www.mint.hr/UserDocsImages/TOMAS06NPPP.pdf)
- [5] Petrić, L., *Conservation and Sustainable Use of Biodiversity in the Dalmatian Coast through Greening Coastal Development*. GEF/UNDP, Phase B, sectoral study on Tourism Development on Dalmatian Coast, 2005.
- [6] Petrić, L., How to Develop Tourism Sustainably in the Coastal Protected Areas? The Case of "Biokovo Park of Nature, Croatia", *Acta Turistica Nova*, Vol. 2, No.1, pp. 5-24, 2008.



- [7] Petrić, L., Croatian Tourism Development Model – Anatomy of an Un/sustainability, (Chapter 6). *Sustainable Development - Policy and Urban Development - Tourism, Life Science, Management and Environment*, ed. Ghenai, C., Intech, Rijeka, pp. 119-146, 2012., [www.intechopen.com](http://www.intechopen.com)
- [8] Priority Actions Programme/Regional Activity Centre. *Guidelines for Carrying Capacity Assessment for Tourism in Mediterranean Coastal Areas*, Split, pp viii+5, 1997.
- [9] Croatian Bureau for Statistics, *Statistical Yearbook*, Zagreb, 2011.
- [10] Croatian Bureau for Statistics, Census of Population, *Households and Dwellings 2011, First Results by Settlements*, No 1441, Zagreb, 2011.
- [11] Croatian Bureau for Statistics, *Tourism in Seaside Resorts and Municipalities in 2010*, No 1437, Zagreb, 2011.
- [12] Nature Protection Act, *Official gazette*, no. 70/05, 139/08, 57/11.
- [13] JU NP BRIJUNI -Marketing plan za 2011.g, internal documentation, 2012. [www.brijuni.hr/docs/brijuni2011HR/documents/79/Original.pdf](http://www.brijuni.hr/docs/brijuni2011HR/documents/79/Original.pdf)
- [14] Izvješće o poslovanju JU NP BRIJUNI, za 2011, internal documentation, [www.brijuni.hr/docs/brijuni2011HR/documents/85/Original.pdf](http://www.brijuni.hr/docs/brijuni2011HR/documents/85/Original.pdf)
- [15] National park Kornati, [www.kornati.hr/eng/](http://www.kornati.hr/eng/)
- [16] Godišnji program zaštite, održavanja, očuvanja, promicanja i korištenja Nacionalnog parka Kornati za 2012. godinu, internal documentation, 2011. [www.kornati.hr/doc/Kornati-GPZ-2012.pdf](http://www.kornati.hr/doc/Kornati-GPZ-2012.pdf)
- [17] Peručić, D., Portolan, A., Lokalni akcijski planovi Dubrovačko - neretvanske županije, in: *Projekt "Jadran, malo poduzetništvo i lokalni razvoj"*, Adriatico, microimpresa e sviluppo locale 8192/Cospe/CRZ, Dubrovnik, 2011., [www.adriatic-centre.com/publikacije/brosura-HR.pdf](http://www.adriatic-centre.com/publikacije/brosura-HR.pdf)
- [18] Prostorni plan Nacionalnog parka "Mljet", Županijski zavod za prostorno uređenje, Dubrovnik, 1997. [www.mzopu.hr/doc/PPNPMljet/PPNPMljet-web.htm](http://www.mzopu.hr/doc/PPNPMljet/PPNPMljet-web.htm)
- [19] Park prirode Telašćica, [www.telascica.hr/uvala-telascica.php](http://www.telascica.hr/uvala-telascica.php)
- [20] Lastovo Tourist Board, internal documentation, 2011.
- [21] Državni zavod za zaštitu prirode, [www.dzsp.hr/upravljanje-zasticenim-podrucjima-76.html](http://www.dzsp.hr/upravljanje-zasticenim-podrucjima-76.html)
- [22] World Wildlife Fund, Marine protected areas in the Mediterranean, [www.mediterranean.panda.org/about/marine/marine\\_protected\\_area/the\\_mediterranean\\_south\\_project/](http://www.mediterranean.panda.org/about/marine/marine_protected_area/the_mediterranean_south_project/)
- [23] Fredotović, M., *Conservation and Sustainable Use of Biodiversity in the Dalmatian Coast through Greening Coastal Development*. UNDP/GEF COAST project, Phase A, 2003.
- [24] Cole, D. N., Petersen, M. E., Lucas, R. C., *Managing Wilderness Recreation Use: Common Problems and Potential Solutions*. General Technical Report INT-GTR-230. USDA Forest Service, Intermountain Research Station, Ogden, UT, USA, 1987.
- [25] Petrić, L., *Upravljanje turističkom destinacijom-načela i praksa*, Ekonomski fakultet Split, 2011.

