



WWF

REPORT

ADRIA

2017

A photograph of a mountain landscape. In the foreground, two hikers are walking away from the camera on a grassy, rocky path. The hiker on the left is wearing a bright yellow-green jacket and a backpack. The hiker on the right is wearing an orange jacket and a backpack. The middle ground is a rocky, scree-covered slope with patches of snow. In the background, there are jagged, rocky mountain peaks under a blue sky with scattered white clouds.

# Protected Areas Benefit Assessment (PA-BAT) in Montenegro

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**Publisher:**  
WWF Adria,  
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Croatia

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Special thanks to Parks Dinarides- network of protected areas in Dinarides for providing information and support during report writing

**Printed on environmentally friendly paper**

May, 2017



Tmovačko Lake © Piva Nature Park



# Who we are

WWF is one of the world's leading non-governmental and non-profit organizations for nature conservation. WWF's mission is to stop the degradation of our planet's natural environment, and to build a future in which people live in harmony with nature. WWF was established in 1961 and has representative offices in over 100 countries across the globe. The organization is proud to have over five million people who support it.

WWF Adria's aim is to contribute to conservation, better governance and sustainable management of protected areas, marine and freshwater ecosystems, and forests; as well as supporting broad involvement of civil society organizations (CSOs) in natural resource management and sustainable development in the Adria-Dinaric region.

## What we want to achieve

Natural capital is used sustainably and forms a basis for social and economic development. Natural capital is also protected through enhanced environmental responsibility by the public, governments, CSOs and the private sector.

## How will this document contribute to our goal

WWF brings to the region a wide range of the best international and regional practices that can be locally applied, based on our in-depth knowledge and experience of local conditions and needs.

## Why you need to read this document

This analysis identifies the main drivers relevant for protected area development, as well as the country's development policies. It identifies the flow of economic benefits and the need to develop strategies to channel revenue back to local people and protected areas. It also highlights the importance of jobs in protected areas – which are vital for rural economies and relevant for politicians.

## Introduction

WWF is presenting key findings of an analysis that provides information and guidance on how various stakeholders perceive the current and potential value of protected areas. Based on discussions which involved around 50 experts, government officers, entrepreneurs, farmers and local community representatives, these results reflect the actual situation, challenges, and opportunities facing local communities. They can be applied in various fields and in various areas; including assisting Montenegro in integrating natural capital and ecosystem services into development planning as a part of the EU integration process. We believe that proper evaluation of protected areas leads to greater interest, more investments, and better preservation of natural values. We hope that this report can stimulate discussion and provide the foundation for further actions and engagement of key decision makers. This can result in changes in policies and the development of economic models that include natural values in local and national development plans.

**CURRENT PAs  
COVER AROUND  
125.000 ha  
OR 9,05  
PERCENT OF  
THE COUNTRY'S  
TERRITORY**

The protected area (PA) system in Montenegro is relatively well developed and has a long tradition. Current PAs cover around 125.000 ha or 9,05 percent of the country's territory<sup>1</sup>. A benefit assessment, according to the PA-BAT methodology, was done in all five national parks: Biogradska gora, Durmitor, Skadar Lake, Lovćen, and Prokletije.

Representatives of the Ministry of Sustainable Development and Tourism, the Ministry of Agriculture and Rural Development, the Environmental Agency of the Republic of Montenegro, as well as management bodies and stakeholders of the five PAs, were involved in the assessment.

## Methodology

The PA-BAT methodology<sup>2</sup> is an important tool used to identify a full range of current and potential benefits of individual PAs, and management challenges. The PA-BAT is designed to be used by protected area managers to identify important values and benefits that protected areas bring to a range of stakeholders.

Steps in implementing the PA-BAT:

1. Nomination of the PA-BAT coordinators in protected area and basic PA data collection
2. Site-based participatory workshops (datasheets, detailed notes, stakeholder survey)
3. Data validation (post-workshop)

<sup>1</sup> The Fifth National Report to the United Nations Convention on Biological Diversity <https://www.cbd.int/doc/world/me/me-nr-05-en.pdf>

<sup>2</sup> More could be found at [http://www.panda.org/wwf\\_news/?174401/PABAT](http://www.panda.org/wwf_news/?174401/PABAT)

5. Data analysis (site-based, national and international level)
6. Production of guidance notes - how to apply results
7. Implementation of recommendations

Using this methodology, workshop participants assess economic and non-economic/subsistence values for a range of stakeholders. The tool uses a list of 22 values that are characteristic for protected areas. Values are organized around nine main groups: nature conservation, protected area management, food, water, culture, health and recreation, knowledge, environmental services, and materials.

Values are scored on a six-point scale: no benefit; minor or major non-economic/subsistence benefit; minor or major economic benefit; and potential economic benefit.

PA values were assessed for eight stakeholder groups:

- Local people living in the PA
- Local people living near the PA
- National population
- Scientists/experts
- Civil society organizations
- Government (local, national, PA management)
- Private sector
- Global community

The analysis combines the assessments made by workshop stakeholders, mainly local residents, and information collected from PA managers and experts through a data validation process. We also received valuable input through a workshop participant survey carried out after each workshop. Guidance notes<sup>3</sup> were developed to support park management in utilizing the PA-BAT findings.

The PA-BAT results can be used at national as well as site levels to support management and to develop appropriate policies that ensure nature conservation while promoting sustainable development and the wise use of natural resources

## Results and discussion

In general, assessments of PA benefits in Montenegro show that stakeholders widely recognize the importance of protected areas and the benefits they provide for local economies and communities. Protected areas are not only about nature conservation; they also play a significant role in development

<sup>3</sup> [http://croatia.panda.org/en/what\\_we\\_do/protected\\_areas/pa4np/pa\\_bat\\_methodology/](http://croatia.panda.org/en/what_we_do/protected_areas/pa4np/pa_bat_methodology/)

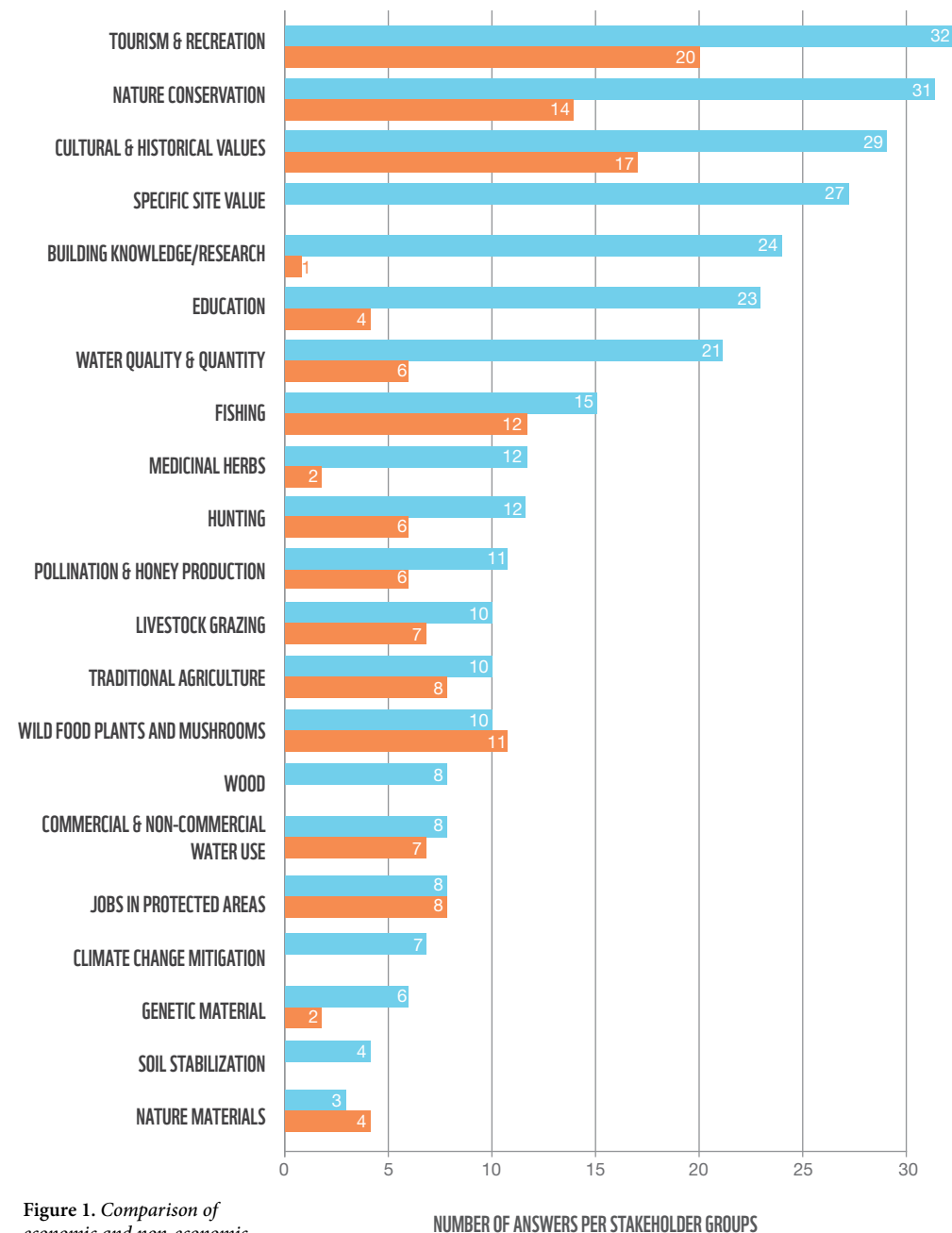


Figure 1. Comparison of economic and non-economic benefits of five Montenegrin national parks assessed by different stakeholder groups

Non-economic value Economic value

agendas. This is relevant for PA managers, who should use and encourage the support of local stakeholders, and improve management practices to enable wise use of natural values.

Stakeholders in Montenegro recognized a wide array of values in PAs. The most recognized values according to all stakeholder groups are: tourism and recreation; protected nature and jobs related to protected areas management; cultural and historical values; research and education; water quantity and quality; traditional food (agriculture, livestock grazing, fishing); and different provisioning services (wild food plants, mushrooms, medicinal plants, honey production).

**The top-rated values for local people are tourism and recreation, natural values, cultural and historical values, and specific site values<sup>4</sup>.**

1. **Tourism and recreation** is the most recognized value in other countries in the region as well<sup>5</sup>. To most of the local stakeholders, it is obvious that tourism activities and all the benefits deriving from it largely depend on preserved nature, iconic sceneries, and specific natural values. In Montenegro this is supported by the general orientation of the country toward tourism development.

2. **Preserved natural values** in PAs in Montenegro are very highly rated among different stakeholder groups. The most probable reason for such a high rating of natural values, together with **cultural and historical values and specific site values**, is that stakeholders see a direct link with these elements to the competitiveness of tourism in their country. Specific natural and cultural sites, flagship species and distinct landscape features definitely contribute to better tourism offers. Natural values are coupled with preserved and rich natural resources and different provisioning services, which are providing explicit economic benefits to stakeholders and **jobs in protected areas**.

3. The high ranking of **education and research** (knowledge building) shows that social benefits of PAs are well recognized and appreciated by stakeholders. A significant number of representatives from different stakeholder groups<sup>6</sup> recognized the non-economic values of education and knowledge building. This is important information for PA managers and responsible institutions as it emphasizes the need for development of PA-specific educational programs that involve local stakeholders.

4. **Water resources** are among the top rated values in PAs in Montenegro. Water quantity and quality were mostly recognized as non-economic values

<sup>4</sup> An area recognized by a significant number of people as being of unusually high importance from a cultural, historical, spiritual or scientific perspective. Such places are likely to have a special role in national, regional or global consciousness.

<sup>5</sup> See PA BAT reports for Croatia and Bosnia and Herzegovina [http://croatia.panda.org/en/what\\_we\\_do/protected\\_areas/pa4np/pa\\_bat\\_methodology/](http://croatia.panda.org/en/what_we_do/protected_areas/pa4np/pa_bat_methodology/)

<sup>6</sup> 24 answers indicating non-economic benefits in research/knowledge building and 23 answers in education.



## **WATER RESOURCES ARE AMONG THE TOP RATED VALUES IN PAs IN MONTENEGRO**

by different stakeholder groups. The economic value of water resources is mainly recognized by businesses and the governmental sector. Montenegro belongs to the group of water-rich countries and water resources represent one of the main areas for development of the country<sup>7</sup>.

5. Benefits linked with **provisioning ecosystem services** are well recognized. These resources are traditionally used by local stakeholders, and they significantly support their livelihoods in both subsistence and economic ways. The stakeholder groups that are most interested in these values are locals living around PAs (30 percent of all answers) and the private sector (20 percent of answers). Fishing is the highest rated value associated with provisioning services. This is due to the importance of this activity on Skadar Lake where all stakeholder groups claimed to gain economic benefits from fishing.

6. According to the results of the assessments, PAs significantly support **traditional agriculture and livestock grazing** in Montenegro. These values were most acknowledged by local people living around PAs (33 percent of the answers).

7. As expected, **regulating and supporting ecosystem services were less acknowledged** by stakeholders. Climate change mitigation was recognized as having subsistence value by most of the stakeholder groups, while soil stabilization was recognized by local people and scientists. Other ecosystem services, such as carbon sequestration, flood prevention and pollination (not honey production), were not recognised by PA stakeholders. This shows a lack of understanding of the ecosystems that surrounds them and some degree of taking nature for granted.

**Analysis done by UNDP in 2011 showed that PAs in Montenegro generate approximately 2.2 percent of GDP, or 106 EUR annually per capita of Montenegro.**

<sup>7</sup> Draft of the Water Management Strategy of Montenegro <http://www.minpolj.gov.me/ResourceManager/FileDownload.aspx?rId=228513&rType=2>

# Economic values of Montenegrin PAs



Figure 2. List of economic values and the comparison between major and minor economic values of the five assessed protected areas

# Tourism

The economy of Montenegro largely relies on tourism. The direct contribution of the tourism sector to GDP is estimated to be 11 percent in 2016. The indirect contribution is estimated to be up to 22,15 percent.<sup>8</sup> Most of the income related to tourism is generated in the coastal areas of Montenegro. However, inland areas have large potential for tourism development, especially for eco and rural tourism. Montenegro is strategically oriented towards sustainable tourism development<sup>9</sup>. The strategy aims at diversification of tourism offers, developing the potentials for inland PAs, and reducing dependence on summer season and coastal areas.

It is clear that tourism in protected areas can significantly contribute to the aforementioned strategic goals. Most of the national parks in Montenegro are already well established tourism destinations and are attracting large numbers of tourists.

In 2016 national parks in Montenegro recorded more than 350.000 tourist visits. The real number of visits is estimated at over 450.000 since not all PA have developed a system for monitoring the number of tourists. This is a considerable number, keeping in mind that the total number of tourism arrivals in 2016 was 1.713.109<sup>10</sup>. Estimations for 2011 showed that tourism in PAs contributed 172 million EUR annually to GDP, with approximately 7.700 full-time job equivalents.<sup>11</sup>

The considerable importance of tourism to PAs reflected in official figures and statistics was also reflected in the PA-BAT assessments. **The values and benefits of tourism and recreation was acknowledged in all assessed areas and by the majority of interviewed stakeholders. In total, 32 representatives from different stakeholder groups in all 5 national parks stated that tourism in PAs has economic value.** An additional 20 representatives recognized subsistence or non-economic value of tourism and recreation in their PAs.

Tourism is very important for local communities. Locals living around PAs and the private sector are the two stakeholder groups that see the most economic benefits from tourism. Most of the assessed parks are in remote mountain areas that, in general, provide fewer opportunities for business development. Tourism in PAs provides a relatively secure source of additional income.



OVER 400.000  
PEOPLE VISIT PAs  
IN MONTENEGRO  
EVERY YEAR

THE DIRECT  
CONTRIBUTION  
OF THE TOURISM  
IN PAs TO THE  
GROSS DOMESTIC  
PRODUCT OF  
MONTENEGRO  
IS CALCULATED AT  
172 MILLION EUR

Stakeholders in the assessed PAs indicated a number of already well-established tourism destinations and offers. Among them are: the mausoleum on Lovćen, rafting on Tara River, and cruising on Skadar Lake. All of them attract tens of thousands of mostly foreign tourists every year and represent a significant contribution for the management of national parks. Incomes from tourism development have been increasing in past years. From less than 500.000 EUR in 2009, they have risen to almost 1.000.000 EUR in 2013.<sup>12</sup>

However, local stakeholders are not fully satisfied with their involvement in tourism activities. They are expecting, both from PA management bodies and governmental institutions, stronger support for their involvement in tourism businesses. Some of the infrastructure has been built (visitor's centres), but larger investments in basic infrastructures are necessary to facilitate local tourism offers.

By supporting sustainable development and use of natural resources, nature-based tourism also promotes the effective management of protected areas. PAs are sustainable and viable only if they are integrated in local economies. Furthermore, tourism often provides local entry level jobs that can help unemployed and vulnerable groups (youth, minorities, women) join the workforce.

However, tourism can have a significant impact on natural values and the integrity of PAs. Some PAs in Montenegro, like National Park Dumitor and National Park Skadar Lake are highly exposed to pressures from tourism activities and infrastructure<sup>13</sup>. If not kept at a level that does not harm the natural values of an area, tourism may bring only temporary economic benefits soon outweighed by negative, long-term loss. It was shown that the overall satisfaction of tourists in PAs in Montenegro is closely related to the status of their primary values (natural and cultural values)<sup>14</sup>.

PA management bodies should have an important role in the development of tourism strategies and initiatives on local and national levels. A lot of strategic approaches and practical tools for sustainable tourism have been developed in recent years. One of these useful mechanisms which has been proven in many PAs across Europe and the region<sup>15</sup> is the European Charter for Sustainable Tourism (ECST) developed by the Europarc Federation. The ECST is a great opportunity for Montenegrin PAs as well, but currently no concrete activities to implement this standard have taken place.

<sup>8</sup> ETravel&Tourism Economic Impact 2017- Montenegro. World Travel & Tourism Council. <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/montenegro2017.pdf>

<sup>9</sup> Montenegro Tourism Development Strategy to 2020. <http://www.mrt.gov.me/ResourceManager/FileDownload.aspx?rid=89273&rType=2&file=01%20Montenegro%20Tourism%20Development%20Strategy%20To%202020.pdf>

<sup>10</sup> Montenegro in Figures 2016. [https://www.monstat.org/userfiles/file/publikacije/CG%20U%20BROJ%20KAMA/MONSTAT\\_ENG\\_fin.pdf](https://www.monstat.org/userfiles/file/publikacije/CG%20U%20BROJ%20KAMA/MONSTAT_ENG_fin.pdf)

<sup>11</sup> The Economic Value of Protected Areas in Montenegro GEF-UNDP. [http://procurement-notices.undp.org/view\\_file.cfm?doc\\_id=31744](http://procurement-notices.undp.org/view_file.cfm?doc_id=31744)

<sup>12</sup> Data provided by Public Enterprise National Parks of Montenegro

<sup>13</sup> [http://d2ouvy59p0dg6k.cloudfront.net/downloads/montenegro\\_rappam\\_report.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/montenegro_rappam_report.pdf)

<sup>14</sup> [https://www.researchgate.net/publication/303873658\\_Faktori\\_zadovoljstva\\_posjetilaca\\_posjetilaca\\_Nacionalnog\\_parka\\_Skadarsko\\_jezero\\_Crna\\_Gora\\_u\\_marketing\\_planiranju\\_odrzivog\\_turizma](https://www.researchgate.net/publication/303873658_Faktori_zadovoljstva_posjetilaca_posjetilaca_Nacionalnog_parka_Skadarsko_jezero_Crna_Gora_u_marketing_planiranju_odrzivog_turizma)

<sup>15</sup> Examples of well-established models are National Park Kornati and nature parks Medvednica and Lonjsko polje in Croatia



WWF Adria and Parks Dinarides – a network of protected areas within the Dinarides region - are jointly implementing the “Bear Watching” project in cooperation with Biogradska Gora National Park in Montenegro and Tara National Park in Serbia. This “Bear Watching” project is part of the regional “Protected Areas for Nature and People” program.

The “Bear Watching” project aims to advance the protection and preservation of wild species and their habitats through concrete field activities and intensive cooperation with the management of partner national parks and local residents. It also aims at establishing a tourist attraction, “Bear Watching,” that would benefit both national parks and surrounding local communities. Local people living in and around the protected areas will have the opportunity to take part in brown bear population conservation activities. This includes trainings on how to gather DNA material and how to provide attractive tourism services including guiding for bear monitoring, providing accommodation, hospitality, souvenirs, and other nature-focused tourist products and services.



DEVELOPMENT OF  
SPECIFIC TOURISTIC  
OFFER BASED ON  
NATURAL VALUES  
HELPS CONSERVING  
NATURE

## Water resources in PAs

The quality and quantity of water resources are obviously and directly linked with human wellbeing. Therefore, the values and benefits connected with water resources are often ranked very high in assessments. In three assessed PAs<sup>16</sup> water quality and quantity, as well as commercial water use, was recognized as having major economic value.

The integrity of the river network and the condition of the rivers in the Dinaric Arc region is very high. Analysis done by WWF in 2014<sup>17</sup> showed that 76 percent of analysed rivers in Montenegro are in outstanding condition. Many of the rivers are within PAs, or are crucial for protected ecosystems: Morača, Tara, Komarnica, and Mrtica,



Biogradsko lake © JPNPCG

among others. Preserved lakes represent another distinct feature of Montenegro. Many of them are within PAs such as Skadar, Crno, Plavsko, Biogradsko, and Šasko Lake.



SKADARSKO LAKE  
IS AN IMPORTANT  
SOURCE OF  
DRINKING WATER  
FOR THE ENTIRE  
COUNTRY AND  
PROVIDES  
MULTIPLE BENEFITS  
TO DIFFERENT  
STAKEHOLDERS

PAs contribute to water quality and quantity (e.g. filtration, groundwater restoration, and maintenance of natural flows). This allows for commercial exploitation of water, but without providing revenues for PAs and surrounding local communities. However, the connection between PAs and other natural areas and the commercial use of water is often ignored or underestimated.

The whole area of Skadar Lake in Montenegro is protected as a national park, including the Albanian side of the lake. The lake is a valuable source of freshwater for the entire country, and it provides numerous values and benefits to all groups of stakeholders.

**As the largest lake in the Balkans, Skadar Lake is a crucial element of the water supply system in Montenegro. A new regional water aqueduct, which brings water from Skadar Lake to the coast of Montenegro, provides up to 1500 l/s.**

Despite the obvious importance of Skadar Lake for the water supply in Montenegro, its importance for water quality and quantity was only recognized by a relatively small number of stakeholder groups in our

<sup>16</sup> In Prokletije, Skadar Lake and Durmitor National parks

<sup>17</sup> [http://d2ouvy59p0dg6k.cloudfront.net/downloads/rivers\\_lifelines\\_of\\_the\\_dinaric\\_arc\\_2.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/rivers_lifelines_of_the_dinaric_arc_2.pdf)



study. Only the private sector recognized water resources in Skadar Lake as having major economic value. Park managers should consider water resource potentials as this can be used to better advocate for park values and increase local and national stakeholder support for parks.

The same results were seen in national parks Biogradska gora and Durmitor, where again the private sector was the only stakeholder group that recognized the economic value of PAs in relation to water resources.

Large forest areas also are extremely important for the water supply as they are usually the regions where the highest quantities of surface waters originate. Therefore, management of forest ecosystems within PAs is important for water security. National parks Durmitor, Prokletije and Biogradska gora have large and preserved forests within their borders. Their importance for quality and quantity of water resources, in particular their proximity to some of the largest rivers in Montenegro like Tara, Morača, Lim is high. Water resources in PAs also have other uses beyond providing public water supply; such as energy production, agriculture, fisheries, tourism, and industry.

Fishing is one of the major economic activities on Skadar Lake. The majority (95 percent) of the freshwater fish stocks in Montenegro originate from this lake. Fish production in the lake is very high, around 80 kg/ha. There are around 400 fishermen on the lake and the annual harvest is in the range of 1000t<sup>18</sup>.

**Fishing on Skadar Lake brings annually approximately 1.8 mil EUR to the local economy. The main commercial fish species are bleak and carp.**

Pollution, intensive regulation, and permanent deterioration of natural water regimes are among the most acute threats to Montenegro's freshwater ecosystems. Hydropower developments present a serious threat for some of the most valuable river stretches, especially in mountain regions. Construction of dams impact the whole water system including rivers, lakes and ground waters. Potential dams on the Morača river would disturb water inflow to Skadar Lake and jeopardize ecosystems and the services they provide. In return, there are few benefits to local communities from hydro power construction, especially from a long-term perspective. Solutions may include considering other land/water uses that provide greater benefits, while minimizing impacts.



**THERE ARE ABOUT  
400 FISHERMEN  
ON SKADAR LAKE  
AND THEIR ANNUAL  
CATCH IS AROUND  
1000 TONS**

<sup>18</sup> [http://www.greenhome.co.me/fajlovi/greenhome/attach\\_fajlovi/eng/main-pages/2011/11/pdf/Fish\\_fauna\\_of\\_Moraca\\_River\\_and\\_Skadar\\_Lake.pdf](http://www.greenhome.co.me/fajlovi/greenhome/attach_fajlovi/eng/main-pages/2011/11/pdf/Fish_fauna_of_Moraca_River_and_Skadar_Lake.pdf)

## Honey production and wild food

Provisioning services and direct values like edible wild plants and animals, mushrooms, medicinal plants, honey, and other wild materials are well recognized and used by local people in Montenegro. Their economic value is evident and many of the stakeholder groups benefit from trade and processing of natural food and materials.

The total number of beehives in Montenegro is estimated to be 50.000<sup>19</sup>. Three national parks (Biogradska gora, Prokletije and Skadar Lake) combined have over 10.000 beehives, or more than 20 percent of all beehives in Montenegro. It can be argued that preserved ecosystems in PAs represent the core areas for beekeeping in Montenegro.

The subsistence value of honey production and wild food was recognized in the majority of the assessed PAs.

Wild food plants and mushrooms were assessed as having minor subsistence value in four PAs<sup>20</sup>, and as having major value in three PAs. Stakeholder groups engaged in honey production and wild food collecting are mainly local communities and beekeeping associations. This provides an opportunity for PAs to improve relationships with local communities.

In two assessed PAs, Biogradska gora and Prokletije, both honey production and wild food plants have been assessed to have major economic value.



**THREE PROTECTED  
AREAS (SKADAR  
LAKE, BIOGRADSKA  
GORA AND  
PROKLETIJE)  
PRODUCE OVER 130  
TONS OF HONEY  
ANNUALLY**

According to participants of the PA-BAT workshop in National Park Biogradska gora, and its wider surrounding area, there are about 1500 beehives. Average yield per beehive is approximately 12kg, which indicates that the total annual production is around 18 tons of honey. Production capacities in National Park Prokletije are even higher. There are around 3000 beehives in the PA and its surrounding area, producing approximately 36 tons of high quality honey.

Other studies<sup>21</sup> have shown that beekeeping is well developed in the region of Skadar Lake. According to estimates, there are around 7500 beehives with annual production close to 80 tons of honey.

<sup>19</sup> According to Montenegro Statistical Office MONSTAT

<sup>20</sup> NP Biogradska gora, NP Durmitor and NP Skadar Lake

<sup>21</sup> Economic Valuation of Montenegro's protected Area System. ISSP

**National parks in Montenegro host over 20 percent of all beehives in the country. Three PAs (Skadar Lake, Biogradska gora and Prokletije) produce 134 tons of honey.**

The plants that are most frequently collected are blueberries, blackberries, raspberries, and different species of mushrooms.

Picking blackberries is a common activity in Prokletije and Biogradska gora. Stakeholders have estimated that about 800 tons of blackberries are collected every year in National Park Prokletije. The annual amount of berries collected in National Park Biogradska gora is estimated at 170 tons, with herbs at 30 tons and mushrooms at 70 tons. This generates about 1.100.00 EUR every year<sup>22</sup>.

**It is estimated that 970 tons of berries are collected in National Parks Prokletije and Biogradska gora. This generates about 1.100.00 EUR every year.**

The gathering of medicinal plants has mainly a subsistence value for local stakeholders. It was recognized as having major subsistence value in National Park Prokletije, and as having minor subsistence value in all assessed PAs. Collecting is done by local people and a market for these plants is not developed (there are no wholesale or processing facilities).

A survey of 500 households in Montenegro<sup>23</sup> has shown that 30 percent of all households regularly collect non-timber forest products<sup>24</sup> (NTFP). NTFP collecting is mainly an additional source of income (for about 60 percent of households), while only 5 percent of households rely on NTFP as their main source of income.

Clearly, honey production and wild food gathering plays a significant role in the economy of local communities in Montenegro. These activities are particularly important for rural mountainous areas where other business opportunities for local residents are scarce. PAs have a significant role in the conservation of the ecosystems that are providing these provisioning services, and for the controlled and sustainable use of these natural resources.



### THE GATHERING OF MEDICINAL PLANTS HAS MAINLY A SUBSISTENCE VALUE FOR LOCAL STAKEHOLDERS



<sup>22</sup> Economic Valuation of Montenegro's protected Area System. ISSP

<sup>23</sup> Non-Timber Forest Product Survey – Sub Sector Analysis for Montenegro. ISSP.  
<http://issp.me/wp-content/uploads/2013/04/NTFP-ISSP-versionEN.pdf>

<sup>24</sup> berries, mushrooms, medicinal plants

# Jobs in PAs

**Around 160 people<sup>25</sup> are directly employed in five national parks in Montenegro.** These numbers are higher during high seasons when temporary job positions are open. An additional 83 people are employed in the headquarters of the Public Enterprise National Parks of Montenegro in Podgorica.

The importance of PAs as jobs providers is well recognized by most of the assessed local communities, and by experts in nature conservation. In two PAs, jobs provided by national park management authorities are considered as a minor economic value to the local community (Lovćen and Biogradska gora). For Durmitor and Skadar Lake, jobs in the parks are a primarily source of income and have major economic value for 90 families.

Only local communities from National Park Prokletije do not recognize either a subsistence value from the PA, or jobs related to its management.

Although it seems a small number compared to the amount of jobs provided by other sectors, it should not be discounted. The main value of jobs in PAs are not in their quantity, but in where they occur. Most of PAs in Balkan region and in Montenegro are in remote mountainous areas where employment is scarce and restricted to agriculture, forestry, and other natural resource-based sectors. In addition, most mountainous areas have experienced rapid depopulation in the past few decades. This has caused severe negative impacts on local economies. In such circumstances, stable jobs for local people, such as jobs in PA management bodies, are highly appreciated.

The numbers listed above only refer to direct employment in management bodies of PAs. If properly managed, a PA can generate more jobs and business opportunities, and indirect employment. This mainly consists of self-employed people or small enterprises working in the tourism sector, forestry, and agriculture. These sectors are highly dependent on nature and PAs.

The old management concept of PAs present in the region was not oriented toward building partnerships and cooperation with local communities. Although management practices are changing, the effects of past practices and the absence of structured cooperation and communication between PAs and communities are still obvious.

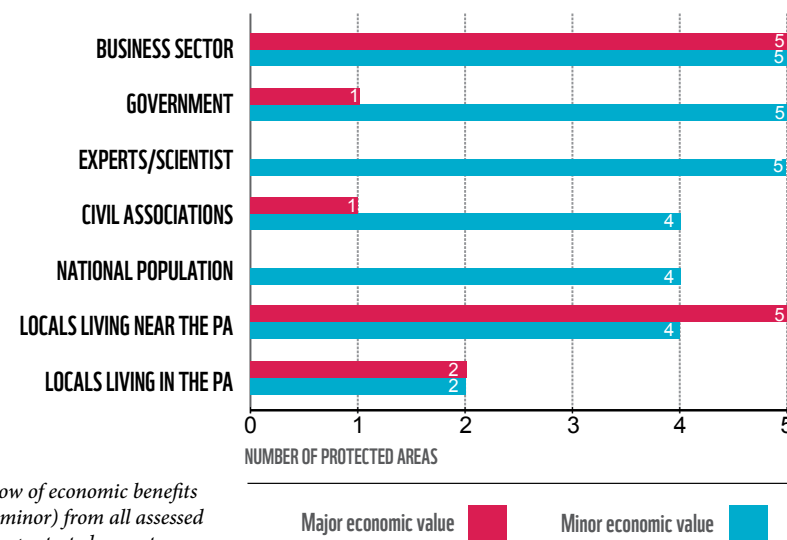
Local people are actively participating in the tourism sector and increasingly view national parks as providing opportunities for development. Beside

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tourism services, communities offer diverse products, food, handicrafts, and souvenirs. For example, in National Park Skadar Lake there are about 60 households whose main source of income is cruising tourism<sup>26</sup>. They provide very popular boat tours on the lake and these jobs are highly dependent on the PA and its management. Jobs in PAs do not bring only economic benefits. There are certain social benefits which are also provided. PAs in general increase opportunities for formal and informal education of local populations. The large number of tourists to PAs and events in PAs enable knowledge exchange and increase the visibility of the region. This could eventually lead to an increase in the competitiveness of local communities.

## Flow of benefits

Estimations of revenues and the size of investments are not the only economic parameters relevant for a comprehensive understanding of local and rural economies. A focus on amounts alone can lead to false conclusions about the sustainability of economic activities. Analysis of economic flow and distribution of benefits to different stakeholder groups is crucial for a proper understanding of local and rural economies. Economic benefits from large businesses and investments do not necessarily reach local people. In general, fair distribution and sustainability of incomes are crucial for fragile rural economies. Properly governed PAs, which involve local communities and businesses, serve as an ideal framework for sustainable rural development.



**Figure 3.** Flow of economic benefits (major and minor) from all assessed values within protected areas to different stakeholder groups

<sup>25</sup> [http://www.nparkovi.me/sajt/images/stories/Pravilnik\\_o\\_sistemizaciji\\_JPNPCG.pdf](http://www.nparkovi.me/sajt/images/stories/Pravilnik_o_sistemizaciji_JPNPCG.pdf)

<sup>26</sup> Economic Valuation of Montenegro's protected Area System. ISSP 2011



The assessment showed that in the majority of PAs the local communities living nearby and the private sector are the groups that gain the most economic benefits from the different values that PAs provide.

For **local people** these major economic benefits are mostly related to **jobs in PAs, honey and NFTP, tourism, livestock grazing, and cultural values.**

For the **private sector** benefits are mainly generated from **water resources, wild food, and tourism.** It could be argued that representatives of the private sector are already involved in economic sectors related to PAs. Private sector stakeholders recognized both major and minor economic benefits in all assessed PAs. This indicates high potential for cooperation between PA management bodies and businesses.

Local communities living in PAs are perceived to gain far less benefits than local residents living near PAs. There are several reasons for this. For one, communities in PAs are much smaller in number than communities outside PAs. Major benefits were recognized by local communities in National Parks Skadar Lake and Durmitor, which both have a considerably larger number of inhabitants within park borders. People living in PAs are more directly and more intensively exposed to restrictions in the use of resources in PAs. Therefore, they often perceived themselves to be in an unfavourable position. This is partly the consequence of old concepts of PA management, where local communities were not properly consulted in decision making related to natural resource use.

However, the analysis clearly shows that PAs are very relevance for small and vulnerable communities in remote rural areas. A big challenge for those communities is lack of capacities and competitiveness. Therefore, PA managers should develop and provide adequate mechanisms to involve local communities, and to attract new businesses.

**Local communities living near PAs and the private sector are the two stakeholder groups most involved in economic activities related to PAs.**



**IMPROVED  
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# Main potential for PAs in Montenegro

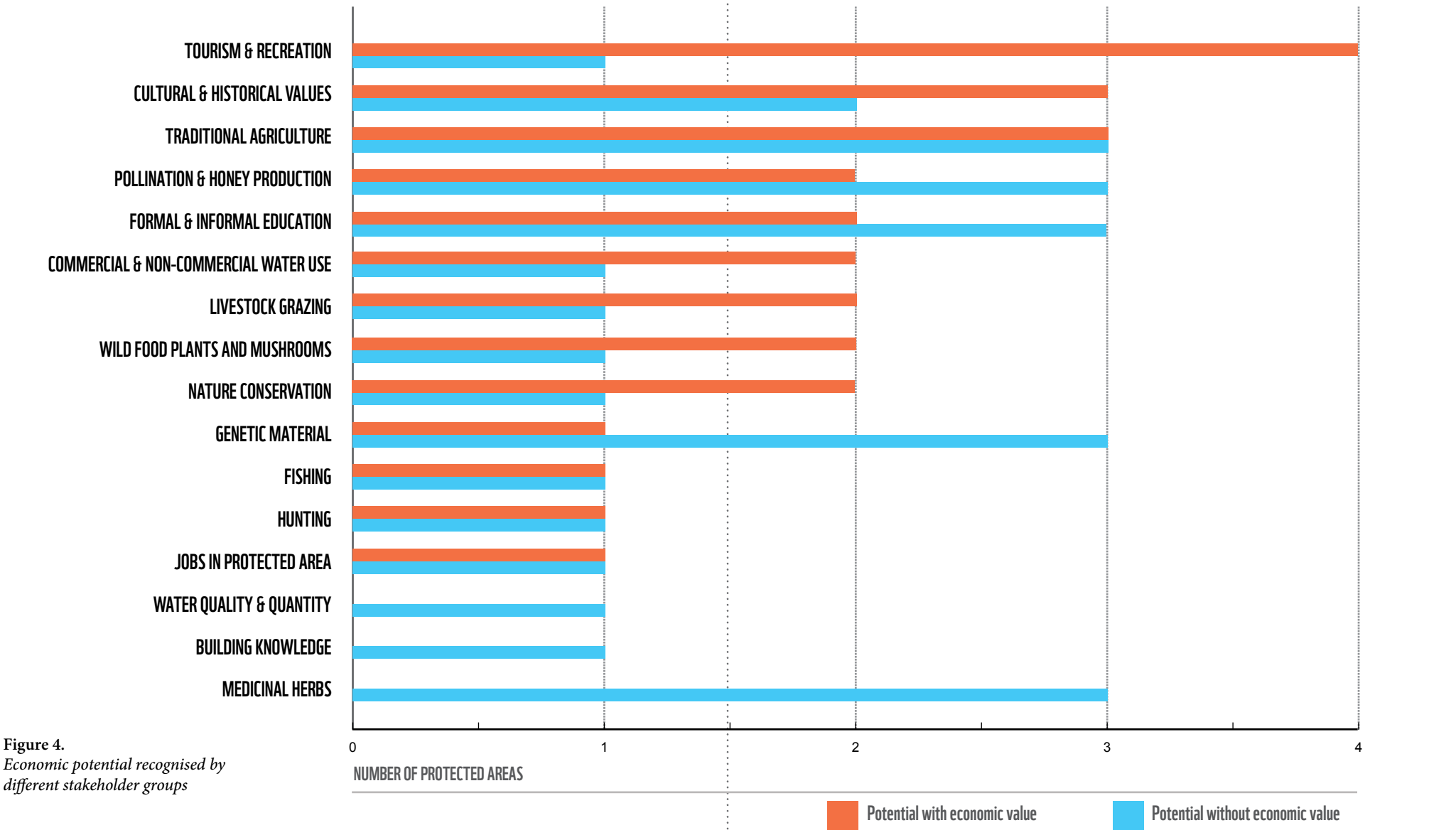


Figure 4.  
Economic potential recognised by  
different stakeholder groups

## Main potential for PAs in Montenegro

The potential for PAs to drive economic development was widely recognized among the stakeholder groups involved in the assessment. Assessed areas have different ecological characteristics, as well as socio-economic contexts. Some are quite new (National Park Prokletije), and some are already well-established and well-known national parks like Durmitor and Skadar Lake. As such, they have different development potential.

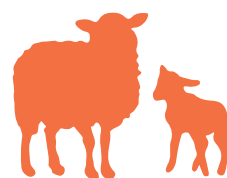
Overall the highest potential for development is connected to **tourism**. In four<sup>27</sup> out of five assessed areas, stakeholders rated tourism the highest potential growth area. Tourism development was mainly recognized among local people living around PAs and the private sector<sup>28</sup>. In addition, cultural values were rated as having very high potential for driving further growth. In National Parks Durmitor, Lovćen and Skadar Lake, stakeholders recognized that cultural values could contribute to economic development. Such results are probably the consequences of high interconnection between cultural values and tourism.

Agriculture production has experienced a downward trend in past decades, mainly due to the common phenomena of depopulation in rural mountainous areas across the Balkans. PAs and their surrounding are convenient locations for the production of healthy and organic food. This is increasingly demanded on a global level. Livestock breeding remains the prevailing economic activity for local people in National Park Prokletije. According to workshop participants, currently there are about 4200 cattle and about 7000 sheep in National Park Prokletije. Very productive and rich mountain pastures in and around National Park Prokletije provide food for even more livestock.

**Agricultural production**, and food production in general, are very much dependent on demand from tourists. It could be expected that further growth of tourism will lead to an improved offer by local producers.

The potential for the development of **hunting and fishing** are modest, and restricted to small portions of PAs. The use of these resources is restricted within PAs and stakeholders do not see space for future intensification. On the other hand, the assessment results might show awareness by all stakeholders that future development of PA should be focused on sustainable practices that do not harm the core natural values of the areas.

**Potential for development based on regulation and supporting services like climate change mitigation, soil stabilization, and flood prevention are not recognized.** It is to be expected that local stakeholders, which



**A SIGNIFICANT PORTION OF STAKEHOLDERS RECOGNIZE HIGH POTENTIAL FOR THE DEVELOPMENT OF TRADITIONAL AGRICULTURE AND HONEY PRODUCTION**

<sup>27</sup> NP Biogradska gora, NP Durmitor, NP Lovćen i NP Prokletije

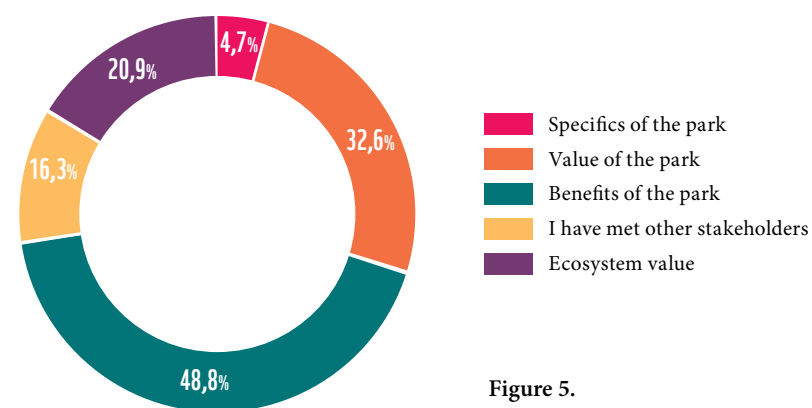
<sup>28</sup> 63% of all the answers that recognized potential in tourism are part of these four groups

are currently not in a favourable economic situation, do not have a comprehensive understanding of these services. Instead they are focused on tangible values which bring immediate benefits to them. Since regulating services are bringing benefits to wider stakeholder groups, there is a need to develop national and regional policies to promote the importance of these services and develop mechanisms for their valuation and inclusion in financial flows.

**Investing in natural capital can bring substantial economic benefits for all groups of stakeholders. According to some estimates<sup>29</sup>, an additional 1.5 billion EUR could be generated in next 25 years through investments in PA tourism and other ecosystem services.**

## Participation in PA management

Modern concepts of a PA rely on intensive collaboration between all stakeholders. Managers of PAs should not only inform stakeholders, but should also develop structures and processes to enable active participation of all relevant actors in management. Stakeholder participation greatly increases the effectiveness of a PA management, and also provides an enabling environment for economic development initiatives. Most of the PAs in the region were established and managed without an engaged consultative processes. Nowadays, the situation has changed and managers mainly recognize the importance of collaborative work. National Park Prokletije is an example of a newly established protected area where consultation processes are in place.



**Figure 5.**  
*What was learned during the workshops*

<sup>29</sup> Economic Valuation of Montenegro's protected Area System. ISSP 2011



The assessment of PAs in Montenegro shows that participatory processes are in an initial phase. To a certain extent, stakeholders exchange information and knowledge between themselves. However, not all stakeholder groups are equally engaged and there is a lot of room for improvement in terms of continuity and transparency of participatory processes. The assessments in PAs show that most of the stakeholders are well informed about the basic specifics of the park, and the majority of them are interested in learning about benefits and values of PAs.

However, the consequences of a long period of authoritative governance are still present and both managers and stakeholders need to develop their capacity for collaboration.

The discussions between stakeholders during the PA-BAT workshops are as equally important as the assessment and its results. The PA-BAT workshops provide an opportunity for exchanging information and knowledge. This leads to a better understanding of the role, values and benefits of PAs. Stakeholders can also create contacts and develop joint initiatives for development.

Over 97 percent of the people involved stated that they would be able to use the knowledge gained during the workshop. Over 65 percent of attendees indicated that there is a chance for future collaboration with other stakeholders, and 33 percent reported they met more than 5 new acquaintances. Also, this kind of workshop is a convenient tool for explaining the sometimes quite complicated concept of ecosystem services, and other values and benefits of PAs.

## Challenges

The PA-BAT assessment was not developed to be the ultimate and comprehensive tool for detailed assessment of all values in a particular PA. It is meant to help collate and start building information about the overall benefits of nature conservation, which are immense. In addition, participatory and integral assessments do not only help in identification of benefits and values - they are also practical for the identification of the main challenges and obstacles in PA management. We have highlighted below some of these obstacles identified during stakeholder discussions:

1. PAs are still not adequately recognized as instruments for development and are not properly integrated in strategies, plans and programs of other sectors.

**MORE THAN 65%  
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STAKEHOLDERS  
THEY MET**



2. Economic and social benefits, as well as potential of PAs in Montenegro, are not well integrated in PA management plans.

3. The current institutional setting of management of national parks in Montenegro is not favourable for modern and integrative management; which should rely on intensive involvement of local stakeholders and partnerships with businesses.

4. Development potential is mainly seen in use of natural resources. Values of conservation of ecosystems and their services are not yet fully recognized and accepted.

5. Protection regimes and measures in national parks are regulated on the national level by the Law on Nature Protection. This does not allow specific management adaptations at the PA level.

6. Current and comprehensive data needed for effective management of species, habitats and natural resources are generally missing, or are incomplete.

7. Legislation on species protection is not fully developed and causes difficulties in PA management and sustainable use of medicinal plants, berries, and mushrooms.

8. Ranger services, which should be in a frontline of PA management and interaction with local stakeholders and tourists, are in general understaffed and not properly equipped.

9. Tourism infrastructure is in general not adequately developed.

10. Many cultural values in national parks are not fully appreciated, protected, and integrated in National Park management.

11. A small portion of PA values is recognized and transformed into benefits for stakeholders. All relevant stakeholder groups, including PA managers, have modest capacities for developing sustainable economic activities based on PA values.

12. Financial resources for the development of sustainable economic initiatives are limited and not easily accessible to local communities.

13. Markets for wild food products are not developed and organized. Control of collecting and trading of wild food and medicinal plants is weak.

14. Structures and processes for the participation of stakeholders and their involvement in decision making are in the initial phase of development.



15. PA management bodies have modest capacities for integrative PA management. Lack of experts for nature conservation, education, interpretation, and tourism is evident.

16. Local people, as well as the public, do not recognize and understand the full array of ecosystem services PAs provide. Regulating and supporting ecosystem services are weakly recognized, and not included in economic considerations.

## Recommendations for using the PA-BAT results

Different actors in nature conservation, protected area management, and rural development can use the results of the PA-BAT assessment. **They are particularly relevant for PA managers, but also for national and local governments and local actors who are leading sustainable development initiatives.**

Institutions responsible for the management of PA in Montenegro should take into account the issues identified during the series of the PA-BAT workshops and utilize the advice (guidance notes) on using the PA-BAT results developed in consultation with PA experts and authorities.



### A BETTER UNDERSTANDING OF THE VALUES AND BENEFITS PAs ARE PROVIDING TO PEOPLE CAN CONTRIBUTE TO SUSTAINABLE DEVELOPMENT

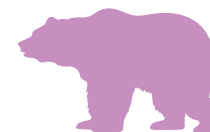
Guidance notes are developed for: 1. Management plans; 2. Developing ecosystem service assessments; 3. Communications plans; 4. Business plans; 5. Interpretation and education plans; 6. Rural development plans; and 7. Project development<sup>30</sup>.

The potential to use the PA-BAT results in PA management planning are as follows:

1. A better understanding of the values and benefits PAs are providing to people can significantly improve PA management.
2. The PA-BAT assessments provide initial information for further development of detailed and targeted assessments for development initiatives.
3. Discussions about PA benefits and values are a basis for building participatory processes and partnerships between stakeholders in a PA.
4. The PA-BAT results help in strategic orientation of a PA or PA system on national level. Also, the results provide useful data for management planning.

<sup>30</sup> [http://croatia.panda.org/en/what\\_we\\_do/protected\\_areas/p4np/pa\\_bat\\_methodology/](http://croatia.panda.org/en/what_we_do/protected_areas/p4np/pa_bat_methodology/)





POTENTIALS  
FROM THE PA-BAT  
ANALYSIS ARE  
FULFILLED THROUGH  
6 FIELD PROJECTS  
IN THE REGION.  
ONE OF THEM IS  
BEAR WATCHING  
IN NATIONAL PARK  
BIOGRADSKA GORA

5. Benefits recognized by local people and stakeholders provide relevant content for awareness raising and for promotion of PAs in general.
6. The modern concept of PAs is based on their integration in local development programs. The PA-BAT results are very useful for integrating and developing local economic incentives.
7. Due to its intensive participatory approach, the PA-BAT results reflect the actual situation in PAs and challenges people in PAs are facing. Therefore, they help PA managers in focusing on practical solutions, which contribute to local communities.
8. The process of conducting the PA-BAT assessment is as equally important as its results. Benefits and values are changing with time, as are stakeholders' perception of these benefits and values. Periodical revision of the PA-BAT assessments can help in generating and maintaining positive and constructive dialogue between stakeholders.
9. Assessed values and benefits provide very important inputs for decision-making, spatial planning, Environmental Impact Assessment (EIA), and Strategic Environmental Assessment (SEA) or similar processes. Arguments directly linked to social or economic benefits can significantly improve the quality of decision-making processes.
10. PAs can become significant drivers of local economies. However, development initiatives should always be based on sustainability. They should not jeopardize the main values of a PA. Development initiatives should be planned gradually, with a special attention to fair distribution of benefits among all stakeholders.

Information from the local communities, gathered during PA BAT workshops in the region, has already been used for the development of recommendations for the improvement of legislation on nature protection and sustainable use of resources (national reports). As well, WWF has used this information for planning the Protected Areas for Nature and People program (PA4NP)<sup>31</sup>. The six field projects of PA4NP program were chosen according to PA-BAT results (in order to present good practices and resolve conflicts). The identified lack of communication between local communities and PA management across the entire region was a reason to develop a specific indexation program to monitor intensity and quality of communication and cooperation between PA stakeholders.

The PA-BAT analysis of individual PAs is available on the [natureforpeople.org](http://natureforpeople.org) website<sup>32</sup> and PA staff can use it for improving their work (revising annual and management plans).

<sup>31</sup> [http://croatia.panda.org/projekti/zatiena\\_podruja\\_zaprrodu\\_i\\_ljude/](http://croatia.panda.org/projekti/zatiena_podruja_zaprrodu_i_ljude/)

<sup>32</sup> [www.natureforpeople.org](http://www.natureforpeople.org)



# Recommendations for addressing identified challenges

## Strategic recommendations for the improvement of the system of PAs in Montenegro:

- Ensure better support of all state and local governmental institutions to PA managers
- Integrate PA values and benefits into sector strategies and plans
- Develop an enabling institutional framework for PA management to allow integrative management practices and effective inclusion of local stakeholders and businesses
- Develop a legal framework which would enable PA management to be adapted to local specifics (zoning systems, species managements etc.)
- Ensure financial support for the development of infrastructure needed for transforming of PA values to benefits
- Initiate and support businesses in PAs which are in line with the conservational objectives of PAs and their planning documents.



## Recommendations at the PA level:

1. Engage with decision makers and policy developers to consider and integrate PA values and benefits into policies and relevant strategic documents
2. Integrate identified values and benefits into management plans
3. Further develop structures and processes for participation of local stakeholders
4. Inform all relevant stakeholder groups on the values and benefits PAs are providing. In particular, promote values of supporting and regulating ecosystem services
5. Establish business forums to better explore opportunities and initiate activities which would turn identified values into benefits



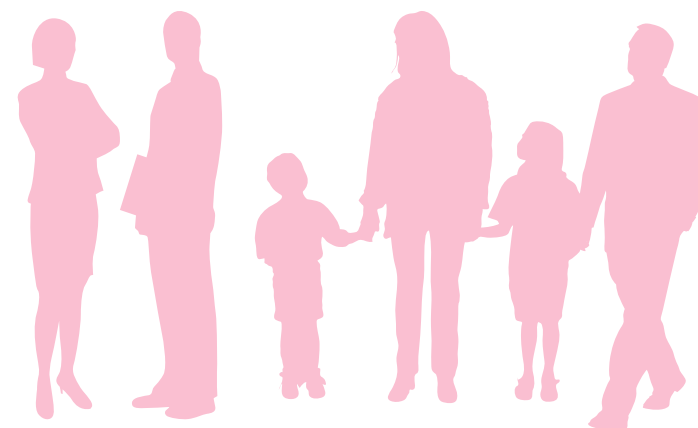
6. Identify potential conflicting issues between sector policies and laws, and initiate multi-sector discussions about sustainable development initiatives
7. Develop efficient monitoring systems for species of conservational and of commercial interest
8. Develop accurate digital maps of PA including data on borders, zones, infrastructure, natural and cultural values to support decision making processes and communication with stakeholders
9. Develop capacities of ranger services as one of the core units of PA management
10. Develop specific capacities needed for visitors/tourism management
11. Build partnerships with the business sector to improve tourism offers
12. Engage with institutions responsible for conservation of cultural heritage to properly assess, evaluate, conserve, and integrate cultural values into the management of PAs
13. Use the PA-BAT for strategic planning of PA management and capacity building. A management body should focus on capacity building in areas related to identified values
14. Consider capacities and resources of local people in management planning and develop adequate mechanisms for rising and supporting their competitiveness
15. Advocate for sound financial mechanisms, which would ensure equitable benefit sharing and support local communities living in PAs
16. Develop market infrastructures for local products and wild food products to improve and stabilize revenues for local people
17. Develop and implement control mechanisms for the use of natural resources together with local stakeholders
18. Involve local stakeholders in decision making processes on use of natural subsistence values
19. Develop and support incentives for traditional agricultural production within PAs.



- **Work on further integration of PAs and local service providers in the national and international tourism markets**
- **Regularly exchange information with relevant stakeholders and ensure transparency of PA management actions and plans**
- **Promote PAs as “job providers” and ensure support from relevant institutions (subsidy schemes, employment programs)**
- **Organise regular PA-BAT assessments with local stakeholders in order to understand values better, and to learn the most efficient ways for generating benefits from PAs**
- **Together with stakeholders, develop and agree on mechanisms for keeping economic activities within limits of sustainability**
- **Conduct targeted and in-depth assessments of the main identified values based on specific policy questions**

Overall, our key recommendation is to intensify processes that would integrate natural/protected area's values into development planning in partnerships with key stakeholders.

**LOCAL  
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DECISION MAKING  
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VALUABLE FOR  
THEIR EXISTENCE**







## Conclusion

The Government of Montenegro has explicitly defined its development priorities which are tourism, energy, agriculture, and the processing industry<sup>33</sup>. The first three of these priority sectors very much depend on natural resources and natural values. Together with the long term orientation of the country towards sustainable development, they create an enabling strategic framework and lots of opportunities for development of PAs.

Beside these opportunities there are numerous challenges, which are mostly related to finding a balance between the needs of different sectors and the limits of sustainable use of natural resources. Proper understanding and evaluation of natural values could be the key for resolving opposing interests related to natural values.

Focusing on prime values and benefits can increase levels of understanding between interest groups. The modern approach to PA management, aiming to harmonize development and conservation of natural values, is based on participation of wide range of stakeholders. The PA-BAT is a tool which helps PA managers in designing fruitful and structured participation through a better understanding of natural values and their importance for local stakeholders.

People involved in the PA-BAT assessment in Montenegro identified many values of high importance for their subsistence and economic development. In this way, they have justified the need to protect nature and have addressed the need for improvement of PA management. As well, they have shown that many of the present stakeholder groups are aware of numerous natural values in PAs and that many of them are already mobilized and active in sustainable local economies. PA managers have also already marked the way toward participatory practices and integration of their PAs into local development initiatives. However, there is a lot of room for improvement and the PA-BAT can facilitate and speed up this process.

In addition to its practical usage at local levels, the PA-BAT contributes to the fulfilment of country's obligation to the Aichi Biodiversity Targets (goals for conservation and sustainable use of biological diversity) included in the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011-2020 and it directly supports the implementation of more than one of the Sustainable Development Goals adopted in 2015. Accordingly, the PA BAT is supporting EU biodiversity targets for 2020.

Finally, our team would like to thank everyone who participated in the workshops for their time, good humour, and open discussions.

<sup>33</sup> Montenegro directions of development.  
<http://www.mf.gov.me/rubrike/prezentacije/151039/Pravci-razvoja-Crne-Gore.html>



# WWF in numbers

100%  
RECYCLED



1961.

WWF is one of the world's largest conservation organization since 1961.

+100

WWF works in more than 100 countries on 6 continents.

+5 M

WWF has more than 5,000 staff worldwide.



## PROTECTING NATURE

WWF Adria works through partnerships on national, regional and global level.



Working to sustain the natural world for people and wildlife

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