

# Delivering on CBD commitments: Programme of Work on Protected Areas in Dinaric Arc Ecoregion



## ACKNOWLEDGEMENTS

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*Photo: Hutovo Blato Nature Park in Bosnia and Herzegovina (author: Ivana Korn Varga)*

*Cover page photo: Northern Velebit National Park in Croatia (author: Ivana Korn Varga)*

## Contents

ACKNOWLEDGEMENTS .....	2
1) INTRODUCTION .....	3
2) CONVENTION ON BIOLOGICAL DIVERSITY PROGRAMME OF WORK ON PROTECTED AREAS .....	3
3) DINARIC ARC ECOREGION .....	4
4) HOW DID WWF PA4LP – DINARIC ARC ECOREGION PROJECT CONTRIBUTED TO PROGRESS OF CBD PoWPA .....	5
5) PROGRAMME OF WORK ON PROTECTED AREAS ACROSS DINARIC ARC ECOREGION .....	7
Programme Element 1: Direct Actions for Planning, Selecting, Establishing, Strengthening, and Managing, Protected Area Systems and Sites.....	7
Goal 1.1: To establish and strengthen national and regional systems of protected areas integrated into a global network as a contribution to globally agreed goals .....	7
Goal 1.2: To integrate protected areas into broader land- and seascapes and sectors so as to maintain ecological structure and function .....	12
Goal 1.3: To establish and strengthen regional networks, transboundary protected areas (TBPAs) and collaboration between neighbouring protected areas across national boundaries .....	18
Goal 1.4: To substantially improve site-based protected area planning and management .....	20
Goal 1.5: To prevent and mitigate the negative impacts of key threats to protected areas .....	22
Programme Element 2: Governance, Participation, Equity and Benefit Sharing ..	24

Goal 2.1: To promote equity and benefit-sharing .....	24
Goal 2.2: To enhance and secure involvement of indigenous and local communities and relevant stakeholders.....	28
Programme Element 3: Enabling Activities.....	30
Goal 3.1: To provide an enabling policy, institutional and socio-economic environment for protected areas.....	30
Goal 3.2: To build capacity for the planning, establishment and management of protected areas .....	33
Goal 3.3: To develop, apply and transfer appropriate technologies for protected areas.....	35
Goal 3.4: To ensure financial sustainability of protected areas and national and regional systems of protected areas.....	35
Goal 3.5: To strengthen communication, education and public awareness .....	37
Programme Element 4: Standards, Assessment, and Monitoring .....	39
Goal 4.1 - To develop and adopt minimum standards and best practices for national and regional protected area systems .....	39
Goal 4.2: To evaluate and improve the effectiveness of protected areas management .....	41
Goal 4.3: To assess and monitor protected area status and trends .....	42
Goal 4.4: To ensure that scientific knowledge contributes to the establishment and effectiveness of protected areas and protected area Systems .....	44
6) CHALLENGES AND FUTURE PRIORITIES IN DINARIC ARC ECOREGION.....	46
LIST OF ABBRAVIATIONS .....	49
LITERATURE .....	50

## 1) INTRODUCTION

This publication is an overview of the progress of the Convention on Biological Diversity Programme of Work on Protected Areas (CBD PoWPA) in Dinaric Arc Ecoregion (DAE) in the period from 2004 till 2011. Countries included in the review, Albania, Bosnia and Herzegovina, Croatia, Montenegro, and Slovenia, are the countries involved in WWF Protected Areas for a Living Planet – Dinaric Arc Ecoregion (PA4LP – DAE) project. The review defines future challenges and priorities and it also shows how WWF PA4LP – DAE project contributed to the implementation of PoWPA and to what extent.

Data for the review were provided by the respected governments of the DAE countries and gathered by National Project Coordinators (NPCs) who were closely collaborating with them throughout the project.

## 2) CONVENTION ON BIOLOGICAL DIVERSITY PROGRAMME OF WORK ON PROTECTED AREAS

The Programme of Work on Protected Areas (PoWPA) of the Convention on Biological Diversity, adopted by the seventh CBD Conference of the Parties (February 2004, Kuala Lumpur, Malaysia), is a world wide effort to reduce the current rate of biodiversity loss at the global, regional, national and sub-national levels. Its overall purpose is “to support the establishment and maintenance of terrestrial areas by 2010 and of marine areas by 2012 to ensure comprehensive,

effectively managed, and ecologically representative national and regional systems of protected areas”.

**The PoWPA consists of four interlinked and cross-cutting implementation components:**

**Programme Element 1: Direct Actions for Planning, Selecting, Establishing, Strengthening, and Managing, Protected Area Systems and Sites**

**Programme Element 2: Governance, Participation, Equity and Benefit Sharing**

**Programme Element 3: Enabling Activities**

**Programme Element 4: Standards, Assessment, and Monitoring**

The PoWPA assists countries to establish their own national programmes of work with targeted goals, actions, specific actors, time frame, inputs and expected measurable outputs. The ultimate goal of PoWPA implementation is the establishment and maintenance of an efficiently managed, ecologically representative national and regional system of protected areas that is integrated into a global network of protected areas, where human activities are managed to maintain the structure and function of ecosystems to achieve a significant reduction in the rate of biological diversity loss and provide benefits for present and future generations. Along with new target for Protected Areas (see below) a special decision on protected areas was adopted by CBD Parties at COP 10 in Nagoya, Japan in September 2010 (Decision X/31). The Decision indicates strategies for strengthening PoWPA implementation at national, regional and global levels, and identifies issues that need greater attention.



### 3) DINARIC ARC ECOREGION

The Dinaric Arc Ecoregion is among WWF's 200 Ecoregions and one of Europe's biodiversity hotspots with a high rate of endemism. The region extends from its border with the Alps in Slovenia through Croatia and a large part of Bosnia and Herzegovina and Montenegro, ending in the north of Albania. It is characterised by Dinarids - a central mountain range that extends into Serbia, Kosovo and Macedonia. WWF Protected Areas for a Living Planet - Dinaric Arc Ecoregion project, includes five countries, part of Albania (41,09 %), almost twice as large surface area of Bosnia and Herzegovina (80,53 %), part of Croatia (50,65 %), Slovenia (31,94 %) and the whole Montenegro (100 %) which is all together 137.000 km<sup>2</sup>. The region is characterised by karst phenomena. Water erosion transformed carbonate bedrock into surface and underground karst features, home to some unique species, including the endemic cave salamander *Proteus anguinus*. The cave system represents the largest underground river system in Europe and is therefore an extremely important source of water for the entire region. The warm Mediterranean climate has had a significant impact on the diversity of flora and fauna in the Dinaric Arc. Habitats which differ dramatically can be found within short distances. Freshwater environments have been greatly affected by human activity, which has changed both the geomorphological and the biodiversity aspect of rivers. This has also been favoured by relatively slow economic development and predominantly traditional agricultural practices. Extensive and well-preserved forests still cover a great part of the area, offering shelter to significant resident populations of large carnivores including the brown bear, lynx and wolf. All this, together with its rich cultural heritage, makes the Dinaric Arc an exceptional region.

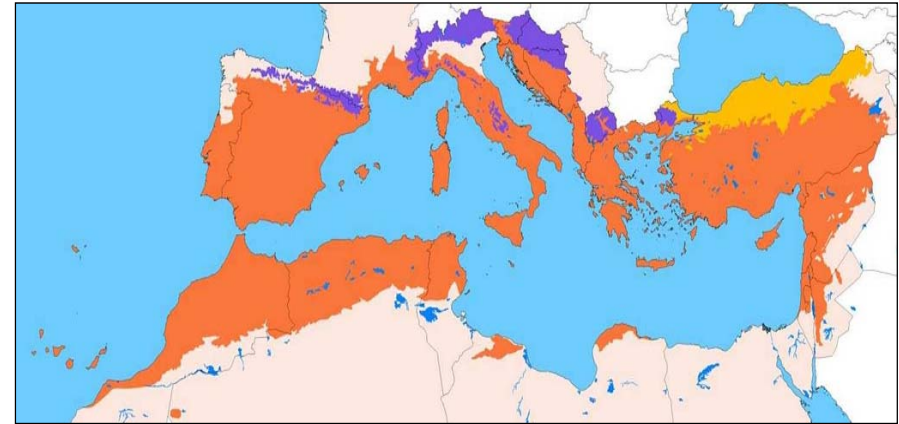


Figure 1. Mediterranean region



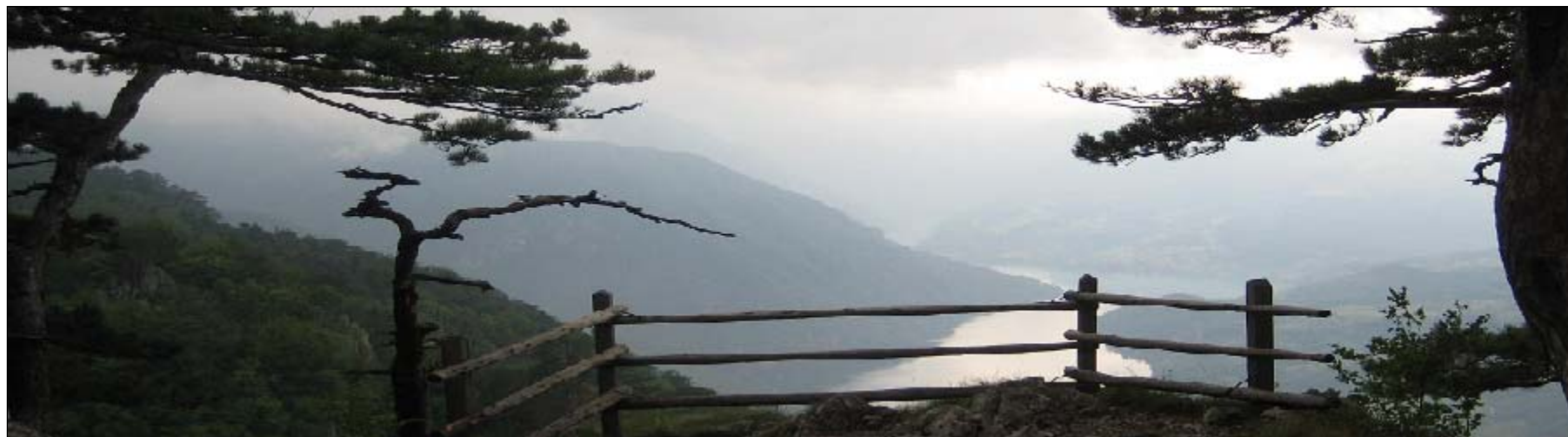
Figure 2. Dinaric Arc Ecoregion

#### 4) HOW DID WWF PA4LP – DINARIC ARC ECOREGION PROJECT CONTRIBUTED TO PROGRESS OF CBD PoWPA

- *significant raising of political will, in particular with Big Win commitments signed by PA4LP - DAE project countries (plus one more neighbouring country, Serbia) by government representatives in May 2008*
- *first Ecoregional Gap Analysis was delivered*
- *first Ecoregional Conservation Status assessment of Vertebrate Species of the Dinaric Arc Ecoregion was produced as a basis for Red List*
- *Rapid Assessment and Prioritization of Protected Areas Management (RAPPAM) was the first management effectiveness tool to be used in the region, and it was marked as very useful, for management effectiveness improvement*
- *first ecosystem evaluation study in Croatia was delivered (Economic Contribution of the Velebit Protected Areas to Economic Growth and Equity ) and knowledge was transferred to Bosnia and Herzegovina and Montenegro*
- *Ecosystem Services Evaluation in the Skocjan Caves Regional Park in Slovenia was delivered and the knowledge was transferred to Albania*
- *first pilot Business Plan Secoveljske Soline Nature Park was conducted*
- *Study on Cross-sectoral dialogue as a basis for nature protection in Bosnia and Herzegovina - case study National Park Una was conducted in Bosnia and Herzegovina*
- *Study on Forestry and Nature Protection in Montenegro was conducted*
- *Proposal for the Development of a National Strategy on Invasive Alien Species in Croatia was developed*
- *Assessment of Invasive Alien Species in Protected Areas in Slovenia was delivered*

## Main progress highlights in Dinaric Arc Ecoregion

- *28 PAs were established and 9 enlarged from the beginning of CBD PoWPA (2004 - 2011)*
- *political will was greatly raised with signing of the Big Win joint statement by countries (Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia and Slovenia) government representatives in May 2008*
- *countries adopted PoWPA in 2004, however the project highly contributed to systematic implementation of PoWPA when it started in 2007*
- *first marine PA was established in Albania in 2010 (Karaburun-Sazan National Park)*
- *progress of PoWPA implementation in Croatia is evident, overall, out of the 16 PoWPA goals, there is no activity which has not yet begun, the activities for the fulfilment of almost eleven goals are fully underway, and the activities for the fulfilment of almost five PoWPA goals have been nearly completed*
- *Montenegro proclaimed it's fifth national park, Prokletje National Park*
- *Bosnia and Herzegovina enlarged its PAs surface for 33% since 2004 (from 34.154,61 to 105.662,00 ha)*



*Photo: Tara National Park in Serbia (author: Tara NP)*

## 5) PROGRAMME OF WORK ON PROTECTED AREAS ACROSS DINARIC ARC ECOREGION

### Programme Element 1: Direct Actions for Planning, Selecting, Establishing, Strengthening, and Managing, Protected Area Systems and Sites

**Goal 1.1: To establish and strengthen national and regional systems of protected areas integrated into a global network as a contribution to globally agreed goals**

In all the countries significant progress has been made in assessing the representativeness and ecological gaps of Dinaric Arc Ecoregion protected area network. WWF DAE Gap Analysis is produced and publicised.

#### ALBANIA

The protected areas in Albania currently cover the surface of 446,727.00 ha. The DAE Gap analysis carried out in the framework of PA4LP Dinaric Arc project provides a good basis for assessing the extension of protected areas in Albania and identifying biodiversity targets that are not adequately covered within the PA system. The project “Gap assessment of protected areas and development of marine protected areas” financed by GEF, MEFWA and UNDP, provides a clear assessment of the status of protected areas in Albanian and highlights the necessary improvement including changes to the legal framework on protected areas. These efforts encourage the

establishment of protected areas that benefit local communities, including by respecting, preserving, and maintaining their traditional knowledge.

*Table 1. List of new/enlarged protected areas established in the period from 2004 till 2011 in Albania*

No.	Site	IUCN category	PA category	Type of action	Hectares		Year of designation
					Before	Currently	
1	Vjosë-Nartë	V	Protected Landscape	Enlarged	1.770,00	19.738,00	2004
2	Liqeni i Shkodrës	IV	Managed Nature Reserve	New		26.535,00	2005
3	Lumi Buna-Velipojë	V	Protected Landscape	New		23.027,00	2005
4	Butrinti	II	National Park	New		8.591,00	2005
5	Mali i Dajtit	II	National Park	Enlarged	3.300,00	29.217,00	2006
6	M.Gropa-Bizë-Martanesh	V	Protected Landscape	Enlarged	2.040,00	25.266,00	2007
7	Divjakë-Karavasta	II	National Park	Enlarged	7.065,00	22.230,00	2007
8	Shebenik-Jabllanice	II	National Park	New		33.928,00	2008
9	Bredhi i Hotovës-Dangelli	II	National Park	Enlarged	1.200,00	34.361,00	2008
10	PKD 'Karaburun-Sazan'	II	National Park (Marine)	New		12.428,00	2010
11	Kune-Vain-Tale	IV	Managed Nature Reserve	Enlarged	2.300,00	4.393,00	2010
12	Korab Kortinki	IV	Nature Park	New		55.550,00	2011



## BOSNIA AND HERZEGOVINA

The national network of protected areas currently covers 105.662,00 ha (2.3 %) of BIH territory. Process of establishing 3 National Parks (NPs), which will greatly increase the percentage of protection, is ongoing. By adopting Nature Protection Act, which is proclaimed in 2003, BIH PAs categorization will be adjusted to IUCN categories. DAE Gap analysis showed that there is a lack of scientific data or that the data is old. Gaps determined by it will be used while proclaiming/enlarging PAs.

*Table 2. List of new/enlarged protected areas established in the period from 2004 till 2011 in Bosnia and Herzegovina*

No.	Site	IUCN category	PA category	Hectares	Year of designation
1	Prokosko jezero	III	Nature Monument	2.225,00	2005
2	Vrelo Bosne	III	Nature Monument	603,00	2006
3	Una	II	National Park	19 800	2008
4	Tajan	III	Nature Monument	3.510,00	2008
5	Konjuh	V	Protected Landscape	8.016,61	2009
6	Orlovaca Cave	III	Nature Monument	27,01	2011
7	Lisina	IV	Special Nature Reserve	560,64	2011
8	Gromizelj	IV	Special Nature Reserve	831,33	2011



*Photo: Una National Park in Bosnia and Herzegovina (author: Sanjin Jusic)*

## CROATIA

The national network of PAs covered 7,70% of Croatian territory in December 2011 (674.980,87 ha). This represents 10,88% of terrestrial part of Croatia (615.347,62 ha) and 1,92% of marine part of Croatia (59.633,25 ha). There were a total of 429 PAs in Croatia in December 2011: two strict reserves, eight national parks, 79 special reserves, eleven nature parks, two regional parks, 85 nature monuments, 82 protected landscapes/seascapes, 33 forest parks and 127 horticultural monuments. The Register of PAs of the Croatian Ministry of Environment and Nature Protection of Culture is currently under revision.

Significant progress has been made in assessing the representativeness and ecological gaps of Croatia's protected area network. A Regional Gap Analysis has been conducted (WWF Dinaric Arc Ecoregion Gap Analysis). The assessment of ecological gaps has partially been done through the process of designing and implementing the National Ecological Network (NEN) and the future Natura 2000 network. New protect areas were created, NEN (part of which will be future N2K) was implemented, as well as some designation of new PAs and preventive protections (please refer to the list of new PAs).

National and nature parks are managed at the state level the majority of other PAs are managed at the regional (county) level, and some PAs are managed at the local level.

WebGIS portal for protected areas was created.

*Table 3. List of new/enlarged protected areas established in the period from 2004 till 2011 in Croatia*

No.	Site	IUCN category	PA category	Hectares	Year of designation
1	Natural Monument – group of trees Sessile Oaks – Djedovica	III	Natural monument – county governance	0,00	2004
2	Natural Monument – group of trees Yews – Debeljak at Papuk	III	Natural monument – county governance	0,80	2005
3	Protected Landscape Odra Field	V	Protected landscape – county governance	9.401,90	2006
4	Nature Park Lastovo Islands	V/VI	Nature park – state governance (Ministry level)	19.583,00	2006
5	Horticultural Monument Opatija – Sv. Jakov Gardens	Without IUCN category	Horticultural monument – county governance	0,47	2010
6	Horticultural Monument – tree Plane – Dubrovnik	Without IUCN category	Horticultural monument – county governance	0,14	2010
7	Mura-Drava	V/VI	Regional Park -- county governance	87.680,00	2011
8	Moslavina Mountain	V/VI	Regional Park -- county governance	15.111,32	2011
9	Zelenjak – Risvica and Cesar Mountains	V/VI	Protected landscape – county governance	287,31	2011

## MONTENEGRO

The national network of the protected areas currently covers 124.964,24 ha, or 9,047% of the territory of Montenegro, of which the largest share (101.733,00 ha or 7,77%), is comprised of five national parks: Durmitor, Skadar Lake, Lovcen, Biogradska gora and newly established Prokletije. The remaining part includes over 40 protected areas within the following categories: monument of nature; region of special natural features, and (general and special) reservations.

PA4LP-DAE Gap Analyses based on the best available information is produced and publicised.

There is no marine PAs in Montenegro. That's why establishment of marine protected areas as one of BW commitments is extremely important point.

*Table 4. List of new/enlarged protected areas established in the period from 2004 till 2011 in Montenegro*

No.	Site	IUCN category	PA category	Type of action	Hectares		Year of designation
					Before	Currently	
1	City park in Tivat (revised)	III	Nature Monument	Enlarged	4,00	5,90	2007
2	Tivat salines	I	Strict reserve	New		150,00	2008
3	Prokletije	II	National Park	New		16.630,00	2009
4	Spas Hill	III, V	Landscape of Special Features	Enlarged		163,30	2009



*Photo: Lacerta viridis (author: Iris Setic - Bravar)*



## SLOVENIA

Total surface of PAs in July 2011 was 12,6 % (254.847,00 ha) of the national territory. Of this, the state has established PAs on 8,5 % of the national territory and on 4,1 % PAs have been established by municipalities. Among wider PAs are: one national park, three regional parks and 43 landscape parks. Besides these there are also many smaller protected areas, of these 1277 are natural monuments, 54 nature reserves and 1 strict nature reserve. From year 2002, the surface of PAs in Slovenia has increased for 3 %. Three wider PAs have been established in this period: Notranjska Regional Park (in 2002), Landscape park Goricko (2003) and Landscape park Ljubljansko barje (2008). While many (mostly smaller) protected areas have been established by municipalities between 1980 and 1990, local initiatives for establishment of new PAs have almost entirely ceased. Currently, processes for the establishment of two new PAs are running, but this will increase the surface only to 14 %, while the EU countries average is 15%. To achieve the national target for 2014, set to 22 % surface of PAs, the state will have to act much more decisively.

*Table 5. List of new/enlarged protected areas established in the period from 2004 till 2011 in Slovenia*

No.	Site	IUCN category	PA category	Type of action	Hectares		Year of designation
					Before	Currently	
1	<b>Strunjan*</b>	V	Landscape park	New		429,00	2004
2	<b>Kolpa*</b>	V	Landscape park	New		4.331,00	2006
3	<b>Ljubljansko barje</b>	V	Landscape park	New		13.505,00	2008
4	<b>Triglav</b>	II/V	National park	Enlarged	83.982,00	84.157,00	2010

\*These two areas were not actually newly established, they were only transferred from municipality to state level. This did improve their management (establishment of management authorities) but did not increase the size.



*Photo: Notranjska Regional Park in Slovenia (author: Paul Veenvlite)*



## Goal 1.2: To integrate protected areas into broader land- and seascapes and sectors so as to maintain ecological structure and function

### ALBANIA

The law on protected areas uses the IUCN management categories as a basis for the management of protected areas in Albania. Specific efforts are made to integrate protected areas into broader land and seascapes and sectoral plans and strategies such as poverty reduction strategy. 6 protected areas are enlarged substantially.

There are some attempts made in assessing protected area connectivity and integration and to develop tools of ecological connectivity, such as ecological corridors, linking together protected areas where necessary or beneficial as determined by national priorities for the conservation of biodiversity. Continuous measures are taken to rehabilitate and restore habitats and degraded ecosystems, as appropriate, as a contribution to building ecological networks, ecological corridors and/or buffer zones.

The project for establishing the EMERALD network in Albania, supported by the Council of Europe, laid the basis for the development of EMERALD Network at the national level and improved protected area connectivity and integration. Several protected areas identified as areas of special conservation interest (ASCI) are included in the Emerald Network of Albania.

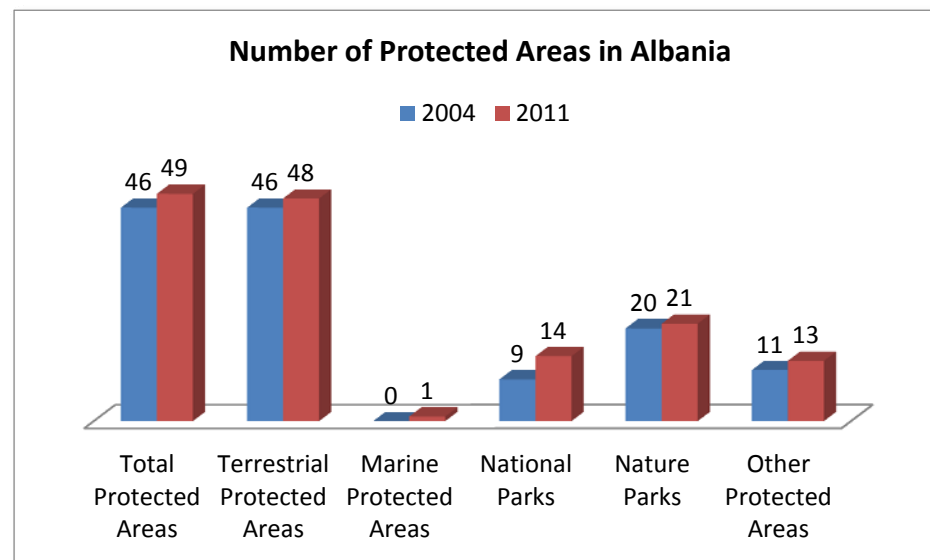


Figure 1. Number of PAs in Albania in 2004 and 2011

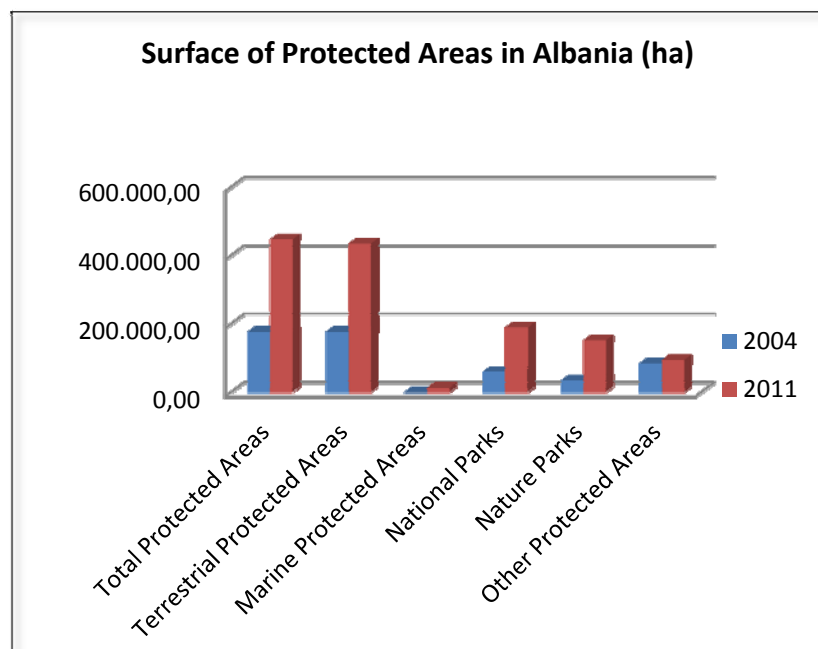


Figure 2. Surface of PAs in Albania in 2004 and 2011

## BOSNIA AND HERZEGOVINA

There is still no existing legislation that would regulate this issue, however, Bosnia and Herzegovina has launched the pilot project of setting up of the Emerald Network in 2005. Aim of the project was to identify Areas of Special Conservation Interest (ASCI) on the territory of Bosnia and Herzegovina and to develop database of both abiotic and biotic parameters for designated areas.

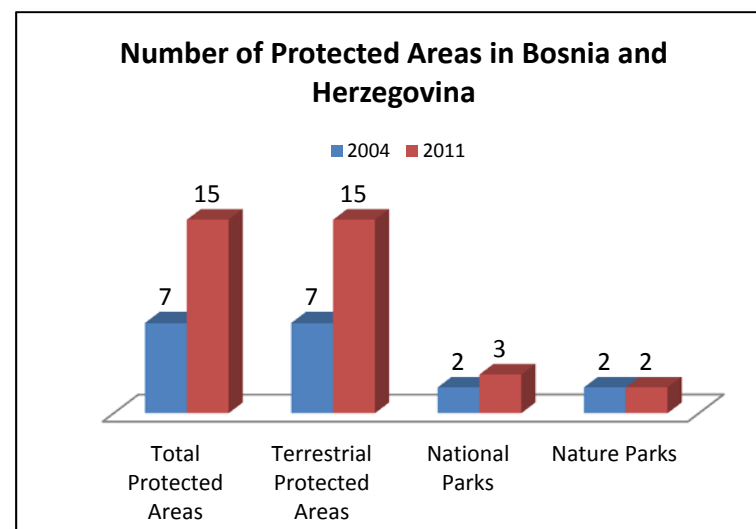


Figure 3. Number of PAs in Bosnia and Herzegovina in 2004 and 2011

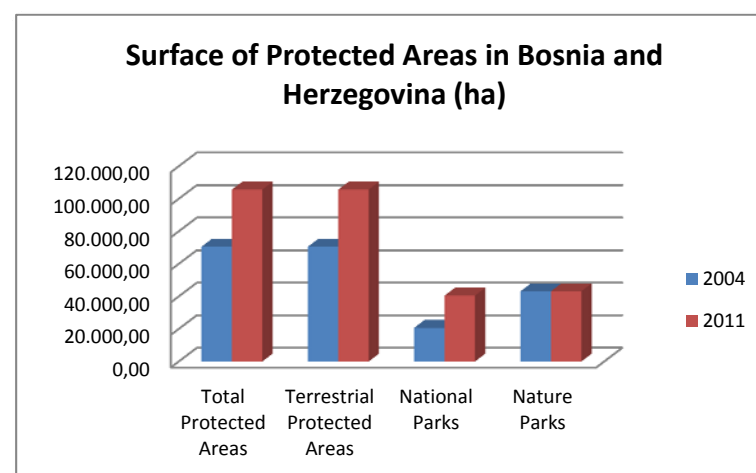


Figure 4. Surface of PAs in Bosnia and Herzegovina in 2004 and 2011

## CROATIA

Significant progress has been made in assessing PA connectivity and integration. The assessment of PA connectivity and integration has been conducted.

All regional (county) PA management authorities (21) were established, in addition to the existing management authorities of the national (8) and nature parks (11). These management authorities manage the National Ecological Network (NEN). NEN was established (part of which will be future N2K), as well as Mura Drava Regional Park that covers the major part of the Mura and Drava river basin areas. Natural resource management to improve connectivity was improved, as part of the management plans (MPs) for PAs. Connectivity corridors were designated as part of NEN. There are plans to designate buffer zones in few parks. Stakeholder participation is stipulated in Nature Protection Act and the stakeholder consultation process is becoming more common. The creation of the NEN contributed to the removal of barriers to connectivity and ecological functioning.

The improvement of the laws and policies within or around key connectivity areas is envisaged by the National Biological and Landscape Strategy and Action Plan (NBSAP). Some sectoral laws and policies were improved and it is expected that with the EU accession process, sectoral laws and policies will be further improved. In addition to the Nature Protection Act, other sectors have protected certain areas that are important for their management, for example additional forests are protected based on Forests Act, and additional marine areas are protected based on Marine Fisheries Act.

There are several restoration project proposals, such as river restoration in Nature Park Lonja Field, peat bog restoration in Special Reserve Dubravica and NEN site Sunger.

Nature protection conditions and measures are integrated in all spatial plans and in natural resource use management plans (forestry, hunting, freshwater fishery). Full integration in water management plans will be possible once the water management sector develops their first management plans.

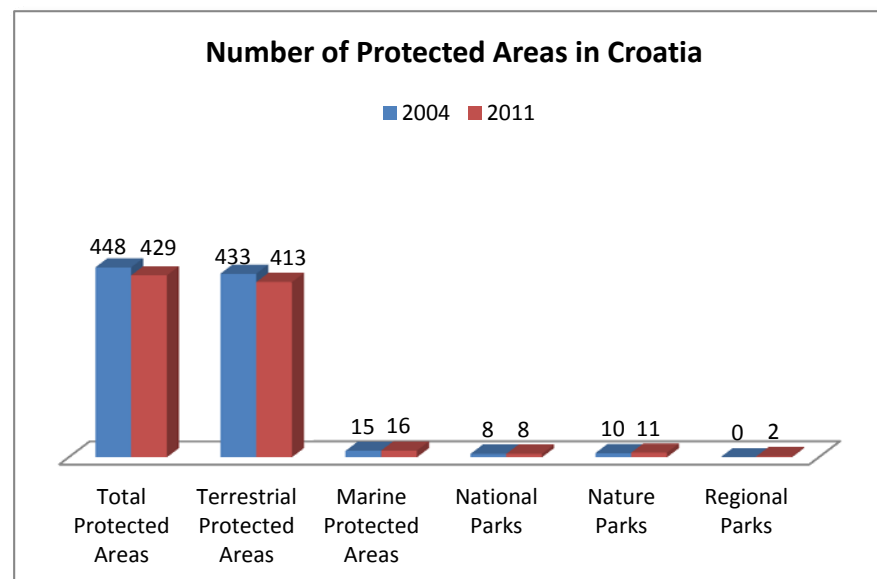


Figure 5. Number of PAs in Croatia in 2004 and 2011<sup>1</sup>

<sup>1</sup> The number of protected areas has been decreasing due to the revision of the PA Registry, but the PA coverage has been increasing and will continue to increase, as Croatia is planning to designate new PAs

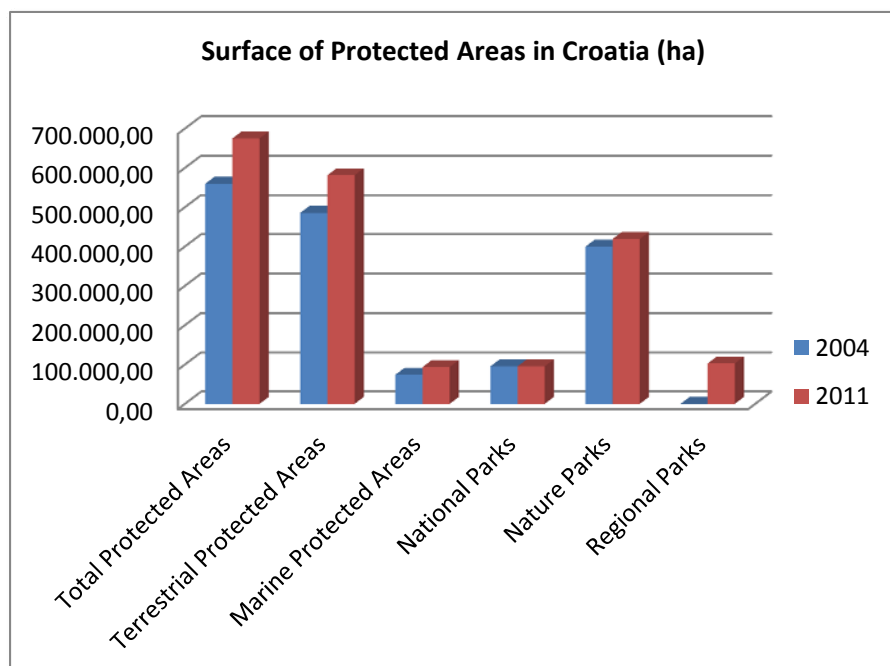


Figure 6. Surface of PAs in Croatia in 2004 and 2011

## MONTENEGRO

The implementation of NATURA 2000 is ongoing. This project includes participation of local (Institute for the Protection of Nature, Ministry of Sustainable Development and Tourism, University, etc.) and international experts (WWF and DAPHNE).

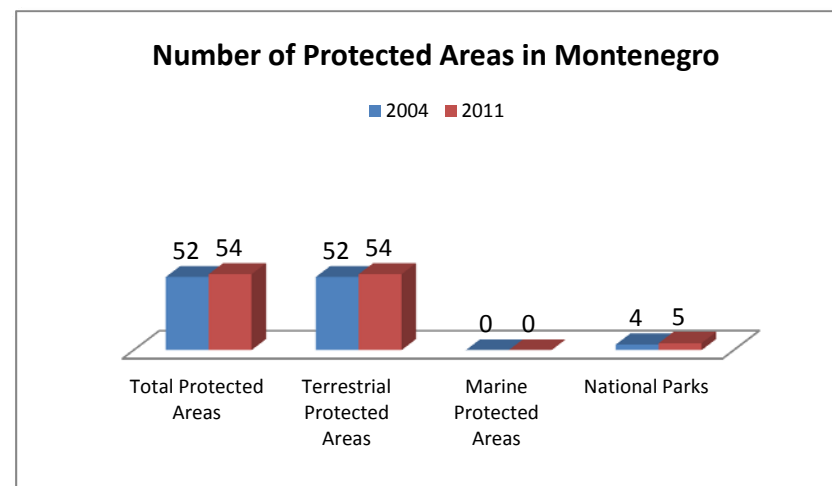


Figure 7. Number of PAs in Montenegro in 2004 and 2011

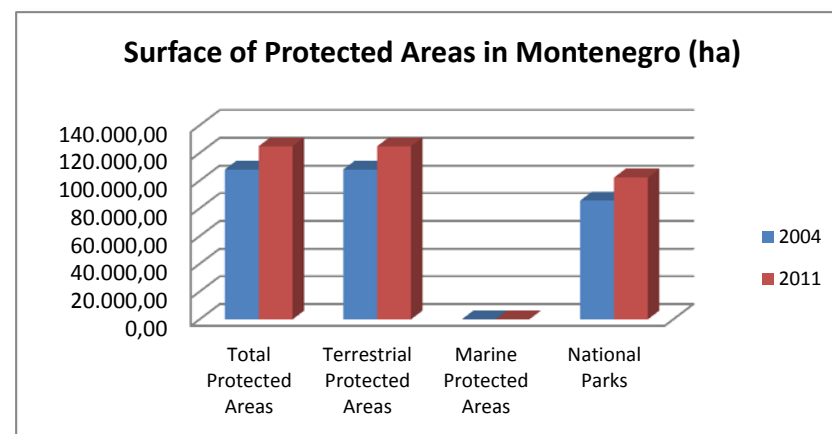


Figure 8. Surface of PAs in Montenegro in 2004 and 2011



## SLOVENIA

In the last decade several restoration projects on degraded areas took place in Slovenia. Between 2000 and 2007 a vast restoration of freshwater and brackish habitats took place in Nature Reserve Skocjan Bay, with a primary goal to restore habitats for breeding and wintering birds. The restoration has been very successful and numbers of breeding and wintering birds have increased significantly.

Some restoration activities of otter habitats took place in Landscape park Goricko. In Notranjska Regional Park regime of two formerly regulated streams has been re-established at intermittent Cerknica lake.

Slovenia joined the European Union in May 2004 and by that date had to implement the Birds and Habitats Directives, including designating Natura 2000 areas. Even though these areas are in Slovene legal system not part of PA system, they can, with adequate management, contribute to nature conservation and can have significant importance for ecological connectivity among areas of conservation importance. In Slovenia the proportion of Natura 2000 areas is the largest of all current EU Member States. 31,4 % of the national territory is covered by Sites of Community Interest (SCIs), designated in accordance to the Habitats Directive, and 23 % of the territory as Special Protection Areas (SPAs), designated in accordance to the Birds Directive. As SCIs and SPAs overlap in most part, the total surface of Natura 2000 areas is 35,5 % (7.203 km<sup>2</sup>), of the national territory. According to the European Commission the overall Natura 2000 network is not yet entirely sufficient (EEA, 2009) and a few

more sites are expected to be designated in the coming years. Management of Natura 2000 network is determined by the Natura 2000 Site Management Programme 2007-2013 (MOP, 2007), which sets management goals and measures for species and habitat types. Measures are implemented by appropriate sectoral organisations (forestry, agriculture, water management, PA management authorities, etc.) through their plans or mechanisms.

In the year 2004 also a network of ecologically important areas (EIAs) has been designated in Slovenia. EIAs are areas of important habitat types or larger ecosystem units, which importantly contribute to conservation of biodiversity. EIAs cover 52,2 % of the national territory, of these 35,5 % overlap with Natura 2000 sites. However on the EIAs, which are not at the same time Natura 2000 areas there are no mechanisms for management, so (except in some cases) no management activities are taking place in these areas. EIAs are considered in strategic planning and there are some mechanisms in place to direct activities and use of natural resources in these areas.

In Slovenia surface of forests has significantly increased in the last century, and in the end of 2009 60 % of the national territory has been covered by forests. The legislation on forestry enables establishment of forest reserves and protection forests, of which part has emphasised biotopic function. A total of 96 km<sup>2</sup> of forest reserves and 55 km<sup>2</sup> of protection forest with emphasised biotopic function are now designated in Slovenia.

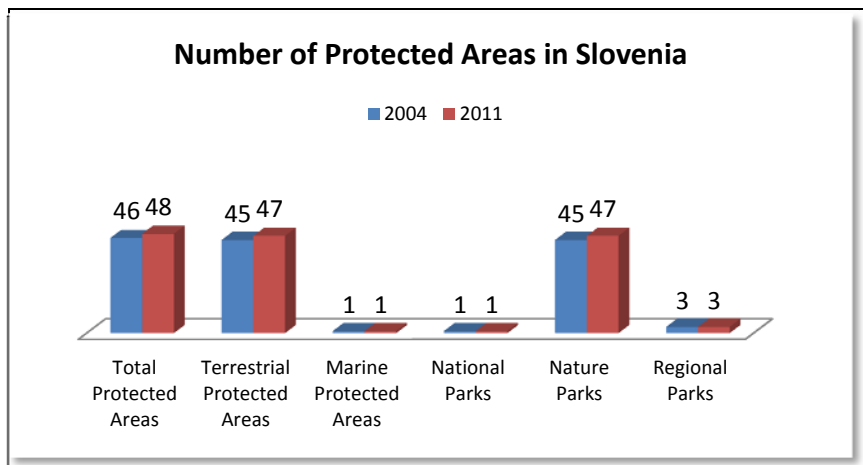


Figure 9. Number of PAs in Slovenia in 2004 and 2011

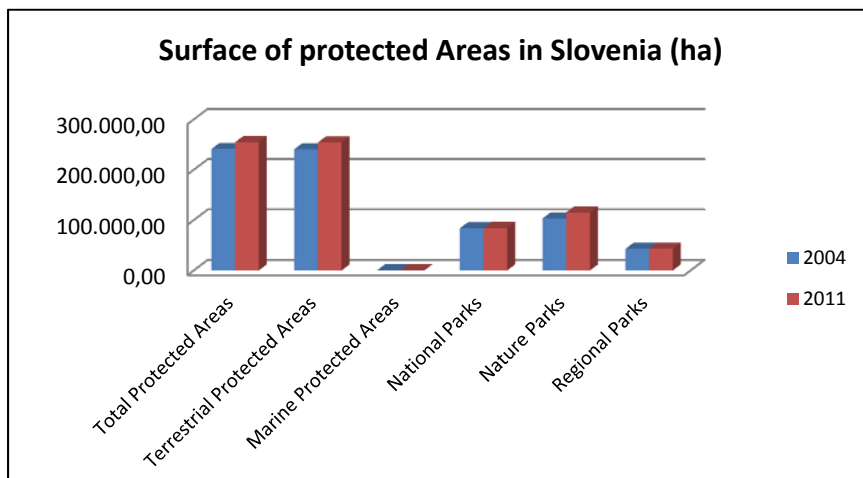


Figure 10. Surface of PAs in Slovenia in 2004 and 2011<sup>2</sup>

<sup>2</sup> The figure only shows wider protected areas (there are many more narrow PAs)



Photo: Skocjan Caves National Park in Slovenia (author: Ivana Korn Varga)

### Goal 1.3: To establish and strengthen regional networks, transboundary protected areas (TBPAs) and collaboration between neighbouring protected areas across national boundaries

#### ALBANIA

Albania has made a progress in identifying common conservation priorities and opportunities for trans-boundary protected areas (TB PAs). Opportunities are identified for trans-boundary protected area between Albania and Montenegro, Albanian and Kosovo, Albania and FYROM, Albania and Greece. It has established 2 new TBPAs (Shkodra Lake Managed Nature Reserve and Shebenik-Jabllanica National Park with adjacent countries and strengthened effective collaborative management of existing TBPAs (Prespa Lake and Ohrid Lake). Additional three TBPA are planed to be established including Albanian Alps, Korabi Mountain and Vjosa valley.

The National Biodiversity Strategy and the new Law on Nature Protection have created enabling policies for the creation of trans-boundary protected areas. Big Win joint statement between WWF and environmental ministries has strongly contributed to the establishment of new trans-boundary protected areas and creation of regional-scale conservation corridors. It also has served as a multi country forum and coordination mechanism. Another example is the Commission for Skadar Lake that serves as a coordination mechanism between Albania and Montenegro for the sustainable management of the lake.



*Photo: Prokletje (Albania/Montenegro), Albanian side (author: Genti Kromidha)*

#### BOSNIA AND HERZEGOVINA

WWF/IUCN/SNV project “Sustaining Rural Communities and their Traditional Landscapes through Strengthened Environmental Governance in Transboundary Protected Areas of the Dinaric Arc” with the financial support from Finland Ministry of Foreign Affairs is working on signing the TBPA MoUs between the following PAs:

- Sutjeska NP (BIH) - Durmitor NP (Montenegro)
- Drina River (BIH) - Tara NP (Serbia)
- Una NP (BIH) - Plitvice Lakes NP (Croatia)
- Dinara Mountain (BIH – Croatia)
- Neretva River (BIH – Croatia)

## **CROATIA**

As for the progress in identifying common conservation priorities and opportunities for transboundary PAs (TBPAs), the activity is fully underway. An assessment of TBPA opportunities has not been completed. Enabling policies for the creation of TBPAs were created, Big Win commitments were adopted at the CBD COP 9 held in Bonn, Germany in May 2008. As for Croatia, there are three Big Win commitments that deal with transboundary cooperation, one with Slovenia (cooperation between the National Park Risnjak from Croatia and Notranjski Regional Park from Slovenia) and two with Bosnia and Herzegovina (cooperation between the national parks Plitvice Lakes from Croatia and Una from Bosnia and Herzegovina; and cooperation between Croatia and Bosnia and Herzegovina in examining possibilities for protection of the Dinara Mountain).

A multi-country coordination mechanisms were established, the Council for Environment, Croatian and Hungarian subcommittee for nature conservation was established. Regional Park Mura Drava was proclaimed in May 2011 and will be nominated as TB MAB together with five countries (as Mura Drava Dunav TBPA). This will be the biggest PA in Europe and a first formal TBPA within Croatia.

## **MONTENEGRO**

The existing trans-boundary PA is Skadar Lake National Park, where 2/3 of the park belong to Montenegro and 1/3 to Albania.

Within the WWF/IUCN/SNV project, Sustaining Rural Communities and their Traditional Landscapes through Strengthened Environmental Governance in transboundary PAs of the Dinaric Arc, implemented under patronage of Finland Ministry of External Affairs, in collaboration with Public Enterprise for National Parks, agreement on cooperation between

NP Durmitor and NP Sutjeska was signed. This document includes common objectives of transboundary cooperation as well as planned activities for next period. Created document will be used as base for further activities within the project. One more proposed TBPA, between Serbia and Montenegro (Bioc / Maglic / Volujak) is proposed as a regional park.

## **SLOVENIA**

Many Slovenian PAs are situated in border regions, but formal transboundary protected areas have been established only in some parks. Already in 2006 Landscape park Goricko has concluded an agreement on cooperation with Austrian Nature park Raab and Hungarian National Park Őrség. In 2009 an agreement has been expanded to new areas of cooperation. Triglav National park, Park Skocjan Caves and Landscape park Logarska valley are active in Network of protected areas in Alps – ALPARC. This is an informal network of large protected areas in the area, covered by the Alpine Convention. Triglav National Park has long established cooperation with the Italian Natura Park Julian Prealps. In 2009 the parks have received the EUROPARC Federation certificate for transboundary protected areas. Furthermore Triglav National park also cooperates with the National Park Nockberge.

Slovenian bird watching and bird-study society, which is through a concession managing Natura Reserve Skocjan Bay, has created AdriaWet network, which is joining managers of PAs in North Adriatic wetlands from Slovenia and Italy. Landscape park Goricko and Landscape park Logarska valley are active in the IUCN initiative European Green Belt, aiming to establishing a network of conserved habitats from Barents to Black Sea.



## Goal 1.4: To substantially improve site-based protected area planning and management

### ALBANIA

Recently, Albania has started to develop new management plans (MPs) for protected areas (5 MPs elaborated and 2 under preparation). Actually only 17,1% of PA (64.139,00 ha) have an adequate management plan. Attempts are made to ensure that protected areas are effectively managed or supervised through staffs that are well-trained and skilled, properly and appropriately equipped, and supported, to carry out their fundamental role in the management and conservation of protected areas. Only 20 out of 52 protected areas (not including Nature Monuments) have their own administration under the forestry departments counting in total about 100 employees. The management effectiveness of the protected areas in Albania is assessed in 2008 (18 protected areas assessed) using the RAPPAM methodology with under the PA4LP DAE project.

### BOSNIA AND HERZEGOVINA

There is still a small number of PAs that have MP. However progress was made under the GEF Forest and Mountain Protected Areas project, financed by the World Bank (MP for Una National Park, draft MP, for Blidinje Nature Park and amendment of the MP for Kozara National Park). Under another GEF project by the name "Management and Trebisnjica" two more MPs were delivered for Vjetrenica Nature Park and Hutovo Blato Nature Park. Una National Park MP and draft Blidinje Nature Park MP are finished.

### CROATIA

Regarding the percentage of Croatia's PAs that have an adequate management plan, 12 parks developed and adopted management plans (63%), 6 are being adopted and the remaining 1 is still being developed. Still, some other PA categories (but not all of them), which are managed at the regional (county) level, also have the obligation to develop management plans, but none of these have been adopted so far, although a number of them have been drafted (for 2 special reserves, 2 NEN sites and 2 protected landscapes) or are in the process of being drafted (one MP for all PAs within one county and MP for a newly established regional park).

Legislation and/or policy to allow for improved management planning was changed. Nature Protection Act was adopted in 2005, with amendments in 2008 and 2011. The Nature Protection Act prescribes the development of MPs for certain categories of protection, such as strict reserves, national parks, nature parks, regional parks, special reserves and protected landscapes. The MPs are adopted for the period of 10 years, with a revision after 5 years. Public hearing is an obligatory procedure for the adoption of the MP and, also, the Act stipulates that the needs of the local community have to be taken into account when developing MPs. The scientific basis of existing management plans was improved. Scientific research is ongoing in all parks and the results of these research activities have increasingly been integrated into the management plans. PA resource inventories were conducted through the development of MPs. Stakeholder involvement in the process of MP development has been increasing.

As for the number of staff, there is around 1.900 staff in national and nature parks, but this number has to be taken with precaution, as two parks have hotels and hotel staff is included in these numbers.

There are 152 rangers (2010), 125 of which work in parks (national and nature parks) and 27 in regional and local PA management authorities.

## **MONTENEGRO**

Each of the 5 National Parks has MP for 5 years. Good example on PA management planning was set under a project (Management Plan for a Pilot Marine Protected Area) realized with the support of Italian Ministry of Environment, Land and Sea in collaboration with the Ministry for Spatial Planning and Environment of Montenegro which provide base knowledge of the Pilot area was marine area Katicic Island.

## **SLOVENIA**

In the last years state has made some progress to improve management of PAs. Protection of some areas has been transferred to the state level and the state has established public institutes, acting as management authorities. Also all newly established areas have management adequately arranged. While management of almost all state protected areas is ensured, most protected areas, established by municipalities have no management. Among these are many protected areas, where even (often old) regulations on establishment are not clear about the way

management should be arranged. Looking at the overall surface of protected areas, management is ensured on 9,6 % of the national territory, while on 3 % of the territory there are no management authorities and no management activities. A revision of PAs established by municipalities is one of the most crucial tasks in the coming years.

The situation with regards to the management planning shows even poorer picture. According to the law, management plans are mandatory for national and regional parks, however many landscape parks should have management plans according to their decrees on establishment. In 2011 only two wider protected areas had a valid management plan (Skocjan Caves Park, Landscape park Secoveljske soline). In many state protected areas management plans are being prepared, but due to shortage of staff and lack of skills in development of management plans, these processes are progressing very slowly.

In the last years adaptation to climate change is receiving increasing political attention. In 2010 two projects addressing climate change adaptations have been launched in Slovenia. Project HABIT-CHANGE (*Adaptive Management of Climate-induced Changes in Habitat Diversity in Protected Areas*) aims to set up monitoring of current and expected changes in processes in protected areas. Project ClimaParks (*Monitoring and study the effects of climate changes*), lead by Triglav National park, aims to collect and analyse scientific data on impacts of climate change to biodiversity.

## Goal 1.5: To prevent and mitigate the negative impacts of key threats to protected areas

### ALBANIA

Several studies were conducted to assess key threats to protected areas and to develop and implement strategies to prevent and / or mitigate such threats and implement measures for the rehabilitation and restoration of the ecological integrity of protected areas.

The list of pressures and threat as elaborated during the RAPPAM assessment include forest harvesting, illegal building or occupying of area, grazing, hunting, NTFP collection, tourism and recreation activities, waste disposal, semi natural processes (including mainly insects and diseases but also fires), costal erosion, waste water treatment, fires and mining.

### BOSNIA AND HERZEGOVINA

Threats and pressures have been recognized as a part of the RAPPAM report. The Strategy for the Protection of Biological and Landscape diversity of BIH (2010 - 2018) also defines threats, in particular the introduction of new invasive species as a result of human activities. Federal Ministry of Environment and Tourism has prepared an Action Plan to inform the public about the threat to biodiversity caused by invasive species (*Ailanthus altissima* (Mill.), *Ambrosia artemisifolia* L. and *Amorpha fruticosa* L.).

### CROATIA

As for the progress in assessing PA threats, the activity is fully underway. The assessment of PA threats was conducted as part of the PA management effectiveness (PAME) evaluation (RAPPAM was implemented in 2008 and 2009) (Porej & Rajkovic, 2009; Rajkovic, 2009). Also, PA threats are assessed when developing management plans.

A lot of action has been taken to prevent and mitigate threats, staff numbers/skills were improved, measures to address threats were included in a management plan, threat mitigation funding was increased (a legal possibility for compensatory conditions for threat mitigation exists), market incentives to reduce or prevent threats were improved, monitoring and detection of threats was also improved.

The implementation of RAPPAM (PAME evaluation) was conducted in national and nature parks and partially in regional PA management authorities (Porej & Rajkovic, 2009; Rajkovic, 2009), threats are also identified through the development of MPs.

The National Biodiversity Strategy and Action Plan (NBSAP) envisages the change in laws and policies related to threats. This is a continuous work of the government, although there is still a lot to be done. Also, the NBSAP foresees the development and implementation of dedicated national strategy on IAS. The Proposal for the Development of a National Strategy on IAS in Croatia was developed within the framework of the DAE project (in 2011).

The PAME evaluation (implementation of RAPPAM) has indicated the main pressures and threats in the Croatian parks (Porej & Rajkovic, 2009). At the system level, three threats were highlighted as the most important: fire management, vegetation succession and unsettled disputes regarding land tenure and use rights. However, this fails to reveal significant differences in both types and levels of threats and pressures for different types of PAs. Key pressures/threats in terrestrial PAs include unsettled disputes regarding land tenure and use rights, the conversion of land use and uncontrolled vegetation succession. Key pressures/threats in marine PAs include fire management issues, unsettled disputes regarding land tenure and use rights and uncontrolled vegetation succession. Key pressures/threats in freshwater PAs include water management issues, invasive species and wastewaters. Freshwater PA managers expect these pressures to increase in the future. Marine and freshwater PAs are exposed to a number of pressures and threats that are of a much higher degree than those in terrestrial protected areas. In particular, none of the terrestrial pressures/threats reaches the scores determined for fire management and unsettled disputes regarding land tenure and use rights (in MPAs) and for water management and invasive species (in freshwater PAs).

## **MONTENEGRO**

Threats and pressures to PAs were highlighted in RAPPAM report. Some progress has been made during the meeting between the Institute for Protection of Nature and Environmental Agency on Wetlands Day (2 February 2009), special attention was paid to negative impacts to threatened species of birds and on illegal hunting.

In the National Strategy of Biodiversity (2010-2015), it is stated that introducing of new invasive species, mostly for commercial reasons, represent threat to biodiversity.

## **SLOVENIA**

Legal system ensuring environmental and strategic impact assessment and appropriate assessment has been set up and harmonised with the EU legislation. There are however still major challenges to overcome in regard to proper inspection and direct surveillance in nature. Efficiency of these is mainly hindered due to lack of staff. An extensive analysis of current status of direct surveillance in nature has been made in the framework of DAE project with the aim to improve organisation and capacities in the coming future (Kus Veenvliet, 2011).

RAPPAM assessment, carried out in 2008 on nine managed larger protected areas, has shown that the biggest pressures to protected areas are changes in traditional use (abandonment or intensification), tourism and recreation and invasive alien species (Kus Veenvliet & Sovinc, 2009). As response to the threat of IAS an in-depth study on IAS issue in protected areas has been conducted within DAE project (Kus Veenvliet & Humar, 2011).

In the last year an increasing pressures on protected areas are due to interests for different infrastructure (solar and wind power plans, bio gas plant, airports, industry zones). In many protected areas and also forests outside of the protected area system, an increasing threat is off-road driving with motor vehicles in nature. Analysis has shown that the current decree, prohibiting off-road driving, is not sufficient for prevention of this pressure; therefore the Ministry of the Environment and Spatial Planning will prepare a law.



## Programme Element 2: Governance, Participation, Equity and Benefit Sharing

### Goal 2.1: To promote equity and benefit-sharing

#### ALBANIA

Efforts are made to raise awareness of key stakeholders in key connectivity areas and create market incentives for promoting connectivity and PA integration.

Some efforts have been made to assess the costs and benefits of establishing protected areas (Idrizi<sup>3</sup> et al, 2007) There have been some efforts to establish policies and institutional mechanisms with full participation of local communities, to facilitate the legal recognition and effective management of local community conserved areas (communal forestry) in a manner consistent with the goals of conserving biodiversity and the knowledge, innovations and practices of local communities. Continuous efforts are made to engage local communities and relevant stakeholders in participatory planning and governance, recalling the principles of the ecosystem approach.

There have been some efforts to identify and foster economic opportunities and markets at local, national and international levels for goods and services produced by protected areas and/or reliant on the ecosystem services that protected areas provide, consistent with protected area objectives and promote the equitable sharing of the benefits.

#### BOSNIA AND HERZEGOVINA

Under GEF project, Forest and Mountain Protected Areas, financed by the World Bank and implemented through ministries, protected areas and local communities, workshops on how they benefit to local communities were held. Implementation is in progress. Tourism development policy is partially based on protection and establishment of PAs since they are possible source economic benefits gained by natural resources. Tourism benefits, gained from PAs, includes rafting, canoe-kayaking, photo safaris, biking, hiking, bird watching, local cuisine, souvenirs, etc. These resources will provide significant input to the development of PAs and the local community. There is no record of PAs visitors. Further activities, based on these data, can be planned as well as connecting parks in the state, and region.

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<sup>3</sup> Sustainable financing of protected areas in Albania, in Biodiversity Enabling Activity 2007

## CROATIA

Assessing the costs and benefits of establishing PAs has just started in Croatia. An assessment of PA costs and benefits was developed as part of the PA4LP – DAE project on a pilot park (Northern Velebit NP and surrounding areas).

As for improving equitable benefit sharing, Nature Protection Act stipulates the compensation mechanisms. A legal or natural person whose prevailing opportunities for earning income are significantly aggravated owing to restrictions and prohibitions due to the PAs is entitled to remuneration resulting from restrictions he is subjected to. Still, this mechanism has to be elaborated in more detail.

Nature Park Medvednica has undertaken the economic assessment, as the first economic PA analysis in Croatia. PA valuation in National Park Northern Velebit was conducted in 2011 (as part of the PA4LP - DAE project) in order to show the contribution that PAs have to the national economy; title of the study is “Valuation of the Contribution of the Ecosystems of Northern Velebit National Park and Velebit Nature Park to Economic Growth and Human Well-being”.

On the other hand, equitable benefits-sharing mechanisms have still not been developed.

As for assessing PA governance, the activity has been completed. 89% of PAs have been assigned an IUCN category, although a full-scale revision is underway. A regional training on IUCN categorization of PAs was conducted in September 2011 as part of the Environment for the People of the Dinaric Arc Project.

In order to improve and diversify governance types, laws or policies to enable new governance types were changed – Nature Protection Act stipulates that the care for natural assets in a PA may be conferred to the owner or holder of the right on real estate by concluding a contract regulating mutual rights and liabilities between PA management authority and the owner or holder of rights on the real estate. The protection of natural asset in a PA may, on the basis of conducted public bidding procedure, be conferred to a person who is not its owner or holder of the right, by concluding the contract on tutelage, under conditions established by the Ministry. The bidding procedure should be conducted by the PA management authority hosting the natural asset.

On the other hand, new PAs with innovative forms of governance have not been created. A broad set of governance types has not been legally recognized. There are no private PAs in Croatia, nor there exist an NGO that manages a PA. All PAs are managed by the state government (national and nature parks) or regional or local government (all other PA categories).

A national park and nature park are designated by law by the Croatian Parliament. Strict and special natural reserves are designated by the Government of the Republic of Croatia by a regulation at the proposal of the Ministry. A regional park, important landscape and forest park located on the territory of a county or the City of Zagreb is designated by the county assembly or town assembly of the City of Zagreb subject to prior approval of the Ministry and central state administration body competent for agriculture and forestry. A nature monument and park architecture monument located on the territory of a county or the City of Zagreb are designated by the county assembly or town Assembly of the City of Zagreb subject to prior approval of the Ministry. PAs located on the territory of two or several counties are designated by the Government by a regulation at the proposal of the Ministry.

## MONTENEGRO

Within the Project of Strengthening Financial Sustainability of the System of Protected Areas (SPAs) important component is referred to „Economic Valorisation of SPAs that supports sustainable public investments for establishment and management on PAs”. These activities are aimed to, at the level of 5 areas (National Parks: Durmitor, Biogradska gora, Skadarsko jezero, areas of Komovi and Tivat salines). The main objective is to make a check of economic value on each of 5 areas identified during preparatory phase, projecting, testing and implementation of evaluation studies for each economic value in each of protected areas to define financial quantification on ecosystem of products and services in each area and, based on obtained data, extrapolation of results of these evaluation studies on whole system of protected areas. This is very beginning phase of this Project.

National policy promotes development of nature-based tourism activities, where biodiversity plays an important role. Such nature-oriented tourist products include bird-watching, photo-safaris, biking, hiking, and rafting, and even ‘film tourism’. Montenegro is an ideal venue for shooting scientific films and documentaries. Special potential for bird-watching exists at Skadar Lake, Ulcinj saltworks and Ada Bojana, as well as the Tivat salt pans, for water birds, and the mountain national parks of Durmitor and Biogradska gora for birds of prey and forest species.

Although Montenegro is being promoted as a destination for such activities the numbers of visitors who come to Montenegro specifically for bird-watching is unknown, but it is estimated to be relatively few. It is more likely that tourists are coming to visit because of the spectacular mountain scenery and forests, but again, the numbers of those who specifically visit for hiking and other nature-based activities is unknown

because such data are not recorded. However, the information on the numbers of and revenues from visitors to national parks does exist. For example, in 2007 income from entrance tickets to the Public Enterprise “National Parks of Montenegro” (PENPM) was EUR 100,071.00 which is used for management and improvement of protection within the national parks. Montenegrins do not use much their national parks and other natural areas because there is little national culture of wilderness activities such as hiking, mountaineering, camping and the like. Promotion of these areas by offering different kind of activities (as above mentioned) to tourists is ongoing process.

## SLOVENIA

Establishment of protected areas in Slovenia is regulated by Nature Conservation Act, adopted in 1999. Protected area can be established by the state or municipality. However, current legislation does not directly enable PA governance type, where management is carried out by the local community (locally conserved protected areas) or is privately managed (private protected areas). This is only possible through a concession, granted by the state or municipality. As for now only two areas approach these governance types. Landscape park Logarska dolina has been established by the municipality, which later granted a concession to a private enterprise, set up by land owners and interested parties. An example, approaching privately managed protected area, is Nature reserve Iski morost (63 ha). An NGO, Slovenian bird watching and bird-study society, partially owns the land and partially it is being leased from the state. Because of weak systemic grounds for this governance type, currently no state-level financial support is given to the NGO for the management. Furthermore, as the nature reserve is since 2008 also part

of Landscape park Ljubljansko barje, managed by the state, a proper division of management tasks still has to be ensured.

Despite Slovene protected areas are perceived as one of the cornerstones of Slovene tourism, only few studies on their economic importance have been carried out so far. Already in the year 2000 a study on employment opportunities has been made for Triglav National park. The study has shown that there are 5-6 times more workplaces generated in the protected area than there are direct workplaces in the management authority of the park. It was concluded that while protection regime limits some economic opportunities, it integrates some new ones, which are in line with the conservation goals. (Versa, 2002).

The first initiatives for the economic valuation of ecosystem services in Slovenia have only started in 2010. Within the project NATREG (Managing Natural Assets and Protected Areas as Sustainable Regional Development) an economic valuation of nature reserve Lovrenska jezera has been concluded in 2011 (Zujo & Marinsek, 2011). Noting the need to build capacity for economic valuation, such activity has also been included in the last phase of the DAE project. A study on valuation of ecosystem services in Skocjan Caves Park has been made in 2011. This has revealed the economic importance of the tourism in the protected area, which extends well beyond the boundaries of the park. Market Value of the Skocjan Caves Regional Park in 2011 was estimated to 13 million EUR, of which tourism and recreation account to almost 90 %. With the discount factor of 5 % and the estimated investment value of approximately 5 million EUR, the net present value of Skocjan Caves Regional Park in the period of 30 years is estimated to 218 million EUR. (Zujo & Marinsek, 2011).



*Photo: Krizna jama in Slovenia (author: Paul Veenlilte)*



## Goal 2.2: To enhance and secure involvement of indigenous and local communities and relevant stakeholders

### ALBANIA

The government, in cooperation with the local NGO community, has continuously promoted an enabling environment (legislation, policies, capacities, and resources) for the involvement of local communities and relevant stakeholders in decision making, and the development of their capacities and opportunities to establish and manage protected areas, including community-conserved protected areas. According to the amendments made to the law on protected areas (2008) to promote stakeholder participation, community consent is a prerequisite for establishing new protected area. It also allows the establishment of locally managed PAs (e.g. the communes of Ulza, Xiber, Ishem, Puka etc.).

### BOSNIA AND HERZEGOVINA

There is some progress in including local communities in all processes related to the establishment of PAs, but it is still not regulated in a proper way.

### CROATIA

Significant progress has been made in assessing local community participation in key PA decisions. Laws and/or policies to promote participation were improved. Public hearings in the process of PA designation and adoption of MPs are obligatory. The Nature Protection Act also stipulates that the needs of the local community have to be taken

into account when developing management plans (MPs). Mechanisms for participation of local communities were improved and enhanced through WWF MedPAN South project, where consultation process with local community was implemented and integrated into MP from the beginning to the end of the MP development. Participation of local communities in key decisions was increased and local communities are involved in PA management planning.

### MONTENEGRO

Indigenous and local communities are involved in projects and activities while establishing PAs through public hearings/debates.

### SLOVENIA

Despite PoWPA already being adopted in 2004, this CBD programme has not been systematically implemented until the start of DAE project in 2008. In the last three years several analyses of policies for PAs have been carried out: analysis of capacity needs, analysis of management effectiveness (using RAPPAM methodology), and analysis of regulations related to financing PAs. Slovene legislative system for protected areas is adequately developed, but the above mentioned analyses have revealed gaps and weaknesses, mainly due to inconsistencies in legislation from different sectors and weak implementation.

In 2010 a larger research project on efficiency of protected area system has been concluded (Gosar et al., 2010). In survey among PA management authorities the following weaknesses have been most often mentioned (in order of importance):

1. weak support of the state
2. insufficient financing of protected areas
3. weak implementation of surveillance in nature

4. unresolved ownership in protected areas among establisher and management authorities
5. insufficient number of PA staff and weak skills.

In Slovenia the largest and strongest mechanism of environmental subsidies are agri-environmental schemes. Some of the measures are specifically directed to conservation of species and habitat type in agricultural land. The difficulty of these schemes is that cooperation of farmers is entirely voluntary. Recent study (Zvikart, 2010) has shown that participation of farmers in nature-friendly schemes is not yet adequate. This is mainly due to structural difficulties of Slovene agriculture, insufficient promotion of these measures, often changes of conditions and too low subsidies in relation to loss of income.

In the last few years several protected areas have developed a trade mark for products and services from parks. Until now, only trade mark Piranske soline, developed by manager of Landscape park Secovlje solina, has made it to the broader Slovene market.



*Photo: Durmitor National Park in Montenegro (author: Ivana Korn Varga)*

## Programme Element 3: Enabling Activities

### Goal 3.1: To provide an enabling policy, institutional and socio-economic environment for protected areas

#### **ALBANIA**

In recent years a lot of work has been done to identify legislative and institutional gaps and barriers that impede the effective establishment and management of protected areas, and to harmonize sectoral policies and laws to ensure that they support the conservation and effective management of the protected area system. As defined by the Law on PAs all PA in Albania are classified under the IUCN management categories which are embedded in the law.

In order to strengthen legal systems for establishing and managing protected areas an analysis of existing legislation is carried out. Improvements should be made towards effective enforcement of PA related laws and ordinances at all levels and adequate environmental training for governmental employees at all levels. Government of Albania has made several efforts to develop policies, improve governance, and ensure enforcement of urgent measures that can halt the illegal exploitation of resources from protected areas, taking into account sustainable customary resource use of local communities.

The assessment of management effectiveness of protected areas using RAPPAM methodology showed that the PAs policies clearly articulate vision, goals, and objectives for the PA system and there is a demonstrated commitment to protecting a viable and representative PA network. National policies foster dialogue and participation of civil and environmental NGOs as well as a widespread environmental education at all levels. On the other hand, there is insufficient commitment and

funding to effectively administer the PA system. Environmental protection goals are not fully incorporated into all aspects of policy development and there is a low level of communication between natural resource departments.

#### **BOSNIA AND HERZEGOVINA**

There is still low level of professional and operational capacities in existing protected areas and lack of management authorities for all protected areas.

#### **CROATIA**

The activity of assessing the policy environment for creating and managing PAs is fully underway. The process of harmonization of sectoral policies and laws to support effective management planning and policies is ongoing, but further improvement is needed. The integration of PA values and ecological services into the national economy has been undertaken at the strategic level, as it is envisaged through the Big Win commitments. The first steps were taken with the WWF study on the ecosystem services of PAs in Croatia entitled "Valuation of the Contribution of the Ecosystems of Northern Velebit National Park and Velebit Nature Park to Economic Growth and Human Well-being", developed as part of the PA4LP -- DAE project. Two studies were drafted as part of the preparation of the NIP project: "Sustainable Financing Review for Croatia PAs" (2009) and "Study of best practices in financing

PAs in Croatia" (2009). Still, there is a long way to showcase the PA values and ecological services to other sectors.

Participation in decision-making has been improved through the Nature Protection Act. Public hearings in the process of PA designation and adoption of MPs are obligatory. Representatives of local communities are appointed in some PA Management Boards.

Incentive mechanisms for private PAs were not developed. There are no private PAs in Croatia, but PAs can be managed privately through concessions. Positive market incentives to support PAs were developed. Nature Protection Act stipulates the incentives for conservation and protection of biological and landscape diversity. Conservation of endangered wild taxa, indigenous domesticated taxa and endangered habitat types are supported by financial incentives and compensations, as well as by providing favourable loans for safeguard operations.

Legal systems for establishing and managing PAs were strengthened. Nature protection conditions and measures are integrated in all spatial plans and natural resource use management plans (forestry, hunting, freshwater fishery). Full integration in water management plans will be possible once the water management sector develops their first management plans.

Croatia has been cooperating with neighbouring countries on transboundary areas – Regional Park Mura Drava was designated in 2011 and will be nominated as TB MAB together with five countries (as Mura Drava Dunav TBPA). This will be the biggest PA in Europe and a first formal TBPA within Croatia. Three Big Win commitments deal with transboundary issues through cooperation with Bosnia and Herzegovina and Slovenia. Also, there has been a number of transboundary projects, many of them part of the IPA Cross Border Cooperation (IPA CBC) – Component II of the IPA programme, which provides a framework for

bilateral cooperation programmes between an IPA beneficiary and its neighbouring countries. EU accession process has significantly contributed to the improvement of the PA policy environment.

On the other hand, as mentioned above, the incentive mechanisms for private PAs were not developed. Also, perverse incentives that hinder effective management have not been removed, although the Ministry is negotiating the removal of these incentives. Equitable dispute resolution mechanisms and procedures have not been developed. A communication campaign to value PAs has not been implemented.

As for the Agri-Environment Schemes, a proposal of Agri-Environment Measures with the goal of conservation of biodiversity is being developed, as part of the NIP project. The Working Group for Agri-Environment Measures has been set up in September 2010.

PAs contribute to local economies through enabling the sale of traditional products, expanding the offer of tourist facilities and services, etc. Market incentives exist for promotion of local/traditional products and brands. Some parks have envisaged the development of the park trademark that would be offered to locals for traditional/sustainable production of goods and services. Some parks have had competitions for the development of local souvenirs.

With regard to the main problems in PAs, the RAPPAM recognized the following management issues in the parks (not taking into account the threats) (Porej & Rajkovic, 2009).

- In most of the parks, the level of staffing is mostly insufficient to effectively manage their area. Staff employment conditions are mostly insufficient to retain high-quality staff in 60% of the parks. Training and development opportunities are mostly inappropriate to the needs of the staff in one third of the parks.



- Visitor facilities are mostly inappropriate to the level of visitor use in one third of the parks. NIP project is addressing this issue, as many of the parks will have adequate visitor facilities after the implementation of the NIP project.
- Almost all parks stress that financial resources are, to a certain extent, inadequate to conduct critical law enforcement activities. As many as one third of the parks feel that future funding will be mostly inadequate to conduct critical management activities, stating the lack of funds, insufficient staffing levels and funding uncertainty as major reasons.
- In almost 50% of the parks, there are unsettled disputes regarding land tenure or use rights, such as problems with cadastres and/or property-rights relations.

## MONTENEGRO

The weaknesses in the existing management system and designation of protected areas are obstacles that affect the efficiency of direct in-situ protection of biodiversity. The low level of professional and operational capacities in existing protected areas and lack of managers / management authorities for all protected areas are important impact to key natural values of these areas. Negative trends in the designation of new protected areas, particularly those of larger size require more efficient models for their designation and management that could be provided in the process of revision of the status of existing protected areas.

## SLOVENIA

Already under the previous goal it has been noted that the number of staff in many protected areas, as well as in the ministry department, is insufficient. In the last years PA staff has increased almost exclusively on the account of establishment of new management authorities. Lack of

staff is often mitigated by hiring temporary staff for work on different projects, but this does not enable a long term capacity building in PAs.

In the last years the state has successfully amended old decrees on establishment of three protected areas (Landscape park Strunjan, Landscape park Kolpa, Triglav National park).

Despite PoWPA already being adopted in 2004, this CBD programme has not been systematically implemented until the start of DAE project in 2008. In the last three years several analyses of policies for PAs have been carried out: analysis of capacity needs, analysis of management effectiveness (using RAPPAM methodology), and analysis of regulations related to financing PAs. Slovene legislative system for protected areas is adequately developed, but the above mentioned analyses have revealed gaps and weaknesses, mainly due to inconsistencies in legislation from different sectors and weak implementation.

In 2010 a larger research project on efficiency of protected area system has been concluded (Gosar et al., 2010).

In Slovenia the largest and strongest mechanism of environmental subsidies are agri-environmental schemes. Some of the measures are specifically directed to conservation of species and habitat type in agricultural land. The difficulty of these schemes is that cooperation of farmers is entirely voluntary. Recent study (Zvikart, 2010) has shown that participation of farmers in nature-friendly schemes is not yet adequate. This is mainly due to structural difficulties of Slovene agriculture, insufficient promotion of these measures, often changes of conditions and too low subsidies in relation to loss of income.

In the last few years several protected areas have developed a trade mark for products and services from parks. Until now, only trade mark Piranske soline, developed by manager of Landscape park Secovlje salina, has made it to the broader Slovene market.

## Goal 3.2: To build capacity for the planning, establishment and management of protected areas

### ALBANIA

Although the level of personnel is not adequate, their skills and performance is good. There is a general lack of infrastructure, also, financing of protected areas seem to be an enormous problem since there is no secured funding and proper financial practices are not in place. Last but not least, protected area personnel lack information infrastructure, especially means/tools necessary for data collection and processing.

Several capacity building programs have been implemented during the years and it trained protected areas managers on different topics (2006-2008 FORMEZ training program on PA management, 64 people trained), 2010 UNDP training program on PA management (88 people trained).

### BOSNIA AND HERZEGOVINA

It is necessary to establish an agency or an institute for nature protection in the BIH Federation, which would represent a leading role in all nature protection activities. It is very important to strengthen Federal Ministry of Environment and Tourism staff capacity. All said can also be applied for the cantonal ministries and public institutions / companies.

### CROATIA

The activity of assessing PA capacity is fully underway. The assessment of PA capacity needs has been conducted as part of the several initiatives, such as National Programme for the Integration of the Republic of Croatia into the European Union (NPIEU) and Report on the State of Nature 2000-2007. Also, PA capacity needs are regularly assessed when developing

project proposals. PA staff is being trained through the ongoing Ranger Service training and through different projects, as most projects have capacity building components. The first training of the PA Management Staff Education Program (which is part of the NIP Project Training Plan) was delivered in November 2011. This should assist in the development of the national CB program. The number of PA staff has been increasing, but improvement is still needed. On the other hand, a professional development program for PA practitioners has not been created.

As mentioned above, the lack of staff in PAs is evident in the majority of PAs. In other words, as RAPPAM showed, in most of the parks, the level of staffing is mostly insufficient to effectively manage their area. Staff employment conditions are mostly insufficient to retain high-quality staff in 60% of the parks. Training and development opportunities are mostly inappropriate to the needs of the staff in one third of the parks (Porej & Rajkovic, 2009).

### MONTENEGRO

It is necessary to enhance staff capacity of institutions (the ministry in charge for environmental protection, spatial development, tourism, agriculture, forestry and water management, Environmental Agency, Public Enterprise for National Parks of Montenegro, municipal secretariats for environmental protection, NGOs and private sector) for the issues of biodiversity protection and PAs, its sustainable use, equitable share of benefits from the use of its genetic resources, control of trading in GMOs, conducting activities coming from this Strategy, the process of accession of Montenegro to the EU which will give rise to the development Education and Training Programme. The Programme will,

among other things, define the amount of necessary funds for the implementation of the Programme and other potential sources of its funding (international organizations, donor funds etc.) other than the Budget of Montenegro. The amount of annual allocation of funds from the Budget of Montenegro for the implementation of the Programme as of 2011 may not be established in advance, but based on analogy with similar programmes it may be expected to amount between EUR 20,000.00 – EUR 100,000.00 per year. The Programme will be passed/approved by the Government of Montenegro.

Establishment of new laws regarding PA and National Parks: Environmental Law (“Official Gazette of Montenegro”, No. 48/08), entered in force in August 2008; Law on Protection of Nature (“Official Gazette of Montenegro”, No. 51/08), entered in force in August 2008; Law on Environmental Impact Assessment (“Official Gazette of Montenegro”, No. 80/05), entered in force on 1<sup>st</sup> January 2008; Law on National Parks (“Official Gazette of Montenegro”, No. 56/09), entered in force in August 2009. National Biodiversity Strategy and Action Plan for period 2010-2015.

## SLOVENIA

Financial administration in Slovene PAs is transparent and follows national accountancy standards. Results of the RAPPAM analysis have clearly shown that current financing of protected areas is insufficient. Managers of state protected areas are highly dependent on the state budget. A detailed analysis of financing of public institutes, managing PAs (MOP, 2010) has shown that almost all state finances for PAs come from the Ministry of the Environment and Spatial Planning. Very little is contributed by other ministries and municipalities. The proportion of

income from own sales varies greatly among PAs, depending weather they can charge entrance fees or not. Slovenian PAs are often successful in obtaining funds trough different international funding schemes. The difficulty of Slovenian PAs is that they do not systematically search for new financial sources and they have not yet developed financial plans and business strategies. To improve capacities in the field of financial planning, a pilot financial and business plan has been developed within DAE project for Landscape Park Secoveljske soline (Flores, 2010). This is a new approach to ensuring financial sustainability of PA management, but further capacity building will be needed to develop adequate skills in PAs.



*Photo: Paklenica National Park in Croatia (author: Ivana Korn Varga)*

### Goal 3.3: To develop, apply and transfer appropriate technologies for protected areas

#### ALBANIA

Efforts are made to develop mechanisms for constructive dialogue and exchange of information and experiences among protected-area managers, and between protected area managers and local communities and their organizations and other environment educators and actors. Recently there is a high pressure to incorporate the subject of protected areas as an integral component of the school curricula as well as in informal education.

No progress made on the development and promotion of new technologies.

#### BOSNIA AND HERZEGOVINA

There is no progress on development of new technologies. PA representatives have had a chance to visit PAs in Italy, Spain and other surrounding countries, and to learn from them.

#### CROATIA

As for the improvement of the use of appropriate technology, effective mechanisms to exchange lessons within and beyond the PA system have been developed – WebGIS Database for PAs, developed through the PAMS project, is available online. Annual meetings of PA Conservation Service are organized by the SINP. There is a PAs mailing list available to all PA management authorities, including the SINP and the Ministry. On

the other hand, a system for valuing and sharing traditional knowledge has not been developed.

#### MONTENEGRO

Professionals from Montenegro National Parks had an opportunity to visit PAs in surrounding and EU countries.

All the visits had the objective to exchange experiences in the field of professional protection, monitoring on protected species, and PAs management, management plans, promotion, and different modalities of cooperation with local stakeholders. Such types of exchange of experiences were very precious and useful, and it should be continued in the future.

#### SLOVENIA

No major progress.

### Goal 3.4: To ensure financial sustainability of protected areas and national and regional systems of protected areas

#### ALBANIA

Unfortunately, no progress is made in assessing the contribution of protected areas to national economy. Limited progress is made in assessing protected area sustainable finance needs (Idrizi et al, 2007<sup>4</sup>). But, nothing is done to develop new protected area funding mechanisms.

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<sup>4</sup> Idrizi et al, 2007 Sustainable Financing of Protected areas (in Biodiversity enabling activity



## BOSNIA AND HERZEGOVINA

There is no sufficient progress on financial sustainability of PAs. National parks are financed from the BIH Federation and Republika Srpska government budget. Other categories of Protection are financed from the budget of the cantonal governments, projects and donations.

## CROATIA

The activity of assessing PA sustainable finance needs is fully underway. The assessment of sustainable finance needs and the study on the best practices in financing PAs have been conducted as part of the preparation of the NIP project – these two studies are: "Sustainable Financing Review for Croatia PAs" (2009) and "Study of best practices in financing PAs in Croatia" (2009). New PA funding mechanisms were developed through the education of the PA management authorities on the possibilities of the usage of EU Structural Funds and preparation of the projects potentially financed from the European Regional Development Fund (ERDF).

Financial training and support has been envisaged by the NBSAP (Action Plan 9.2.2.1.). A training "Sustainable Financing for MPAs" was conducted as part of the MedPAN South project, where all five Croatian MPAs as well as three coastal regional PA management authorities were present. National and nature parks keep self-generated income for themselves (it does not go to the State Budget), but there is still much to be done in order to remove legal barriers to sustainable finance. Specifications for the implementation of the integrated information system for billing entrance fees and other services in the national and nature parks have been developed.

On the other hand, revenue-sharing mechanism has not been developed. Inter-agency fiscal responsibility has not been clarified. Also, resource allocation procedures, budgeting process, accounting and monitoring, and

financial planning still have to be improved. A project proposal is being drafted for GEF (UNDP and the Ministry) that would deal with ensuring financial sustainability of PA system in Croatia. It builds on the PA valuation study undertaken at the National Park Northern Velebit as part of the DAE project.

All MPs contain a chapter on MP financing and the majority of these finances have not been sustainable. There are few exceptions and, also, the MPAs which are finalizing their MPs are working on sustainable financial plans, which include different funding sources.

Self generated incomes stay in the park. All national parks charge entrance fees and a few nature parks charge entrance fees. Almost all national and nature parks have their own sources of income through entrance tickets' sale, tourist and catering services, concessions, sale of souvenirs, promotion materials and other services.

## MONTENEGRO

National parks are financed by Ministry of Sustainable development and Tourism and they have additional funds from their own services (rafting, restaurants, tickets, lease, temporary facilities, etc.).

## SLOVENIA

All managed PAs in Slovenia carry out educational programmes and organise many awareness-raising activities. They mostly cooperate well with local schools; some have even established informal networks of schools, in which they organise activities for scholars and train teachers. Managers are also actively cooperating with local communities in organising various events. What we can note here as a shortcoming is a lack of cooperation among managers of different PAs, to be able to

promote PA system as a whole. In October 2011 directors of management authorities of eleven PAs have signed a Memorandum of Cooperation, which is likely to improve their cooperation and support common activities in the future.

Ministry of the Environment and Spatial Planning is since 2003 publishing monthly on-line news e-Natura. Different events and announcements in

relation to Natura 2000, but also broader issues on nature conservation and PAs, are reported on. While this e-news reaches a relatively broad circle of interested public, much more would have to be done on awareness-raising of general public. A broad campaign informing public on importance in purpose of protected areas should be launched, similar to a campaign on Natura 2000, which took place in 2006 and 2007.

### Goal 3.5: To strengthen communication, education and public awareness

#### **ALBANIA**

Recently, there have been many efforts to establish and strengthen strategies and programs of education and public awareness on the importance of protected areas in terms of their role in biodiversity conservation and sustainable socio-economic development, and targeted towards all stakeholders.

Several NGOs have produced some materials to promote natural and cultural values of protected areas improving PA public outreach. Also, since 2008 UNICEF is promoting and supporting an environmental education program in elementary schools, training teachers on how to teach pupils on several environmental issues including the importance of the protected areas for the protection of biodiversity.

#### **BOSNIA AND HERZEGOVINA**

Federal Ministry of Environment and Tourism each year organize eco-camp where high school students are participating. Through WWF project "Campaign through schools in the nature" (2010 and 2011) - "I live Neretva ... and I live Trebizat", NGO "Mocvara" from Capljina held trainings about preserving natural resources for the benefit of future generations to high school students and local community.

#### **CROATIA**

Public outreach materials, such as publications and promotional materials, websites, portals, etc. have been produced by all the institutions within the nature protection sector (parks, regional PA management institutions, the Ministry, the State Institute for Nature Protection and NGOs). Environmental NGOs produce different public outreach materials, which is often at least partially funded by the State. Activities concerning Earth Day, Biodiversity Day, Wetlands Day, etc. have regularly been conducted by all the institutions within the nature protection sector. Environmental NGOs lead different public awareness campaigns and these activities are often at least partially funded by the State. In 2010 and 2011 Magazine Geo, Ministry, State Institute for Nature

Protection, UNDP and the Public Institution "Maksimir" organized "Geo Action Day" on an occasion of celebrating 2010 International Year of Biodiversity.

"School in Nature" is being organized in a number of PAs. Nature Protection Internet Portal of the Ministry has been developed in 2011. It offers useful information on the functioning of the nature protection system in Croatia, as well as information on the conservation of species and habitats, national ecological network, nature protection project, national parks, nature parks and other PA categories, as well as the activities they implement. Croatia is a party of the Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (the Aarhus Convention). The obligation of informing the public and participation of the public in decisions is regulated by the Environmental Protection Act, Nature Protection Act and Physical Planning and Building Act, while the procedures for the participation of the public are regulated by regulations and directives (for example, Regulation on information and participation of the public and public concerned in environmental matters).

On the other hand, PA curricula with educational institutions have not been developed.

## MONTENEGRO

Ministry of Sustainable development and Tourism with a group of NGOs initiated campaign "Ecological thread connecting us" in May 2011. Some of actions are: arrangement and cleaning of school yards, presentation of results of research "Ecological awareness in Montenegro", eco-quizzes in elementary schools, panel discussion "Ecological State of Montenegro – benefit for future generations.

## SLOVENIA

All managed PAs in Slovenia carry out educational programmes and organise many awareness-raising activities. They mostly cooperate well with local schools; some have even established informal networks of schools, in which they organise activities for scholars and train teachers. Managers are also actively cooperating with local communities in organising various events. What we can note here as a shortcoming is a lack of cooperation among managers of different PAs, to be able to promote PA system as a whole.

Ministry of the Environment and Spatial Planning is since 2003 publishing monthly on-line news e-Natura. Different events and announcements in relation to Natura 2000, but also broader issues on nature conservation and PAs, are reported on. While this e-news reaches a relatively broad circle of interested public, much more would have to be done on awareness-raising of general public. A broad campaign informing public on importance in purpose of protected areas should be launched, similar to a campaign on Natura 2000, which took place in 2006 and 2007.



*Photo: Invasive Alien Species workshop (author: Ivana Korn Varga)*

## Programme Element 4: Standards, Assessment, and Monitoring

### Goal 4.1 - To develop and adopt minimum standards and best practices for national and regional protected area systems

#### ALBANIA

The Ministry of Environment, Forests and Water Administration, couple of years ago, in close collaboration with specialized institutions implemented a national program to monitor and assess the status and trends of biodiversity within protected area systems and sites. With the support of the UNDP project “Integrated management of the Prespa Park ecosystem” a biological monitoring program is developed and starts implementation in Prespa National park.

Although according to PAs law, PAs have to have a management plan only 5 PA have it and 2 are working on it, others do not have it. There is no full inventory of natural and cultural resources in all protected areas. Protected areas administration units do not have a well detailed yearly working plan for reaching management objectives.

However no progress has been made in defining minimum standards for protected areas efficiency and indicators of biodiversity are not developed at all.

#### BOSNIA AND HERZEGOVINA

Report on the work of Public enterprises / institutions for the National Park shall be submitted to Government entities and other categories of protection of Cantonal Governments, and typically these reports adopt-approved. Activities are carried out according to plan management, public enterprises, which have no management plan based on the annual work

plan activities. For good management of individual PAs definitely need more intensive involvement of local communities in BIH, which is not the case

#### CROATIA

The activity to develop and adopt minimum standards and best practices for national and regional PA systems is fully underway. Guidelines and manuals on how to manage the PAs were defined and prepared (i.e. management planning guidelines). RAPPAM was accepted by the Ministry as a tool for the systematic assessment of management effectiveness to be carried out every four to five years. A system of Nature Impact Assessment for the National Ecological Network area was introduced. The Department for Enhancement of the Supervisory Service, which is part of the Directorate for Nature Protection Inspection of the Ministry, organizes education of inspection and ranger services.

Stakeholder relations have been improved through the participatory approach in MP development. Nature Protection Act stipulates that the needs of the local community have to be taken into account when developing MPs.

Monitoring tools are being developed. Handbooks for inventorying, which would assist in gathering data from the field, were developed for many species groups and habitats. These handbooks are the first step in standardization of the methodology for data collection, which is a basis for establishment of the monitoring system.

Some parks have established their monitoring systems for certain species and habitats, but data is not systematic at the national level. Still, most

recent MPs have indicators to monitor both the implementation of the MP activities (monitoring of MP implementation) and the reaching of the conservation objectives (monitoring of biodiversity). National monitoring system is being developed through the NIP project.

All parks should have management plans adopted by the end of 2011. Twelve parks developed and adopted management plans (63%), six are being adopted and the remaining one is still being developed. Some other PA categories (but not all of them), which are managed at the regional (county) level, also have the obligation to develop management plans, but none of these have been adopted so far, although a number of them have been drafted or are in the process of being drafted.

## MONTENEGRO

A report on the work of the Public Enterprise for National Parks is submitted to the government and it is evaluated with the positive mark.

Each National Park has its own Management Plan for 5 years, but other PAs don't have it.

## SLOVENIA

Minimum standards for management of PAs have not yet been developed in Slovenia. Some progress is expected by 2012, as the new Act on Triglav National Park requires describing the ways of achieving of these standards in the management plan.

Monitoring in Slovene PAs is facing many difficulties. Firstly, the state monitoring of biodiversity is ongoing only for some groups of species and selected habitat types and it is almost exclusively limited to Natura 2000

species and habitat types. Another problem is absence of management plans. This means that PAs usually don't have long-term visions and goals set, so there are also no goals, against which management effectiveness could be measured. Yearly plans of PAs include some indicators, which are usually not result or impact based, so they offer a rather poor indication of management effectiveness. Recently initiative to improve skills on indicator development has been made in the study by Gosar and colleagues (2010), but further development will be needed to be able to use this in management planning.



*Photo: Skocjan Caves National Park in Slovenia (author: Ivana Korn Varga)*



## Goal 4.2: To evaluate and improve the effectiveness of protected areas management

### ALBANIA

As already mentioned, the management effectiveness of some protected areas in Albania is carried out in 2008 using the RAPPAM methodology. There is severe problem with boundary demarcation and issues regarding support of local communities, disputes regarding land tenure and user rights, conflicts with local communities, zoning of PAs and linking with other PAs.

Level of personnel is not adequate, their skills and performance is good, but their capacities should be improved. Financing of protected areas seem to be a huge problem since there is no proper financial practice.

A strategy for reviewing and enlarging PAs network has been prepared in 2007 providing useful recommendations on changes and improvements needed to the Albanian protected areas system.

PA4LP-DAE Gap Analysis provides an important tool for reviewing PA system in Albania.

### BOSNIA AND HERZEGOVINA

The assessment of PA management effectiveness was carried out through PA4LP-DAE RAPPAM and it was commented by PA managers as a very helpful tool in assessing management effectiveness, also the first tool which assess the management of PAs.

Visitor infrastructure and ranger service should be improved.

Local communities should be more involved and educated in order for PAs to function in a proper way.

### CROATIA

The activity of assessing the management effectiveness of PAs is fully underway. The first assessment of the PA management effectiveness

(PAME) has been conducted as part of the DAE project. 85% of the Croatian PAs have been assessed for management effectiveness. RAPPAM was accepted by the Ministry as a tool for the systematic assessment of management effectiveness to be carried out every four to five years. Law enforcement has been improved through the strengthening of the Ranger Services. Stakeholder relations have been improved through the participatory approach in MP development. The revision of the PA Register is currently being conducted within the Ministry in cooperation with the PA management authorities and the SINP.

### MONTENEGRO

Implementation of RAPPAM methodology in Montenegro showed management system weaknesses. There is a low level of professional / operational capacities in existing PAs and lack of management authority for all PAs.

### SLOVENIA

In the last years an increasing attention is paid to management efficiency of protected areas. This has been supported by the RAPPAM analysis, conducted in 2008. Nine management authorities have been included in the analysis (another two protected areas have already been established, but management was not yet fully operational). In the last two years some of these recommendations have been implemented, but overall their implementation is proceeding very slowly.

As already mentioned, a particular problem in Slovene PA system are PAs, which do not have established management. This account for 24 % surface of protected areas or 3 % of the national territory).

### Goal 4.3: To assess and monitor protected area status and trends

#### ALBANIA

Albania, as part of its obligations, provides regular information on PAs to relevant institutions and mechanisms. That includes national reports to Convention on Biological Diversity, UNEP-WCMC World Database on PAs, the United Nation List of Protected Areas and the State of the World's Protected Areas assessment process. From 1993, Albania is included in international funding programs which support implementation of national PA systems in developing countries and countries in transition.

#### BOSNIA AND HERZEGOVINA

There is no unique PA information system or database and that is a key problem. Databases are formed mostly separately cases internally for public companies, universities, institutes and a big part of information is not available or even known to the public.

In the framework of GEF "Management and Trebisnjica" project, in the Hutovo Blato Nature Park, mammals, reptiles and amphibians were researched for the first time and the data will be used as an important input in drafting of the management plan.

#### CROATIA

The activity of identifying critical monitoring needs across the PA system is fully underway.

The status and trends of key biodiversity has been assessed through the development of the Report on the State of Nature 2000-2007, the NBSAP, the 4<sup>th</sup> CBD Report (2009), etc. Still, the assessing and monitoring the status and trend of key species, ecological communities and ecological processes has only been undertaken partially, but Croatia has been preparing for it through several projects, as it will become obligatory once

Croatia joins the EU (due to the reporting on the implementation of Habitats and Birds Directives).

A biological monitoring program has started to be developed through the establishment of NATURA 2000 ecological network and the development of the Nature Protection Information System. Two monitoring projects including community-conserved protected areas are financed from IPA pre-accession program – "Identification and setting up of the marine part of the NATURA 2000 network in Croatia" (which developed research and monitoring program on two pilot sites to meet reporting obligations arising from Habitats Directive) and "NATURA 2000 management and monitoring" (NATURA MANMON) (which will prepare monitoring programs for target species and habitat types of six proposed NATURA 2000 sites as the part of national monitoring framework for reporting to the Habitats Directive).

The change of the management practices based on the results of monitoring and research has been enabled through the PA Annual Programs.

As for other research and monitoring activities, the development of the monitoring program for future NATURA 2000 ecological network has been envisaged. When Croatia becomes the EU member, the monitoring of the conservation status of all species and habitats that are listed in the appendices of the directives will be conducted at the national level. The reporting on the implementation on the directives, on the state of the NATURA 2000 sites and possible changes, on the conservation status of all the species and habitats listed in the appendices of the directives will be conducted at the national level.

Collection of data was institutionalized by establishing the State Institute for Nature Protection in 2003, where prerequisites for creating a central database within Nature Protection Information System (NPIS) were created.

The Nature Protection Information System (NPIS) is being developed and will be connected with other information systems as part of the NIP project.

The ongoing IPA project "Establishment of fauna and speleological databases (CRO fauna and CRO speleo) as part of the National Nature Protection Information System (NNPIS)" has the objective to improve the compilation, classification and availability of biodiversity data.

Croatian Environment Agency regularly reports to the European Environmental Agency (EEA) for the Common Database on Designated Areas (CDDA).

Elaboration project of the National Indicators List was introduced with respect to the biodiversity protection indicators that were defined at the CBD and European Commission (SEBI 2010 – Streamlining the European Biodiversity Indicators), but also taking into account the Government of Croatia needs for information required for the planning of environmental protection policies with purpose of sustainable development.

## MONTENEGRO

Lack and unavailable biodiversity data is the main problem. A lot of information remain unpublished, or if published they are not available to the public. There is no public databases for specific taxonomic groups, and there is no "red book" of rare and endangered species. Existing Biodiversity Monitoring Program does not provide sufficient information about the state, factors of threats and threats to biodiversity. On the other hand, country experienced a period of isolation during the 90's that also affected scientific community causing breaks in the cooperation with similar institutions abroad, exclusion from wider initiatives related to biodiversity conservation.

Emerald database updated by the Institute for the Protection of Nature is frequently submitted to Environmental Agency which reports to appropriate European structures, among the other things, on protected areas included in this network.

## SLOVENIA

In the last decade a major progress has been made on development of national databases on protected areas. These are also available on-line to interested public. Slovenia is also cooperating well with the European Environmental Agency in providing data for the Europe wide statistics and indicators (EEA, 2010).

However, due to limited biodiversity monitoring, PAs have very little knowledge of the statuses and trends in their protected areas. This limits possibilities to evaluate their management measures, and also raises problems when developing new targeted conservation activities.



*Photo: Skadar Lake National Park in Montenegro (author: Vasilije Buskovic)*

## Goal 4.4: To ensure that scientific knowledge contributes to the establishment and effectiveness of protected areas and protected area Systems

### ALBANIA

The Government of Albania is promoting interdisciplinary research, to improve understanding of the ecological social and economic aspects of protected areas, including methods and techniques for valuation of PA goods and services, and encouraging studies to improve the knowledge of the distribution, status and trends of biological diversity.

Access to scientific research and advice is mostly depending on personal connections. Generally the results of monitoring and scientific research are neither used nor included in the management planning.

The main task of PA managers is law enforcement and they spent a lot of time and resources in this regard. They also put some efforts on site restoration and provide information on the importance and values of PA natural and cultural resources. It is evident that in general PA managers do not deal with infrastructure development and research and monitoring. Also they have problems with resource inventory and planning as well as visitor management.

### BOSNIA AND HERZEGOVINA

The governments of both entities (ministries) are encouraging research through the adaptation of PAs management plans.

### CROATIA

The activity of identifying critical research needs across the PA system is fully underway. PA research on socio-economic issues has been improved through the development of the study “Sustainable Financing Review for

Croatia PAs”, which was developed as part of the preparation of the NIP Project. Also, socio-economic studies have been undertaken as part of the



Photo: Plitvice Lakes National Park in Croatia (author: Zeljka Rajkovic)





*Photo: Velebit Nature Park in Croatia (author: Robert Pasicko)*

MP development in some parks. Still, PAME evaluation (RAPPAM) showed that research on key social issues is mostly not consistent with the needs of PAs (Porej & Rajkovic, 2009; Rajkovic, 2009).

The SINP has been working on harmonization of the PA research studies in a way that all institutions within the nature protection sector share information on the PA research that is being conducted. Dissemination of PA research is planned to be promoted through the NIP project.

As stated above, management practices have been changed based on the results of monitoring and/or research.

## **MONTENEGRO**

RAPPAM analysis showed that Montenegro requires more scientific research, which results would be included in the plans for national parks development.

## **SLOVENIA**

RAPPAM analysis showed that PA managers mostly don't have clearly listed research needs. As gaps in research and knowledge often appear in the processes of preparation of management plans, we can expect some improvement in the coming years.

Regarding the research on PAs, the state has financed two larger research projects in the last years. We have already mentioned the research on management efficiency of protected areas (Gosar et al., 2010). Prior to this, another research on sustainable development in protected and Natura 2000 areas has been concluded in 2008 (Plut et al., 2008). The goal of this project was to determine options for sustainable development in protected areas and show ways in which the state could contribute to development of these potentials.

Within DAE project, the whole PoWPA has been translated to Slovenian language, to promote future implementation of PoWPA. In June 2011 this has been published in a publication along with an in-depth analysis of implementation of PoWPA, recommendations and terminological dictionary (Kus Veenvliet & Sovinc, 2011).



## 6) CHALLENGES AND FUTURE PRIORITIES IN DINARIC ARC ECOREGION

FUTURE PRIORITIES	FUTURE CHALLENGES
ALBANIA	
Review the existing PA system in line with Natura 2000 standards and requirements	Improvement of law enforcement capacity within and outside of PAs
Strengthen the communication between scientific and management body	Sustainable financing of PAs (most of PAs still depend on international donations)
Further improvement of TB/PA cooperation	Including more local community in biodiversity protection
Improving PA management and strengthening PA management bodies	Adequate resources (human and material) for PA management
Improvement of monitoring of biodiversity	
Building capacities of PA managers	

FUTURE PRIORITIES	FUTURE CHALLENGES
BOSNIA AND HERZEGOVINA	
Finalization of the Law on Nature Protection (state level)	Work on scientific research while using PA4LP - DAE Gap Analysis
Development of legal and technical support for Natura 2000	Establishment of Agency/Institute for Nature Protection
Building capacity of PA employees	
Continuation of activities toward establishment of new PAs	

FUTURE PRIORITIES	FUTURE CHALLENGES
CROATIA	
Continue to work on the enabling environment for the integration of the nature conservation into other sectors (harmonizing sectoral policies and laws to support effective management planning and policies)	Increase staffing levels in PAs, in particular conservation and ranger service
Sustainable financing of PAs, further development of new PA funding mechanisms, as well as PA business plans	Removal of perverse incentives that hinder effective management, such as water usage fees; Develop equitable dispute resolution mechanisms and procedures
Integration of PA values and ecological services into the national economy, develop communication campaign to value PAs	Development of revenue-sharing mechanisms; Environmental fiscal reform to remove legal barriers to sustainable financing
Continue to develop and implement the compensation mechanisms and policies for access and benefit sharing, as well as develop equitable benefits-sharing mechanisms	Introduction of the activity based costing (ABC) into the government budgets to improve resource allocation procedures, budgeting process, accounting and monitoring and financial planning; Clarifying inter-agency fiscal responsibilities

FUTURE PRIORITIES	FUTURE CHALLENGES
MONTENEGRO	
Increase efficiency of the existing legal and accompanying institutional framework in the field of environmental protection	Lack of data on specific components and aspects of biodiversity: intensifying research, monitoring, making inventory and mapping of species protected by the law and identification of Network Natura 2000 (ongoing process, through WWF MedPO, Strengthening the capacity of Governments and civil sector to adapt to EU nature protection acquis, project)
Establishment of new and enlargement of existing PAs	
Building capacity of PA employees	

FUTURE PRIORITIES	FUTURE CHALLENGES
SLOVENIA	
Prepare a short-term plan for the PA system and develop long-term measures, which are to be integrated in the revised biodiversity strategy	Increase staff at the Ministry of the Environment and Spatial Planning and in PAs, to further develop and improve surveillance in nature (nature rangers)
Finalize national guidelines for the preparation of PA management plans	
Encourage projects on ecosystem valuation of PAs and use these data in awareness-raising campaigns	
Develop a common web-page of all PAs, to enable better promotion and distribution of information on the whole PA system	



Photo: *Salamandra atra* (author:Paul Veenlilte)

## LIST OF ABBRAVIATIONS

ASCI – Areas of Special Conservation Interest  
 BIH – Bosnia and Herzegovina  
 CBD PoWPA – Convention on Biological Diversity Programme of Work on Protected Areas  
 CDDA – Common Database on Designated Areas  
 COP – Conference of Parties  
 CRO – Croatia  
 DAE – Dinaric Arc Ecoregion  
 EEA – European Environmental Agency  
 EU – European Union  
 FYROM – The Former Yugoslav Republic of Montenegro  
 GEF – Global Environment Facility  
 GIS – Geographic Information System  
 IPA – Instrument for Pre-Accession assistance  
 IUCN – International Union for Conservation of Nature  
 MAB – Man and Biosphere  
 MANMON – Management and Monitoring  
 MEFWA – Ministry of Environment, Forests and Water Administration  
 MoU – Memorandum of Understanding  
 MP – Management Plan  
 N2K – Natura 2000

NBSAP – National Biological and Landscape Strategy and Action Plan  
 NBSAP – The National Biodiversity Strategy and Action Plan  
 NEN – National Ecological Network  
 NNPI – National Nature Protection Information System  
 NP – National Park  
 NPC – National Project Coordinator  
 NPIS – Nature Protection Information System  
 NTFP – Non-Timber Forest Products  
 PA – Protected Area  
 PA4LP – Protected Areas for a Living Planet  
 PAME – Protected Areas Management Effectiveness  
 RAPPAM – Rapid Assessment and Prioritization of Protected Areas Management  
 SEBI – Streamlining the European Biodiversity Indicators  
 SINP – State Institute for Nature Protection  
 TB PA – Trans-boundary Protected Area  
 UNDP – United Nations Development Programme  
 UNEP - WCMC – United Nations Environmental Programme - World Conservation Monitoring Centre  
 WWF – World Wide Fund for Nature

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