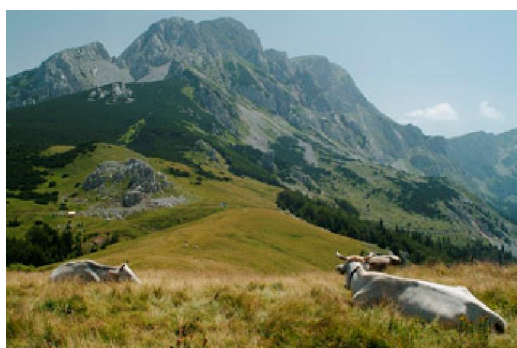


PROTECTED AREA



MANAGEMENT EFFECTIVENESS

IN BOSNIA AND HERZEGOVINA

RAPPAM - analysis



BOSNIA and HERZEGOVINA
FEDERAL MINISTRY OF ENVIRONMENT AND TOURISM

Protected area management effectiveness in Bosnia and Herzegovina Final report of the RAPPAM analysis

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Commissioned by the Bosnia and Herzegovina Federal Ministry of Environment and Tourism and WWF Mediterranean Programme.

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1. INTRODUCTION

Biological diversity in Bosnia and Herzegovina

Bosnia and Herzegovina is located in Southeastern Europe, in the central part of the Balkan Peninsula, and covers the area of 51,129 km². According to orographic characteristics, it is a highland type of country. The total land area consists of 5% of plains, 24 % of hills, 42% of mountains and 29% of karst (NEAP, 2003). From hydrographical point of view, Bosnia and Herzegovina belongs to the Black and Adriatic Sea catchment areas. The Black Sea catchment area includes 70% of Bosnian and Herzegovinian territory while the Adriatic Sea catchment area includes 24%, and on the 6% of the territory surface waters sinks into the ground and becomes groundwater (NBSAP Bosnia and Herzegovina 2008-2015, 2008). According to biogeographic characteristics, the Bosnian and Herzegovinian territory belongs to three different regions:

- Mediterranean
- Eurosiberian-Boreoamerican
- Alpine-high-nordic

High level of interaction between biological and geological diversity in Bosnia and Herzegovina implies presence of high level of scenery/landscape diversity. Acknowledging specific biogeographic and physical-geographic qualities, we may distinguish various types of scenery/landscape:

- Mediterranean
- submediterranean
- Mediterranean-mountain
- Pre-pannonian
- mounds and hills
- mountains

Taking into consideration all the details, there are numerous endemic centres and refugium centres for relict tertiary flora and fauna which has survived until the present day, merely due to the specific climate conditions, which places Bosnia and Herzegovina among the top European countries considering high level of biological diversity.

According to data available in "Overview and status of Biological and Landscape Diversity in Bosnia and Herzegovina" (Sarajevo, 2008), 1859 species of cyanobacteria and algae, belonging to 217 genera, have been registered on the territory of Bosnia and Herzegovina. Vascular plant flora in Bosnia and Herzegovina consists of 565 species of moss, 71 species of fern, and 4498 species of seed plants. The vertebrae fauna in Bosnia and Herzegovina consists of 119 species of fish, 20 species of amphibians, 38 species of reptiles, 236 species of birds and 85 species of mammals. Among the above mentioned species, 39 are endemic, and the highest level of endemism has been observed among fish and reptiles.

Invertebrates fauna in Bosnia and Herzegovina is particularly versatile but insufficiently researched. The same is true for fungi (552 species were registered as Ascomycetes and Basidiomycetes), and moss (around 300 registered species).

Regarding diversity, Bosnia and Herzegovina is among the leading countries in Europe. Species diversity has the highest level of endemism in Europe. It consists of over 450 species of higher plants, several hundred invertebrates (predominantly insects), 12 fish species, 2 species of amphibians, 4 species of

reptiles and several species of birds and mammals.

Scientists estimate that there are more than 678 species of fern and seed plants in Bosnia and Herzegovina which are now days at various levels of endangerment. Following the adopted guideline of protection at state level, relevant ministries in the Federation of Bosnia and Herzegovina also the Republic of Srpska, along with county/cantonal ministries in cooperation with NGO's are working to implement national priorities. Being aware of their responsibility, the Federal Ministry of Environment and Tourism adopted the Act on promulgation of Una National Park, the first national park in the Federation of

Bosnia and Herzegovina in May 2009. Protected areas cover 2.20 % of the total territory of Bosnia and Herzegovina at the moment. By revalorizing existing and establishing new protected areas, Bosnia and Herzegovina would approach European average of protected areas with respect to total land area. Through relevant ministries and other institutions, entity and county/cantonal governments are making lot of effort to preserve biological resources. At present only 2.20 % of territory is protected in Bosnia and Herzegovina, which is insufficient when compared with other European countries and when existing biological potential in this country is taken into consideration.

Protected areas

Bosnia and Herzegovina has recently emerged from the war which impoverished the county by destroying infrastructure and economy, and also by mass movement of population within or outside the country. Due to poor economic situation and a huge number of unemployed people, the population is predominantly involved in agriculture. Governments at all levels should facilitate and enhance socio-economic development, and, at the same time, carry out the policy of preservation and enhancement of biodiversity as national treasure through appropriate actions within sectoral and intersectoral legal framework. Bosnia and Herzegovina development guidelines and its journey towards the European Union demand integral and sustainable development along with preservation policy.



Figure 1. Map of Bosnia and Herzegovina.

At present, there are 3 national parks (Una National Park - newly promulgated park which is being established at the moment), 4 natural monuments, 2 protected sceneries/landscapes

and 2 nature parks in Bosnia and Herzegovina. Further activities regarding nature protection in Bosnia and Herzegovina will follow the guidelines proposed through national priorities.

Table 1. Overview of protected areas

Name	Entity	Area in ha
National parks		
Sutjeska	Republic of Srpska	17,250.00
Kozara	Republic of Srpska	3,494.00
Una	Federation of Bosnia and Herzegovina	19,800.00
Natural monuments		
Skakavac	Federation of Bosnia and Herzegovina	1,430.70
Prokoško jezero	Federation of Bosnia and Herzegovina	2,119.00
Vrelo Bosne	Federation of Bosnia and Herzegovina	603.00
Tajan	Federation of Bosnia and Herzegovina	3,591.35
Nature parks		
Hutovo blato	Federation of Bosnia and Herzegovina	7,411.00
Blidinje	Federation of Bosnia and Herzegovina	35,800.00
Protected sceneries/landscapes		
Bijambare	Federation of Bosnia and Herzegovina	367.36
Bentbaša	Federation of Bosnia and Herzegovina	147.70
Total:		92,014.11

2. RAPPAM METHODOLOGY IMPLEMENTATION

2.1. The Convention on Biological Diversity - Program of Work on Protected Areas

The Conference of Parties of the United Nations Convention on Biological Diversity, with 188 member countries (including Bosnia and Herzegovina), at its 7th meeting in February 2004, adopted *Programme of Work on Protected Areas (PoWPA)*, one of the most ambitious strategies in environment protection ever. The central objective of the *Programme of Work on Protected Areas* is support establishment and maintenance of comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas by 2010 for terrestrial and by 2012 for marine areas. Through the global network, the Programme should contribute to achievement of three Convention objectives and the objective for 2010 to significantly reduce the current rate of biodiversity loss on global, regional, national and subnational levels, to reduce poverty and promote sustainable development, which supports goals and objectives of the Convention Strategic plan, of the Plan of Implementation of the Global Summit on sustainable

development and of the Millennium development goals. PoWPA target 4.2. of the Convention on Biological Diversity states that:

„By 2010 parties will have adopted and implemented the framework for monitoring, evaluation and reporting on management effectiveness in protected areas at the levels of areas, national and regional systems, and cross-border protected areas.“

With the following specific activities:

4.2.1. Develop and adopt evaluation standards

4.2.2. Implement management effectiveness evaluations at the national level of at least 30% of protected areas

4.2.3. Include evaluation results into reports to The Conference of Parties of the Convention on Biological Diversity

4.2.4. Implement main results

2.2. Rapid Assessment and Prioritization of Protected Areas Management (RAPPAM) methodology

WWF RAPPAM methodology uses assessment framework developed by the World Commission on Protected Areas (WCPA). The WCPA framework is based on management cycle. It includes main assessment elements: planning, investments, processes and results.



Figure 2. Assessment and management cycle (adapted from Hockings *et al.* 2000.)

WWF Rapid Assessment Questionnaire covers each of these elements and is organized in accordance with the WCPA frameworks, as illustrated below.

Table 2. Assessment elements in WWF's Rapid Assessment Questionnaire

Context	PA Design and Planning	Inputs	Management Processes	Management Outputs	Outcomes
<ul style="list-style-type: none"> Threats Biological importance Socio-economic importance Vulnerability PA policies Policy environment 	<ul style="list-style-type: none"> PA objectives Legal security Site design and planning PA system design 	<ul style="list-style-type: none"> Staff Communication and information Infrastructure Finances 	<ul style="list-style-type: none"> Management planning Management practices Research, monitoring, and evaluation 	<ul style="list-style-type: none"> Threat prevention Site restoration Wildlife management Community outreach Visitor management Infrastructure outputs Planning outputs Monitoring Training Research 	<ul style="list-style-type: none"> Pressures

RAPPAM offers policy makers, a tool for achieving PoWPA target 4.2. of the Convention on Biological Diversity by enabling rapid assessment of overall protected areas management effectiveness.

2.3. RAPPAM methodology implementation in Bosnia and Herzegovina

The RAPPAM Questionnaire consists of more than 100 questions (ANNEX 1). The most thorough and effective approach to implementing this methodology is to hold interactive workshops in which protected area managers, policy makers, and other stakeholders participate fully in evaluating the protected areas, analysing the results, and identifying subsequent next steps and priorities.

During the preparation for the workshop, the questions were adapted to suit Bosnia and Herzegovina needs. The list of pressures and threats was prepared by the WWF. The data processing system was established and roles in workshop implementation were determined. The questionnaire was sent to the workshop participants three weeks prior to the workshop date.

During the workshop we came to a conclusion that answers to some of the questions in the RAPPAM questionnaire are not suitable to be processed in this report. The questions related to the protected areas context - their are relative biological and socio-economic importance and vulnerability (questions 3-5) require abundant data and detailed analysis which are presented in other strategic documents of Bosnia and Herzegovina, so they are not processed in this report. The workshop participants agreed that the questions regarding the protected area system (17-19) should be answered by policy makers on the national level,

therefore we do not present those questions either.

Assessment exercises were implemented in six operative protected areas in order to determine management effectiveness of protected areas system and of relevant institutions. Una National Park was not included in this assessment since the public institution is being established at the moment.

Assessment was performed through the workshop held in January 2009 in the protected area "Nature park Hutovo blato". The workshop lasted for two days including presentations, small group work, discussion and presentation of results. The workshop participants included park managers, protection managers, government institutions representatives (Federation, county/canton) and NGO representatives (contact addresses in ANNEX 1).

It was accomplished with assistance from Mr. Deni Porej, Director of Conservation WWF Mediterranean Programme Office (MedPo) WWF, Mr. Tomislav Lukić, representative of the Federal Ministry of Environment and tourism and Mr. Stjepan Matić, national project coordinator (NPC). WWF RAPPAM methodology (Rapid Assessment and Prioritization of Protected Area Management) was used. Satisfactory results for each of the questions in RAPPAM methodology questionnaire were obtained through detailed interviews and discussions with the workshop participants, and the final report was based on those results.

3. RESULTS AND ANALYSIS

Following the RAPPAM methodology, results and analysis are shown in six categories:

- 3.1. Pressures and threats to protected areas
- 3.2. Protected areas site design and planning
- 3.3. Investment into protected areas
- 3.4. Management processes
- 3.5. Results

3.1. Pressures and threats to protected areas

For analysis purposes, “pressures” have been defined as activities that have already had a damaging impact on the protected area, and “threats” as activities that might start or continue causing damage to the park in the future. Pressures and threats are related to protected area goals and objectives and are evaluated on the basis of their extent, impact and permanence (see ANNEX 1 – RAPPAM Questionnaire).

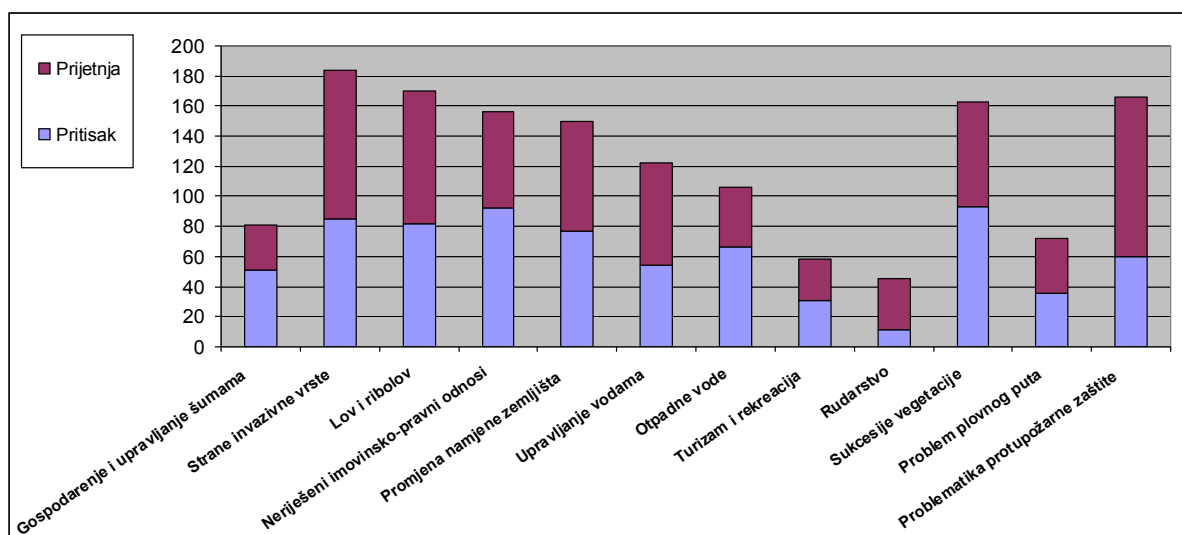


Figure 3. The overall degree of pressures and threats in protected areas

It is clear from the Figure that pressures and threats are particularly prominent in fire protection, invasive alien species, hunting and fishing, plant succession, unsolved property-rights relations, conversion in land use and water management. Pressures and threats differ in level and intensity in different types of protected areas.

3.1.1. Forest management

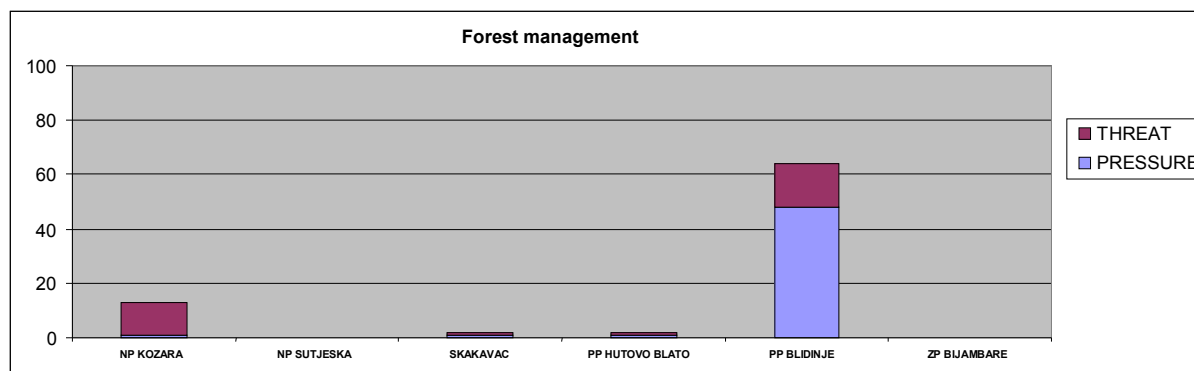


Figure 4. The overall degree of pressures and threats in protected areas due changes in forest management

Forest management problem is not the most important pressure, except in Blidinje Nature Park where illegal logging is prominent, but in all other protected areas this influence is not significant. The pressure was reduced because three public companies which manage forests have introduced protection and planning measures in forestry. Future threats are reduced in Blidinje Nature Park, whereas they are significantly pronounced in Kozara National Park.

3.1.2. Invasive alien species

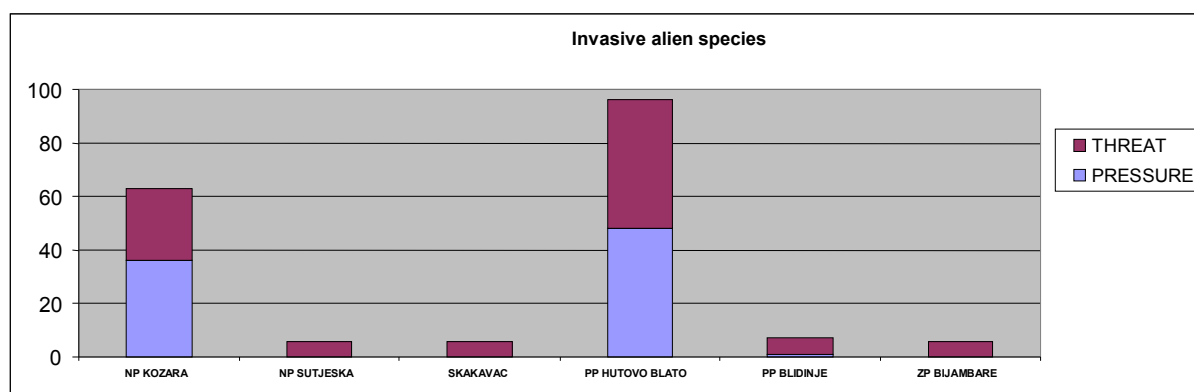


Figure 5. The overall degree of pressures and threats in protected areas due to invasive alien species

Invasive alien species of flora and fauna are most dominantly present in Nature Park Hutovo blato. For example, the fish species Pumpkinseed sunfish (*Lepomis gibosus* L.) is present in the whole park, and sampling shows that its percentage is growing year after year. Other alien fish species which do not normally belong to the Adriatic Sea catchment were also registered. The park employees reduce their population through fishing. Ambrosia was registered inside the park, so employees prevent further spread through mowing. Ambrosia was also registered in Kozara National Park. Protected landscape Bijambare, Skakavac Natural Monument, Sutjeska National Park and Blidinje Nature Park are taking precautionary

measures. All park managers are aware of the problem and its threat, and the solution is to be found through appropriate implementation of management plans or annual work plans.

3.1.3. Hunting and Fishing

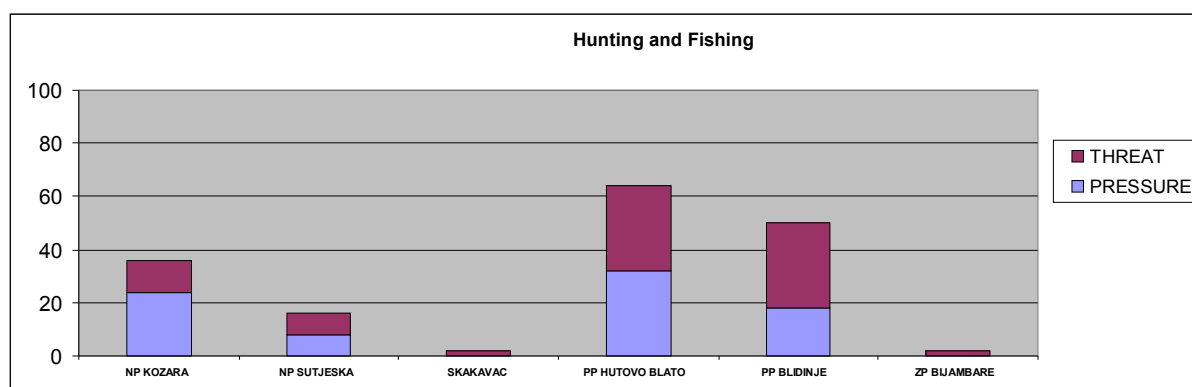


Figure 6. The overall degree of pressures and threats in protected areas due to hunting and fishing

Threat exists and is present in high degree in Hutovo blato Nature Park, as well as the future pressure. The situation in Blidinje Nature Park is similar to the one in Hutovo blato, and even stronger pressure is expected in the future due to the legal status. Threat exists in Kozara National Park, but future pressures will be less intense. Bijambare Protected landscape, Skakavac Natural Monument and Sutjeska National Park either do not face threats or they are minimal, but precautionary measures for the future are being undertaken. Managers of protected areas in which poaching is significant are of the opinion that these pressures and threats will be minimized through good relations with hunters associations and through functioning of legal state.

3.1.4. Unsolved property-rights relations

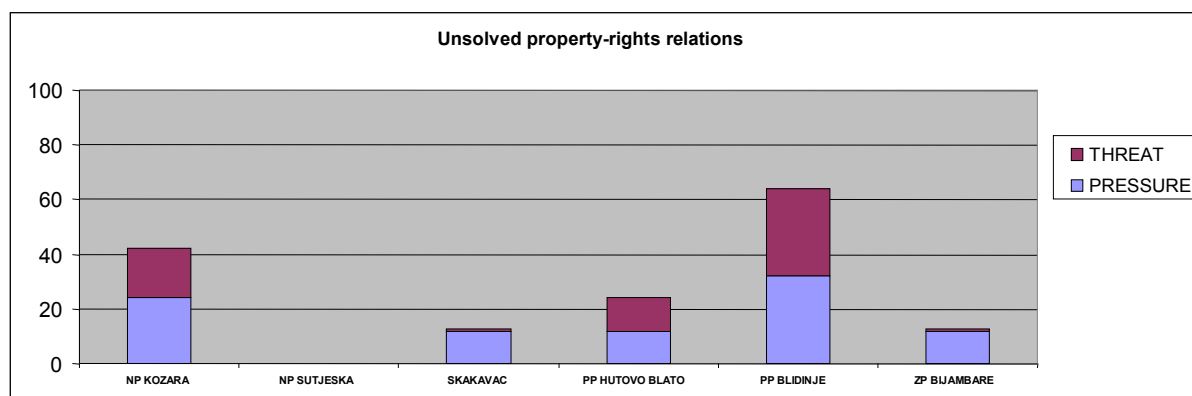


Figure 7. The overall degree of pressures and threats in protected areas due to unsolved property-rights relations

This problem is particularly prominent in Blidinje Nature Park and there will be pressure in the future. Bijambare Protected landscape and Skakavac Natural Monument do not have

boundaries between state-owned land and private land, so it is necessary to mark out the boundaries. In some cases there are plots within certain zones. In Sutjeska National Park all land is state-owned. Previously privately owned plots were bought off in the past, in Former Yugoslavia. The threat exists in Hutovo blato Nature Park, as well as the pressure. The threat exists in Kozara National Park, but future pressures will be less intense.

Sutjeska National Park is the only one with clearly marked boundary, while the rest of protected areas do not have clearly marked boundaries.

This problem is one of the most important threats to management effectiveness in protected areas because there is no spatial plan, protected areas boundaries are not clearly defined and there are private plots within protected areas.

3.1.5. Conversion of land use

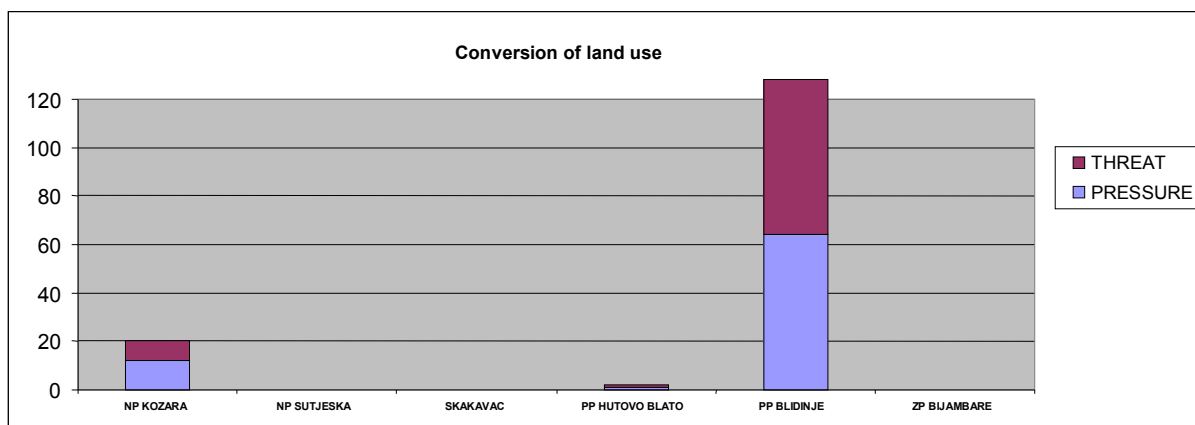


Figure 8. The overall degree of pressures and threats in protected areas due to conversion of land use

Conversion of land use is the main problem of „Blidinje“ Nature Park, threats will also remain prominent until state institutions do their job. Pressures have also been registered in Kozara National Park, and there are threats as well. Other Protected Areas do not have problems regarding conversion of land use.

3.1.6. Water management

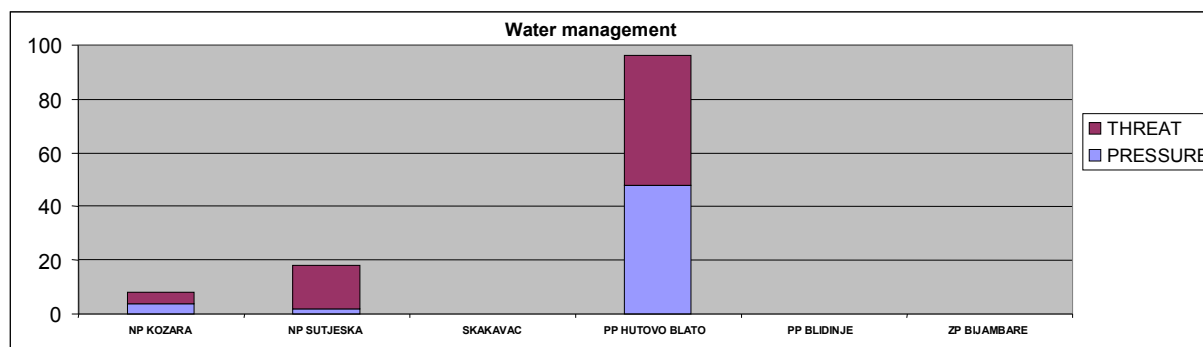


Figure 9. The overall degree of pressures and threats in protected areas due to water management

This pressure is most prominent in Hutovo blato Nature Park, particularly due to the fact that hydrologic system and its functioning are specific. It is under direct human influence, i.e. hydropower plants called Gornji horizonti on the Trebišnjica river; pumped storage hydropower plant Čapljina which is situate in the park itself; and the hydropower plant on the Neretva river; as well as specific characteristics of the Krupa river which flows through the park and has a possibility to flow in the opposite direction under the influence of the Neretva river and natural water inflow from the springs within the Park. In summer, when there are more visitors, it is not possible to organize photo-safari, which undermines the aspirations towards self-sustainability of Protected Area. At the same time abrupt changes and oscillations of aquatic mirror have a profound influence on the flora and fauna of the park. The solution lies in integral management of the Neretva and Trebišnjica waterflows. These issues were dealt with within the GEF project, but we do not have any information on the status of project implementation. Sutjeska National Park – future threat lies in planned construction of mini hydropower plants. Other parks do not have similar problems, there are only minimal threats for the future of Kozara National Park.

3.1.7. Wastewater

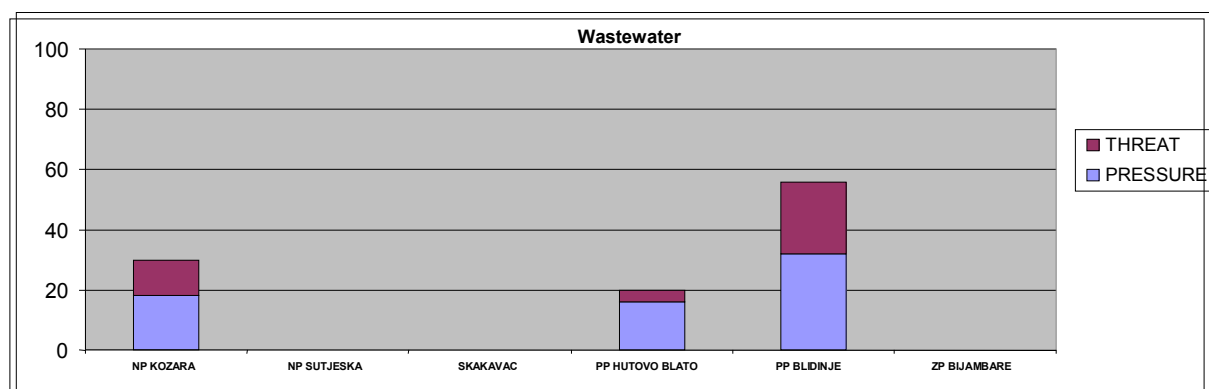


Figure 10. The overall degree of pressures and threats in protected areas due to wastewater

There is prominent pressure in Blidinje Nature Park due to mass construction of cottages and septic tanks because there is no connection to main sewage pipes. Pressure and threats

were also registered in Kozara National Park. Hutovo blato Nature Park is pressured by the local cow farm, farm and local population – household wastewater, in the periods when the Krupa River flows in the opposite direction and the wastewater enters the entire park ecosystem.

3.1.8. Tourism and recreation

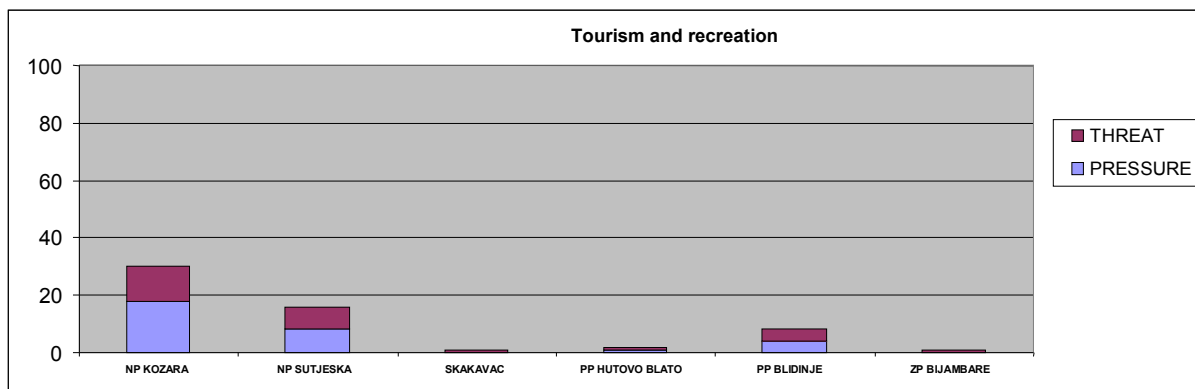


Figure 11. The overall degree of pressures and threats in protected areas due to tourism and recreation

Pressure has been registered in Kozara National Park where tourist behaviour represents pressure and threat. There have been no significant problems in other Protected Areas.

3.1.9. Mining

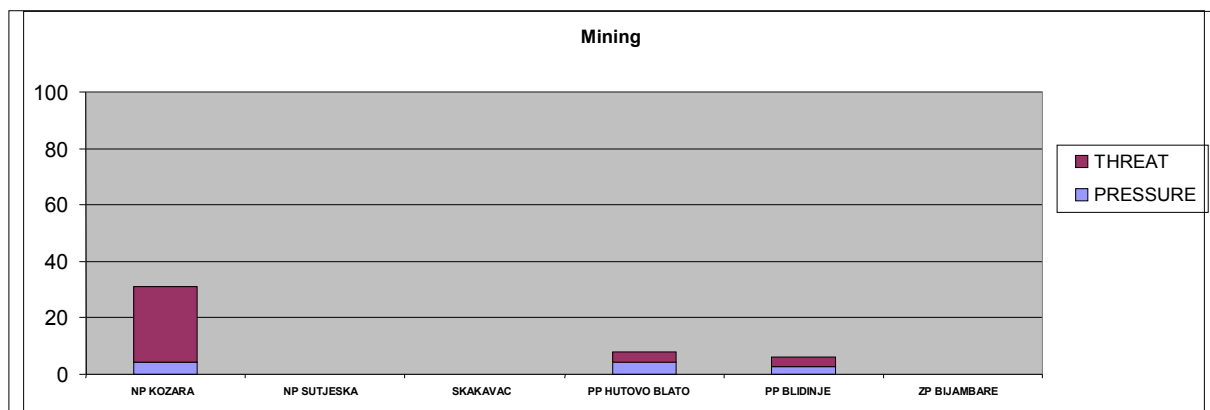


Figure 12. The overall degree of pressures and threats in protected areas due to mining

Pressure has been registered in Kozara National Park and future threats will be even greater due to high probability of new quarry being opened. Blidinje Nature Park faces the problem of sand being dug from the river canyons which are habitats to endemic plant species. Hutovo blato Nature Park has a problem with individual local farmers who dig peat from various locations in the park. Other Protected Areas do not have such pressures and threats.

3.1.10. Plant succession

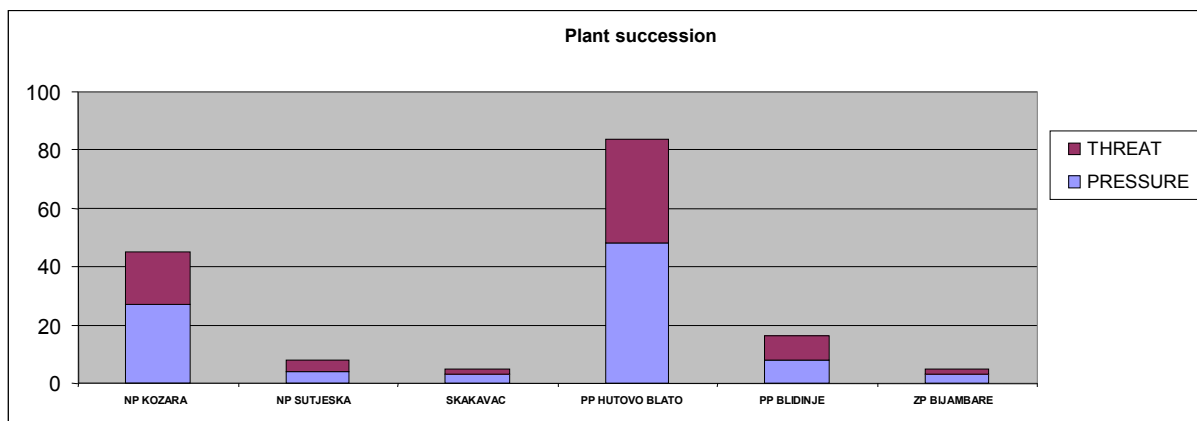


Figure 13. The overall degree of pressures and threats in protected areas due to plant succession

Plant succession represents prominent pressures and threats in Hutovo blato Nature Park through the eutrophication process, fires, disappearance of flood meadows, lack of livestock in local community and thus absence of grazing in the park, etc. Other parks have minimal registered pressures and threats, while in Kozara National Park the situation is much more pronounced. Plant succession represents a significant pressure on the protected areas system. The managers are aware that in the future more attention will have to be paid to this problem through new management moments, monitoring situation in the field and additional investments.

3.1.11. Waterway problem

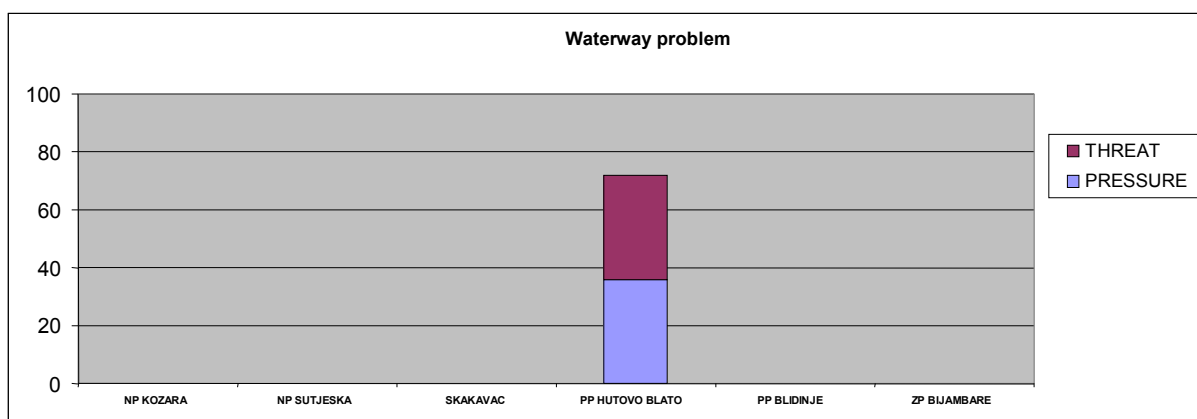


Figure 14. The overall degree of pressures and threats in protected areas due to waterway problem

This pressure was registered in Hutovo blato Nature Park as one of most significant, it prevents regular tourist activities in summer season. This is caused by inexistent single waterway management system, which is particularly important in this vulnerable karst area of Hutovo blato Nature Park and a number of other above mentioned pressures and threats is directly manifested in this problem. It is also one of the major problems for protection and other activities in the park. It has not been observed in other Protected Areas.

3.1.12. Fire protection problems

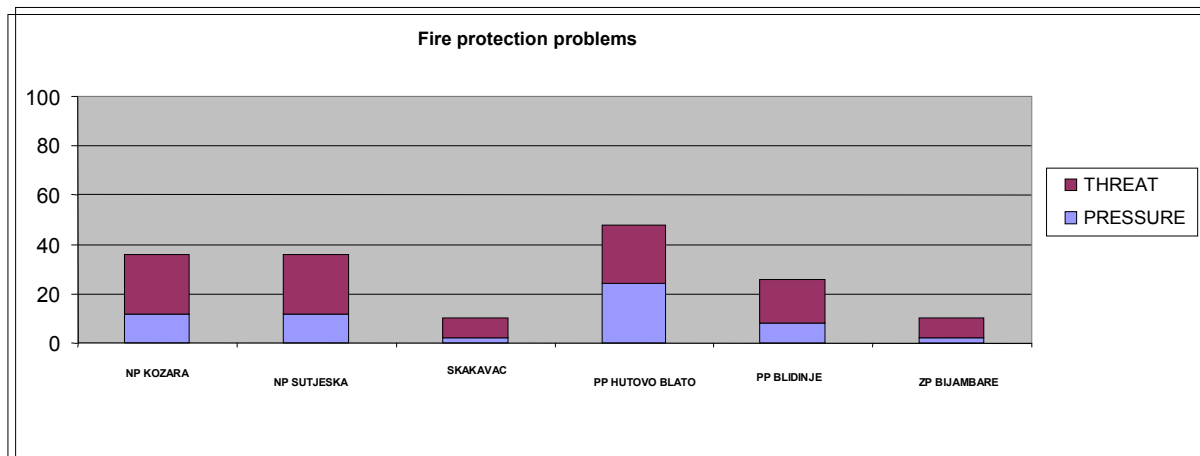


Figure 15. The overall degree of pressures and threats in protected areas due to fire protection problems

Hutovo blato Nature Park has experienced fires which represent a huge pressure, as well as threat. As a rule, there are two periods that are favourable for fires, one being in January and February when the water level is low and reed is dry – flood meadows; and in summer during drought and high temperatures – hills. Due to global climate change and lack of rain in certain areas, particularly in Mediterranean and sub-Mediterranean regions, managers identified this problem as a constant threat to all Protected Areas. Equipment acquiring and education of employees may have preventive effects on preventing fires, but activities on a larger scale lie within jurisdiction of government institutions and professional fire fighters.

Regarding pressures and threats not included in the report:

- Sutjeska National Park has a problem with solid waste management,
- Blidinje Nature Park also has a problem with construction waste management, remaining after construction of numerous cottages,
- **Hutovo blato Nature Park is the most vulnerable (wetland) eco-system so there are numerous pressures and threats of high intensity and serious consequences.**

3.2. Planning for protected areas

This comprises groups of questions regarding objectives, legal security, site design and planning in PA.

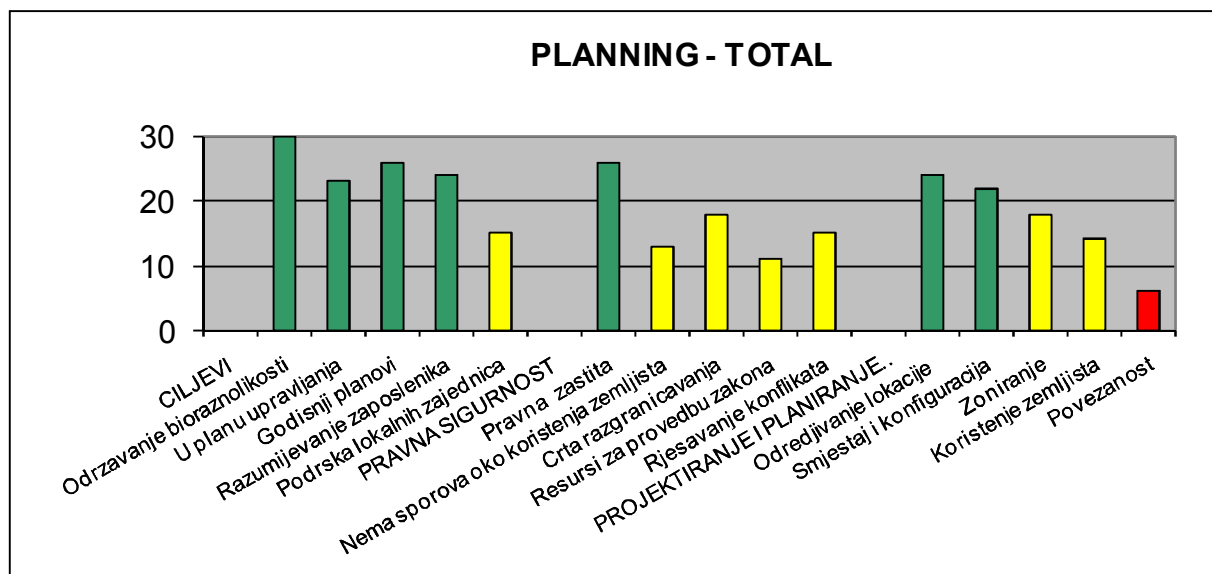


Figure16. The overview of planning – total in protected areas

On the system level (Figure 13) we can conclude that the managers have stated the highest level of security regarding objectives defining for PA, with certain problems with local community, resources for law enforcement and use of land inside and around PA. It has been pointed out that Protected Areas are not interconnected.

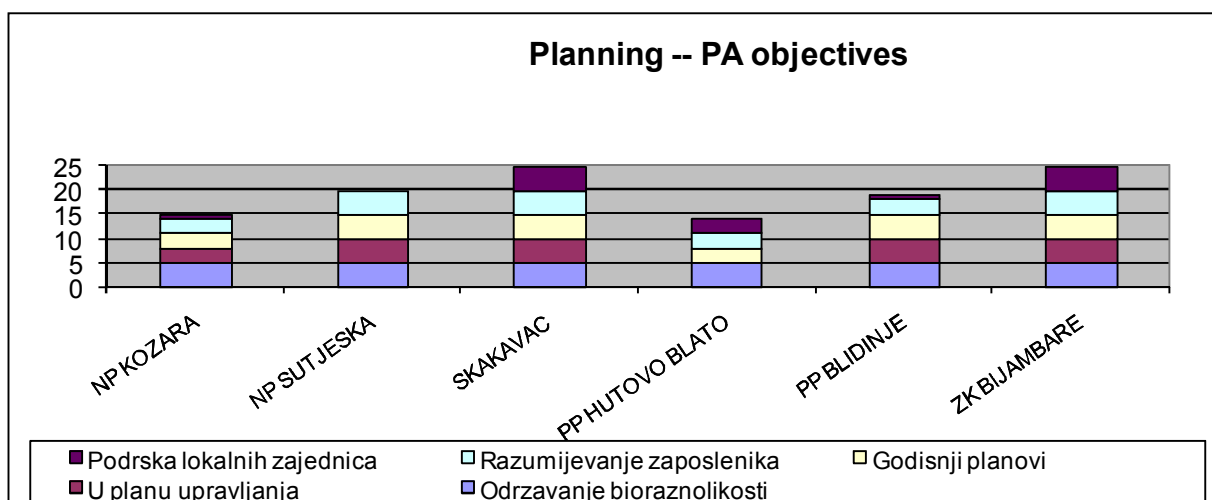


Figure 17. The overview of planning – PA objectives in protected areas

3.2.1. Objectives

Objectives are: preservation of biodiversity, management plan, annual plans, that employees understand objectives and local community support.

- PA objectives regarding protection of biological diversity. All six Protected Areas have clear objectives for protection and maintenance of biological diversity and all of them gave the highest marks
- Management Plan
All the parks, except Hutovo blato Nature Park have Management Plans, in Kozara. National Park – annexes are due. Plans are generally in accordance with PA objectives
- Annual Plans
PA managers generally pointed out that they have annual plans and they operate in accordance with them
- Employees should understand objectives. PA managers and employees mostly do understand PA objectives well
- Local community support

PA managers pointed out that they were not satisfied with cooperation along with local communities. This is reflected in a number of examples characteristic for each PA.

- Sutjeska National Park and Kozara National Park do not have much contact with local communities. National Parks should be more active in municipal activities, the cooperation so far was based exclusively on individual initiatives.
- Hutovo blato Nature Park has a problem with poaching and other illegal activities of the local community inside the park.
- Blidinje Nature Park also has a problem with the local community primarily due to illegal construction (186 cases of illegal construction reported) and poaching.
- Bijambare Protected landscape and Skakavac Natural Monument have satisfying relations with the local communities, except for isolated cases of boundary demarcation of private plots within the Protected Area.

3.2.2. Legal security

Legal protection, No disputes over land use, Boundary demarcation, Law enforcement resource, Conflict solving.

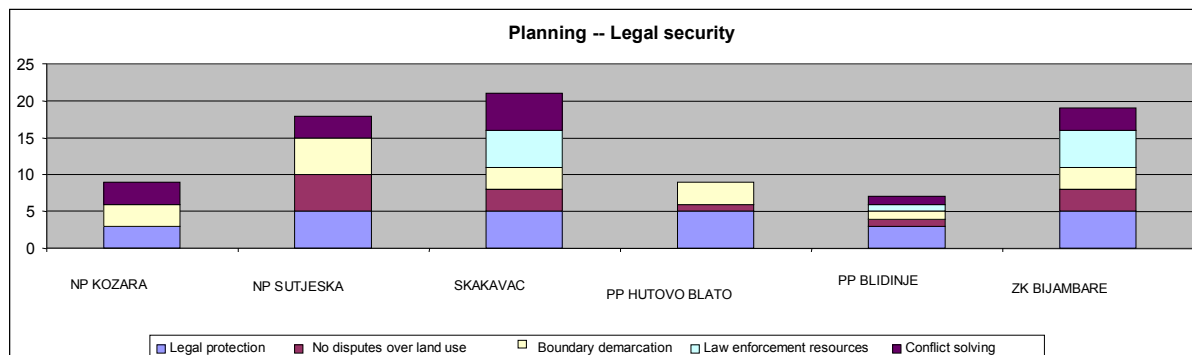


Figure 18. The overview of planning – legal security in protected areas

Legal protection

Legal protection through legislation is adequate. However, the solution to this issue again differs from one PA to the other.

- Blidinje Nature Park has a specific status. It is currently on the budget of three different counties/cantons, but only Hercegovačko/neretvanska county/canton actually provides resources, and the remaining two don't. According to the Federal Act on Nature Protection (FBiH OG no.:33/03) a Protected Area that spreads across the territory of two or more counties/cantons should be financed from the federal budget.
- The new Acts on Sutjeska National Park and Kozara National Park are being drafted at the moment.

No disputes over land use

- Bijambare Protected landscape and Skakavac Natural Monument do not have many disputes over land use.
- Sutjeska National Park owns all the park territory because private plots were bought off in the past, in Former Yugoslavia.
- Blidinje Nature Park has a problem of usurpation and conversion of land into construction land.
- Hutovo blato Nature Park has a problem of manner and purpose of use of certain private plots within the park;
- In Kozara National Park there are disputes over everything– as stated by the manager.

Boundary demarcation

Certain park managers believe that boundary demarcation is not adequate, so it may be subject to changes and new zoning.

- Bijambare Protected landscape and Skakavac Natural Monument have a satisfactory boundary demarcation and zoning is included in management plan;
- Kozara National Park boundaries are defined, but there are no significant biological resources within the existing boundaries, so there are going to be changes. The need

for change is particularly prominent in the central zone around the monument, but the sculptor's (Mr. Džamonja) exclusive rights do not permit planned changes.

- Hutovo blato Nature Park has temporary boundaries, determined by the Parks Management Board. Significant increase of the parks territory should follow after the spatial plan of the county/canton is adopted, and after the current project dealing with boundaries expanding and PA zoning is implemented.
- Blidinje Nature Park has a spatial plan which defines the park boundaries and zoning has also been performed;
- Sutjeska National Park spreads over the state boundary with Montenegro and Durmitor National Park. The boundaries will be redefined and new zoning will be performed.

The common opinion is that PA zoning should be performed according to IUCN and that special attention should be paid to zone forming with regards to biological resources, settlements, roads, etc. Managers expressed the wish to find possibilities of interconnecting Protected Areas (apart from Natura 2000) and exchanging experiences.

Law enforcement resources

The park managers identified problems preventing enforcement of legal obligations as illegal logging, poaching, etc. It has been pointed out that the main reason for such an inadequate situation lies in insufficient resources and lack of equipment and trained personnel.

- Sutjeska National Park, Kozara National Park, Hutovo blato Nature Park and Blidinje Nature Park do not have sufficient financial resources.
- Bijambare Protected landscape and Skakavac Natural Monument do not have that kind of problems.

Conflict solving

The majority of PA managers said they were successful in solving the conflicts with local communities, so for example Sutjeska National Park pays indemnities to the local community for the damage caused by wolves (sheep) and bears (honey).

- Kozara National Park
- Blidinje Nature Park – parks employees and administration solve the problem of land usurpation and conversion of land into construction land; offenders were reported, but relevant judiciary bodies have not processed a single charge yet.

3.2.3. Site planning and design

Site planning, Layout and configuration, Zoning, Land use and Linkage.

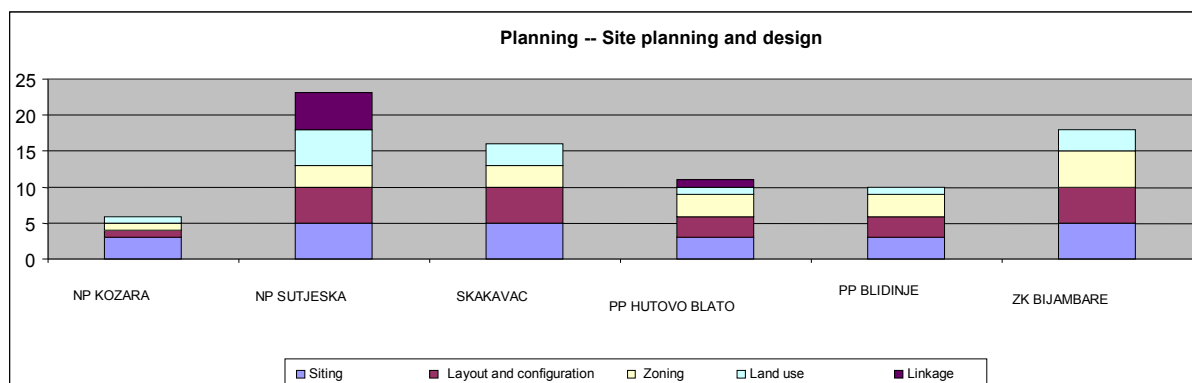


Figure 19. The overview of planning – legal security in protected areas

Site planning

Sutjeska National Park, Bijambare Protected landscape, Skakavac Natural Monument – managers completely agree and it is in accordance with PA objectives. However, other Protected Areas, Kozara National Park, Blidinje Nature Park and Hutovo blato Nature Park have a need to redefine boundaries which implies other changes in PA.

Layout and configuration

The situation is quite similar to the previous question; it is in accordance with PA objectives, only Kozara National Park does not meet the objectives.

Zoning

It is mostly satisfactory in all Protected Areas, only Kozara National Park is not satisfying in this question either.

Land use

In some Protected Areas like Sutjeska National Park, land use is consistent with objectives, while Bijambare Protected landscape and Skakavac Natural Monument responded - mainly yes. Kozara National Park, Blidinje Nature Park and Hutovo blato Nature Park responded - mainly no, meaning that land use does not meet the basic protection objectives.

Linkage

Through Bosnia and Herzegovina national priorities, Sutjeska National Park has been scheduled to be linked with Durmitor National Park in Crna Gora. Besides, cross-border cooperation already exists in the Neretva river delta (NDF- Neretva delta forum) and soon after the promulgation of Delta Neretva Nature Park, which is one of the priorities of the Republic of Croatia, there will be cross-border linkage with Hutovo blato Nature Park in Bosnia and Herzegovina.

3.3. Investing in protected areas

In this paragraph we present the managers' replies to a group of questions regarding staffing, communication, infrastructure and finances.

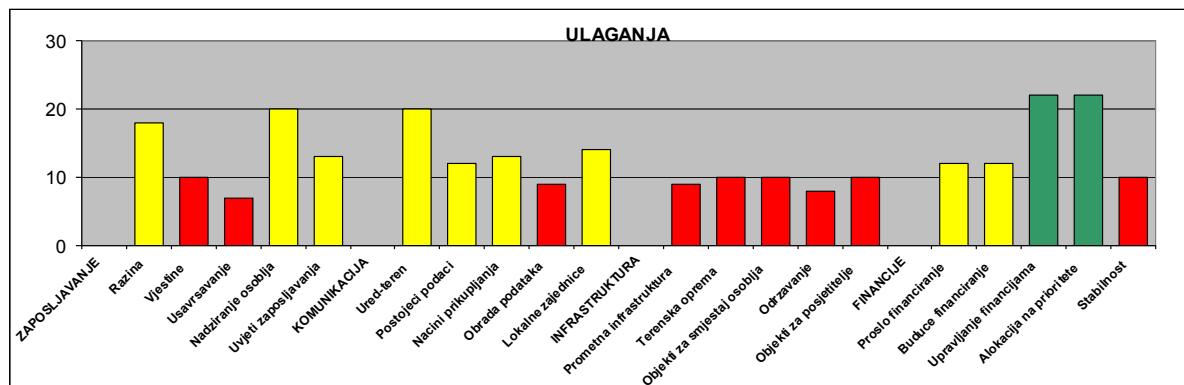


Figure 20. The overview of investment in protected areas

According to the indicators in the Figure we may conclude that there are certain problems in staffing, as well as in communication through data processing. The most prominent problems may be observed in infrastructure in all Protected Areas. In financial sector, according to the majority of managers, financial stability is very questionable. Further observations of these questions will be dealt with in the following paragraphs.

3.3.1. Staffing

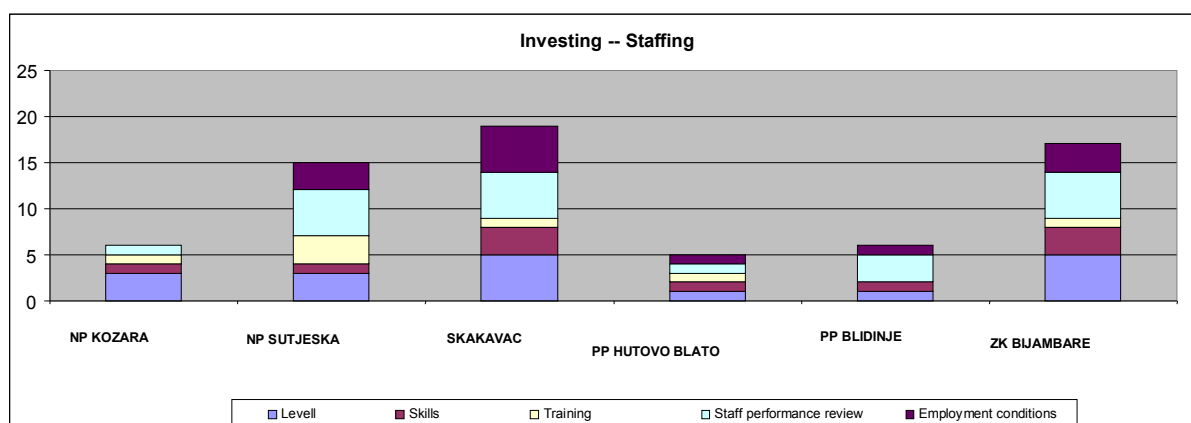


Figure 21. The overview of investing – staff in protected areas

Level of employment

PA managers agreed think that the level of employment is not sufficient.

Sutjeska National Park has sufficient number of employees, but their education is not adequate, in Bijambare Protected landscape and Skakavac Natural Monument the level of employment is satisfactory and follows the employees level of education. Blidinje Nature Park and Hutovo blato Nature Park do not have sufficient number of employees and their level of education is not satisfactory. Kozara National Park has a sufficient number of employees, and lack employees at the same time.

Skills

It is insufficient in all Protected Areas.

Training

All PA managers stated that it is insufficient and that there is a great need for further training and education.

Staff performance review

Staff performance reviews are satisfactory in the majority of Protected Areas, except in Kozara National Park and Hutovo blato Nature Park where the process is somewhat difficult.

Employment conditions

In Kozara National Park there are no employment conditions what so ever, also, they are minimal in Hutovo blato Nature Park and Blidinje Nature Park.

3.3.2. Communications

Field office, Existing data, Means of collection, Data processing and Local community.

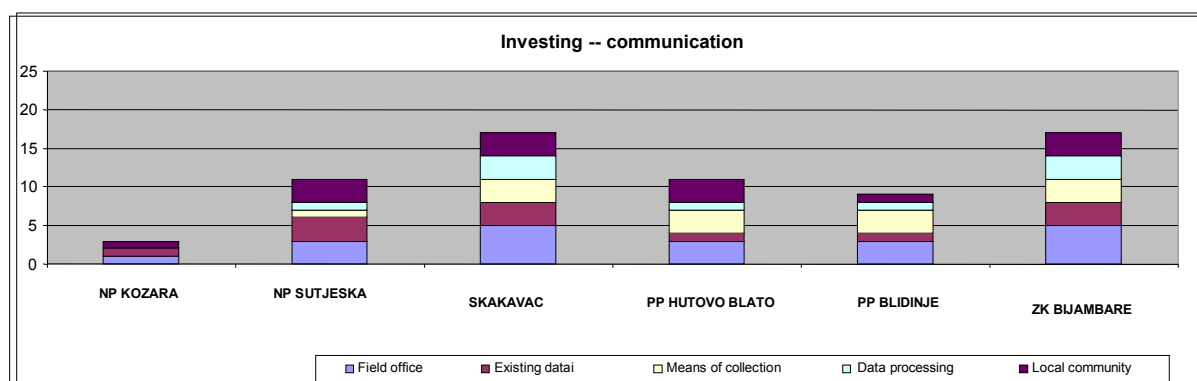


Figure 22. The overview of investing – communication in protected areas

Field office

Generally in all Protected Areas communication between field and office staff except in Kozara National Park where it is marked - mostly no.

Existing data

Existing data are usually unavailable. Kozara National Park does not have any other scientific data apart from flora. Similarly, Hutovo blato Nature Park does not have a comprehensive data base fauna, and vegetation aspects should also be revised.

Means of collection

None of the Protected Areas is adequately equipped for data collection.

Data processing

In Bijambare Protected landscape and in Skakavac Natural Monument data processing is generally good, they collaborate with faculties, but in other Protected Areas data processing is not so successful.

Local community

Communication with local communities predominantly doesn't exist, but in Bijambare Protected landscape and Skakavac Natural Monument it's satisfying. It was mentioned that one of the most serious problems comes from municipalities, they issue building permits in or near the park without prior consultations.

3.3.3. Infrastructure

Transportation infrastructure, Field equipment, Staff facilities, Maintenance, Visitor facilities

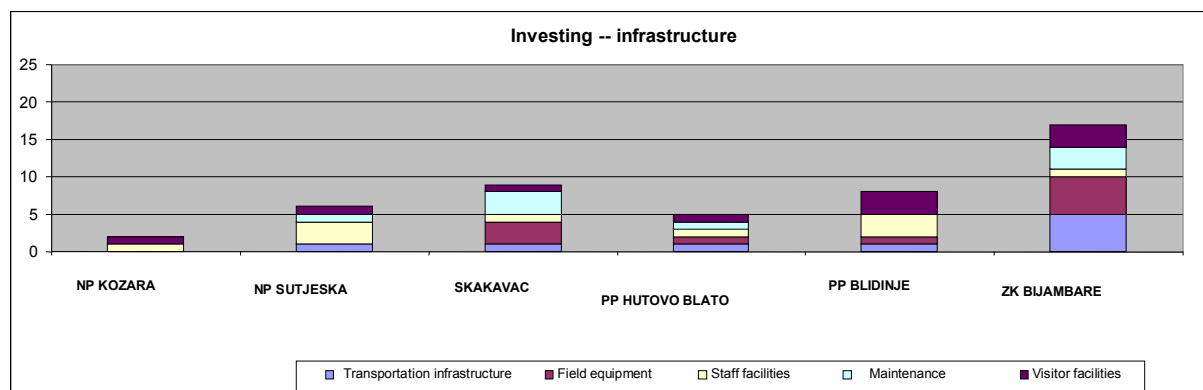


Figure 23. The overview of investing in infrastructure in protected areas

Transportation infrastructure

All managers agreed that transportation infrastructure does not meet the objectives, and that in some Protected Areas it doesn't exist at all. In some Protected Areas approach roads are in really bad condition.

Field equipment

Field equipment was marked - mostly no, insufficient. Existing equipment is old and expensive to maintain, etc.

Staff facilities

The managers accord on this question too and they have marked it - mostly no.

Maintenance

Most parks are not satisfied, Kozara National Park has old vehicles so maintenance is expensive.

Visitor facilities

Most parks do not have visitor facilities (visitor centre). The joint opinion of the managers is that these question shows how the founder(s) cares for PA, or not.

3.3.4. Finances

Past funding, Future funding, Financial management, Allocation to priorities, Stability.

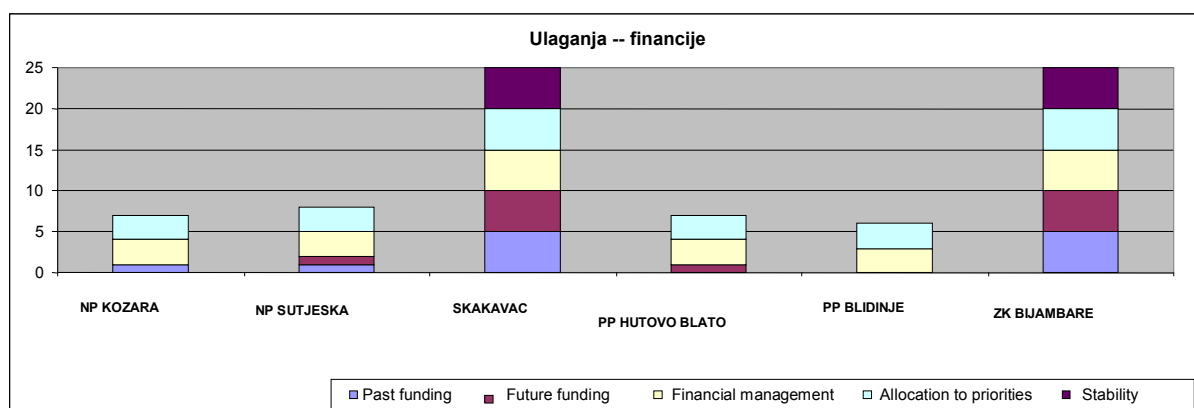


Figure 24. The overview of investment- financing in protected areas

There are huge differences regarding this issue from one PA to the other.

Past funding

Some of the Protected Areas have not received any funding, some received minimal funding which was not sufficient for even the most basic activities, so that they secure some funding from the projects on their own. Situation is encouraging in Bijambare Protected landscape and Skakavac Natural Monument where it is obvious that the founders fulfil their obligations towards PA. Legislation obliges founders to care for PA until it establishes certain activities which will represent sources of self sustainability, and even then the founder should still care for PA.

Future funding

Some of the Protected Areas, like Blidinje Nature Park cannot see means of future funding at all. In Hutovo blato Nature Park, due to lack of funding, salaries are low and resources from basic activity - protection- are transferred to catering facilities which are not sufficiently developed.

National Parks are partly funded from the park budget. Financial management ensures that planned resources are entirely funded from the founder's budget.

Financial management

All Protected Areas have transparent financial records (accounting) and pay VAT, but there is no timely inflow of resources from the founders. Even when the resources are obtained, they are usually behind schedule. Bijambare Protected landscape and Skakavac Natural Monument are exceptions to this rule again because funding is obtained on a regular quarterly basis.

Allocation to priorities

All Protected Areas set protection, enhancement and adequate use of PA as priorities. Blidinje Nature Park for example reported filing 184 charges of land usurpation and its conversion into construction land. Charges were filed with the relevant judicial bodies, but not a single procedure has been initiated yet.

Stability

There is huge difference among various Protected Areas in the question of stability. Bijambare Protected landscape and Skakavac Natural Monument are developing towards self sustainability as planned, and the founders of these Protected Areas take care of them. Other Protected Areas do not see any stability in the future unless the funding situation changes dramatically.

3.4. Management process

In this paragraph we present the managers responses to a group of questions regarding management planning, decision making, and research and monitoring.

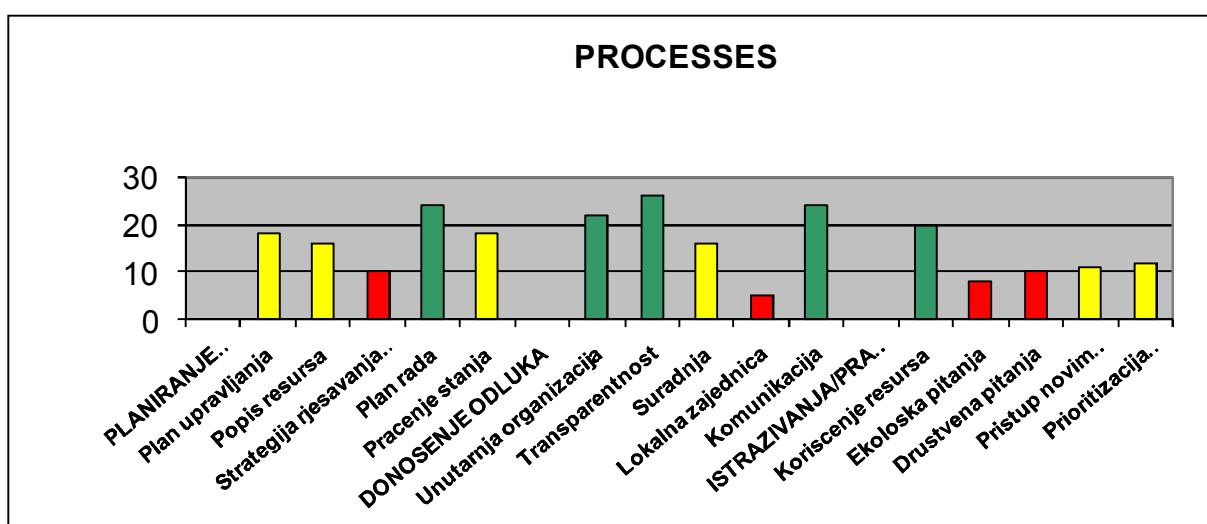


Figure 25. The overview of processes in protected areas

According to the indicators in the Figure 22.y we may conclude that there are certain problems in planning and management regarding problem solving strategy because certain Protected Areas do not have Management and Financing Plans. In Decision making there are certain problems with local communities. Local communities are not well informed and do not participate in decision making. In status survey and monitoring, use of resources is clearly accentuated, while all other question got low marks from the managers. Further observations of these questions will be dealt with in the following paragraphs.

3.4.1. Management planning

Management Plan, Inventory of resources, Strategy for addressing threats, Work plan, Monitoring

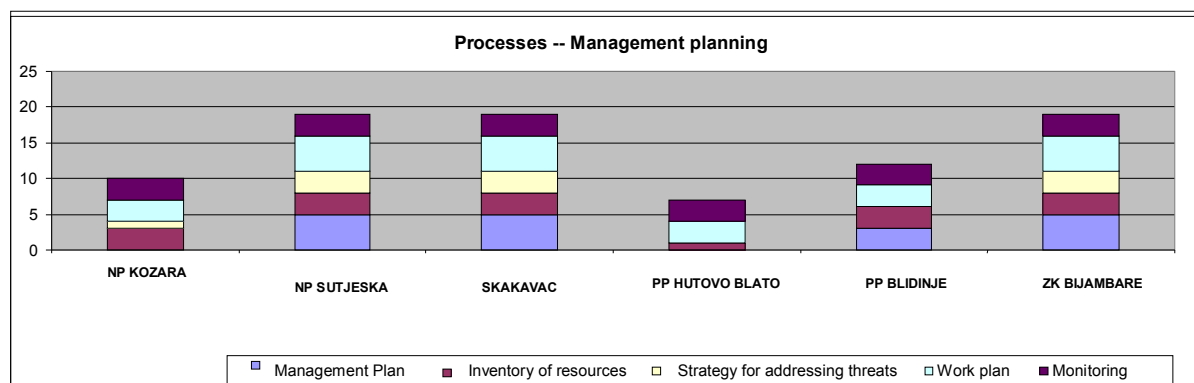


Figure 26. The overview of processes – management planning in protected areas

Management Plan

Bijambare Protected landscape and Skakavac Natural Monument have written Work plans, while Kozara National Park and Sutjeska National Park have plans since 1971. They should be revised or new plans should be made.

Hutovo blato Nature Park does not have a Management Plan - document. Blidinje Nature Park - mainly yes.

Inventory of resources

All Protected Areas answered - mainly yes, since there is a still lot of scientific research in the field to be done regarding registering and inventorying flora and fauna and other resources.

Strategy for addressing threats

Hutovo blato Nature Park has a problem with water level, and lack of water management analysis and strategy (it is being created as a part of GEF Neretva Trebisnjica project). Blidinje Nature Park cannot make create analysis of and strategy for addressing threats because the whole system is falling apart.

All Protected Areas have Work plans

Monitoring is generally fine and done individually. Bijambare Protected landscape and Skakavac Natural Monument perform this task in collaboration with faculties.

3.4.2. Decision making

Decision making is transparent in all Protected Areas, it is a team work and it was assessed with high marks.

Internal organization, Transparency, Collaboration, Local community, Communication

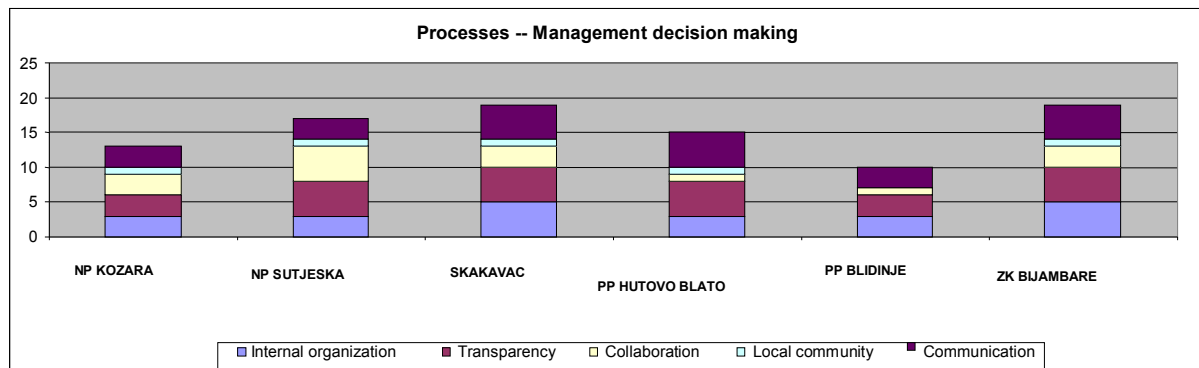


Figure 27. The overview of processes – management decision making in protected areas

Internal organization

All Protected Areas gave high marks for internal organization - yes or mostly yes - , but in Kozara National Park and Sutjeska National Park there is dissatisfaction with number of employees due to lack of funding.

Transparency

The managers pointed out that the decisions making process is transparent.

Collaboration

It has been pointed out that a lot has to be done on improving collaboration with local communities and other protected areas in the country, as well as with international nature protection organizations through government bodies.

Local community

All managers evaluated this question with low marks and pointed out that local communities do not participate in decision making. Blidinje Nature Park does not collaborate with the local community on this issue at all. It is well known that this issue is crucial in PA protection and sustainable development.

Communication

Communication between decision making personnel in Protected Areas was given a high mark by all managers.

3.4.3. Research and monitoring

Use of resources, Ecological issues, Social issues, Access to recent knowledge, Research prioritization

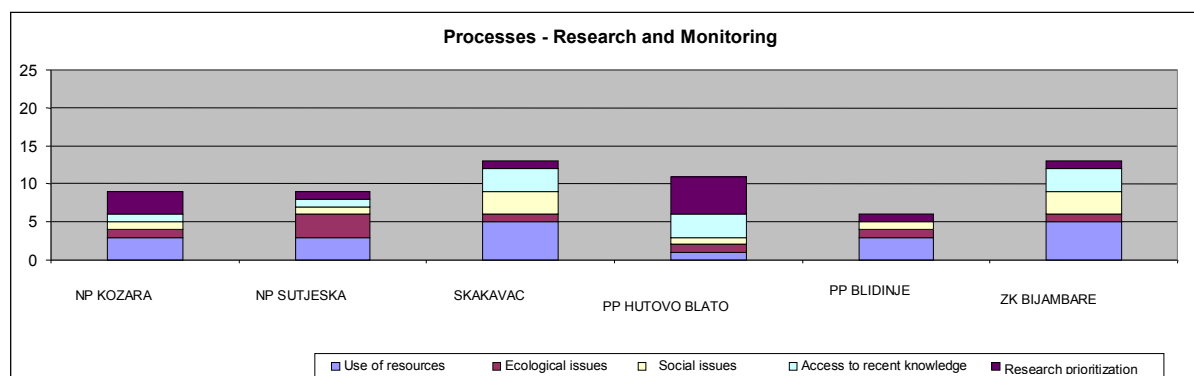


Figure 28. The overview of processes – research and monitoring in protected areas

Use of resources

Use of resources was assessed as mainly yes, except in Hutovo blato Nature Park where it was pointed out that certain areas of PA are not revaluated in an adequate manner.

Ecological issues

Blidinje Nature Park recognizes main resources, but more research is needed.

Bijambare Protected landscape and Skakavac Natural Monument have all the necessary data, and scientific research is done by the faculties.

Kozara National Park still does not have all the data.

Hutovo blato Nature Park is similar to others. However, the remaining research has not been systematically performed.

Sutjeska National Park collaborates with faculties on this issue.

Social issues

Kozara National Park and Sutjeska National Park have no contact with local communities.

Hutovo blato Nature Park - dispute with the local community regarding poaching (birds, fish, high mammals etc.)

Situation with the local community is similar in Blidinje Nature Park regarding various types of poaching, usurpation and conversion of land use.

Bijambare Protected landscape and Skakavac Natural Monument have a Development Plan (cattle breeding, old crafts, etc.) and commitment to collaboration with the local community. Present collaboration is not sufficient and better collaboration is planned for the future.

Access to recent knowledge

All managers put an accent on creating a networking among Protected Areas, individual communication already exists. Networking on the levels of state, companies and managers is also necessary. There are potentials for collaboration and approach to the ministries in the Federation of Bosnia and Herzegovina and the Republic of Ruska.

Research prioritization

The majority of managers marked this question as mostly no, except Kozara National Park and Hutovo blato Nature Park which pointed out that it is necessary to perform scientific field research if it has not been done.

3.4.4. Results

In this paragraph we present the managers responses to a group of questions regarding threat prevention, site restoration, wildlife management, education, visitor and tourist management, infrastructure, management planning, staff monitoring, staff training, and research and monitoring outputs.

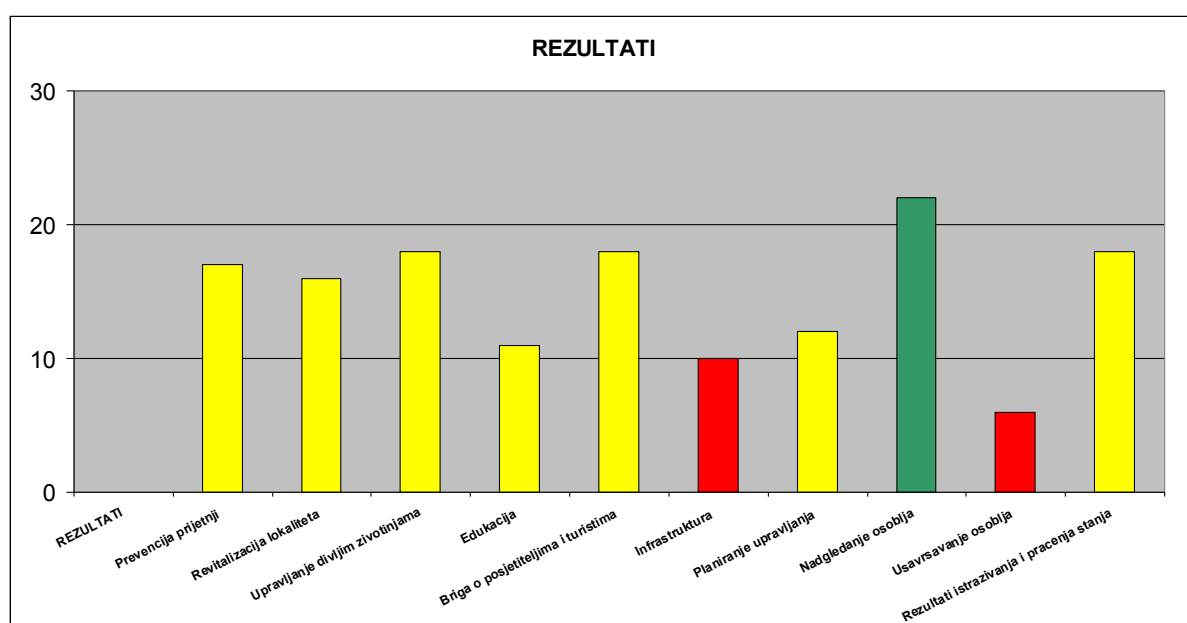


Figure 29. The overview of results in protected areas

We can see the results for the past 2 years from the Figure 26.

Results in the Figure were given from 0 to 30 points, but only one of the data crossed the line of 20 points (green) and that refers to staff monitoring. Infrastructure and staff training got the lowest number of points (red) by the managers and there are justifiable indicators for such results.

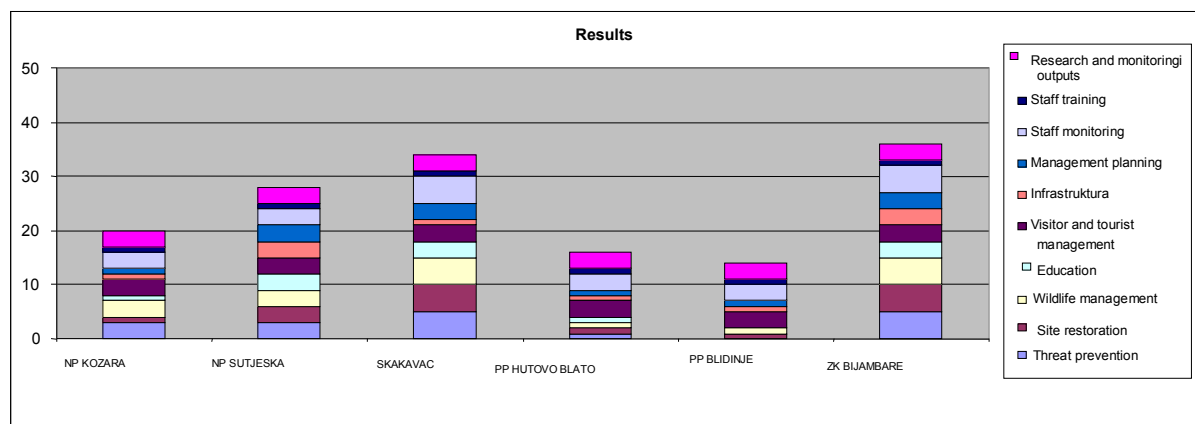


Figure 30. The overview of results in protected areas

Threat prevention

Bijambare Protected landscape and Skakavac Natural Monument do not have problems with illegal logging, hunting and fishing.

Good work in the field does not give results in Blidinje Nature Park. It may be seen through 186 charges that have been filed but not processed. Similar situation may be found in Hutovo blato Nature Park.

Kozara National Park and Sutjeska National Park marked this question with - mostly yes.

Site restoration

In the past two years all Protected Areas have planned site restoration, but each PA answered differently.

Bijambare Protected landscape and Skakavac Natural Monument – yes,

Kozara National Park – mostly yes – problem of overgrowing meadows

Sutjeska National Park – mostly yes

Hutovo blato Nature Park – mostly no; there has been no method to solve the waterway problem in the past two years,

Blidinje Nature Park – no.

Wildlife management

Bijambare Protected landscape and Skakavac Natural Monument – yes,

Kozara National Park and Sutjeska National Park – mostly yes

Hutovo blato Nature Park and Blidinje Nature Park have poaching problems. In Blidinje poachers have been noticed to enter the park from the direction of Albania municipality, and gamekeepers are helpless.

Education

Needed by all.

Visitor and tourist management

All managers said - mostly yes. Trained staff is needed to raise visitor and tourist management to a higher level.

Infrastructure

Everyone agreed that there ought to be further investments into infrastructure which will result in better functioning of Protected Areas in all segments.

Management planning

Hutovo blato Nature Park, Blidinje Nature Park and Kozara National Park – mostly no, because lack of funds.

Bijambare Protected landscape, Skakavac Natural Monument and Sutjeska National Park – mostly yes.

Staff monitoring

All managers generally monitor their staff.

Staff training

There is a great need for continuous staff training in all Protected Areas.

Research and monitoring outputs

All PA do status research and monitoring, some in collaboration with faculties, other with their employees and through projects implemented in the field.

Overall Protected Areas Management Effectiveness

Main assessment results have been presented, along with management effectiveness and threats and pressures with which they face, also possibilities and weaknesses have been determined.

The Figure below shows overall management effectiveness for all 6 Protected Areas included in this assessment.

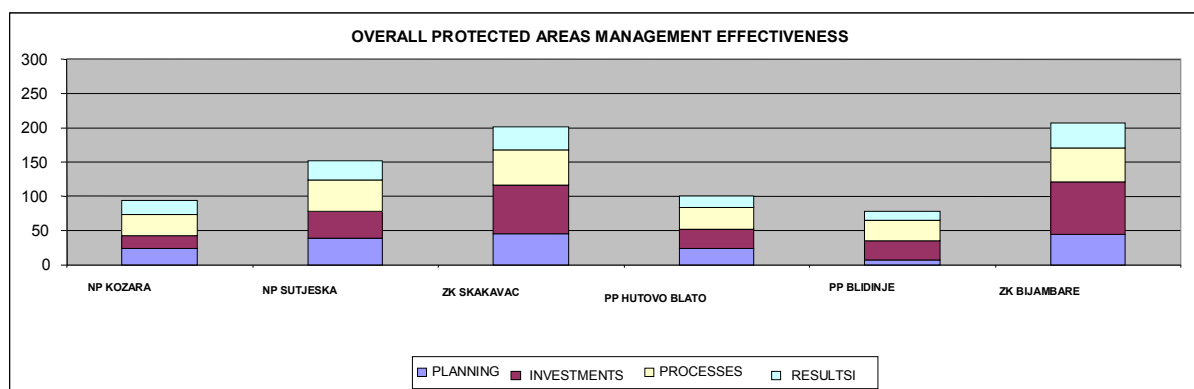


Figure 31. Overall protected area management effectiveness

Detailed results for each set of questions will be shown in graphical form with explanations. Scoring is as follows: „yes“=5; „mostly yes“=3; „mostly no“=1; and „no“=0.

5 points does not necessarily mean that there are no problems whatsoever, and 0 points does not mean that there are no good sides. Points show advantages and weaknesses in general.

Under pressures and threats we did not cover the following:

- Sutjeska National Park has a problem with solid waste management
- Blidinje Nature Park also has a problem with construction waste management, remaining after construction of numerous cottages
- **Hutovo blato Nature Park is the most vulnerable (wetland) eco-system and so there are numerous pressures and threats of high intensity and serious consequences.**

4. ABSTRACT

Protected Areas Management Effectiveness in Bosnia and Herzegovina was assessed through use of RAPPAM methodology in January 2009. The project was implemented in collaboration with the Federal Ministry of Environment and tourism and WWF Mediterranean Programme Office, including 2 National Parks, 1 Protected Landscape, 1 Natural Monument and 2 Nature Parks.

Pressures and threats

Pressures and threats are particularly prominent in unsolved property-right relations, fire protection, invasive alien species, hunting and fishing, plant succession, conversion in land use and water management. Pressures and threats differ in level and intensity in different types of protected areas. The workshop participants believe that pressures to Protected Areas in cases of fire protection, invasive alien species, hunting and fishing (illegal), and plant succession are not likely to decrease significantly to the level of threats, so particular attention should be paid on them in the future.

Planning

On the system level we may draw a conclusion that the managers showed the highest level of security regarding definition of PA objectives, as well as certain problems with local communities, law enforcement resources and use of land in and around PA.

It was stressed that PA are not interconnected.

Investing

According to the data gathering we may conclude that there are certain problems in investments and employment, as well as in communication. The most prominent problems were observed in infrastructure in all Protected Areas. On the subject of finances, the majority of managers think that financial stability is doubtful.

Present situation in Protected Areas in Bosnia and Herzegovina results from the recent war and destroying of infrastructure, including Protected Areas, as well as from lack of strong economy which would invest into development and enhancement of Protected Areas.

Processes

According to the indicators we may conclude that there are certain problems in planning and management regarding problem solving strategy because certain Protected Areas do not have Management and Financing Plans. It is also obvious that there are certain problems with local communities regarding decision making. Local communities are not well informed

and do not participate actively in decision making. In status survey and monitoring, use of resources is clearly accentuated, while all other question got low marks from the managers.

Results

The results are not satisfying in the past two years. Only one of the results - staff monitoring may be said to have fulfilled the RAPPAM methodology requirements, whereas infrastructure and staff training received the lowest marks from the managers. Three periods of Protected Areas promulgation may be identify in Bosnia and Herzegovina (before the war, immediately after the war and recent). Present situation in all Protected Areas corresponds to the time of promulgation according to numerous indicators processed in the RAPPAM Questionnaire. Likewise, there are several levels of legislative power, as well as several founders of individual Protected Areas which should care for them. Presently, some Protected Areas receive all funding from their founders budget on time, whereas others don't. This situation depends on the financial power of county/canton. One of the biggest obstacles to PA progress and development is lack of roof Act on Nature Protection on the level of the Federation of Bosnia and Herzegovina, roof professional agency for protection and lack of networking and efficient communication among Protected Areas, which only exists on individual level at the moment. Apart from the above mentioned, there are other problems (comprised by the Questionnaire) which make work on promulgation of new Protected Areas, as well as enhancement in work of those already existing, very difficult.

5. RECOMMENDATIONS

The recommendations are based on the analysis of protected areas status, and conclusions on future actions needed to mitigate and remove pressures and threats to protected areas.

- Ownership legal issues

Acts on proclamation of protected areas mostly do not have a list of registered property plots within protected areas, which is why they can not be entered in Land Register Books. Most of protected areas do not have spatial plans, and therefore protected area borders are not precise and not marked either. Solution of the problem should be sought through cooperation among ministries responsible for environment, spatial planning and justice in both entities, and among regional/cantonal ministries and bureaus responsible for geodesy and ownership legal issues.

- Consult with bodies responsible for land use and the key stakeholders, and seek solutions on land register problems on protected areas

- Fire prevention and control
- Identification of priority actions in fire prevention and control on protected areas, with of Ministry of Interior, and Department of Civil Protection in both entities. It is recommended to secure financial funds for technical assets, employment, salaries and training for both fire-fighters and employees within protected areas.

- Establishment of an integrated fire prevention and control programme for protected areas
- Vegetation succession and invasive species management

In order to improve management of agricultural land and to reduce pasture, meadow and grassland vegetation being overgrown by forest, the responsible institutions at all levels should define priority actions. Prevention and monitoring of invasive species should be defined by entity ministries and conducted in collaboration with NGOs, Plant Protection Society, local authorities units and nature protection ministries.

- Public enterprises that manage protected areas that have grassland habitats should consider other means of use of pastures than through authorized concessions.

- Water Management,

Collaboration among public enterprises that manage protected areas, and ministries of energy, mining and industry of both entities, and regional/cantonal ministries and agencies responsible for integrated river basin management, and hydropower plants, should be improved.

Following actions are recommended:

- Develop integrated river basin management plans with nature protection measures, and ensure their implementation through a coordinated action of all sectors
- Encourage development and implementation of joint work programmes for public enterprises that manage protected areas, and institutions that manage river basins.

Capacity building in protected area management

Level of employment is insufficient for an effective management in most of the parks, which is mostly the consequence of insufficient financial funds in the state budget and public enterprises' income. Also, the structure of current staff is inadequate.

Public enterprises that manage protected areas are encouraged to develop management plans, including the analyses of actual staffing requirements and number of employees. Based on the analyses, new systematization of work positions should be developed as a part of a new protected area policy that would lead to improved management efficiency.

Table 3. Overview of RAPPAM recommendations

Number	Recommendation	Responsible organization	Implementing organization	Time-period
1. Water Management				
	- Develop integrated river basin management plans with nature protection measures -Improve MP implementation through collaboration of key sectors.	Ministry of Agriculture, Water Management and Forestry – both entities	Agency for river basins, entity ministries., Public Enterprises	Priority
1.2	Encourage development and implementation of joint work programmes for public enterprises of protected areas and other institutions that manage river catchments.	Ministry of Agriculture, Water Management and Forestry – both entities	Agency for river basins, Public Enterprises	Priority
2. Vegetation Succession and Invasive Species				
2.1	Public enterprises which manage protected areas are advised to enable use of pastures and meadows through concessional authorization, or by some other means.	Public Enterprises of Protected Areas	Regional/Cantonal Ministries	Priority
3. Registration of ownership				
3.1	Consult with authorized bodies and property shareholders towards land ownership registration	Public Enterprises (Protected Areas)	Public Enterprises (Protected Areas), Regional/Cantonal Ministries	Short-term
3.2	Create a list of priorities		Public Enterprises (Protected Areas), Entity/Regional/Cantonal Ministries	Short-term
4. Fire Prevention and Control				
4.1	Establishment of an integrated fire prevention	Entity ministries	Public Enterprises (Protected Areas),	Priority

Number	Recommendation	Responsible organization	Implementing organization	Time-period
	and control programme for protected areas		Entity/Regional/Cantonal Ministries	
5. Capacity Building				
5.1	PA staffing policy and plan	Public Enterprises (Protected Areas)	Public Enterprises (Protected Areas), Regional/Cantonal Ministries	Priority
5.2	Analysis and new systematization of positions in PAs	Public Enterprises (Protected Areas)	Public Enterprises (Protected Areas), Regional/Cantonal Ministries	Short-term

Federal Ministry of Environment and Tourism will include RAPPAM analysis results in regular reports to CBD Secretariat.

ANNEXES

ANNEX 1.

RAPPAM QUESTIONNAIRE

WWF

RAPID ASSESSMENT AND PRIORITIZATION OF PROTECTED AREA MANAGEMENT (RAPPAM) METHODOLOGY

RAPID ASSESSMENT QUESTIONNAIRE

BACKGROUND INFORMATION

1 BACKGROUND INFORMATION

- a) Name of protected area.....
- b) Date established.
- c) Size of protected area.
- d) Name of respondent.
- e) Date survey completed.....
- f) Annual budget.
- g) Specific management objectives.
.....
.....
- h) Critical protected area (PA) activities).
.....
.....
.....

PRESSURES AND THREATS

2. PRESSURES AND THREATS

Pressure.

.....

.....

☐ Has ☐ Has not been a pressure in the last 5 years

In the past 5 years this activity has.

- ☐ Increased sharply
- ☐ Increased slightly
- ☐ Remained constant
- ☐ Decreased slightly
- ☐ Decreased sharply

The overall severity of this pressure over the past 5 years has been.

Extent

- ☐ Throughout (>50%)
- ☐ Widespread (15-50%)
- ☐ Scattered (5-15%)
- ☐ Localized (<5%)

Impact

- ☐ Severe
- ☐ High
- ☐ Moderate
- ☐ Mild

Permanence

- ☐ Permanent (>100 years)
- ☐ Long term (20-100 years)
- ☐ Medium term (5-20 years)
- ☐ Short term (<5 years)

Threat.

.....

.....

☐ Will ☐ Will not be a threat in the next 5 years

The probability of the threat occurring is.

- ☐ Very high
- ☐ High
- ☐ Medium
- ☐ Low
- ☐ Very low

The overall severity of this threat over the next 5 years is likely to be.

Extent

- ☐ Throughout (>50%)
- ☐ Widespread (15-50%)
- ☐ Scattered (5-15%)
- ☐ Localized (<5%)

Impact

- ☐ Severe
- ☐ High
- ☐ Moderate
- ☐ Mild

Permanence

- ☐ Permanent (>100 years)
- ☐ Long term (20-100 years)
- ☐ Medium term (5-20 years)
- ☐ Short term (<5 years)

1. Forest management
2. Invasive alien species
3. Hunting and fishing
4. Unsettled disputes regarding land tenure and use rights
5. Conversion of land use
6. Water management
7. Wastewaters
8. Tourism and recreation
9. Mining
10. Vegetation succession
11. Waterway management
12. Fire management

CONTEXT

3. BIOLOGICAL IMPORTANCE				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The PA contains a relatively high number of rare, threatened, or endangered species.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) The PA has relatively high levels of biodiversity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) The PA has a relatively high degree of endemism.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) The PA provides a critical landscape function.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The PA contains the full range of plant and animal diversity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) The PA significantly contributes to the representativeness of the PA system.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) The PA sustains minimum viable populations of key species.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) The structural diversity of the PA is consistent with historic norms.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) The PA includes ecosystems whose historic range has been greatly diminished.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) The PA maintains the full range of natural processes and disturbance regimes.

4. SOCIO-ECONOMIC IMPORTANCE				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The PA is an important source of employment for local communities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Local communities depend upon the PA resources for their subsistence.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) The PA provides community development opportunities through sustainable resource use.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) The PA has religious or spiritual significance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The PA has unusual features of aesthetic importance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) The PA contains plant species of high social, cultural, or economic importance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) The PA contains animal species of high social, cultural, or economic importance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) The PA has a high recreational value.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) The PA contributes significant ecosystem services and benefits to communities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) The PA has a high educational and/or scientific value.

5. VULNERABILITY				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) Illegal activities within the PA are difficult to monitor.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Law enforcement is low in the region.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Bribery and corruption is common throughout the region.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) The area is experiencing civil unrest and/or political instability.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Cultural practices, beliefs, and traditional uses conflict with the PA objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) The market value of the PA resources is high.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) The area is easily accessible for illegal activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) There is a strong demand for vulnerable PA resources.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) The PA manager is under pressure to unduly exploit the PA resources.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) Recruitment and retention of employees is difficult.

PLANNING

6. OBJECTIVES				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) PA objectives provide for the protection and maintenance of biodiversity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Specific biodiversity-related objectives are clearly stated in the management plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Management policies and plans are consistent with the PA objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) PA employees and administrators understand the PA objectives and policies.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Local communities support the overall objectives of the PA.

7. LEGAL SECURITY				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The PA has long-term legally binding protection.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) There are no unsettled disputes regarding land tenure or use rights.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Boundary demarcation is adequate to meet the PA objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Staff and financial resources are adequate to conduct critical law enforcement activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Conflicts with the local community are resolved fairly and effectively.

8. SITE DESIGN AND PLANNING				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The siting of the PA is consistent with the PA objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) The layout and configuration of the PA optimizes the conservation of biodiversity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) The PA zoning system is adequate to achieve the PA objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) The land use in the surrounding area enables effective PA management.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The PA is linked to another area of conserved or protected land.

INPUTS

9. STAFFING				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The level of staffing is sufficient to effectively manage the area.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Staff members have adequate skills to conduct critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Training and development opportunities are appropriate to the needs of the staff.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Staff performance and progress on targets are periodically reviewed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Staff employment conditions are sufficient to retain high-quality staff.

10. COMMUNICATION AND INFORMATION				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) There are adequate means of communication between field and office staff.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Existing ecological and socio-economic data are adequate for management planning.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) There are adequate means of collecting new data.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) There are adequate systems for processing and analysing data.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) There is effective communication with local communities.

11. INFRASTRUCTURE				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) Transportation infrastructure is adequate to perform critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Field equipment is adequate to perform critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Staff facilities are adequate to perform critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Maintenance and care of equipment is adequate to ensure long-term use.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Visitor facilities are appropriate to the level of visitor use.

12. FINANCES				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) Funding in the past 5 years has been adequate to conduct critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Funding for the next 5 years is adequate to conduct critical management activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Financial management practices enable efficient and effective PA management.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) The allocation of expenditures is appropriate to PA priorities and objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The long-term financial outlook for the PA is stable.

PROCESSES

13. MANAGEMENT PLANNING				
y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) There is a comprehensive, relatively recent written management plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) There is a comprehensive inventory of natural and cultural resources.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) There is an analysis of, and strategy for addressing, PA threats and pressures.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) A detailed work plan identifies specific targets for achieving management objectives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The results of research and monitoring are routinely incorporated into planning.

14. MANAGEMENT DECISION MAKING

y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) There is clear internal organization.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Management decision making is transparent.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) PA staff regularly collaborate with partners, local communities, and other organizations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Local communities participate in decisions that affect them.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) There is effective communication between all levels of PA staff and administration.

15. RESEARCH, EVALUATION, AND MONITORING

y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The impact of legal and illegal uses of the PA are accurately monitored and recorded.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Research on key ecological issues is consistent with the needs of the PA.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Research on key social issues is consistent with the needs of the PA.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) PA staff members have regular access to recent scientific research and advice.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Critical research and monitoring needs are identified and prioritized.

OUTPUTS

16. OUTPUTS

In the last 2 years, the following outputs have been consistent with the threats and pressures, PA objectives, and annual workplan.

y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) Threat prevention, detection and law enforcement.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) Site restoration and mitigation efforts.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Wildlife or habitat management.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Community outreach and education efforts.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) Visitor and tourist management.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) Infrastructure development.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) Management planning and inventorying.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) Staff monitoring, supervision, and evaluation.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) Staff training and development.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) Research and monitoring outputs.

PROTECTED AREA SYSTEM-LEVEL

17. PROTECTED AREA SYSTEM-LEVEL DESIGN

y	m/y	m/n	n	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) The PA system adequately represents the full diversity of ecosystems within the region.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) The PA system adequately protects against the extinction or extirpation of any species.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) The PA system consists primarily of exemplary and intact ecosystems.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) Sites of high conservation value for key species are systematically protected.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) The PA system maintains natural processes at a landscape level.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) The PA system includes the protection of transition areas between ecosystems.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) The PA system includes the full range of successional diversity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) Sites of high biodiversity are systematically protected.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) Sites of high endemism are systematically protected.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) The layout and configuration of the PA system optimizes the conservation of biodiversity.

PROTECTED AREA POLICIES

18. PROTECTED AREA POLICIES				Notes
y	m/y	m/n	n	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) National PA policies clearly articulate a vision, goals, and objectives for the PA system.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) The area of land protected is adequate to maintain natural processes at a landscape level.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) There is a demonstrated commitment to protecting a viable and representative PA network.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) There is a comprehensive inventory of the biological diversity throughout the region.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) There is an assessment of the historical range of variability of ecosystem types in the region.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) There are restoration targets for under-represented and/or greatly diminished ecosystems.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) There is ongoing research on critical PA-related issues.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) The PA system is periodically reviewed for gaps and weaknesses (e.g. gap analyses).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) There is an effective training and capacity-building programme for PA staff.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) PA management, including management effectiveness, is routinely evaluated.

POLICY ENVIRONMENT

19. POLICY ENVIRONMENT				Notes
y	m/y	m/n	n	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a) PA-related laws complement PA objectives and promote management effectiveness.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b) There is sufficient commitment and funding to effectively administer the PA system.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c) Environmental protection goals are incorporated into all aspects of policy development.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d) There is a high degree of communication between natural resource departments.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e) There is effective enforcement of PA-related laws and ordinances at all levels.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f) National policies promote widespread environmental education at all levels.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g) National policies promote sustainable land management.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h) National policies promote an array of land conservation mechanisms.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i) There is adequate environmental training for governmental employees at all levels.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	j) National policies foster dialogue and participation with civic and environmental NGOs.

ANNEX 2.

Protected Areas addresses

1. Kozara National Park

Mr. Dragan Romčević

Adresa: Vuka karadžića 43, 79 101 Prijedor

Tel. + 387 52 211 169, 240 220

Fax: + 387 52 232 640

www.npkozara.com

2. Sutjeska National Park

Mr. Zdravko Radović

Adresa: NP Tjentište 73 311

Tel.: + 387 65 956 416

Fax: + 387 58 233 114; 220 190

E-mail: sutjeska@teol.net

www.npsutjeska.com

3. Bijambare Protected landscape

Mrs. Elma Karović

Adresa: Sarajevo – šume d.o.o. Ul. Maršala Tita br. 7

71 000 Sarajevo

Tel. + 387 33 219 172

Fax: + 387 33 219 172

www.biambare.com

4. „Skakavac“ Natural Monument

Mrs. Elma Karović

Adresa: Sarajevo – šume d.o.o. Ul. Maršala Tita br. 7

71 000 Sarajevo

Tel. + 387 33 219 172

Fax: + 387 33 219 172

5. „Hutovo blato“ Nature Park

Mr. Nikola Zovko

Adresa: Karaotok bb; 88 307 Višići; Čapljina

Tel. + 387 36 814 716

Fax: + 387 36 814 715

E-mail: niikola.zovko.karaotok@tel.net.ba

www.hutovo-blato.com

6. „Blidinje“ Nature Park

Mr. Mato Anđelić

Adresa: Masna Luka p.p 29. 88 240 Posušje

Tel. + 387 39 718 514

Fax: + 387 39 718 515

E-mail: blidinje@tel.net.ba

ANNEX 3.

Acronyms and Abbreviations

NP	National Park
ZK	Protected landscape
SP	Natural Monument
PP	Nature Park
PA	Protected Area
NDF	Neretva Delta Forum

ANNEX 4.

Participant comments on draft version of the report

Šalje: "Kos Vinko" <kos.vinko@npkozara.com>

Prima: <nikola.zovko.karaotok@tel.net.ba>

Predmet: Odgovor

Datum: 23. travanj 2009 12:09

We do not have any remarks to the Report from the workshop held in January 2009 in Hutovo blato Nature Park.

Regards.

_____ Information from ESET Smart Security, version of virus signature database 4029 (20090422) _____

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<http://www.eset.com>