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Sustainable Financing Review for Croatia Protected Areas

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For and on behalf of
Environmental Resources Management

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1 INTRODUCTION

1.1 BACKGROUND

Croatia will be joining the European Union (EU) in the near future. EU Accession has strict environmental requirements to participate in an expanded ecological network, entitled 'Natura 2000', beyond the core National and Nature Parks to be protected and aligned with EU Directives based on habitat and species composition.

The EU Habitats and Birds Directives require better management of natural resources, new approaches for public and private collaboration, and a sustainable method to finance the expansion of protected areas. In accordance with its Nature Protection Act (NPA), the Croatian Government has designated an ecological network that features a system of ecologically important areas and ecological corridors. This network includes 1,550 sites important at the national and European level to conserve species and habitats. This includes around 1000 potential Natura 2000 sites covering over 250 species and 70 habitat types that occur in Croatia that are considered to be of EU importance.

Unfortunately, like many countries, Croatia is running a government budget deficit. This has been exacerbated by the global economic downturn, with the Croatian Parliament reducing proposed annual expenditure by HRK 5.4 billion to 121.5 billion(1) for 2010. In addition, conforming to EU environmental requirements will only exacerbate the burden. Thus there is a need to collect information on successful financial management practices in nature protection across Europe and to shed more light on alternative benefit valuation methods and revenue generating policy options to ensure an appropriate level of sustainable financing for Croatia's protected areas in the future.

This report represents one of three outputs produced by ERM Ltd (supported by Oikon and Pescares), commissioned by the World Bank that aims to help improve the financial management of biodiversity conservation in Croatia. This first output (i) involves a desk review on good practices in financing mechanisms and government commitment levels in the EU and elsewhere in the world.

The other two related outputs include: (ii) designing and conducting a tourist survey of preferences and the willingness to pay to protect nature and biodiversity in Croatia; and (iii) conducting a workshop to disseminate the results from the analysis in (i) and (ii), and, along with various stakeholders,

(1) http://www.worldbank.hr/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/CROATIAEXTN/0,,contentMDK:20150212~menuPK:301252~pagePK:141137~piPK:141127~theSitePK:301245,00.html

formulating alternative protected area management options. These are reported separately.

1.2 AIMS

The objective of this first task is to produce a paper that reviews international experience with financing protected areas (PAs) and, based on the Croatian context, identifies different schemes (prototypes) that can be applied, or explored, for financing nature protection in Croatia.

At the outset the intention was for the review to synthesize common practices in PA finance including:

1. Financing nature protection (public, private, and access charges);
2. A comparison of practices across countries of government financial contribution per hectare of protected land;
3. The range of tools used to allocate public financing to PA;
4. Review the current PA finance system in Croatia and identify strengths and weaknesses through a gaps analysis;
5. The balance between public finance and park revenues;
6. The extent of differentiation across parks or regions; and
7. The enabling framework for co-operation or co-finance with NGOs, civil society, or conservation funds.

The intention was to particularly review practices applied in other EU countries, but also draw upon best practice from other regions such as Latin America and the Caribbean.

1.3 APPROACH

The approach involved two visits to Croatia by an international consultant during June 2009, which included holding meetings (together with a local consultant) with the Ministry of Culture and personnel from the following eight protected area Public Institutions (PIs):

1. National Park Brijuni;
2. National Park Paklenica;
3. National Park Risnjak;
4. National Park Kornati;
5. Nature Park Lonjsko polje;
6. *Nature Park Papuk;
7. Public Institution in Šibensko-Kninska County; and
8. *Public Institution in Varaždinska County

All sites were also visited with the exception of the two indicated by a (*). In addition, a desk based literature review was undertaken that focussed on international elements. Brief consultation was also initiated with a number of organisations within Croatia. As further explained in Section 2, the assessment focuses on the three levels of PA within Croatia, namely: national

parks; nature parks; and public institutions at a County level. Further details on sustainable financing aspects for each of the eight sites can be found in *Annex A*.

1.4 STRUCTURE OF REPORT

Section 1 introduces the study.
Section 2 provides an overview of protected area financing in Croatia and identifies key problems and opportunities identified at each of the case study sites. The problems and opportunities are split into 7 topics that are used to structure the remaining sections.
Section 3 is an international review of protected area financing that seeks to explore best practice for the 7 topics.
Section 4 identifies some potential prototypes for further consideration in Croatia.
Section 5 concludes with some recommendations for further actions and studies to enhance the sustainable financing of PAs in Croatia, drawing upon the findings of *Sections 2 – 4*.

1.5 WHAT DO WE MEAN BY SUSTAINABLE FINANCE

IUCN defines PA financial sustainability as the '***capacity to secure stable and sufficient long-term financial resources, and to allocate them in a timely manner and appropriate form, to cover the full costs of PAs (both direct and indirect) and to ensure that PAs are managed effectively and efficiently with respect to conservation and other objectives***' (IUCN, 2006).

This definition touches upon several aspects related to sustainability of financial resources which are not limited to the origin or source of incoming funds. The volume of funds is certainly an important and necessary condition for PAs to be managed effectively, but international experience shows this is rarely sufficient. In addition to raising more funds, there is a need to address the quality, form, timing and duration, targeting and sourcing of financial resources. When we assess PA financial sustainability, therefore, we must consider a range of elements and issues, including:

- **Building a diverse, stable and secure funding portfolio:** minimizing funding risks and fluctuations.

- **Improving financial administration and effectiveness:** ensuring that funding is allocated and spent in a way that supports PA finance needs and conservation goals.

- **Taking a comprehensive view of costs and benefits:** covering the full range of PA costs, ensuring that those who bear PA direct, indirect and opportunity costs are recognised and adequately compensated, and that those who benefit from PAs make a fair contribution to their maintenance. In addition, PA authorities are increasingly expected to

justify their budgets in terms of benefits provided to local communities and the national economy.

- **Creating an enabling financial and economic framework:** overcoming market, price and policy distortions that undermine PAs or act as obstacles to PA financing.

- **Mainstreaming and building capacity to use financial tools and mechanisms:** factoring financial analysis and business planning mechanisms into PA planning processes.

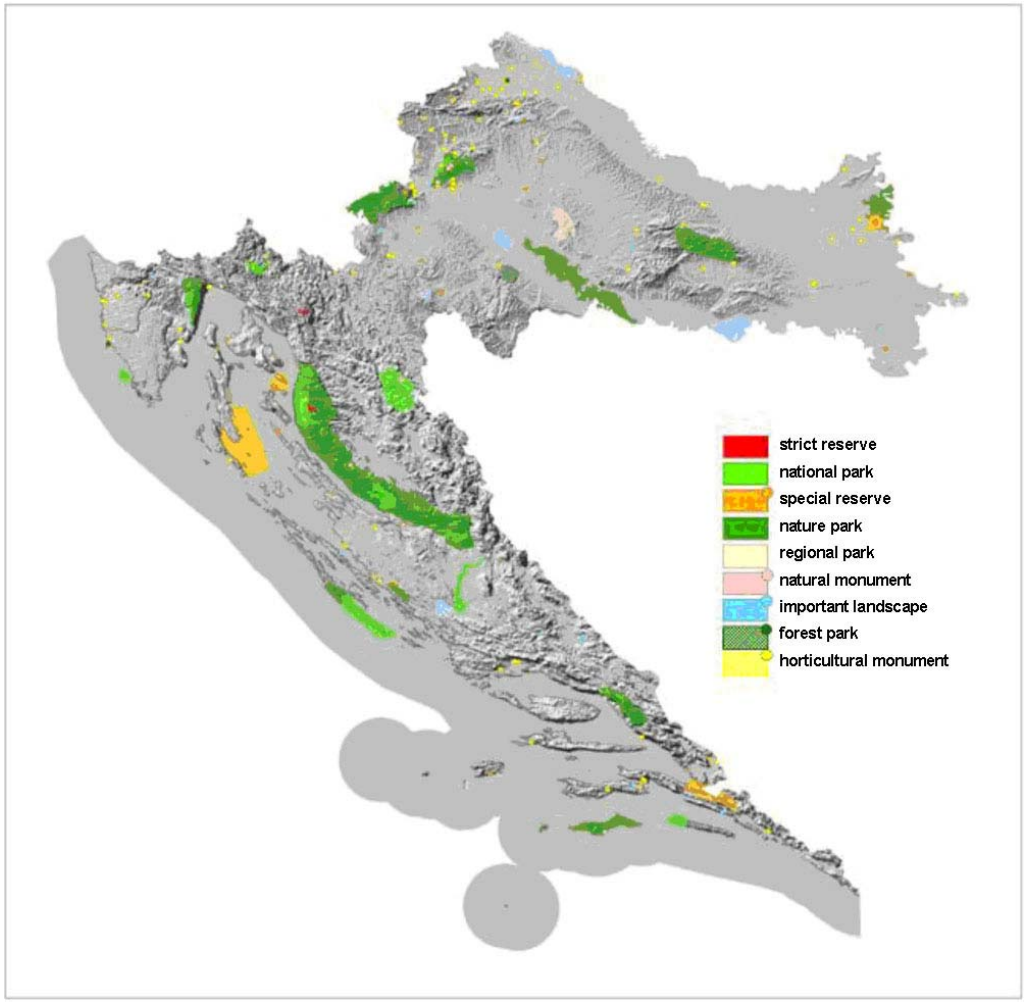
2 PA FINANCING IN CROATIA

2.1 CATEGORIES OF PROTECTED AREAS IN CROATIA

There are various categories of protected area in Croatia protected through the Law on Nature Protection. The Law provides for special protection of particularly valuable parts of both living and non-living nature that covers: national parks, nature parks, special reserves, strict reserves, important landscapes, regional parks, forest parks, monuments of nature, horticultural monuments and monuments of park architecture. Figure 2.1 shows the distribution of PAs in Croatia, whilst highlights the number and relative areas of each category.

For the purposes of this study, and as specified in the ToR, we only consider three PA categories: i) national parks; ii) nature parks and iii) County level protected areas.

Figure 2.1 Distribution of Protected Areas in Croatia



Source: GIS database of the State Institute for Nature Protection

Table 2.1 Number and Areas of Protected Area in Croatia

Category	No. PAs	No. AuPP	No. TPA	Land (km²)	Sea (km²)	Total (km²)
Strict reserve	2	0	2	24.0	0	24.0
National park	8	0	8	742.6	218.8	961.4
Special reserve	79	4	83	317.5	535.9	853.3
Nature park	11	0	11	4,063.2	179.0	4,242.2
Regional park	0	2	2	1,600.0	0	1,600.0
Natural monument	115	1	116	3.8	0	3.8
Important landscape	77	3	80	909.6	0	909.6
Forest park	36	2	38	89.1	0	89.1
Monument of park architecture	121	1	122	9.6	0	9.6
TOTAL	**449**	**13**	**462**	**7,637.6**	**1,055.1**	**8,692.7**
Districts within protected areas				1,205.2		1,205.2
TOTAL				**6,432.4**	**1.055.1**	**7,487.5**
Percentage share of protected areas in Croatia's territory				**11.4** %	**3.4** %	**8.5** %

Source: Register of Protected Natural Assets, status as of 20 February 2009.
PA – protected areas, AuPP – areas under preventive protection, TPA – total protected areas.
Note: all data from source, which does not appear to add up.

2.1.1 National Parks

There are eight national parks in Croatia, which are defined as ***'A large, predominantly unaltered area of land and/or sea characterised by exceptional and varied natural assets, comprising one or several preserved or predominantly unaltered ecosystems, and is primarily set aside for the conservation of original natural assets. A national park is intended for scientific, cultural, educational and recreational purposes.'*** (The Nature Protection Act 2005).

Catering, tourist and recreational activities in connection with visiting and touring, as well as farming, fishery and craft in a traditional way, are permitted as long as the authenticity of nature in the park is conserved. No

extractive activities are permitted in these parks, so they are effectively strict 'no take' areas.

There are a few people that live in Croatian national parks, but their numbers are generally limited. Their total area is 994 km²; of which 759 km² is land and 235 km² is water. They range in size from 3,395 ha (Brijuni, an island) to 29,482 ha Plitvička Jezera (Plitvice Lakes).

These parks are run relatively autonomously by Public Institutions established at each site by the Croatian Government managed under the auspices of the Ministry of Culture. The first established was Plitvice Lakes in 1949, the last was Sjeverni Velebit (Northern Velebit) in 1999.

2.1.2 Nature Parks

There are eleven nature parks in Croatia, and are defined as '***A large natural or partly cultivated area of land and/or sea distinguished by ecological features of international and national importance with marked landscape, educational, cultural-historical or tourist-recreational values. Business and other activities and acts which do not pose a threat to its essential characteristics and role shall be permitted.***' (The Nature Protection Act 2005).

As such, extractive activities such as mining and forestry are permitted in nature parks. Due to their size and types of activity permitted, some tend to encompass villages and small towns. Nature parks in Croatia range in size from 5,700 ha (Vransko Jezero (Vransko Lake) to 200,000 ha (Velebit, comprising most of Velebit mountain range and karst river valley). Most of the others are around 15,000 to 50,000 ha.

These parks are also run relatively autonomously by Public Institutions established at each site by the Croatian Government managed under the auspices of the Ministry of Culture. The first established was Kopački rit (a flood plain) in 1967, and the most recent was Lastovo Archipelago Nature Park in 2006. Papuk (a mountain area), together with three other sites, were designated in 1999.

2.1.3 Protected Areas managed at a County level

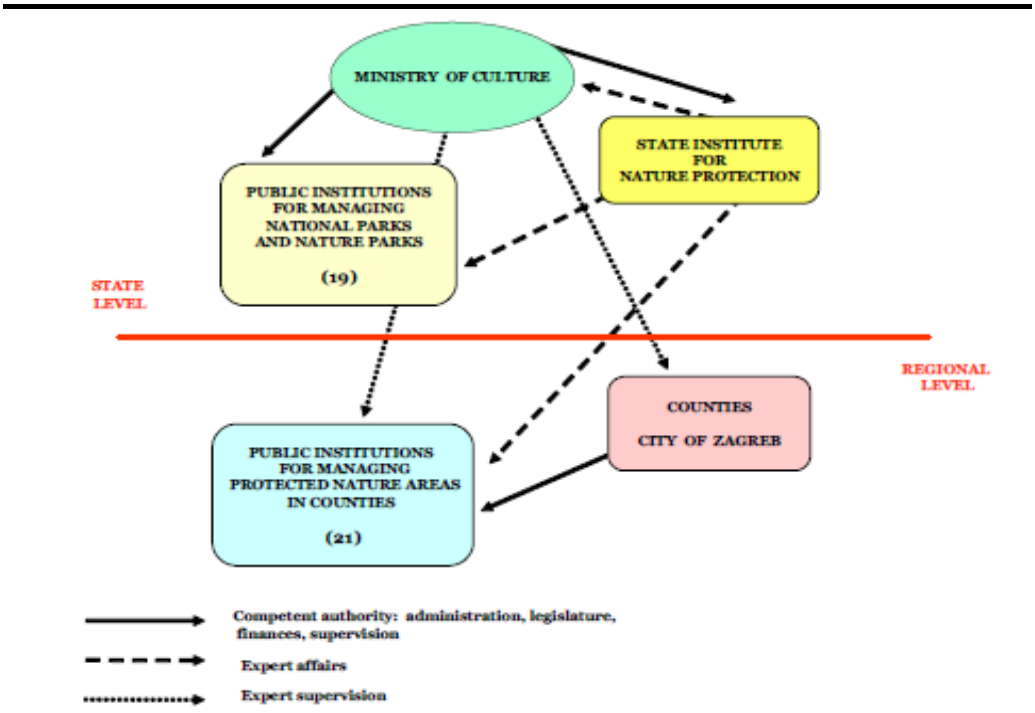
The third category used in this study is that of 'County managed protected areas'. These include: special reserves, strict reserves, important landscapes, forest parks, monuments of nature and monuments of park architecture. These sites are managed and promoted at a regional level by County Public Institutions (part of County level Administration). These sites comprise a complete mix of size and importance, and include many sites of Croatian Ecological Network that will never get many visitors. In addition, in the future, many Croatian Ecological Network sites will become Natura 2000 sites

2.2 *CURRENT PA RELATED ORGANIZATIONAL ARRANGEMENTS*

The Government reorganization following the elections in 2003 led to the Directorate for Nature Protection being moved from the Ministry of Environment to the Ministry of Culture (MoC). Figure 2.2 illustrates the current overall lines of responsibility with respect to managing protected areas in Croatia. It clearly highlights the national and regional level responsibilities.

The Directorate for Nature Protection is the competent authority that directly manages and control the Public Institutions established to run all national and nature parks, with respect to administration, finances and legislation. The Counties have the same authority and responsibilities with respect to the County Public Institutions established to manage all 'other protected areas'. Twenty Counties have so far established protected area Public Institutions (out of twenty one Counties).

Figure 2.2 Current Administrative Arrangement for PAs in Croatia



Source: Ministry of Culture

The Directorate for Nature Protection comprises five Departments, as follows.

- Department for Protection of Biological and Landscape Diversity;
- Department for Sustainable Use of Natural Resources;
- Department for Strategic Planning in Nature Protection and EU Integration;
- Department for Protected Areas; and

- Department for Inspection and Legal Affairs in Nature Protection Areas.

The State Institute for Nature Protection (SINP) is a public institution established in 2002 (Official Gazette No. 126/02). It is subordinate to the Ministry for Culture, governed by a management board, and managed by a government appointed director. SINP undertakes the more scientific activities related to nature protection, providing expert advice and input to all types of PA.

2.3 CURRENT PA FINANCING APPROACH

2.3.1 Overview for both National and Nature Parks

National and nature parks are funded by a mix of national Government budget, their own self generated income, and various other sources such as international aid and donations. Self generated income is predominantly derived from visitor fees, as well as concessions for recreational activities, and at some sites from hotels, restaurants and camping areas owned by the park Public Institutions. 100% of entrance fees for all national and nature parks stay within the park finances. The vast majority of national, and all nature parks in Croatia require some financial assistance from the MoC through the annual budgeting process.

The annual budgeting process includes what is known as the 'Annual program for protection, maintenance, conservation, promotion and use of protected areas'. This covers the material costs of work that the parks require, and a separate process determines salaries and other associated costs for running the parks. The overall annual budgeting process involves each PI requesting budget from the MoC, which is then reviewed by the MoC. Depending on the amount requested and reasons for the request, the PIs receive either part of, or their entire request.

A total of HRK 94,845,678 (12.3 million Euros or US$ 19 million) was allocated for nature protection activity in the State Budget for 2008 (Ministry of Culture, 2008). Of this, 44 million was used for the administration and management of national parks, nature parks and SINP; 17 million was used for construction, maintenance and equipment relating to visitor infrastructure; 13 million to assist the establishment of the "Natura 2000" network (EU Phare project); 10 million for nature protection (eg scientific research and inventory listing to ensure good quality data for drafting management plans); 2 million for compensation caused by protected animals; and 1 million for fire protection.

Figure 2.3 shows how overall expenditure from the MoC has varied over the past five years, whilst *Figure 2.4* illustrates what proportion of the State budget this represents (SINP, 2008).

Figure 2.3 Summary of MoC PA expenditure between 2003 and 2007

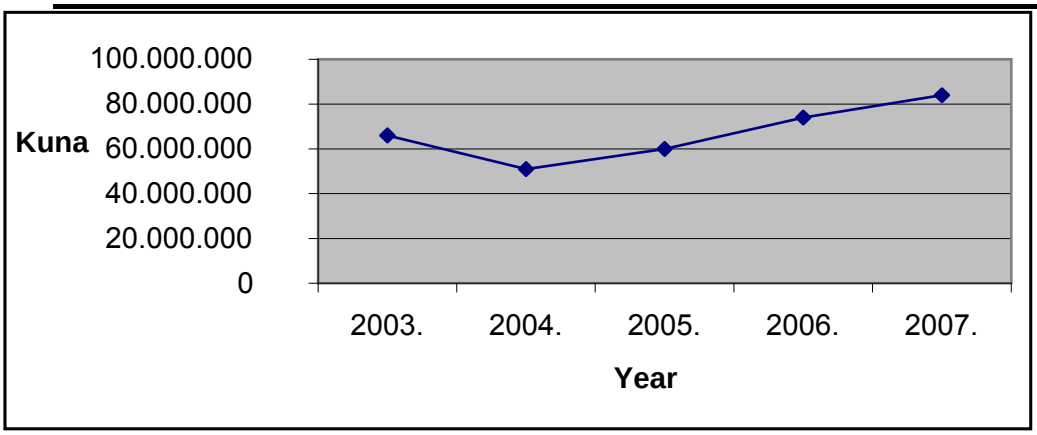
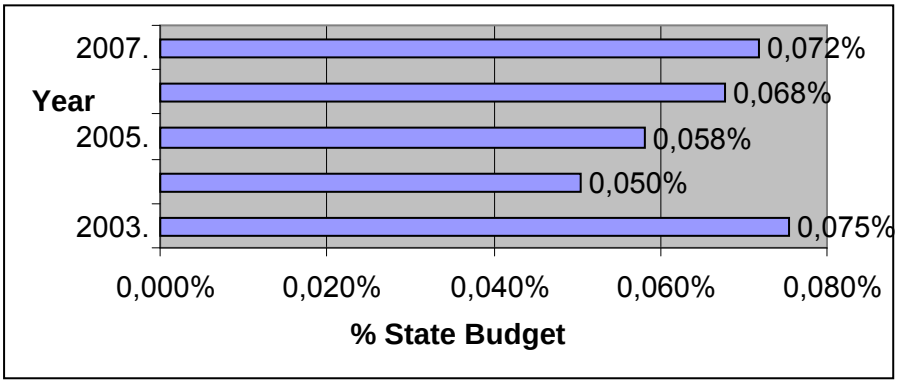


Figure 2.4 PA Finance in Croatia as a Percentage of State Budget



There are strict regulations regarding how different revenues can be used within national and nature parks, supervised by the MoC and Ministry of Finance. The MoC annual program specifically allocates funds for employee salaries, utility costs and capital costs. It also contains a price list to be adhered to for services related to use of protected natural assets.

Self generated revenues from: i) primary activities of the public institution (entrance tickets, filming, etc.); ii) scientific, research and expert activities; iii) renting of space and equipment; and iv) donations, subsidies, and other kind of assistance, must all be used in accordance with the 'Decision on Criteria and Ways of Using Own Revenues of the Public Institutions in Culture and Nature Protection' (Official Gazette No. 141/04). According to this Decision, around 15% of the funds should be used for 'assets', and 30% for 'investments'. 35% could be used for salaries of employees of the public institution.

Revenues from **concession approvals** (ie non-extractive commercial activities) are the income of the public institution and are designated for nature

protection activities. Public institutions may grant concession approvals for a period of three years to legal or natural persons registered for '***craft trade for the economic use of natural resources or exercising other activities in a protected area***'. The concession approval conditions and method of establishing the amount of fee should be established by the public entity, subject to the approval of the Ministry (Nature Protection Act – Official Gazette No. 70/05).

Revenues from **concessions** (ie for extractive uses such as mining and forestry) go to the Stage Budget if granted by the Parliament of the Republic of Croatia, Government or the Ministry (ie in nature and national parks), or to the County budget if granted by a competent body in the county (or City of Zagreb) (ie in other protected areas). Concessions can be granted for a period of four to thirty years which provides the '***right to economic use of natural resources or the right to exercising activities of interest for the Republic of Croatia, as well as the right to constructing and using installations and plants necessary for exercising such activities in protected areas***'. The Ministry of Culture needs to approve a concession except when it is granted by parliament or the Government. A concession should be granted by a public bidding procedure (Nature Protection Act – Official Gazette No. 70/05).

Revenues obtained from fines collected at the location of offence (in accordance with the offences listed in the 'Ordinance on Internal Order' of the particular Park and in the Nature Protection Act) are the income of the public institution and are designated for protection and promotion of the park. Some of the more substantial fines determined in courts go to the State Bbudget. Fines in the Nature Protection Act range from HRK 1,000 to 1 million (US$ 200 to 200,000) depending on the misdemeanour.

2.3.2 National Parks

Croatia's national parks tend to charge high entrance fees and manage to capture most visitors. Self generated fees at two parks (Krka and Plitvička jezera) are enough to cover the park's entire costs. However, the remaining national parks request and require additional state funding. In 2009, the 8 national parks requested HRK 10 million from the State budget for the annual program of nature conservation, of which 39% was approved. In 2008, HRK 15.1 million was requested with only 34% approved. A further HRK 1.7 and 1.5 million material and transport costs were also approved in 2008 and 2009 respectively. Budgets for park salaries are covered by a separate budget.

2.3.3 Nature Parks

Although they can legally charge entrance fees, the nature parks tend to find it difficult to actually charge entrance fees for general visitors. This is because many people live and work in the nature parks, because a number of roads

traverse the parks, or because many parks have borders with many entrances that are hard to control. In addition, charging all visitors will reduce the number of visitors, and some park managers do no consider all the options for charging visitors strongly enough. Consequently they tend to require more supporting finance from the State budget. In 2009, the 11 nature parks requested HRK 12.7 million from the State budget for nature conservation programs, of which 52 % was approved. In 2008, HRK 18.6 million was requested with 46 % approved. A further HRK 3.9 and 3.3 million material and transport costs were also approved in 2008 and 2009 respectively. Again, salaries are covered under a separate budget.

Some nature parks also appear to receive substantial finance from international aid (eg the EU and World Bank) for specific projects. However, they do not receive money from the sometimes extensive forest and mineral extractions concessions. These fees, which may be large, go directly to State and County Budgets.

The two case study nature parks appear to spend more time and effort encouraging and facilitating tourism related operators and tourists to visit rather than attempting to find ways to charge them. This is because there are currently relatively few visitors, and they currently want to attract more. They would also like to charge a visitor entrance fee if it was relatively easy to implement. They do, however, focus on offering and charging for specialist visitor groups and school groups (in term times), as these are easy to control. On the whole, it seems that they need more revenues, and assistance to help target and obtain EU and other international donor funds.

2.3.4 County managed protected areas.

The remaining protected areas are managed and promoted by County and municipality Public Institutions, which have to source all finance themselves. There are exceptions where sites are well visited and have entrance fees, and these sites tend to be managed independently by a municipality PI. The County PIs get no money from the National Government, and the sites (which include many Natura 2000 sites) do not generally get that many visitors. A few sites could potentially charge for visitors, but the potential appears limited. The County protected area sites appear to predominantly rely on inadequate budgets provided out of broader County Budgets. **This is where the biggest funding gap seems to be.** The broader County budgets themselves are generated from, for example, local taxes and mineral extraction concession fees.

2.3.5 Environmental Protection and Energy Efficiency Fund

The Environmental Protection and Energy Efficiency Fund (EPEEF) is a national fund that receives revenues from various environmental taxes, and provides grants for waste management and environmental protection. In 2008, the MoC, in cooperation with the EPEEF, set up priority projects in the

area of *'protection and preservation of biological and landscape diversity'* with HRK 2,138,848 (US$ 420,000) allocated for research and biological diversity monitoring projects. This covered designing a visitor presentation center, and the establishment of a geo-information system for national parks and cultural goods in national parks. However, *Table 2.2* below shows that between 2004 and 2009, only Euro 1.9 million out of Euro 663 million (ie 0.3%) of the approved funds have been allocated to biological and landscape diversity. There is clearly scope for additional PA contributions from this Fund.

Table 2.2 ***Summary of EPEEF expenditure from 2004-2009***

A.) Environmental Protection Programs and Projects	Number of Projects	Funds Approved €	Funds Paid €
Rehabilitation of official municipal waste dumps	299	209.536.276	51.233.692
Rehabilitation of illegal waste dumps	720	12.136.134	5.662.365
Encouragement of reduction of generation of waste	418	9.805.066	4.436.859
Construction of a waste management centre	8	24.750.000	2.128.527
Other waste management projects	8	223.985	223.985
Management of special categories of waste	482	316.043.119	316.043.119
Use of waste and exploitation of valuable characteristics of waste	61	10.536.826	6.155.553
Rehabilitation of hazardous waste dumps	25	54.277.107	26.319.897
Protection, preservations and improvement of quality of air, soil, waters and sea and mitigation of climatic changes and protection of ozone layer	3	129.838	32.541
Encouragement of cleaner production and avoiding and reducing of the generation of waste and hazardous gases in production process	58	9.917.206	5.299.649
Protection and preservation of biodiversity and landscape diversity	78	1.904.578	1.133.937
Encouragement of sustainable development of rural areas	16	2.085.512	1.064.754
Stimulation of educational, research and development studies, projects and other activities, including dem. activities	139	1.202.712	892.138
Other environmental protection projects and programs	102	10.322.168	9.104.078
TOTAL	2,421	663.084.306	429.939.610

2.3.6 International PA funding in Croatia

The Croatian Government has over the past years received considerable financial support for PA management from a variety of international sources. The Ministry of Culture (2009) highlights 68 biodiversity protection related internationally financed projects since 1993, but does not indicate project value. Some relevant recent and current projects outlined in the MoC budget for 2008 (Ministry of Culture, 2008) include:

- The Norwegian government gave a grant to help extend protected area management to County public institutions. EUR 700,000 has been spent on establishing a web-based GIS service, principally aimed at exchanging data between public institutions involved in nature protection, and presenting an integral geographic database to the public, to assist with more coherent management of protected areas in Croatia.

- The Swedish government and the Ministry of Foreign Affairs and European Integration have financed a project entitled 'Strengthening

capacities of the county public institutions for protected natural values management in view of harmonization with the EU legislation'. The aim is to help raise the level of professional qualifications in the county public institutions in charge of the management of ecological network areas, and particularly of the future Natura 2000 ecological network. The project produced three pilot management plans, for protected areas in the Karlovačka County.

- Since 2008, a French fund, Fonds Français pour l'Environnement Mondial (FFEM), together with other private and international foundations (WWP-MedPO, RAC/SPA) is financing the implementation of a 3 year pilot project to develop a Mediterranean Marine and Coastal Protected Areas Network. The objective is to improve protection of coastal and marine areas through creation of an ecologically coordinated network of marine protected areas, and drafting of management plans of marine parks: Kornati National Park, Mljet National Park, Brijuni National Park, Telašćica Nature Park and Lastovsko otočje Nature Park. Project partners include MoC, SINP, public institutions of the relevant national parks and nature parks and a non-governmental organization "Sunce".

- The World Wildlife Fund (WWF) is financing the 'Dinaric Arc Ecoregion' project to enhance protected area management in the Dinaric Alps region. This covers Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania. The project involves data collection, widening knowledge on the region and capacity building of government bodies in the area.

2.3.7 Monument annuities in Croatia

Antolovic and Škare (2006) outline how monument annuities work in Croatia, whereby owners of monuments pay a monument annuity, with 60% of the money allocated to the City or Municipality and 40% going to the State Budget. In 2005 the charge was 50 kuna per square meter of monument, resulting in annual revenues of 111 million kuna. This is effectively a tax for owner a monument, with the money going back into maintaining the monuments.

2.4 FUNDING GAP ANALYSIS

As indicated above, the overall annual funding requests to the MoC by the park PIs tends to fall short. In 2009, of the HRK 22.7 million requested, 46% was approved, whilst of the HRK 33.7 million requested in 2008, only 41% was approved. However, it is somewhat difficult to ascertain what the true funding gap is, as many parks allegedly request just what they know they might receive, whilst others request a far larger budget from State government in the hope of getting a larger sum. There appears to be no available summary data on Count PI budgets and needs.

However, a few generic statements can be made based on the consultation undertaken:

- Two national parks cover all their costs through self generated finance.
- Most national parks need some additional financial assistance from the State budget.
- All nature parks need additional financial assistance from the State budget.
- County protected area public institutions appear to require much more assistance. The two Counties assessed as part of this study both claim to currently be seriously underfunded, and with potential future Natura 2000 commitments, this funding gap will increase.

Porej & Rajković (2009) in their assessment of the effectiveness of protected area management in Croatia concluded that funding in the past five years has been mostly adequate to conduct critical management activities in most of the parks. However, one third of the parks feel that funding in the future will be inadequate to conduct critical management activities, stating the lack of funds (eg Lastovo Archipelago, Papuk and Velebit Nature Parks), insufficient staffing levels (Lastovo Archipelago Nature Park) and funding uncertainty (Lonjsko Polje Nature Park) as major reasons. Furthermore, according to their survey, at a County level, they differ from one county to another, but a general feeling is that counties should increase their participation in park financing.

2.5 SWOT ANALYSIS

provides a high level SWOT analysis of the existing funding situation with respect to Croatian protected areas. These and other problems and opportunities are further detailed in *Section 2.7*.

Table 2.3 SWOT for Existing Croatian Protected Area Funding Situation

Strengths	Weaknesses
All: Good existing organizational structure for coordinating the parks (centralized with some autonomy at each park). **Parks:** Excellent quality sites, with great diversity and good reputation.	**All:** Visitor income reliant on very seasonal visitation rates. **All:** Coastal sites tend to have more visitors (except Plitvička jezera). **All:** Confusion over concession laws. **All:** Conflict between some laws and Ministries. **All:** Sites not that well linked up (for example, could be better in terms of sharing legal advice, and other information and approaches common to all). **All:** not enough sustainable financing skills and no business plans. **Nature parks and County PAs:** These are not well known and do not seem to be publicised well to locals and foreigners. **County PAs:** Too dependent on budgets to be made available at a County level, without the necessary County level support. **County PAs:** Those PAs where entrance fees are collected tend to be managed by local municipality PI, taking away potential revenues from County PIs.

Opportunities	Threats
All: Potential to benefit from a national Fund targeted more to PAs (eg EPEEF or other fund). **All:** Scope to improve overall visitor fee collection rates. **All:** Opportunities for improved sustainable development and agri-tourism. **All:** Opportunities to work more with NGOs and volunteers. **All:** Many buildings, assets and features in PAs (including alien invasive species) whose potential benefit is not fully harnessed. **All:** There is scope for diversifying revenues through various mechanisms including, for example, payments for ecosystem services. **Nature parks:** There's good scope for capturing increased visitor revenues over time through some form of visitor charging mechanism.	**All:** State and County budgets likely to decline with current economic downturn. **All:** impacts of climate change **County PAs:** PAs seen as a burdensome cost by local government. **County PAs:** Will need to improve management of Natura 2000 sites in future requiring greater funds.

2.6 SUMMARY OF COSTS AND REVENUES FOR ALL 8 SITES

2.6.1 Overview for all sites

Annex A provides an overview of each of the eight case study sites in terms of a site description, costs and revenues, visitor statistics, site charges and key problems and opportunities relating to sustainable financing. *Table 2.4* summarises the total revenues for 2008 (which generally reflect the overall budget or costs), together with the percentage of that contributed by the MoC and generated by the PA themselves. Note that the Counties get virtually all

their money from the County Budget, together with some donations and small grants.

Table 2.4 Summary Revenues for Case Study Sites (2008)

Site	Total revenues (kuna millions)	% Min of Culture	% Own sales
Brijuni National Park	61.6	11.4	81.1
Paklenica National Park	8.2	49.7	49.9
Risnjak National Park	5.8	58.0	32.8
Kornati National Park	-	-	-
Lonjsko polje Nature Park	4.3	60.1	6.6
Papuk Nature Park	2.8	85.0	11.0
Šibensko-Kninska County	1	0	0
Varaždinska County	0.7	0	0

2.7 SUMMARY OF ECOSYSTEM SERVICE VALUES FOR ALL 8 SITES

2.7.1 Overview for all sites

Table 2.5 provides a summary of key ecosystem service categories associated with each case study site. The table highlights which service values are relevant and their potential significance. In addition, it also highlights which of these values have greater potential for capturing revenues from.

Table 2.5 Summary of Ecosystem Services at Case Study Sites

Category	Value	National Parks				Nature Parks		Counties	
		Brijuni	Kornati	Paklenica	Risnjak	Lonjsko polje	Papuk	Sibensko-Kninska	Varaž-dinska
Provision-ing	Wild food	X	X	X	X	M	M	?	?
	Agric food	X	X	X	X	H	L	?	?
	Timber	X	X	X	X	M	M	?	?
	Fibres	X	X	X	X	M	M	?	?
	Minerals	X	X	X	X	M	H	?	?
	Biofuel	X	X	X	X	M	M	?	?
Regulatory	Water purification	-	-	H	H	M	?	?	?
	Flood control	-	-	M	M	H	?	?	?
	Pollination	M	L	M	M	M	M	M?	M?
	Carbon sink	M	L	M	H	M	H	M	M
Cultural	General recreation	H	H	H	H	M	M	L-M	L-M
	Diving	M	H	-	-	-	-	?	-
	Angling	X	M	-	-	M	L	?	?
	Boating	M	H	-	-	M	M?	H	-
	Climbing	-	-	H	H	-	H		
	Ethical/ Non-use	H	H	H	H	H	H	H	H

H = high, M = medium, L = low, X = forbidden, - = not present
Dark shade = high potential for capturing additional revenues, light shade = some scope for capturing additional revenues.

Key messages arising from this analysis are as follows, and are, to an extent, further detailed in Section 2.7.

Provisioning services: At Brijuni and Lonjsko polje, there is scope for enhancing revenues from invasive alien species.

Regulatory services: At some sites there is potentially significant scope for generating additional revenues from flood control, water purification and possibly carbon sinks. However, the latter may prove difficult to raise revenues from due to the concept of additionality, in that there may need to be proof that without protection the carbon sequestration function would disappear.

Cultural services: There is likely to be scope to increase revenues raised from various recreational activities within the protected areas. However, there may also be significant scope from raising revenues and donations in kind related to the concept of non-use values. This represents the value that people get from just knowing that the wildlife and features in the protected areas are being protected for current and future generations. Associated revenues could be generated, for example, through increased international aid and through general public, wealthy individual and corporate donations to NGOs and 'Friends of…. protected areas' etc.

2.8 KEY PROBLEMS AND OPPORTUNITIES

Based on the site visits and associated meetings, a set of key problems related to protected area financing in Croatia were identified, and a set of potential solutions and opportunities were recommended, as detailed in *Table 2.6* The problems were grouped partly based on the key issues to explore as identified in the ToR, as follows:

A) Diversity of income
B) Visitor entrance fees
C) Concessions
D) Government management and contributions
E) Partnerships for co-financing
F) Business administration
G) Legal issues

These issues help to frame and guide the focus the international literature review covered in *Section 3*. *Table 2.6* also highlights which category of PA the issue predominantly relates to (using high/medium/low), what the initial thoughts are on priority, and what level of decision-making may be required. The proposed 'solutions and opportunities' are initial recommendations which are further drawn upon, and supported, by the summary recommendations in *Section 5*.

Table 2.6 Key Protected Area Financing Related Problems and Solutions

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
A) Diversify sources of income:						
1) There is a lack of skills, experience and knowledge within many PAs regarding identifying and accessing potential international sources of funds (eg EU for Natura 2000 and others).	**Provide information on additional potential sources of international funds (especially in relation to Natura 2000 sites) and provide training on international fund proposal writing.** Existing web materials should be expanded upon and more widely disseminated. Good examples of funding proposals should be made available. Training on how to best write and target fund applications should be provided, in particular highlighting how to put forward a business case for the funding (eg relating the benefits to ecosystem services and socio-economic benefits)..	M	M	H	H	CG
2) There are numerous buildings and features in some PAs that are in a state of disrepair, and other features that could be used to generate additional incomes. For example, in Brijuni National Park, there are a number of old government buildings (most are of cultural interest, some of which are being used for accommodation) that are costing money to maintain. Also in Brijuni there are some fascinating and well preserved dinosaur footprints currently not seen by the vast majority of visitors to the island, which could be a major attraction. In Paklenica there are numerous old houses that are in disrepair that could be converted for some use.	**Facilitate generation of ideas for implementing innovative and creative use of buildings and other features within the PAs.** This requires initially undertaking an audit of key features in each PA, generating ideas, screening them and developing an implementation plan. It requires innovative and entrepreneurial thinking, which may benefit from an international perspective.	H	H	H	H	PAs
3) At some sites invasive species (plants and animals) are causing extensive damage to the PAs. For example, at Lonsjko polje, the Amorpha plant is becoming rampant and is taking over meadows etc. On Brijuni island, there is an excessive number of introduced game (deer and moufflon) causing considerable damage to the entire island ecosystem (killing off trees and undergrowth resulting in a seriously depleted natural wildlife. There are also too many Peacocks too.	**Seek commercial uses for, and understand associated legislation, dealing with invasive species (eg deer on Brijuni Island and Amorpha plants species).** There may be possible commercial uses for Amorpha and other invasive plants (eg as biofuels or feedstock). The deer and peacocks on Brijuni should be culled (this may require a change in the law?) and sold as organic national park meat/sausages. Peacock feathers and deer antlers could be collected in the park by rangers and sold as souvenirs too. rangers and visitors could be paid a small fee for bringing the feathers and antlers to the shop, with it being made illegal to take them off the site without purchasing them.	H	H	L	M	PAs/CG

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
4) Some PAs are providing valuable 'regulatory services' such as whose value is not understood or appreciated. For example, Lonsjko polje provides an extremely valuable flood control function benefiting Zagreb, surrounding towns part of Bosnia and even Belgrade (Serbia). Risnjak and Paklenica provides a degree of water quality improvement and water supply to surrounding areas. The trees and plants in PAs also contribute to carbon sequestration and pollination.	**Explore the potential for Payments for Ecosystem Services (PES) schemes in relation to flood control, water quality improvements, provision of water for drinking and carbon sequestration.** These opportunities will require careful analysis to assess the relative magnitude of the benefit, the perceptions of the regulatory service, the relevant stakeholders and most importantly, potential economically viable mechanisms for introducing appropriate charges. The 'transaction costs' in some cases may be prohibitive.	M	H	L	M	CG/PAs
5) There are numerous other mechanisms for raising revenues that are not currently being adopted, or whose operation could be improved. For example, at Brijuni park, in the middle of the peak holiday, the souvenir shop had completely run out of all English version guide books about Brijuni (a best selling product!).	**An assessment is needed at a national and site level with respect to improving the diversity and effectiveness of revenue raising opportunities.** For example, ideas include the following: Introducing souvenir and refreshment shops in some locations, improving the stock and stock management at existing shops. Considering introducing park postage stamps, and franking of stamps so that children can stamp a passport of Croatian parks and send post cards stamped/franked in each park. Try to capture more of the 'non-use value' through sponsorships, donations, Friends of…, contributions in kind etc.	M	M	L	M	CG/PAs
B) Visitor entrance fees:						
6) Sites that charge entrance fees are not necessarily maximising or optimising revenues. In particular the nature parks are facing problems with charging visitors (often due to open access issues and multi-entry points).	**The parks should regularly review their pricing policies to analyse the overall effectiveness in terms of price differentiation strategies to optimise revenues.** This is a complex issue with many factors at play. The success of the strategies should be discussed each year amongst the different parks to exchange ideas and refine the strategies over time.	M	M	L	M	CG/PA

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
7) There is scope for charging visitors for additional activities. Although this is done already at some sites (eg charging for visiting the caves in Paklenica), there is scope for introducing increased charges for certain additional activities that visitors undertake, particularly where such activities incur additional management costs.	**Each PA should consider additional visitor charging mechanisms for undertaking activities that incur additional management costs.** For example, Paklenica could easily be charging for use of the car park, although implications for parking outside the park would need to be considered. Paklenica could also consider charging more for climbing activities (eg the fixed climbing routes for beginners and for the emergency services cover that is provided. Entrance to visitor centres is also something worth considering as these get introduced. However, a balance is required in that it is not always appropriate to charge for all activities as extras – sometimes such costs should be covered by the general admission fee, to encourage visitors to do the activity rather than put them off with an additional charge.	H	H	H	H	PA
8) Not all visitors currently pay to enter large parks and the system for charging visitors in some multi-entrance sites could be improved to maximise capturing visitor fees. For example, in Kornati, it is difficult to monitor yachts and private boats using the relatively few and dispersed moorings. In addition, day tripper boats pay a single fee based on the maximum number of passengers, but this results in over filled boats and boats far fewer boats visiting during the off season. Charging in nature parks such as Papuk and Lonsjko pole is also problematic.	**Consider alternative ways of getting visitors to purchase entrance tickets at sites with multi-entry points (eg Kornati and Papuk).** For example, in Kornati this could include allowing the Kornati PI to install mooring buoys so that visiting yachts and private boats are easier to manage and ensure they have paid an entrance fee. Also in Kornati, an electronic system for somehow ensuring that all day trippers on boats pay an entrance fee could increase overall revenues. Similarly, some form of system (eg electronic or car based tickets) for ensuring visitors pay an entrance fee to nature parks could increase revenues.	H	H	M	M	CG/PA
9) The PAs suffer from extremely short congested visitor seasons and the coastal PAs tend to receive by far the most visitors. Many sites have particular peak visitor seasons – for example on the coast it is the main summer holidays (from middle of July to the end of August), for Lonsjko Polje, it is in the spring etc. Outside of these seasons, there can be virtually no visitors and providing viable services and activities during these times is difficult. In addition, the inland PAs tend to receive far few visitors compared to the coastal sites (particularly PAs in the north east).	**Develop a broad range of ideas and offerings for extending seasons to get more visitors and a greater spread of visitors during the year, and to attract visitors to the inland PAs. Greater coordination is also required with say the Ministry for Tourism and Croatian National Tourist Board.** Good examples include holding conferences (eg on Brijuni), opening up the Brijuni golf course to locals, holding specialist weekends and tours (eg the climbing competition in Paklenica in May). Special offers and reduced prices that are well advertised and targeted could also contribute.	H	H	L	M	CG/PAs

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
C) Concessions:						
10) At many PAs there is a lack of experience in developing tourism concessions (concession approvals) plus confusion over what new legislation really means. This is resulting in many lost opportunities, as PIs are not sure how to best develop and operate tourism related concession systems.	**Guidance and advice is needed on best practice for developing visitor activity related concessions and to better explain the existing legislation.** Much could be learned from other Croatian PAs and from international best practice. This could be the topic for a specialist workshop and development of best practice guidelines.	H	H	M	H	CG/PAs
11) In some locations, there are not yet enough operators providing services to tourists. For example, in nature parks such as Lonsjko polje, there is a need to attract providers of accommodation and facilities (eg bicycle hire). Rather than put new operators off with expensive concessions, a strategy is needed to attract new operators and develop 'concession approvals' in the longer term.	**Guidance and advice is needed on how to attract operators with a view to agreeing concessions in the future.** Again, much could be learned from other Croatian PAs and international best practice.	M	H	M	M	CG/PAs
12) Where extraction is currently taking place, little or no money is fed back to the site, as the 'concession' fees go to the County or State budgets. This problem was particularly highlighted in Papuk nature park, in particular for mining, but also in relation to forestry extraction and Croatia Forests.	**Need to consider whether and how more money from concessions (eg extractive uses) should be channelled back into the site or region to assist with PA finance.** It is likely that a business case will be needed for this, to persuade the Government and Counties to alter the existing system. Further research is needed on best practice in other countries.	L	H	H	H	CG/Counties/PAs
D) Government management and contributions						
13) Not enough money is going to PAs from central and county budgets and from the general public, despite the potentially significant non-use values. A number of consultees have suggested that inadequate funds are spent on protected areas in Croatia. This is particularly the case for County level sites. The latter have very limited resources to undertake their basic PA management needs. **All PAs are not really** differentiated in terms of whether they are internationally, nationally or locally important**, which is especially a constraint for PAs managed at a County level.**	**Results of the questionnaire surveys from this study need to be carefully analysed to explore the extent of non-use values, and a potential business case should be developed to justify greater government contributions.** The analysis outcome needs to consider the various biases that may affect the results. In addition, the scope for wealthy individuals and corporate sponsorship/donations should be assessed. At a County level, PAs need to be defined into those that are important internationally, nationally and locally, with national funds being made available for the internationally and nationally important sites.	H	H	H	H	CG/Counties/PAs

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
14) There is a problem in that government departments do not work together for benefit of PAs (see also legal conflicts) especially in relation to fees generated such as mooring fees, and water management. For example, in marine environments such as Kornati, the mooring and associated revenues are managed by Ministry of the Sea, Transport and Infrastructure.	**The MoC needs to engage with and change the legislation so that some of the planning controls and associated finances that go to other Ministries are better aligned for PAs.** A review of conflicting Ministry interests should be undertaken and options identified that could be put in place for mutual benefit.	M	M	M	M	CG/PAs
E) Partnerships for co-financing						
15) There is an existing Environmental Fund (EPEEF) focussed on energy and waste that gives relatively little money for PA conservation. In addition, there is no other PA related fund. Linked to this is the potential for overall fiscal reform, for example in terms of additional environmental taxes and charges.	**Explore the scope and potential for either better linkages with the existing Fund or the creation of a new dedicated PA fund, plus the scope for supporting fiscal reform.** The study should assess current and potential sources of finance for the EPEEF and/or an alternative Fund, what an appropriate level of contribution to the PA system should be, and alternative means of Fund disbursement that is appropriate for needs, and is both transparent and fair.	M	H	H	H	CG
16) A number of National Parks have hotels and restaurants that are run through the government under the MoC, which could potentially be more effectively run. For example, in Brijuni, there are several hotels and around 10 cafes and restaurants. These may be better operated through the private sector, or in partnership with the private sector. An associated problem is that there is no accountability for the profitability of the activities due to the way that all Park accounts are set up.	**Consider privatisation or private/pubic partnerships for activities (eg hotels and restaurants).** A detailed analysis is required as to the general financial state and profitability of PA hotels, restaurants and shops, and to how effectively they are currently being managed. .	H	L	L	H	CG/PAs
17) Although generally quite well connected, the parks and County level PAs may benefit from improved coordination amongst themselves. This in terms of sharing ideas, legal advice, marketing approaches and materials, a linked web site etc.	**Create more consistency and cooperation amongst parks and County level PAs in terms of sharing resources, ideas, promotional materials and promoting of other PAs.** A review of potential linkages is required to assess where value can be added.	M	H	M	M	CG/PAs
18) There is scope and need for greater linkages with tourism and agriculture businesses (eg agri-eco-tourism) to develop more integrated sustainable development opportunities. In nature parks such as Lonsjko polje, there is a serious need to support and work together with farmers and agricultural related organisations to foster traditional and sustainable agricultural practices, promoting for example organic and 'nature park' branding.	**Greater efforts should be made to promote and explore integrated sustainable agriculture/eco-tourism practices and linkages (especially in the Nature Parks and County PAs).** Best practice from within Croatia (eg Lonsjko polje) and elsewhere should be explored and disseminated.	M	H	H	M	CG/County PIs /PAs

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
19) There is scope for partnering with NGOs and volunteers to tap into a whole new dimension of reducing PA management costs. There are increasing numbers of students and the public who want to help out with scientific research and conservation. This was flagged up by Paklenica, where there is demand to assist the park, but limited basic facilities to support visitors that want to help. In addition, local and international NGOs increasingly want to support local conservation efforts.	**A review of potential NGO and voluntary based partnerships should be sought and facilitated at all levels.** However, this could be a relatively long slow process to find the right match and mechanisms to work effectively, although a few quick wins could arise.	H	H	H	M	CG/PAs/ County PIs
F) Business administration						
20) There is little accountability for PA services such as hotels and restaurants because the accounts are not adequately separate and transparent. This means that there is no idea at some sites how economically viable certain services are. A number may be running at a significant loss, or could potentially be operated much more efficiently. For example, in Brijuni, there is no idea how profitable or viable any of the hotels, restaurants, cafes, shops etc are , as the accounts are conglomerated for everything.	**The scope for introducing 'activity based costing' and/or separate budgets/accounts for park hotels, restaurants and other major activities should be considered.** However, it should be noted that the accounting approach has been modified on various occasions to assist with VAT accounting.	H	M	L	H	CG/PAs
21) There appears to be a general lack of business, economics and finance skills within the MoC and the PA PIs that are applied to sustainable financing of the PAs. These skills are essential for ensuring overall sustainable financing of PAs. For example, the manager at Paklenica did demonstrate a good awareness in such skills, but it seems that the management at most other PA sites are lacking those skills and perhaps access to them.	**There is a need to facilitate drawing upon professional marketing and business administration expertise within the MoC and the PAs.** This could be through internal cooperation (eg hiring the skills in to the Ministry or PIs and sharing the expertise) and/or through external assistance (eg using jointly commissioned consultancy assignments or using voluntary or reduced fee experts from marketing and businesses). The ideal skills required include environmental economics and business management (eg finance/marketing/planning/operations/strategy) studies.	H	H	H	H	CG/PAs/ County PIs
22) It appears there are few, if any, business plans in use either for PAs or for proposed investments such as visitor centres. There were no business plans identifying a sustainable financing strategy at any of the PAs visited. Nor does it appear that there is a business plan for the visitor centre currently under construction in Paklenica. This has been costing immense sums of money with no clear plan as to how to finance its operation in the future.	**Provide guidance and assistance on developing business plans for Parks in general and for visitor centres.** This should include aspects such as market segmentation, competition, collaboration, offerings, pricing strategies and budgeting etc. However, it is important that an overall national strategy for PA management is agreed and broadly in line with the business plans.	H	H	M	H	CG/PAs

Problem	Solutions and Opportunities	National Parks	Nature Parks	County PAs	Priority	Decision-making
23) There is scope to improve the promotion of PAs in Croatia. The parks seem to develop their own material that is inconsistent with each other, and does not draw upon shared skills.	**A study at the national and site level should be undertaken to determine how best to improve the promotion of PAs.** This is in particular needed in relation to out of season visits and inland sites. Examples include more user friendly web sites for potential Park visitors, promotion of Paklenica as a mountain and sea destination etc. For example, a website with all protected areas presented with similar visual identity should be considered.	M	H	H	M	CG/PAs/ County PIs
24) The effectiveness of existing funding provided for protected area management is not clear. Stakeholders in the consultation did question how effective the money actually is, and how well its use is being monitored.	**There is a need to assess the effectiveness of PA management to make financing and management more cost-effective.** The Porej & Rajković (2009) review of PA effectiveness needs to be built upon, and an analysis made of critical areas for targeting of limited budgets.	M	M	M	M	CG/PAs/ County PIs
G) Legal issues						
25) The new concession related laws are not at all well understood, and it is indeed not entirely clear what they actually mean. A number of the PAs stated this was a major issue.	**A study is required that explains precisely and simply what the concession laws mean and provides good examples and guidance for PA personnel**. This should be undertaken and disseminated in conjunction with workshops. Potential revisions to the laws may be required.	H	H	H	H	CG/PAs/ County PIs
26) Several protected area laws apparently contradict other national laws. This includes roles and responsibilities over managing forests and producing forest management plans in PAs and obtaining authority to undertake certain activities in PAs.	**The PA managers should highlight which specific laws currently conflict.** A review should then be undertaken to determine what changes if any are required to the legislation, or whether the issues can be resolved within the existing legislation, but through diplomacy with the relevant parties.	H	H	L	M	CG/PAs
27) It is often difficult for PAs to enforce legislation within PAs, as they lack the capacity and authority to act effectively when laws are being broken. In addition, the legal system is slow and ineffective in following up and charging violators.	**A review of the fining system is needed together with a pragmatic approach that PAs can apply to better enforce the laws to collect fines.** This review and generation of advice might best be undertaken in a workshop format with the right mix of experienced PA staff, law enforcing police and lawyers.	M	M	M	M	CG/PAs/ County PIs
28) At many sites the boundaries of the PAs are not clear, resulting in difficulties to manage the sites, and at others there are land and building ownership conflicts. The land boundary issue was highlighted as a significant problem at Sibensko County, whilst property ownership issues were highlighted as problematic in Paklenica.	**Where necessary, facilitate and prioritise undertaking mapping showing land ownership and PA boundaries.** This task is essential for sustainable financing opportunities to be developed.	M	M	M	M	CG/PAs/ County PIs

Notes: H = High; M = Medium and L = Low relevance. CG = Central Government (Ministry of Culture); PAs = Protected areas, PIs = public institutions.

3 INTERNATIONAL PA FINANCING REVIEW

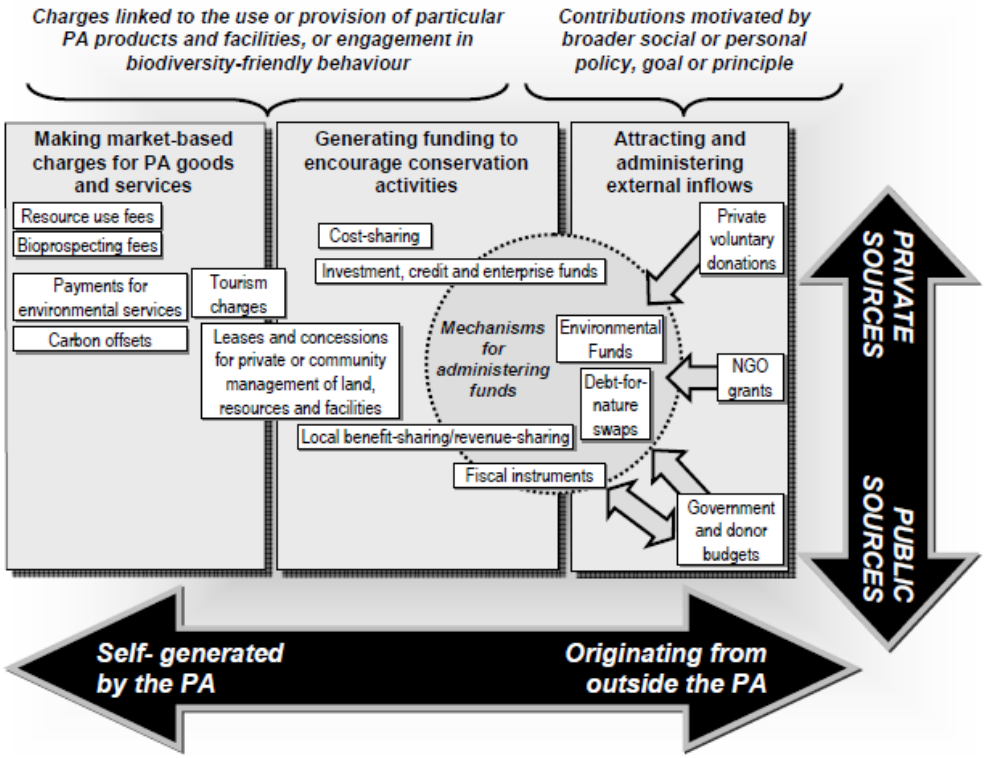
3.1 OVERVIEW OF SOURCES OF INCOME FOR FINANCING PAS

3.1.1 Introduction

In recent decades a range of innovative PA financing mechanisms has been developed which go beyond conventional funding sources. In a recent publication (IUCN, 2006), IUCN categorises PA funding mechanisms on a spectrum from public to private sources, with a further distinction between mechanisms that rely on external funding inflows and self-generated revenues (see *Figure 3.1*). These categories include a range of financing mechanisms which can be grouped according to how funds are primarily raised and used:

1. Mechanisms and approaches which are concerned with attracting and administering *external flows*, including government and donor budgets, NGO grants and private and voluntary donations, from both international and domestic sources;
2. Mechanisms for *generating funding* to encourage conservation activities, including cost- and benefit-sharing, investment and enterprise funds, fiscal instruments and arrangements for private or community management of PA resources and facilities;
3. Mechanisms which employ *market-based* charges for PA goods and services, including resource use fees, tourism charges and payments for ecosystem services.

Figure 3.1 Categories of PA Funding Mechanisms



Source : IUCN (2006)

More detail on each of these instruments can be found in the mentioned IUCN publication (IUCN 2006) and other scientific literature mentioned in the Bibliography. For the purpose of this report, we provide here a summary description of each mechanism in table format, highlighting main potential strengths and weaknesses for each instrument based on international experience in their implementation (*Table 3.1*).

Table 3.1 - Summary of Potential Strengths and Weaknesses of Different PA Funding Instruments (modified from IUCN 2006)

	Funding Instrument	Description	Strengths	Weaknesses	Actions required
ACTRACTING AND ADMINISTERING EXTERNAL FUNDS	Domestic government budgets and foreign assistance	Domestic government budgets, bilateral, multilateral and NGO funds. The core but declining component of PA funding.	Existing flows to be maintained or increased. Direct budget support for PA agencies New opportunities via development and poverty-reduction. Increased potential for channelling funds to communities living in and around PAs Placing PAs within a larger sustainable development perspective, may also help to create the broader economic and policy frameworks	Governments and donors have become less willing to earmark funds for conservation. Low awareness among both conservation and development decision-makers of the role of PAs in achieving sustainable development.	Honour commitments to fund PAs. Reorient PA funding in line with development and poverty reduction. Increase awareness among decision makers of PA-development links.
	Private voluntary donations	Philanthropic foundations: not-for-profit NGOs, usually with endowment funds established by wealthy individuals or companies (e.g. Rockefeller Foundation) Corporate funding: Companies establishing special funds or programmes for biodiversity conservation, (e.g. Shell and British Petroleum). Personal donations : originate from a range of sources, including individuals, informal groups and organizations (e.g. adopt-a –whale type schemes)	Continuing support, especially at local level. Potential for increasing corporate sponsorship.	Often tied to specific missions, locations or even species. Private donations can be relatively fickle, as donors shift their support among various "worthy causes" in response to high-profile environmental "events", media stories and humanitarian disasters. Securing private donations often requires large investments of time and effort to identify, persuade and satisfy the donor, relative to the amounts raised.	Sustain and increase public interest in PAs. Increasing interaction with private sector. Develop new/better approaches to 'market' PAs to private donors

	Funding Instrument	Description	Strengths	Weaknesses	Actions required
	Debt-for-nature swaps and environmental funds	Debt-for-nature swaps are a mechanism by which public debt is purchased at a discount by an outside agency – often an international NGO – and retired in exchange for government commitments to fund conservation activities, often through the establishment of a trust fund Environmental funds: established in conjunction with large, one-off contributions (donor agencies or NGOs) and later supplemented or replenished. Three types exist : endowment funds (spend only income while maintaining capital); sinking funds (liquidate all assets over a period of time); revolving funds (designed to receive regular replenishments).	Can provide substantial and secure funding for individual PAs and PA systems. New opportunities for PA funding through development and poverty-reduction funding windows.	Debt-for-nature swaps and environmental funds are complex instruments to negotiate, set up and administer, requiring elaborate legal and institutional structures and strong technical capacities. Convincing both donors and recipients of the value of setting up separate endowments for PAs, and of involving a range of stakeholders in fund management and allocation, remains a major challenge.	Reorient PA funding in line with development and poverty reduction. Convince donors to set up endowments and devolve decision making to local managers. Convince PA agencies to maintain capital by investing funds.

	Funding Instrument	Description	Main potential	Main drawbacks	Actions required
GENERATING FUNDING FOR CONSERVATION	Fiscal Instruments	Use of taxes and/or subsidies to generate revenues and influence behaviour so as to meet environmental and conservation goals.	Source of revenue and transfer mechanism to producers and consumers. Substantial potential to apply to PAs. Increased use as funding and motivational tools. relatively low rates of tax can generate large flows, due to the size of the tax base.	Necessary to put in place a system for enforcing the use of fiscal instruments, including supporting legislation and regulations. Tax and subsidy systems can also be complex and costly to implement and enforce. Subsidies, in particular, can present a major drain on public funds and budgets unless they are designed as part of a package of revenue-generating instruments used to offset their costs.	Factor PAs into broader fiscal systems. Strengthen priority accorded to PAs by economic planners. Enhance awareness of decision makers about potential to raise funds and change behaviour.
	Benefits and/or Revenue Sharing	Raise and allocate funds or generate other benefits for communities living in and around PAs. In some cases they aim to enable communities to invest in alternative livelihood options (less environmentally damaging), in other cases may involve the transfer of PA management or use rights to local communities (community-based management).	Major potential to offset local opportunity and social costs of PAs. Need to balance growing local pressure on PA resources.	Most benefit-sharing and revenue-sharing mechanisms in operation around PAs focus on generating indirect development benefits at community level, but do not provide direct financial compensation or rewards for activities that support conservation. Developing mechanisms to guarantee that funding actually reaches relevant local stakeholders.	Reinforce importance of integrating local funding into PA financing. Increase availability of local funding. Tap development finance sources. Improve the form in which benefits and revenues are shared.

Funding Instrument	Description	Main potential	Main drawbacks	Actions required
Cost Sharing	Sharing PA management costs with, or contracting out the management of a PA to, other groups, companies or individuals	Large potential to meet PA finance gaps and relieve burden on government budgets Untapped potential to solicit voluntary or mandatory cost sharing by private sector and NGOs cost sharing offers a practical means of covering direct operating costs, which is a major financial burden for all PAs.	More widespread use of such mechanisms may require new legislation	Encourage PA managers to devolve responsibility and funding monopoly Make cost sharing mandatory where appropriate Respond to willingness and ability of other groups to share costs Define reciprocal rights and responsibilities Develop enabling rules and legislation
Investment, Credit and Enterprise funds	Biodiversity enterprise funds (BEF) are financing mechanisms that provide long-term capital, typically combined with technical advice, to commercial ventures based on the conservation or sustainable use of biodiversity. The latter are typically small-and-medium-scale enterprises engaged in conservation activities, such as eco-tourism, sustainable forestry, the collection and processing of wild food products, etc.	Source of capital and technical assistance to eco-tourism enterprise, sustainable harvest of renewable resources and other commercial activities linked to PAs. Wider application of business principles to PA management.	Because biodiversity-based business is often considered high risk and low return, it can be difficult to raise private capital for activities that support PAs or biodiversity conservation generally. In some countries there may be a need for certain legislative or regulatory reforms, to enable PA managers to engage in commercial contracts with business investors.	Awareness raising among investors and PA authorities. Enabling legislation to encourage business enterprise linked to PAs. Improved marketing of PA goods and services to consumers.

	Funding Instrument	Description	Main potential	Main drawbacks	Actions required
MARKET-BASED MECHANISMS	Tourism Charges	Fees charged to visitors for entry or for tourism-based activities. Examples include direct charges such as gate fees, licenses or permits for recreational activities (e.g. trekking, hiking, hunting, fishing or camping), as well as indirect taxes, and charges levied on sales of PA souvenirs, hotel accommodation, airport departures, or tourism-related goods and services in other sectors of the economy.	Opportunities to improve cost recovery for tourist facilities, and introduce charges that better reflect visitors' real willingness to pay. Potential to diversify tourist markets and services offered Use to manage/direct demand within and between PA sites Demand for nature-based tourism is growing.	As tourism markets and services become more complex a higher level of on-site investment and management may be required to collect fees from visitors. This might exceed the capacity of PA staff and budgets, particularly in some developing countries. Confusion – or even conflict – about which agency is responsible for setting, collecting, retaining and allocating PA tourism revenues.	Improve calculation of optimum tourist charges. Investment to develop tourism facilities. Additional expertise may be required to market and operate high-quality tourism facilities.
	Concessions and leases	Contracts between protected areas and businesses or individuals under which those businesses or individuals are permitted to operate within a protected area and to use certain land or facilities owned by a protected area for a specified period in exchange for making payments to the protected area and subject to compliance with protected area regulations	A fixed fee component aids planning. An excellent way to involve local people in PAs (owners, co-owners or employees of the concession). This can help build local community support for the PA. Private operators bring tourism expertise to protected areas Balance demands from the private sector for development in protected areas, by allowing a limited amount of controlled business activity. More acceptable to tourists as they are generally not aware of paying a fee for the use of the protected area, since it is part of the product price.	A concession fee may not be a viable option for some sites, particularly if there is limited demand for the service. Difficult to arrive at a balance between the amount the concessionaire will earn by exploiting the resource, and the amount that will be returned to the PA administration. Inherent risk of commercialization of sites and trend toward facilities designed to produce income rather than protect natural resources.	It is essential for the protected area authority to retain ultimate control over the concessionaire's operations to assure that resources are not over-exploited or damaged, and that conservation is not neglected in favour of profit-making.

Funding Instrument	Description	Main potential	Main drawbacks	Actions required
Resource use fees	Harvesting, processing and sale of products derived from PAs. Charges range from royalties and concession fees for large-scale extractive operations, such as industrial logging and mining, through to permit and license fees for recreational hunting, fishing or harvesting of wild plants.	Prices need to be set in line with true economic values Potential to diversify markets and charges for PA products Increased support for secondary or value-added industries.	Weak institutional capacities, conflicting responsibilities for setting and collecting fees, and variation in the extent to which revenues are reinvested in conservation activities. Issues of equity, benefit sharing and local needs also need to be considered.	Improve calculation of user fees, royalties and other charges Strengthen institutional capacity and clarify roles of agencies in setting and collecting PA fees Integrate ecological sustainability into extractive regimes.
Bio-prospecting rights	Agreements set out the terms and conditions under which researchers, companies and private collectors may search for naturally occurring biochemical compounds of potential commercial value (e.g. cosmetics, dietary supplements and pharmaceuticals). Concession fees and a share of expected royalties for any commercially valuable discoveries are often paid in advance, with a proportion of the payment typically allocated to in situ conservation efforts in PAs.	Potential to generate additional revenue for PAs, but sometimes exaggerated leading to unrealistic expectations.	The funds available for bio-prospecting are not often used to make direct payments to conservation. The rules and procedures governing bio-prospecting are of necessity quite complex. PA managers, as well as the communities living around PAs in biodiversity-rich countries, often lack the capacity to negotiate bio-prospecting agreements.	Strengthen PA capacity to negotiate bio-prospecting agreements. Develop regulations to ensure more equitable benefit sharing.

	Funding Instrument	Description	Main potential	Main drawbacks	Actions required
	Payment for Ecosystem Services (PES)	Systems of payments for ecosystem services (PES) seek to create financial incentives for resource users and managers to adopt, voluntarily, activities and technologies that generate environmental benefits. PES schemes are most developed for ecosystem services that are clearly defined, highly valued by beneficiaries, and/or legally protected under rules that encourage markets and trade.	Opportunity to generate increased revenue from non-extractive PA management regimes. Can be effective means of compensating PAs and private landholders for providing ecosystem services.	Substantial data and analysis is often required to demonstrate the relationship between PA management and the quantity and quality of ecosystem services provided. Legislative or regulatory reforms may be needed to ensure that payment schemes are adopted and enforced. PES are difficult, costly and time consuming to design, implement and enforce.	Develop supportive policy and/or legislative frameworks. Improve methods and data on biophysical linkages, efficiency and social impacts of PES. Clarify trade-offs between different ecosystem services.

3.2 FUNDING NATURA 2000 SITES

Since the commitments made in 2001 by the European Council, halting the loss of biological diversity has formed the main goal of the EU policy for biodiversity and nature conservation. The EU nature Directives (i.e. the Habitats and Birds Directives) and the implementation of the Natura 2000 network play a key role in achieving this policy objective. In order to achieve the EU biodiversity goal and to match the pressures created by economic development on biodiversity in the EU Member and Candidate States sufficient funding for the conservation and sustainable management of biodiversity needs to be guaranteed. This forms one of the main challenges for the enlarging EU in the future. Finding innovative funding solutions is a key element within the current EU's biodiversity policy.

The Expert Working Group on Article 8 of the Habitats Directive, composed of representatives of Member States and stakeholder experts, estimated the likely financial needs of a well-managed network in € 6.1 billion per year for EU-25 was based on Member State responses to a questionnaire, as well as experience to date of costs arising on sites that have already been subject to management. The amount must be co-financed between the EU, contributing around 35-40% (€ 2,500 million a year approx.), and the countries hosting Natura 2000 sites.

In its Communication on the Financing of Natura 2000 to the Council and the European Parliament – adopted on 15 July 2004 – the Commission presented its ideas about how the financial needs of Natura 2000 can be integrated into the different Community Funds and what measures can possibly be financed by them. In the Communication it is proposed that future co-financing should, consistent with current practice, be accommodated within existing financial instruments. Opportunities for EU co-financing of Natura 2000 in the 2007–13 funding period include:

Structural Funds (European Social Fund (ESF) and European Regional Development Fund (ERDF));

The Structural Funds (European Social Fund (ESF) and European Regional Development Fund (ERDF));

The Cohesion Fund;

The European Agricultural Fund for Rural Development (EAFRD);

The European Fisheries Fund (EFF);

The Financial Instrument for the Environment (LIFE+); and

The 7th Research Framework Programme (FP7).

It is important to highlight that in the period 2007–13 the Community funding for nature conservation has been revised significantly. The provisions in the new 2007–13 funds open up the possibility of making much more finance available for nature projects. The needs for funding of Natura 2000 were clearly identified in all the appropriate funding regulations presented by the Commission in the context of the 2007–13 Budget proposals. The extent to which activities related to the management of Natura 2000 sites are eligible for funding will vary. Potential cost items have been categorised and matched with relative EU funding programme in Table 3.2 below. A detailed

description of the relationship between these funding lines and Natura 2000 can be found in the Financing Natura 2000, Guidance Handbook (1) .

Nevertheless, according to a review conducted by a group of influential environmental NGOs, the proposed single instrument to unify strictly environmental measures, the LIFE+ Programme, will receive a budget of € 2,190 million for the period 2007-2013, of which only 47% would be applicable for Natura 2000, (approx. 3.5 €/ha/year) (BirdLife et al. 2004).

Although the funds are available in theory to sustain the financial requirements of the Natura 2000 network, it ultimately depends on national governments to make these resources directly available to Natura 2000 sites and the ability of managers to access these funds through lobbying and proposal writing. Ultimately, these public resources are too fluctuating and have too many strings attached to allow PAs to make independent choices and adopt long term strategies. Therefore, Natura 2000 sites should be encouraged to engage into market-based mechanisms to contribute autonomously to their funding needs and create a solid management base. The EC does not rule out the possibility of Natura 2000 sites being funded by market-based mechanisms, nevertheless there does not seem to be a coherent policy (or sets of policies) able to facilitate or promote the use of these mechanisms for Natura 2000 funding.

(1) (Revised version, June 2007 is available at http://ec.europa.eu/environment/nature/natura2000/financing/index_en.htm.)

Table 3.2 Funding Options for Natura 2000 Sites (Source: WWF 2005)

	Cost item	Funding options				
		ERDF	**ESF**	**Cohesion Fund**	**EAFRD**	**EFF**
Framework for management and administration	Adaptation of legislation		(3.2bi)			
	Establishment of management bodies	(4.3)	(3.2bi)		(53)	
	Administration costs					
	Training and capacity building	(6.3) (6.1b) (6.2a)	(3.2bi) (3.2bii)		(23b)	(43)
	Awareness raising activities and environmental education	(4.8) (6.1b)			(53) (57bd)	(43.1a) – to the extent that these are relevant to fisheries management
	Visitor management measures/activities	(4.5)			(52a-b) (57d)	
	Public participation systems		(3.2bii)			(44)
	Networking activities	(6.3)	(3.2bi)			(43.1g)
	Preparation and review of management plans for sites or species	(4.4) (5.2d) (6.2c)			(53)	
	Measures and activities to carry out appropriate Environmental Impact Assessment Studies	(6.1b)	(3.2bi)		(53)	
	Scientific studies, inventories, mapping				(53) (57a)	Possible financing by second fisheries fund*
Operation and monitoring	Surveillance, wardening and patrolling activities		(3.2bii)			
	Monitoring systems	(4.3) (6.1b)			(53)	Possible financing by second fisheries fund*
	Habitats and species conservation, management and restoration measures	(4.3) (5.2a) (6.1b)			(38b)	(43.1e) (40) (27a) – to the extent that these are relevant to fisheries management
	Ex-situ conservation activities and re-introduction programmes					
	Measures to ensure sustainable use of habitats and species	(4.3) (5.2a) (6.1b)		(2.2)	(23b) (25.1b) (29) (37) (38a) (44) (55)	(43.1a) (43.1b) (43.1e) – to the extent that these are relevant to fisheries management
	Compensatory payments				(29) (36) (43)	(31)
	Forest-environment measures				(26) (40) (41) (42) (44) (46a)	
	Trans-boundary projects	(6.3) (6.1b)				
	Supporting and communicating pilot projects	(4.3) (5.2a) (6.1b) (6.2c)				
Infrastructures	Infrastructures maintenance	(4.3) (5.2a) (6.1b)			(55)	
	New infrastructures specific for the maintenance or restoration of habitats and species	(4.3) (5.2a) (6.1b)			(38b) (46b)	
	Public use infrastructures	(4.5)				
	Equipment acquisition	(4.2) (5.2a) (6.1b)				
	Precautionary measures in sites still not designated (pSCI)	(4.4) (5.2d)				
	Fire prevention, fire control and fire management measures	(4.4) (5.2d)			(42) (45)	
	Mitigation measures for infrastructures affecting Natura 2000	(4.6) (5.2a)				
	Land purchase	**		**	**	

* A second fisheries instrument, to be proposed by the Commission in April 2005, is expected to support reform of the Common Fisheries Policy, including control measures, scientific advice and technical data, international fisheries agreements, etc.

** Can be eligible as part of projects as far as it does not exceed 10% of any one proposal.

3.3 *ENTRANCE AND USER FEES*

In Croatia, entrance fees are well developed for National Parks and to a lesser extent nature parks. However, there is much scope for considering the introduction of user fees for County level PAs.

The rationale behind charging entrance and user's fees is quite diversified and can be categorized as follows:

- *Cost recovery*: generation of revenue to at least cover tourism's financial costs (e.g., for facility construction and maintenance) and possibly tourism's other costs (e.g., environmental damage).
- *Generation of profit*: generation of revenue in excess of costs, with the excess being used to finance traditional conservation activities (at the destination or at other sites) or to achieve other objectives.
- *Generation of local business opportunities*: entrance fees will be set at a minimum to maximize number of visitors but user fees can benefit local businesses directly if services are leased or outsourced.
- *Generation of foreign exchange and/or tax revenues from tourist purchases*: this will involve low or no fees in an effort to maximize number of visitors and encourage visitors to spend elsewhere.
- *Provide maximum opportunities for learning and appreciation of the natural resource*: overall learning and appreciation might be increased by charging fees and using resulting revenue to enhance education programs.
- A combination of the above

While fees can be set according to market principles based on elasticity of demand and willingness to pay, political considerations generally bear the greatest weight in determining the final decisions at the local level. In general, the level of fees should blend cost-based and market-based elements and political acceptability, reflecting the ability and willingness to pay of the user, the cost of service delivery, the quality-price ratio for the service received, and policy aims such as providing low-cost recreational facilities for nearby town-dwellers or a high-quality product aimed at maximising revenue from overseas visitors.

International experience on charging fees for entrance to PAs or for recreational services within PAs is very developed. Responses to a survey of protected areas conducted in the early 1990s suggest that about one-half of the world's protected areas charged entrance fees at that time (Giongo et al. 1994). This proportion is likely to have considerably increased over the last decade. Nevertheless, the adoption of fees in PAs raise a series of important issues which have sometimes been used to oppose their introduction or prevented fees from matching visitors' willingness to pay. These issues and relative potential management solutions are summarized in *Table 3.3* below.

Table 3.3 Fee Introduction Issues and Management Solutions

Issues	Evidence	Management solutions
Fees are inconsistent with society's cultural-political values	Visitors are often willing to pay higher entrance fees than those currently charged, particularly for protected areas with a high level of demand or unique attractions. Sometimes visitors prove unwilling to pay for entrance as the PA is a "public good" but not for specific services within a PA.	Provide information on use of money generated and earmark fees for PA funding. Tourists are more willing to accept and pay entrance fees where it is clear that money is retained by the PA to improve the quality of the experience.

Issues	Evidence	Management solutions
Fees may have a negative equity effect (low-income groups, minorities, or local residents most affected)	Evidence of this is mixed in the literature. Some studies suggest lower income groups exhibit higher price elasticity (more affected) than do higher income groups.	Devise tiered pricing system (by age, place of origin, time of the year) to facilitate visitation by groups that might be disadvantaged.
Fees may change the nature and quality of the visitor experience	Unlikely, as the tourism experience is often already structured and commercialized. Even in less structured "wilderness areas" visitors seem to accept paying fees.	Fees may be charged indirectly in "wilderness areas" to reduce impact on visitor's experience. (e.g. parking, anchoring, equipment etc.)
Fees may reduce business opportunities	Demand for visitation at natural areas is often inelastic, particularly at fee levels (e.g. USD10 or less) that are low relative to overall trip price and when there are few good substitutes. Therefore, dramatic decreases in visitation would not be expected with modest fees.	Conduct WTP exercises to set fees at the appropriate level. Agree fees with local tour operators and other stakeholders beforehand. Increase fees slowly in intervals to let tourism industry adapt to changes.
Fees provide an incentive to maximize visitor numbers to the detriment of conservation	Research suggests that negative ecological impacts from visitation are spatially limited. It is unusual for tourism impacts to threaten fundamental conservation management objectives.	Use fees as a tool to manage tourist numbers and behaviour. Visitors are more inclined to respect their surroundings if they have to pay for to enjoy them.
Fees provide an incentive to maximize visitor numbers causing congestion	The limited existing literature shows that tourists often perceive crowding as being a negative externality.	A booking or quota system may include those who are not prepared to pay the price of congestion and exclude those who are.

Adapted from: Lindberg 2003, WWF 2005, Taylor et al. 2003

Table 3.3 above shows how the potential environmental and socio-economic impacts arising from the introduction of fees either lack empirical evidence or can be minimized with appropriate management measures. On the other hand, experience demonstrates how fees bring several benefits to PAs provided a series of important conditions are met.

1. **Fees will sustainably and increasingly generate revenue if used to enhance PA attraction and experience**. Unfortunately, it is quite common for fee revenues to be "lost" to the sites that generate them, going instead to the central treasury. Earmarking of fee revenue is widely considered to be a more sustainable and efficient option. According to a recent review conducted in the Mediterranean region, only 6 countries recuperate the park fees into the system to some degree :

   - In Italy, National Parks are public bodies allowed to capture their own funds but few charge fees for entrance or services to a significant degree. Marine PAs, on the other hand, depend directly from the Ministry of Environment and may only ask visitors for contributions to sustain specific services.

- In Egypt, fees and other income arising from the Parks are earmarked to the National Environmental Fund, which is basically used for the "brown" sector. Less than 5% of funds return to the PA system. This means that there is little incentive for the PAs to collect visitor fees effectively.
- In Jordan, revenues from state tourism facilities and services (e.g. hotel and camping fees, guided tours, etc) revert into PAs.
- In Montenegro all revenues captured by PAs are reinvested back into the Parks system, covering 7.5 % of the annual budget.
- In Slovenia revenues from PAs are completely invested back into the Parks system, and cover the 26% of the total system budget.

2. **The costs of collecting fees have to be assessed where a pricing policy is considered**. The direct costs include salaries and the installation and maintenance of toll-booths, with additional administrative costs of accounting and control, data processing and reports, and indirect costs such as personnel training, security, and public relations. More complex systems can be envisaged (e.g. electronic debit card systems) but costs can be high. Because of such costs, in protected areas with few visitors it may not be worth collecting entry fees. In these cases, it is worth considering to treat PAs as a network and make sure revenues from the most "popular" PAs are transferred to the less visited ones. The National Parks Service in the US has set up a demonstration project under which 20 % of the entrance fees from heavily visited protected areas are transferred to a fund that is used to support investment in lesser visited protected areas that have very limited potential to raise their own funds from visitors.
3. **Relationship with the surrounding socio-economic context has to be considered when introducing fees.** The introduction of fees can be beneficial for local businesses because free or under-priced access to recreation opportunities on public land may take away opportunities from private businesses. In Australia, there is national legislation designed to prevent government agencies from "undercutting" the private sector – and this has lead to an increase in fee levels in some cases (ANZECC 2000).
4. **The visitor does not have to be exposed to bribery or corruption in relation to the payment of fees**. This can be avoided by a good and transparent system of accounting for revenues and expenditure, or by designing a cash-free system of entry at gates. For example, in an attempt to overcome corruption, the Kenya Wildlife Service (KWS) has introduced an electronic debit card system for paying for entrance to a protected area. Visitors charge their card by paying cash at KWS headquarters in Nairobi where it is efficiently collected and accounted for. Then, on visiting the protected areas the cards are 'swiped' in machines at the gate that reduce the credit on the card by the amount of the entrance fee. This system seems to be working well to increase overall takings.
5. **Fees can be used as a visitor management tool** but mainly when the site has close substitutes, or when the fee represents a large percentage of total trip costs (eg when the fee is quite large or when visitors tend to come from local areas) due to low elasticity of demand. As a result,

fees frequently may not be effective as a direct visitor management tool, but they can enhance visitor management through funding traditional activities and through the presence of staff for fee collection.

Box 3.1 Managing Congestion and Spreading Demand

Are there measures that can influence demand for natural and cultural sites which lead to the spreading of demand in time and space, the result of which will be the eradication of peaks in demand?

Information: Information needs to be made available to potential visitors, tourist boards, tour operators, which conveys an awareness of what is offered in the main site but also in other sites nearby. In addition, indications of busy periods, ticket prices and a limited number of timed tickets will help to spread demand.
Incentives: Pricing incentives will reduce high season demand and encourage low season demand, as well as encouraging specific groups (e.g. children, students, retirees or local people to visit at certain advantageous times).
Alternatives/Substitutes: The development and communication of attractive alternative substitute sites is a useful way of spreading demand geographically.
Government policies: School vacation periods are decided by the education ministries which are concerned with educational outputs not vacation periods. The effect is to concentrate vacation periods into a few weeks a year. Can government be persuaded to change vacation periods?
Factory shutdowns: Factory closures cause particular areas to experience specific surges in demand.

Source : WTO (2004)

In some countries, **visitor passes** have been introduced that allow multiple entry into parks and other visitor attractions over set time periods (eg 1 day, 3 days, 7 days, 4 weeks, one year etc). These are best for getting more people to visit particular sites rather than to raise more revenues from entrance fees. The price may include a guide book and discounts on other attractions (eg hotels, restaurants too). For example, see:
http://www.westernaustralia.com/en/About_Western_Australia/WA_Flora_and_Fauna/Pages/National_Park_Passes_and_Fees.aspx

http://www.partner.viator.com/en/1810/tours/Hobart/Tasmania-Sightseeing-Pass-See-Tasmania-Smartvisit-Card/d379-2688SEETASMANIA

3.4 ENVIRONMENTAL TAXES

An environmental tax (or eco-tax) is one which is placed on a good or service to internalize some, or all, of the external costs of the activity undertaken or one which is hypothecated to the use of environmental protection (Markandya et al. 2002).

Environmental taxes exist in several countries, the revenues often feeding Environmental Funds and generally targeting the brown sector. However, taxes earmarked for the green sector are increasingly being applied in different parts of the world. In particular, a number of countries have experimented with tourist charges, and the contribution that tourists make to the tax revenues of visited countries is increasing.

For example, in Belize, foreign tourists pay a US$ 3.75 conservation fee by 1996 law, which is collected together with the airport departure tax. Tourists obtain a separate receipt for the conservation fee with a short brochure explaining how the income directly goes into the Protected Area Conservation Trust (PACT - www.pactbelize.org).

In the Mediterranean there are also some interesting initiatives:

- Algeria and Egypt have established taxes on airline tickets, which are invested in the environment.
- In Greece the ETERPS Fund is partially fed through a tax on gas and since 1995 allocates US$ 1.8 million a year to nature conservation.
- In Spain, the Regional Government of Aragon created in 2005 three environmental taxes, focusing on polluting industries, ski resorts and commercial centres; these taxes aim both at improving these industries' environmental behaviour and to support environmental restoration and conservation projects.
- In Italy there is a proposal to benefit PAs from a 0.5% pool for projects of general interest which is derived from personal income tax at the national level.

Box 3.2 ***Taxing New Buildings to Protect Sensitive Natural Areas in France***

The *Conservatoire du Littoral* is a French public foundation in charge of protecting coastal areas and wetlands through the acquirement and where necessary the expropriation of lands for public interest reasons. Since its date of creation (1975), the Conservatoire has acquired 73 610 hectares on coasts and riverbanks in all the French territories. The sites are managed by the local authorities, sometimes in participation with conservation organizations. The Conservatoire has an annual budget of about 30 million €, from which 25 million are earmarked for the acquirement and management of sites. Most of this amount comes from the State, but European local groups, private companies and persons can also contribute. Donations of land have occurred since 1996 and are tax deductible.

In France, each D*épartement* may charge a *tax of sensitive natural areas* on the construction or extension of most categories of buildings, up to 2 % of the total value of the proposed construction. About 71 of the total 100 *départements* have established this tax, at rates varying from 0.5 to 2 percent, with annual revenues of up to 5 - 6 million € in the wider *départments*, totalling 100-120 million altogether.

The revenues are earmarked through the *Conservatoire du Littoral* for public use facilities and for land acquisitions for conservation. In a recent tax review, this fiscal conservation tool was considered to be the most important and efficient in France (Shine 2004).

If the eco-tax is charged on tourists (e.g. foreign visitors), this could have an impact on the competitiveness of a region as a tourist destination. This is one of the reasons used to oppose the implementation of such charges. Nevertheless, bed levies are common around the world, and this is most effective when the area is within one municipality or protected area. For example, in the USA, the state of Delaware imposes an 8% charge on room prices of which 10% goes to finance beach conservation. In the Turks and Caicos Islands 1% of the room tax goes to a protected area conservation trust fund (Font et al. 2004)

In reality, in terms of the impact of a change in price on the level of demand for tourism, a number of studies have shown that demand for tourism is inelastic (Taylor et al. 2003). This is important, as it suggests that the demand for tourism will not be greatly impacted by tourist eco-taxes, which make up a relatively small part of the total cost of a trip – and hence the economy will not suffer greatly, if at all, from such a measure. Whilst this is the case for marginal taxes, it is important to note that it is important not to levy such a large tax that it has significant competitiveness aspects.

Box 3.3 ***Tourist Taxes in Balearic Islands, Bhutan and Dominican Republic***

The Balearic Islands are an important tourist destination located off the coast of Spain. In 2001 just over 10 million tourists visited the islands, with 1.5 million from Spain and the rest largely made up of British and German tourists. This level of tourism has created great pressure on the infrastructure and environment of the Balearics. In environmental terms major impacts include :

- pressure on water resources (underground water faell 90 metres from 1975 to 1999);
- production of domestic waste is double the national average of Spain; and
- Majorca electricity consumption rose by 37% between 1993 and 1998.

The "Tourist Areas Restoration Fund" was established in 1999. The aims of this fund are to promote the sustainable development of the tourism industry and to enhance the competitiveness of the Balearics. An eco-tax was introduced consisting of a system of charges based on length of stay in tourist accommodation. The tax excludes those under 12 and those coming under a social programme. Tax rates are shown in table below. The rates of the tourist eco-tax in the Balearics range from 0.5 Euros per day for low rating hotels and apartments up to 2 Euros per day for high rating hotels and apartments. The tax is paid by the visitor to the hotel. The eco-tax represents only 2 percent of a tourist's average daily expenditure, hence it did not have a large impact on the level of demand. The central Government of Spain appealed against the decision to introduce a tax on grounds of unconstitutionality but on 17th January 2002 the Constitutional Court judged in favour of the Tax Law.

Accommodation	Rate (Euros/day)
5 star hotels and aparthotels	2
4 star hotels and aparthotels	1
3 star hotels and aparthotels	1
2 star hotels and aparthotels	0.5
1 star hotels and aparthotels	0.5
4 key tourist apartments	2
3 key tourist apartments	1
2 key tourist apartments	1
1 key tourist apartments	0.5
Holiday tourist homes	1
Property rental with complementary services	1
Camping sites or tourist camps	0.75
Rural hotels	1
Interior hotels	1
Agritourism	0.25

Source: Ecotaxa website

Bhutan

Bhutan has strict rules on tourism and charges a large minimum tariff for staying in the country of 179 (low season) to 217 Euro (high season) per night for a member of a tour party of more than three persons, through one of 33 official tour operators. There is an additional supplement of 43 Euro per night for a single person and 33 Euro per night per person for couples. This charge was levied and other restrictions placed on tourism in the light of the Government's view that that "*tourism must be environmentally and ecologically friendly, socially and culturally acceptable and economically viable*" (Government of Bhutan, undated). Since 1974 strict controls have been placed on tourism, with Bhutan aiming for low volume, high value tourism. The impacts of these

controls, combined with other measures to protect the environment (including bans on the export of raw timber), have been to reduce the social and environmental impact of tourism in Bhutan. There have been some potential costs associated with this programme, however, in terms of economic development, with some Bhutanese suggesting the programme has gone too far (US DOE, 2001). The Bhutanese case is not a tax as such, but it has had impacts on visitor numbers – which are also limited by the seasonal nature of tourism in Bhutan – and it has had a positive impact on the profits of tour operators (Dorji, 2001).

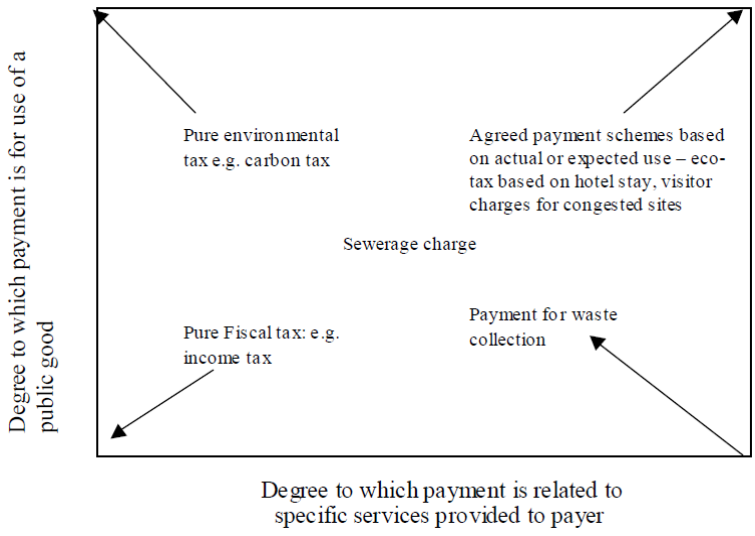
Dominican Republic

Tourism is an important part of the Dominican economy, with over 300,000 in 1998, contributing Euros 46.3 million. Over three quarters of tourists to Dominica arrive by cruise ships and significant environmental problems have arisen as a result on the discharge of wastes. As a consequence, Dominica has an environmental levy of Euro 1.62 per head on departure, to pay for a waste management scheme funded by the World Bank. Difficulties were experienced in establishing this charge, with cruise ships threatening to boycott the island. However, it has been introduced (Patullo, 2000).

Source : Taylor et al. 2003

From the examples above we can see that environmental taxes range from those that are pure taxes (i.e. payments not based on the costs of supplying a particular service) to those that are really charges for services provided, local taxes levied on users of the protected area or on the use of equipment. For example, in the case of waste collection charges the payment is a charge for a service and provides for environmental protection. Of course tourists should not be subsidised in the provision of such services, but all too often this is the case. Pure charges, such as those in the Balearics case, provide for environmental protection based on visitor usage. *Figure 3.2* below displays visually the distinction between these kinds of charges.

Figure 3.2 Distinction Between Taxes and Charges



Source : Taylor et al. 2003

Table 3.4 Potential Advantages and Disadvantages of Environmental Taxes

Advantages	Disadvantages
Ability to generate funds nationally (or regionally) and on a long-term basis	Taxes can be seen as less fair than collecting fees directly from protected areas users, as all visitors to the country/region are taxed for services/resources they might not use.
Freedom to use funds to suit a variety of needs, as accountability is to the public at large and not to a specific donor.	Winning political support for new taxes and setting them aside for conservation might be a long process, particularly in countries where conservation is a low priority.
Possibility of using such funds as a "matched" component of funding from international donors, who are increasingly requiring evidence of national commitment as a prerequisite for support.	When there are too many small taxes, as these can be inefficient to collect and administer, easy to avoid, and may be an irritant to tourists if they have to pay each individually, or are inconvenienced by the payment process and associated bureaucracy. It is advisable to simplify tourism taxes and to provide mechanisms for tour operators to pay taxes directly.
Ease of collection, since there is usually no need to set up a new collection system.	If taxes are charge to offset environmental impacts of tourism activities, the time aspect may also be important. Effects on the reduction of environmental damage or improvement in environmental quality might become apparent only in the long-term, therefore the positive effects in terms of increased tourist numbers might take a long time to be felt.
Public acceptance can be won easily if benefits arising from these taxes are well communicated.	

Adapted from: Norris at al. 1999, Font et al. 2004

3.5 CONCESSIONS

3.5.1 Introduction

Concession fees are typically collected from companies ("concessionaires") that are granted concessions or leases for obtaining a benefit in exchange for payment. Concessions are usually made on a commercial contract basis between the concessionaire and appropriate legal authority. The conditions of the contract generally include specific provisions specifying the pricing of the fee, the collection mechanism and other logistical, financial and legal details. Depending on the legal framework of the country, any function - including the management of the entire PA or operation of specific facilities - can potentially be contracted to a concessionaire.

Concessions in PAs generally fall within the scope of **extraction of materials** ('**concessions**' in Croatian law) or for the provision of **tourism related services** ('**concession approvals'** in Croatian law). Both are dealt with hereunder.

3.5.2 Material Extraction Concessions

Where considered to be non threatening to the sustainability of the conservation values of a protected area it may be appropriate to let a concession for the extraction of materials within a PA. Typically this might include mining for minerals, sand and gravel extraction, the rights to water extraction or other natural materials such as reeds and pasture grasses. The

extraction of materials for use in the PA such as gravel for road making is not generally considered to be a concession and would normally be allowed on a permit basis.

Box 3.4 Resource extraction fees at Sultan Sazligi Nature Reserve, Turkey (source : IUCN 2006)

The wetlands of Sultan Sazligi Nature Reserve in Turkey cover 17,200ha, forming part of an extensive wetland complex on the Develi plain. The site includes a saline lake, salt steppe, nutrient-rich freshwater marshes, wet meadows, small islands and lakes. Freshwater areas support reeds and rushes, while halophytic plants occur in the saltwater ecosystem. Situated in a closed basin and surrounded by hills and mountains, the area is an important breeding and wintering site for various species of endangered or globally threatened water birds.

In addition to bird habitat, the wetlands are a valuable source of raw material for local communities and businesses. In particular, the government management agency allows communities to cut reeds for their own use or for sale to processors. Reeds are used for various purposes including wall screens, roof thatch, insulating houses and handicrafts. Waste material is sometimes used as cattle fodder or cushioning.

Reed cutting has long been practised by local communities but increased pressure on the resource has led the General Directorate of National Parks to impose limits on both the amount of reeds harvested and the period when they may be cut. The government also charges an annual fee for the right to cut reeds in the Reserve. A permit costs about US$5 and is normally issued only to persons from local communities. Permit revenues of about US$2,000 per year are remitted to central government.

Reed collection and processing are important sources of income to local communities. Processors pay approximately US$1 per bundle and up to 70 bundles per day can be harvested by one worker. Between 250 and 400 people are involved in the collection and sale of reeds, on a seasonal basis, yielding an income of up to US$470 per person. Local people are also involved in reed processing, providing an additional source of income. Processed reed products are sold locally or exported to Holland, Denmark and other markets.

Box 3.5 Mineral extraction in the Regional Parks of the River Po, Italy

The River Po is the longest and most important river in Italy. Its entire length is protected under a succession of 3 Parks under the jurisdiction of the Region Piemonte (covering its upriver course and flood plains) and 2 Parks under the jurisdiction of Region Emilia-Romagna and Veneto (delta on Adriatic Sea). Normally, excavation is not allowed in protected areas but the Parks along the river Po have been established after excavation activities along the river bed for sand, gravel and rock had already been operating for decades. Therefore, the Region opted for the gradual phasing out of these activities in protected areas under the following conditions :

- Activities should be slowly phased out and areas gradually reconverted to acceptable environmental standards.

- Once the activity is closed all land areas owned by the enterprise will automatically become property of the Park.
- Part of the concession fees paid for the right to excavate within the Park boundaries should be paid directly to the protected area.

In addition, some authorized excavation takes place in connection with the re-establishment of wetlands along the river bed where these were lost to reclamation over the past decades.
In 2007, the Region Piemonte issued a Decree named "Tariffs for excavation rights" providing very detailed indications regarding concession fees for the extraction of different materials to be paid to different beneficiaries. The table below summarizes concession fees at 2009 and indicates the portion of these fees due to PAs. **In practice, 40% of the concession fees paid per cubic meter of material excavated within PA boundaries goes to the PA itself, while the remaining 60% goes to the local Municipality.** *Source : www.regione.piemonte.it*

Type of material extracted	Total fee charged per Cubic Metre (m3)	Extractive activities outside PAs		Extractive activities within PAs	
		to Municipality	to Region	to Municipality	to PA
Sand, gravel for cement making	**0,47 €**	0,33 €	0,14 €	0,28 €	0,19 €
Ornamental stones	**0,78 €**	0,55 €	0,23 €	0,47 €	0,31 €
Clay, limestone, gypsum and torb	**0,52 €**	0,36 €	0,16 €	0,31 €	0,21 €
Other materials not included in the above	**0,52 €**	0,36 €	0,16 €	0,31 €	0,21 €

Some PA management agencies expressly forbid the extraction of materials, such as in many New Zealand national parks, while others adopt a more flexible approach on a case by case basis.

A typical problem in many low income countries arises where there is the demand for access to resources in the PA but the inability to pay. In particular this is the case with livestock grazing and countries such as Ethiopia, Georgia and Azerbaijan face the problem on a continuing basis. Despite understanding the problems being caused by allowing the concession to operate, the task of removing the livestock and finding alternative livelihoods represents a much larger problem.

3.5.3 Tourism services (Concession approvals)

The most common services provided through concession contracts include: lodging, food and beverage services, horse rentals, recreational equipment rentals, guided tours and boat transportation, and gift / souvenir shops. At some sites, the PA administration may choose to carry out all of these services in-house without involving outside concessionaires. On the other hand, most site managers find that they either do not have the expertise or the investment capital needed to provide these services in a professional manner. This is typically a decision made by the management on a site-by-site basis.

Overall, experience has shown that devolving responsibilities for the establishment and operation of PA tourist facilities to local communities and the private sector can yield substantial increases in revenue, as well as providing a financing mechanism that can help cover many of the wider costs of PAs (Eagles et al., 2002).

3.5.4 Basis of selection

Selection of concessionaires is usually done through a competitive bidding process in which the site's administration develops the terms of reference and interested companies apply, indicating the services they are offering and the amount they are willing to pay for the opportunity to provide these services. In the case of government-managed PAs, this process can be long and involved. Concessions can be an excellent way to involve local people in PAs - as either sole or co-owners of the concessionaire, or employees of the concessionaire. This can help build local community support for the PA.

Table 3.5 Best Practice in Tourism Concessions in PAs (source: Wyman, 2006)

Components	Parameters	Options
Concessionaire Qualifications	Financial capacity	- Minimum amount = to be defined based on local currency and standards
	Tourism experience	- Experience with at least one past concession experience and demonstrated success
	Education level	- demonstrated training or education in field for area of concession and knowledge of environmental laws of protected area / country
	Language abilities	- bilingual staff where job entails communication with tourists (English and native language)
Legal Responsibility	Contract length	Tier 1: A contract with little or no investment by the concessionaire should have a shorter contract length (5 years) with a review of contract fulfilment after 2 years Tier 2: A contract with a substantial investment (over US$ X) should have a longer contract length (20 years) with a review of contract fulfilment after 5 years Contract renewal should be available to all concessions.
	Late / non-payment fee	Late payment carries fee of flat rate X % for every day missed
	Facility ownership after contract	At the end of the contract term all facilities revert to land ownership. Any compensation to concessionaire for structure development will be assessed on an individual basis (with consideration to such things as structure depreciation, concessionaire profits, etc.)
	Damage to environment and communities	Any damage to the environment and resources will require full compensation to the state and local communities affected - Government's environmental division and local community leaders will assess damage and compensation requirements. - Fees (see fines) - Performance bonds (see "Financial Responsibilities" recommendations) can also be applied to environmental / community damage restitution. - Suspension of concession activity until compensation to state and communities is fulfilled
	Fines	- For environmental / community damage, fees will incur for each week that compensation to state and communities is not fulfilled. - In case of a breach or non-fulfilment of the contract, fines will apply for 20% of the value of the unpaid obligation

Components	Parameters	Options
	Contract non-fulfillment	- In addition to fee (see Fines), a 1 year suspension of concession activity will be issued. - Every 6 months contract should be reviewed to ensure all obligations are being met.
Financial Responsibility	Performance bonds	- A performance bond must be valued at 10% of the annual pay value of the concession and must be maintained until 6 months after the concession expires in the event there are damages that have incurred.
	Concessionaire user fee	- Concession pays an established percentage of their net revenues - Concession user fee reviewed periodically (e.g., every year) to assess profits and expenses and adjust user fee where necessary
	Income requirements	- An annual fixed / flat fee - fees based on the number of people a concession serves during a given year - fees based on a percentage of the gross or net income of the concessionaire - a combination of the above
	Maintenance/repair responsibilities	- 10 % of monthly revenue will be placed in this Maintenance / Repair Reserve for use specifically related to infrastructure repair or improvements. - Park management will maintain account and requests must be made by the concessionaire indicating the infrastructure improvement / repair use.
Environmental Responsibility	Infrastructure development	Any infrastructure development must be approved by park management. Elements that should be taken into consideration include: materials being used (recycled), alternative energy components, ecologically and socially conscious site design, and landscaping.
	Monitoring plan	A monitoring plan should incorporate periodical base-line inventories of biodiversity and other natural resources. This should be presented and approved before a contract is given.
	Alternative Energy	At the very least, infrastructure plans must show design techniques that allow for: natural ventilation, heating, lighting.
	Waste Management	- The concessionaire must agree to manage and treat sewage using the established regulations of the protected area. - The management plan must include a plan for waste management - wastewater re-use (both grey and black) should occur as much as possible
	Risk Analysis	Risk analysis must be approved before the concession is approved and should include the following components: - inventory of natural resources and cultural resources in proposed concession area. - potential risk to any vegetation or animal habitat where proposed concession intends to operate and activities it plan to engage in. - any potential risks to local communities or resources local communities may depend upon (e.g., water). - steps in place to mitigate these risks.
Social Responsibility	Capacity Building	Together the protected area manager and concessionaire will determine the most appropriate form of local training and capacity building with local communities and this must be demonstrated in the concession proposal. This will be evaluated every 6 months for compliance and will result in a fine for non-compliance.
	Local employment	A private concession must show they are benefiting local communities through employment opportunities by hiring X% of their staff. The management plan should describe strategies that will be used to involve the local population in a concession enterprise.
	Community Assessment	Management plans must include risks to, and involvement of, local populations. Specifically, the management plan should describe the potential cultural impacts (positive and negative) on the local population, as well as a ways to minimize or avoid the negative effects.
	Community revenue share	A percentage of concession profits, if located within a community, should go directly to a community reserve that can then be used by the community development improvement projects.
	Local business involve	Longer contracts are granted to a concessionaire from the area surrounding a protected area Licensed-out services (e.g. construction, maintenance, etc.) must hire a minimum specific percentage of local citizens.

3.5.5 Payment structure

Concessions income can be structured in different ways. The major options include:

- fees based on the *number of people a concession serves* during a given year
- fess based on a *percentage of the gross or net* income of the concessionaire
- an annual *fixed fee*, or
- a combination of the above

In many situations, it can be difficult for the concessionaire to track and calculate profits, income and number of people served. A fixed annual fee provides a simpler way to charge a concessionaire, but lacks flexibility. The concession may be steadily increasing its business while the annual fee remains the same. It is not unusual for concessionaires to make huge profits while site administrations receive very little in fees. It is important to be creative in setting concession fees at appropriate levels for all parties and using fee income methods that are easily calculated.

A concession fee may not be a viable option for some sites, particularly if there is limited demand for the service. In some cases, there may be demand but not the entrepreneurs with sufficient capital, interest and risk-taking ability. A concession should not be undertaken unless a marketing study and business plan are prepared.

3.5.6 Concession management

One particularly difficult aspect of concessions is arriving at a balance between the amount that the concessionaire will earn by exploiting the resource, and the amount that will be returned to the PA administration. To take two examples, in the US this figure is about 2 to 3 percent of concessionaire earnings while in New Zealand the Department of Conservations receives 3-7.5%, depending on the activity with the higher percentage for guided tours (Font, 2004).

It is particularly important for the site administration to retain control over the concessionaire's operations to assure that resources are not over-exploited or damaged, and that protection and management functions are not neglected in favour of profit-making functions. As such, along with fee rates, the contract for concession operations should also require adherence to *best practices* pertaining to ecotourism infrastructure development and management. The ecotourism site's manager is ultimately responsible for ensuring that all standards and contract conditions are monitored periodically and complied with. Such responsibilities entail costs, which should be factored into user-fee systems.

The most common cause of concessions operating outside their terms of reference can be found in the management agency having inadequate resources to deal with the problems that arise. For example in the case of a major development taking place, there needs to be a high level of management experience and resources applied in developing the concession documentation and evaluating the proposals received. In many cases park agencies, particularly the smaller one or newly established ones, do not have this expertise. In which case it would be preferable to engage business

management agencies and consultants to assist with the process. Similarly the agency managing the concession must have the resources and expertise to continuously monitor the concession operation to determine that the conditions to be met are being complied with. Again many park agencies may not have this expertise and may need to engage private sector expertise to assist in the task.

Box 3.6 Concession for tourist services in the Regional Park of the Po Delta, Italy

The most developed Italian PAs have all outsourced a part or all of the tourism related services with varying degrees of success. In many cases, limited experience with concession arrangements has caused problems of lack of contract compliance. Nevertheless, PAs have learnt from this experience and have gone back to outsourcing services as they recognise it is the only way to exploit to the full the PA potential for creating added value to the territory. As a matter of fact the most developed amongst Italian PAs, such as the Regional Park of the Po Delta, have become experimental grounds for sustainable economic development and are acting as "spin-offs" for new socio-economic activities. In other words, the PA launches a new idea, searches for funds to implement it and outsources the responsibility of day to day management to a local NGO, company or other organisation based on a concession agreement.

In 2008, the Regional Park of the Po Delta has defined a concession agreement with a local family business for the following services aimed at improving access and creating additional recreational activities on the wetlands (locally called "valleys") in the delta of the River Po on the Adriatic Sea.

a) Ferry links within the valleys of Comacchio (historical city)
b) Guided tours of the valleys and surrounding areas;
c) Booking and issue of tickets;
d) Guides services;
e) Maintenance of the waterways used by the ferries;
f) Management of the restaurant and bar called "Bettolino";

The concession was granted in 2008 based on the evaluation of the most interesting offer in economic terms based on the following parameters :

- Highest offer on the annual concession payment (40 points);
- Lo west offer on the price of a single ticket (50 points);
- Technical merit of the offer (30 points)

In the past the service was granted in concession to a local public operator with unsatisfactory results and it was suspended. The Park reviewed their concession management system and, since 2005, the service was granted in concession annually to different operators with positive results in terms of number of visitors and income. Now the Park is proposing a concession for a longer period of time (5 years, 2008-2012) as an incentive for investments by local operators running the service.

Many park agencies overlook the need to properly include in their budgets the cost of full concession management. While most small scale business

concessions can be relatively easily managed, larger scale developments and those which include multiple parties such as ski field developments, are often complex. The costs of managing these concessions should be fully estimated and taken into account both in formulating the agency budget and in considering the returns expected from the concession revenue.

An example of successful business concession practice within South Africa is included below.

Box 3.7 South African National Parks (SANParks) announces the winners of the second phase of its Commercialisation Programme

Following a comprehensive evaluation of the technical offers, a public opening of the financial offers took place at SANParks head office.
South African National Parks (SANParks) announced the winners of the two ecotourism concession sites, as well as the winners of the tenders for restaurants and shops within SANParks, at its head office in Pretoria on 13 August 2001. The commercialisation program, which has been described as a strategy for conservation, aims to enable private sector operators to become involved in Parks commercial operations, while freeing the organisation to focus on its core business of bio-diversity conservation. The first phase of the program was completed in November 2000 and resulted in seven lodges (six in the Kruger and one in Addo) being successfully awarded to private operators via 20-year concession contracts. Yesterday a further two 20-year concessions were awarded, one in the Kruger National Park and another in Cape Town, in the Cape Peninsula National Park.

SANParks embarked on a tender process for the outsourcing of restaurants and shops within SANParks, in March 2001. Following the submission of bids on 27 July 2001, a comprehensive technical evaluation process was undertaken. The bids were adjudicated on the basis of empowerment, operational ability and proposed design theme. Under the empowerment section, attention was paid to creating opportunities for Historically Disadvantaged Individuals and women, particularly those from communities adjacent to the parks. In addition, private operators will have to respect the existing SANParks regulations regarding the protection of the environment, as well as take cognisance of branding sensitivities. These facilities were awarded as going concerns, complete with staff and assets, under contracts that will transfer full operational control to the private operators.

3.5.7 Remittance of concession revenues

The remittance of concession fees to either the government, local government or the protected area management agency is entirely a matter of government policy. The policy generally applies to all government bodies and in many cases have been developed at the behest of international funding agencies such as the IMF.

Most protected area agencies are funded by government and many are required to remit earned revenue to the central treasury. Exceptions exist and these include South Africa, the Republic of Georgia and those countries where PA agencies operate as parastatal entities and are entitled to retain all revenue

earned. In Turkey there is another situation where the National Parks Directorate is required to remit revenue from its extensive beach side concession system to Government. However the Special Protected Areas Authority is able to retain earn and retain revenue for approved activities.

The following table summarises the strengths and weaknesses of Concession Fees revenue.

Table 3.6 Strengths and Weaknesses of Concession Fees

Strengths	Weaknesses
Congestion control. Fees allow increased management and control of park access by users, helping to address overcrowding and directing activities to appropriate areas. Visitors will pay more for a less-crowded experience. **Information exchange.** Fee collection provides an opportunity for information exchange between visitors and park personnel. PA managers can concentrate on strategic planning and lobbying at the international and national level and do not have to devote staff and resources to everyday tourism management activities. **Public perception and external funding.** Self-generation of income enhances public perception of a site's value and its administration's competence, which can be used as political leverage and to attract national, international, and private donors to invest in larger conservation projects. **Commercial professionalism.** Privatization of concession services can increase commercial professionalism which is usually lacking within public administrations. Engaging stakeholders. Concession rights include the private sector and their local staff, and sometimes NGOs, as service providers and site partners, helping to engage them more actively in PA management and to increase local support for the site. **Employment.** Fees can create additional local employment as collectors, guards and concessionaire staff.	**Commercialization risks**. Inherent risk of commercialization of sites when concession agreements are put in place. A parks agency that places its emphasis on user-fee revenues can lose sight of some of its objectives, and tend toward facilities designed to produce income rather than protect natural resources. It is particularly important to retain control over the concessionaire's operations to assure that resources are not over-exploited or damaged. Because most private firms have no long term ties to the PA their commitment may weaken as time goes by. Particularly firms that are owned by investors living remotely from the PA In the case of tourism it may be difficult to control the quality of service to the public and lead to the PA agency developing a poor reputation. The converse is also just as true. Leasing or granting concession rights may result in political pressure to increase the type and availability of a particular service that is inconsistent with the objectives of the PA. **Viability.** A concession fee may not be a viable option for some sites, particularly if there is limited demand for the service. Difficult to arrive at a balance between the amount the concessionaire will earn by exploiting the resource, and the amount that will be returned to the PA administration. **Liabilities.** With more tourists, increased exposure to legal liabilities for on-site accidents.

3.6 GOVERNMENT CONTRIBUTIONS

National government budgets in most countries are the main source of funding for PAs. Around the world, domestic input is estimated at a 35-45% of the total existing funds for PAs. As a share of the total governmental spending, PAs account for between 0.1 and 0.5 of the GDP in many countries. However, there is a need to be careful with such statistics.

Generally speaking, a relatively substantial government contribution should be justified based on the fact that considerable non-use benefits are provided by PAs. At the same time, however, as sustainable financing opportunities develop, the amount of government contribution should perhaps decline as a portfolio of alternative finance sources are developed. It can be argued that the more 'sustainable' the PA management and financing systems, the smaller

the relative contribution from central government and the less reliance on visitor fees.

The table below, extracted from a recent analysis of PA funding in the Mediterranean region, provides an indication of funds allocated to PAs by national governments in US$ per hectare (€ 1 = US$ 1.2 at the time of the study). Nevertheless, the same study confirms this information has to be treated with caution as the information on national budgets is rarely available and, most of the times, it is roughly estimated or incomplete (López and Jiménez 2006).

Table 3.7 Protected Area Budgets in Mediterranean Countries (annual means in US

	Annual budget	Protected hectares[a]	US$ / ha
National budgets (only National Parks)			
Italy	72,000	970,000	75
Israel	16,000	325,600	49
Spain	86,000	329,178	262
		Mean	107
National budgets, all Categories			
Algeria	445	158,000	2.8
Albania	830	102,500	8
Croatia	4,700	396,000	12
Egypt	520	793,800	0.7
Greece	3,000	358,168	8.4
Italy, Reg. Parks	90,000	1'750,000	51.4
Jordan	716	70,000	10.2
Lebanon	400	20,700	19.3
Montenegro	525	94,800	5.5
Morocco	180	247,600	0.7
Slovenia	3,420	120,200	28.4
Spain, 4 Reg. Gov.	82,500	1'924,000	42.9
Syria	1,050	647,500	1.6
Tunisia	250	200,000	1.2
Turkey	7,200	993,350	7.2
Sub-regional totals, all Categories			
EU	178,920	4'152,000	43
Non-EU	17,136	3'757,000	4.5
East Europe	6,055	594,000	11.2
Middle East	9,366	1'731,000	5.4
North Africa	1,395	1'432,000	1.0
Regional averg.	196,056	7'909,000	24.7

Source : López and Jiménez 2006

In the Mediterranean region, other than the qualitative evaluation from RAC/SPA (1997), the cost of protecting and managing PAs and the financial gap has not been assessed. Nevertheless, the mentioned study provides an estimate of the gross financial needs for PAs based on budgets for particular Mediterranean PAs which are supposed to reasonably cover the basic management needs (see table below).

All these figures are reasonably consistent with other worldwide reports (for terrestrial protected areas). Chape et al (2003) calculated at around US$ 13 /ha/year the actual expenditure worldwide. James et al (1999a), for the mid 1990s and including inflation through the decade, reported that the mean annual expenditure in developed countries was US$ 20/ha, whereas in developing countries it only reached US$ 1.57/ha. For example, African governmental expenditures ranged from US$ 2 to 3 /ha/year (Howard 1995) while in Latin America the mean investment has been estimated at US$ 2.5 to 4 /ha/year.

In summary, to be properly managed a terrestrial PA should be allocated between 15 and 50 € per hectare annually. The figure is considerably higher for Marine Parks and Reserves (between € 50 and 1000/ha/year).

Table 3.8 Budgets for Mediterranean PAs and PA systems (annual means in Euros 000s)

	Annual budget	Protected hectares	(€ / ha)
NATIONAL PARKS, particular sites (terrestrial)			
Plitvice NP (Croatia)	2,080	29,482	71.7
Ichkeul NP (Tunisia)	160	12,000	13.3
CATEGORY V - Multiple Use areas (terrestrial)			
EU Natura 2000 Network	6100,000	50,000,000	15
Italy, Regional Parks	130,000	1,447,883	89.8
C. Valenciana (Spain)	7,000	119,940	58.3
Barcelona Prov. (Spain)	10,000	108,000	92.5
Andalusia (Spain)	50,000	1,700,000	29.4
Navarra (Spain)	1,800	80,000	22.1
MARINE NATIONAL PARKS			
Port Cros NP (France)	5,000	2,475	2,020
Miramare PA (Italy)	400	190	2,000
Ses Negres (scientific)	42	78	1,860
MARINE RESERVES (Spain and Italy)			
Masia Blanca, Spain	120	340	353
Columbretes MR, Spain	1,235	4,400	281
Estrecho MR Spain	500	7,000	71,4
MPA network, Italy	250,000	12,000	48
HIGH SEAS Fisheries reserves			
La Graciosa (fisheries)	600	70,700	8,5
Alboran (high seas)	800	200,000	4,0
Pelagos High Seas Int1	250	8´000,000	0.04

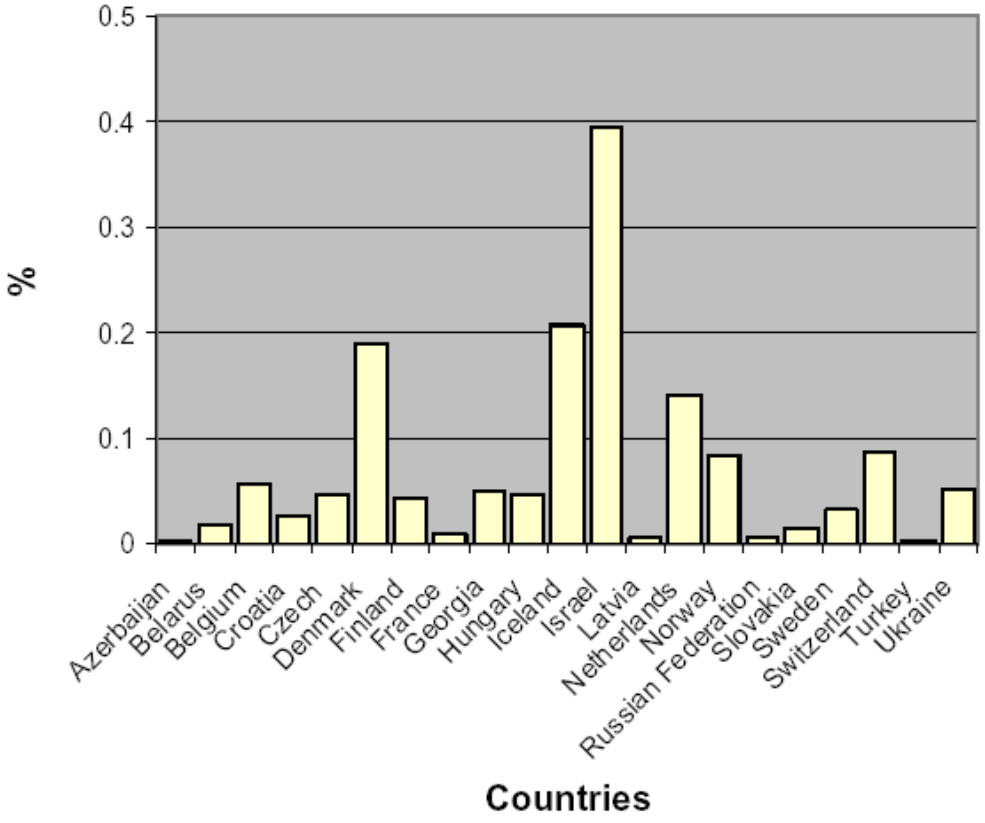
Source : López and Jiménez 2006

A dollar or Euro figure per hectare (US$ or €/ha/y) allows us to compare funding provided by different countries, regardless of size of the overall protected area network. What it hides though, is the fact that in some countries maintaining protected areas will necessarily be cheaper because of a lower cost of living or conversely because a higher standard of living may reduce some of the pressures on protected areas. In addition, it hides the fact that a hectare of a degraded but highly valuable protected area may cost much more to maintain than a hectare of a pristine, unthreatened protected area. Therefore, in terms of extrapolating to determine future needs, such a measure of costs may not always be the most useful. We therefore turn to relative

values of protected area funding. Relative figures are grounded in an existing real amount and serve to provide a reasonable benchmark. Public funding to protected areas could be determined for instance as a proportion of overall government budget, or of GDP.

Considering funding for protected areas relative to what a country is worth or what it can afford, helps to overcome the relative differences in wealth and in costs of living. A study by WWF has recently undertaken an analysis of the proportion of GDP spent by governments on their own protected areas and results are displayed in the graph below for Europe and Central Asia (WWF 2008).

Figure 3.3 ***Government PA Budgets as a Percentage of GDP for Europe and Central Asia***



Source : WWF 2008

3.6.1 National versus Local Government Budgets

The balance between national and local government financing tends to depend on national governance frameworks. For example in Lebanon the budgetary responsibilities are divided along the lines of functional responsibility. So for example the national government funds items of national significance while the municipal government does likewise for those matters it is responsible for. This works well in Lebanon since PAs are decentralised and are managed by NGOs and the private sector or sometimes a combination of both (IUCN 2003). The situation in Lebanon is summarised in *Table 3.9* below.

Table 3.9 PA Funding Strategy in Lebanon

Actors/Partners	Role in PAs Funding Strategy	Benefit from PAs
National Government	Direct funding for research, capacity development, infrastructure, technical assistance, specialized expertise, staffing, networking, legal status and support, financial and non-financial incentives, etc.	National environmental impact. National economic benefit. Support Government's policies. Support Ministry's plans. Support other related development sectors. Enhance the green image.
Municipalities	Direct funding for basic infrastructure, law enforcement, staffing, community outreach, logistical support, etc.	Local environmental impact. Enhanced living conditions and neighbourhood. Local economic benefit. Employment opportunities.
Private Sector	Direct funding to support specific activities of the PA management plan.	Support the corporate social responsibility program of the company. Used for "Green Marketing". Enhance public image.
NGO	All the above, depending on the scope of work of the NGO.	Gaining public exposure Enhancing self-image Increasing their contribution in public work.

In Turkey the national government assumes financial responsibility for national protected areas and, through its administering agencies such as the General Directorate of National Parks and Nature Conservation and the Special Protected Areas Agency, it provides funding to the regional administrations and municipalities to undertake the necessary work of PA management. However in the case of shared responsibilities such as the operation of waste water treatments works where there are benefits to local communities as well as PA users there is co funding and the financial responsibilities are settled by negotiation

Recognizing that not all countries will have such arrangements in place the CBD Program of Work is recommending that each country should do an assessment of legal and institutional barriers and on that basis adopt a plan to remove the identified barriers, as it is a requirement under the PoWPA that all Parties to the CBD should have in place the appropriate institutions and legal frameworks to support the establishment of comprehensive national, regional and sub-national protected area networks for terrestrial areas by 2010 and for marine protected areas by 2012. The plan needs to envisage adoption/revision of laws, by-laws, policies. While the world's diversity of political and legal systems makes it dangerous to prescribe a particular "blueprint" for protected areas legislation, "capacity building in environmental law" is a central mission of IUCN's Environmental Law Programme (ELP) (http://www.iucn.org/themes/law/elp06.html).

3.6.2 Consolidating financing of national PAs systems

The reality for most protected area systems is that only a small number will be able to charge tourist entry fees and implement other charges to earn revenue. However in most PAs and particularly those that have restricted entry, it is

not feasible to earn revenue and costs must be met by the PA agency from the available government budget. The practice most often used is to allocate the revenue earned from all sources to the available budget and to manage the system as a whole. **That is to say that cross subsidisation is the norm and not the exception.**

However it needs to be recognised that in certain cases revenue earned in particular PAs will be earmarked for particular commitments and this must be taken into account. For example in Australia at co managed national parks on land belonging to indigenous communities, some 25 to 50% or park entry fees collected are paid to the local community. It is only the balance that is available to meet general costs of management elsewhere.

The Ukraine government at the municipal and national level is evaluating the issue of how to distribute the revenue earned from a PA which is jointly managed by 2 adjoining municipalities. Differences in the level of costs incurred and the difficulty of reconciling revenue earned by each municipality renders the exercise extremely difficult. A further situation exists in Ethiopia and Turkey where a percentage of revenue earned by the national agency from the issuing of hunting permits, must by law, be remitted back to the local communities in which the hunting took place. The problem here is that the law does not specifically address the issue of how the money should be spent, who the direct beneficiaries should be and for what purpose the money should be spent. A potentially similar dilemma is faced with the earning of carbon credits through avoided deforestation and who the recipients of such revenue should be.

In another situation in Egypt, the Red Sea Provincial Government receives revenue through dive fees for activities at marine national parks. The funds are spent on the marine national parks in accordance with an agreement signed between the national and provincial governments.

As is the accepted practice in most countries the PA system requires funding on a basis that ensures each PA is adequately funded in accordance with national priorities. This is achieved through the development of a national strategy using Management Plans and treaty obligations as the mechanisms for determining costs and priorities and how the expenditure will take place. The distribution of revenues forms an integral part of the strategy and should be clearly specified. The table below summarises the pros and cons of different models adopted worldwide.

Table 3.10 Pros and cons of different models adopted worldwide.

Funding Model	Pros	Cons
1) Funds are distributed by the national government in accordance with the national PA financing strategy	Ensures that highest priorities are funded.	Individual PAs may lose motivation to maximize revenues and minimize costs. Local government may not administer funds in accordance with the national funding model.
2) Funding is allocated through mechanisms which specify site based funding	Individual sites are guaranteed funding.	May be suboptimal to allocate funding in the mid to long term on this basis as management needs will inevitably change.
3) Funding earned by the PA stays in the PA in accordance with fixed agreements	PAs are motivated to maximise their revenue. Terms of Agreements specify arrangements to apply.	National priorities are not adhered to. PAs without revenue potential are under funded. PAs with revenue potential are pressured to increase revenue at the expense of conservation.

3.7 ENVIRONMENTAL FUNDS

3.7.1 Introduction

Another means to focus long-term finance for PAs is by establishing. In the last 15 years, over 100 Environmental Funds (EF) were created throughout the world. The GEF alone has helped establishing 23 of them. Examples are common all over the world: Madagascar (US$ 12 million), Uganda's National Parks Fund (US$ 6 million), South Africa's Table Mountain Fund (US$7 million), Bhutan (US$ 36 million), Colombia (US$ 30 million), Philippines (US$ 26 million) or Indonesia (US$25 million), among others.

To date, Environmental Funds have been established in 8 Mediterranean countries (Algeria, Egypt, the FYROM, Italy, Israel, Slovenia, Syria and Tunisia). Almost all these Funds are focused on support of the "brown" sector, which is the environmental priority in non-EU countries. Apparently, only the Jordan and the Egyptian Funds are benefiting protected areas, but the latter with less of 5% of the total funds generated (López and Jiménez 2006). This Section focuses on EFs that finance biodiversity conservation - also called conservation trust funds - not the wider universe of EFs that include so-called brown funds.

Box 3.8 Environmental Funds in Mediterranean Countries

In **Jordan**, an endowment fund contributes to financing protected areas. It is invested in local and international markets and is administered by a management company.
In **Egypt**, the Egyptian Environmental Trust Fund is managed by the Environmental Affairs Agency, under the Ministry of Environment. Revenues arise from different sources, as a green tax on airline tickets and diving fees established for some marine protected areas. Funds are used for environmental projects, usually into the "brown" sector. Some protected areas have benefited by these allocations, but the general share is less of 5% of the

total resources provided by the Fund.
In **Slovenia** an Environmental Development Fund, established as a public financial fund in 2001, channels finance for environmental projects on waste, water and air pollution. It is fed from national budgets, concessions granted for public services and capital resources acquired by other legal means (e.g. land-use penalties). The GEF has participated co-financing US$ 6.2 million for phasing out ozone depleting substances. No funds are allocated to the green sector, but according to the law, part of the profit gained from the land-selling and leasing business within the ownership of the national. Fund of agricultural lands and forests is earmarked for PA management.
The **Middle East North Africa** Environmental Fund was approved by the International Finance Corporation (IFC) to encourage private participation in a wide range of environmental sectors: waste management, water supply and waste water treatment, pollution prevention, renewable energy or ecotourism. Primary target markets were Egypt, Jordan, Lebanon, Morocco, Tunisia and the West Bank and Gaza.
In **Algeria** an imposed tax on airline tickets is earmarked to a national Environmental Fund.
In **Tunisia** the National Environmental Fund (FODEP) was created a as a financing instrument to help private industries develop pollution prevention measures. In the Former Yugoslavia Republic of Macedonia, a national environmental fund was created in 1998 under the Ministry of the Environment, and was transformed in 2000 into an independent body.

3.7.2 Environmental Funds for Conservation

Most EFs that finance conservation take the form of a legally independent institution (i.e. set up outside of government) and are managed by an independent board of directors. Many EFs have a permanent endowment that has been capitalized by grants from the national government and international donor agencies. EFs may also manage sinking funds created through debt-for-nature swaps or revolving funds financed through specially designated "user fees" or taxes that are earmarked for conservation.

The main purpose of setting up an EF is to provide long-term stable funding for national parks and other protected areas (PAs), or small grants to non-profit non-governmental organizations (NGOs) and community groups for projects aimed at conserving biodiversity and using natural resources more sustainably. EFs are often developed out of a process of long-term business planning for protected areas.

However, EFs are more than just financial mechanisms. They can also serve as:

- a valuable forum where diverse stakeholders - such as national and local government agencies, NGOs, the private sector, and international donors - come together on a regular basis to discuss and sometimes resolve important conservation issues
- key agents in the development of national conservation strategies and policies
- the source of technical experts who can work with public and private agencies to develop agile and effective management approaches, and

- capacity builders and nurturers of emerging NGOs that are becoming involved in biodiversity conservation.

The main attraction of EFs for international donors is their ability to reliably manage and allocate donor funds over a long period of time. EFs are typically formed through broad consultative processes, and are governed by a mixed public/private board of directors composed of representatives of different stakeholder groups. EFs are designed to have credible and transparent operational procedures, accountability, and sound financial management practices. EFs therefore may be able to attract new donor funding in cases where donors might otherwise be concerned about giving their money to a government agency. Furthermore, the assets of an EF are almost always managed and invested by outside financial institutions, either inside or outside of the country - so as to provide income for the specific duration and specific purposes of that particular EF.

The creation of an EF requires a substantial investment of time and resources, and long-term commitment to building a new institution. An EF may employ one or a combination of the revenue generating strategies outlined hereunder

Environmental funds have four basic components:

- **Capital assets,** which are invested in order to generate income.
- **Legal structures,** which stipulate the objectives and procedures of the Fund, including capital asset investment procedures. In most cases, EFs are legally established as private legal entities, including trust funds, foundations and associations.
- A **supervisory structure**, which decides how to use the funds. The members of this board should represent the different interest groups, such as local communities, NGOs, government institutions, the private sector, academia, and donor agencies.
- A **management structure**, which is responsible for the management of the fund and implementation of grant-making programs. In EFs established to conserve protected areas (PAs) (parks funds), the EFs work closely with national nature conservation institutions or the administrations of PAs, which are formally independent of the EF.

3.7.3 Environmental Fund Allocation

In general, host government agencies seek significant roles in the governance of EFs in order to direct the EF's grant-making towards integral elements of a national PA strategy, a national biodiversity strategy, or a national environmental action program. The primary role within that strategy is assuring that at least some sustainable recurrent cost financing will be available to manage national parks and protected areas being targeted under the fund.

Government plays a key role as it usually owns the land where the parks operate, and the national parks director and other government officials serve on the EF board. However, the government is typically expected not to be in the majority.

Programmes are generally focused on a limited universe of PAs, but most anticipate to eventually support the key components or broader segments of a national park system. In this regard:

- Focus tends to be specifically determined during the design phase, and generally limited to activities targeting formally gazetted parks.
- Some funds also provide grants to entities working in PA buffer zones, but normally only within the context of a park management strategy.
- Fund allocation process is relatively simple, no competitive-grants process.
- Activities funded usually support elements of a multi-year park management plan.
- Programme level monitoring and evaluation are relatively easy to the degree that all grantees are carrying out similar functions and work in circumscribed geographic areas.

Developing country governments typically support EFs from an interest in generating increased investment in conservation, which their current institutions cannot attract or manage because of legal or operational limitations. Resource management agencies of the host government are motivated by the opportunity both to attract outside funding for their operational costs and access funds from their own governments previously out of their reach (e.g. proceeds from a debt-for-nature swap). Donors often make the creation of an EF a pre-condition for implementing a debt-for-nature swap.

Depending on the type of EF, funds may be allocated in several ways. The distribution of funding depends on each fund's overall objectives, legal framework, role within the national nature conservation planning process, etc. Structure, scope of activities, priorities, and procedures vary according to purpose, and the local situation.

The proceeds of national Environment Funds may be of a general conservation nature or specific to certain parks, for park establishment projects or for particular projects (e.g. Species Recovery Plans). The funding will depend entirely on how the Fund is established and its mandate. The most appropriate means of linking Park financing to the national EF is to ensure that the park Plan of Management and the associated Business Plan are harmonised with the EF. In particular the Business Plan should target the EF as well as other sources of funding to achieve a realistic result. In most cases the EF will have limited funding and the more specific the application the better chances of success.

In terms of financial structure, there are three types of funds that are managed by EFs, differentiated by their investment volume and spending horizon.

- **Endowment funds** have *permanent* capital assets and rely on the interest earned from investments for annual allocations.
- **Sinking funds** start with an amount of money that, together with interest is spent over a pre-defined period of time.
- **Revolving funds** spend and receive new financial resources on a regular basis - e.g. proceeds of special taxes designated to pay for conservation programs. An EF can manage one or more type of funds.

The distribution of income/fund proceeds generally follows the agreed format with government and may support one or more specific PAs within a national protected areas system.

Grants funds channel resources to target groups (typically NGOs and community-based organizations) to carry out a broad range of conservation

and sustainable development projects. Often one of their main objectives is to strengthen the institutions of civil society (for example, NGOs and community-based organizations) in order to enable such institutions to play a much more active and constructive role in environmental policy debates and priority-setting. The UNDP Small Grants Program is one such example.

Box 3.9 The Bhutan Trust Fund for Environmental Conservation

Since its inception in 1991, the Bhutan Trust Fund for Environmental Conservation (BTF) has seen cumulative growth in its endowment from an initial US$21 million to over US$36 million. To date the BTF has awarded US$5 million in 46 grants to various beneficiaries. Grant-making is guided by strategic objectives, focusing on biodiversity conservation and local capacity building.

The overall impact of the BTF on Bhutan's scientific and management capability for conservation has been tremendous. By 2004, a total of 142 individuals had been recruited and trained. Their recurring costs have been incorporated into core budgets (as of July 2003). Non-governmental organizations have also benefited from BTF support. For example, the fund supporting training in the natural sciences for six Bhutanese in the faculty at Sherutbse College. The Royal Society for the Protection of Nature (RSPN) likewise received support from the BTF, which it leveraged to secure additional external project financing. In this case, a US$1 million endowment was created to cover the RSPN's core recurring costs, which external donors are often reluctant to fund. BTF provided a US$450,000 challenge grant to match external contributions. BTF operates under an annual spending limit, which is based on the endowment's valuation at the end of the preceding fiscal year. This enables fund staff to operate within a clear financial target, and permits reinvestment of unspent investment income to hedge against inflation and continuously increase the endowment. The current spending rule of 2.5% of the endowment was revised from a previous limit of 5%, in order to preserve the inflation-adjusted capital.

Key factors underlying the success of the BTF include:

- Strong local governance. The BTF is governed by a fully Bhutanese, seven-member management board with ultimate programme and fiduciary responsibility. The board has high-level membership reflecting the importance placed on the fund's objectives, and conferring prestige and credibility to the fund's business.
- Independent investment advice. Due to the specialized nature of investment instruments in use today, BTF relies on independent expertise to advise on investment policy and strategy.
- An integrated approach. The government of Bhutan is integrating environmental management across all sectors. The BTF is likewise looking beyond a compartmentalized "green" agenda so as to move forward with government.

Source: Tobgay Namgyal, 2003.

Box 3.10 Fundación Biodiversidad

The Biodiversity Foundation of Spain was created in 1998 by the Ministry of Environment to focus on the field of conservation, survey and sustainable use of biodiversity and to support international development cooperation. In 2005, its budget for Protected Areas was around € 280.000, distributed in 7 projects. Additional funds may be included when regarding projects implemented in buffer areas or targeting species living in PAs, as well as training projects that sometimes are related to PAs. Its cooperation budget was of about € 100.000 to € 150.000 in 2005. Most significantly, the Spanish Ministry of Environment has recently launched (November 2005) a Program for the Acquirement of Coastal Lands, to be developed in the next years, with a budget of € 20 million for 2006.

Source : Ornat and Jimenez 2006

3.7.4 Sources of funds for EFs

Donors provide the bulk of funding that makes EFs possible. The Global Environment Facility (GEF) has been the single largest supporter of EFs. Other bilateral and multilateral donors include: the US Agency for International Development (USAID), United Nations Development Programme (UNDP), World Bank and the European Union (EU). Donors are interested in leveraging their funds to have the greatest impact on their conservation objectives. Normally, donors are involved in advising on establishment of the legal framework and in approving the financial terms of EFs. They also monitor project performance as they would for any donor-funded project. Donors also are attracted to EFs as a way to channel their support through *non-governmental* actors, which can result in increased decentralization, accountability and transparency in management of project funds, and provide other benefits such as strengthening the NGO sector.

Donors must believe that the benefits of "locking up" a large contribution into a long-term fund that generates only modest investment returns for conservation, outweigh the benefits of more rapid disbursement of their funds. For this reason, many donors require that EFs raise matching funds. Of course donations can specifically be used as "seed" money and the task of raising matching funds is often much easier once a substantial donation has been made to facilitate further action. An example being the Micronesia Trust Fund that was started with funding from Conservation International and The Nature Conservancy and has since achieved a contribution from the GEF.

Other sources of funding for EFs include fines and penalties for offences against Regulations (Egypt and the Marshall Islands) donations from private individuals through work place schemes, lottery proceeds (United Kingdom) and through fiscal measures such as compensation for environmental damage or eco-taxes.

For many EFs, conservation NGOs, both local and international, serve in a catalyst role, helping to carry out feasibility and design stages, providing technical assistance for debt-for-nature swaps and EF establishment, and helping the EF with fundraising and capacity-building. In some cases, catalyst NGOs provide this assistance as an "in-kind" contribution to the future EF, while in other cases catalyst NGOs may receive a grant from an international donor agency to enable them to provide this assistance. Some international

NGOs have also provided limited capital contributions to EFs. Local NGOs may assist in establishing an EF and later benefit from grants from the EF. It is important that rules regarding conflict of interest for an EF are established so that NGO support is not perceived as primarily being motivated by a desire to receive grant funding.

There are many examples of private "grants" funds supporting particular components of a national PA system in Bolivia, Ecuador, Peru, and Mexico. Examples of private "parks" funds include: Santa Marta in Colombia and Mgahinga-Bwindi in Uganda. Examples of private "grants" funds with broad mandates (i.e. national sustainable development funds) include EFs in the Philippines, Mexico and others (e.g. several established in Latin America through the US Enterprise for the Americas Initiative). Public national environmental funds include EFs in Brazil, Colombia and El Salvador.

For private funds, a legal framework that permits establishing an autonomous trust fund, foundation, or similar organization is extremely useful. Tax laws allowing such a fund to be tax exempt provide incentives for donations from private contributors. If not, willingness and likelihood of government to bring about and support such a framework can be an encouraging factor.

Table 3.11 ***Advantages and disadvantages of EFs***

Advantages	Disadvantages
Long-term financing of operating follow-on costs of PAs.	Cannot generate significant amounts of funding in a short timeframe - which may be required if biodiversity resources face major, urgent threats.
Provide high absorptive capacity, i.e. the ability to absorb and distribute large sums of money over an extended period of time.	Endowment funds tie up large amounts of money, which only generate relatively modest income, a part of which is spent on administrative costs.
As a long-term source of finance, EFs facilitate the planning process of PA management.	Minimum size for an EF to be cost effective is typically US$25 million, which can often be difficult to raise, particularly from more than one donor.
Broad participation of government and non-governmental representatives in the governing bodies contributes to a transparent decision-making process and improves the acceptance of nature conservation measures in society (local ownership).	Possibility exists that the funds will be utilized for political and other purposes outside EF objectives and restrictions, and that endowment will be "invaded". (Proper legal safeguards help to minimize this possibility.)
Through the support of NGOs, community-based organizations and the commercial sector, EFs also make an important contribution towards the development of civil society.	Existence of an EF can prompt cutbacks in conservation funds by host governments and donors.
Provide sustained funding, mitigating risks of unexpected stoppage of funds due to political changes, budget cuts, economic austerity programs, etc.	Typical focus of grant-making for projects can result in neglect of key legal and policy actions needed to conserve biodiversity.
Since they are independent of government EFs can react more flexibly to new challenges.	
Can conduct long-term planning, because they are independent of changes of government and shifts in political priorities.	
Provide small grant-making capacity by retailing large international grants to a wide range of smaller projects. More capable than large donor agencies of overseeing many small-scale projects, and adjusting requirements to fit local capacity and circumstances.	
Facilitate coordination between various actors (donors, government, and civil society).	
Can help build local capacity for managing financial resources. They are locally driven and locally managed, addressing the priorities of the region, country, province or community in which they are based.	
Leverage effect: Once established, funds can attract important additional funding from various sources.	
May enjoy privileges such as tax exemption that enable full application of available funds to designated beneficiaries.	

3.8 INNOVATIVE APPROACHES TO REVENUES

This section provides a brief description of some recent and emerging funding mechanisms for conservation the can be or have been applied to PAs. These include:

- Payment for Ecosystem Services (PES)
- Offsetting environmental impacts
- Corporate Social Responsibility (CSR)
- Image Copyrights
- Other emerging mechanisms

3.8.1 *Payment for Ecosystem Services*

Systems of payments for ecosystem services (PES) seek to create financial incentives for resource users and managers to adopt, voluntarily, activities and technologies that generate environmental benefits. The idea of PES is that those providing environmental services by conserving natural ecosystems are also to receive compensation / payments from beneficiaries of the service. By directly combining the providers and beneficiaries, PES may also succeed where other conservation approaches have failed. This may increase the appeal of conservation practices to a number of stakeholders.

The use of PES to generate funding for PAs is a relatively recent phenomenon; most schemes have been developed in the last decade or so. PES is however becoming an increasingly popular source of funding for biodiversity conservation.

The WWF Danube Carpathian Programme (WWF DCP) in collaboration with the Institute for European Environmental Policy (IEEP) has recently undertaken a very interesting study focusing on the use of PES to fund biodiversity conservation in rural areas.

The impact of a PES scheme takes a significant period of time to evaluate. However, the current experience both in Europe (agri-environmental schemes) and outside (PES schemes in Latin America and elsewhere) reveals that there are a number of factors that can provide for the success of the scheme. The details of these factors will always be case and context specific, and in many cases they are related but not limited to the following issues:

- **Awareness of the importance of environmental services** is considered one of the most important aspects of a successful PES scheme. Without the awareness and interest in the environmental service PES will not be different than many of the existing subsidy or payment systems.
- **Access to information** for potential services beneficiaries and providers should be easily available and at an accessible cost to allow equal participation in the proposed PES scheme.
- **Pro-active approach** both for the establishment of the implementation framework and the dissemination of information is a crucial factor – e.g. farmers that support biodiversity are usually passive recipients of information; therefore, the implementing agency should be acting actively to promote the scheme and encourage them to participate;

- **Clear and transparent administrative processes**, including clear and simple forms, publicly available information on the selection and scoring criteria, feedback on the applications are provided. This also supports the institutionalisation of the PES system.
- **Advisory services, training and education** – there should be integrated advisory services consulting not only on production aspects, but also on the environmental aspects of the land management. Furthermore adequate training, and specifically tailored education for farmers and other land managers should be provided in order to demonstrate to them the contribution they can make through sustainable land management and how their labour can be valued
- **Invest in community capacity-building** - Community capacity building is a key accompanying strategy to support revenue diversification and the generation of benefits for marginalized communities. However, community capacity-building strategies are often lacking in existing PES schemes.
- **Better access to financing to cover high initial costs.** Availability of finance is vital to negotiating and concluding environmental service deals. Where the financial sector is underdeveloped, and the environmental service sector faces significant hurdles in accessing funds, the government may have a key role to play in promoting improved access.
- **Transaction costs do not exceed potential benefits**. In many case the size of the transaction costs can determine the success of the PES scheme both in terms of participation and cost-efficiency. These costs should be minimized using various strategies adapted to the specific conditions – targeted or untargeted payments, individual or collective contracts, etc.
- **Clear ownership and tenure rights.** This helps to target the payments to the ones that are entitled to get paid. Thus, the sources of conflict are significantly reduced as well as overexploitation and degradation of the natural resources is prevented.
- **Institutional strengthening of social organisations** among poor community groups is an important precondition for participating in PES. This can help them build trust and provide the necessary minimum in terms of knowledge and funding to apply for the PES scheme. They can also reduce the transaction costs both for the participant service provider and for the PES administration.
- **Rely on multiple sources of revenues** which deliver money flows that are sufficient and sustainable in time. One of the successful strategies in this is the creation of markets for the products and services produced under the PES scheme. It helps to ensure the sustainability of PES schemes over time since it raises the level of revenues associated with sustainable land uses.
- **Flexible payments mechanisms and contracts.** They should be flexible enough to allow adjustments to improve their effectiveness and efficiency and to adapt to changing conditions. Yet, the compliance, land use changes, and the provision of services should be closely monitored and controlled.

There is no common agreement on how PES should be developed in the future. Some believe in the carbon sequestration market and the growth of similar cap-and-trade environmental regulations, which would create (or enlarge) an array of other environmental offset markets (e.g. for wetlands, nutrient discharges, biodiversity, etc.). Others look more to the development of environmental services and payments for environmental services as the approach to do conservation both publicly and privately. Of course one alternative does not exclude the other and in any case, it would be advisable to reduce short-term expectations, since PES are difficult to negotiate and take a long time to become operational.

Box 3.11 Pioneering Cases of Payment for Ecosystem Services

In **New York City**, 90% of the water supply is originated in forested basins 300Km far from town. This used to cause continuous conflict and trials with the forest communities, which received no benefits for this important service (the annual cost of a family's water consumption is estimated in 160$). Additionally, due to water pollution the environmental federal authorities had demanded the construction of filtering plants to an approximate cost of 4,000 million $ plus 300 million annually for maintenance. These problems derived in the New York Basins Agreement in 2002, with the participation of the City and the State of New York, the Environmental Agency and other local entities. The agreement included an investment commitment for water conservation $US1,400 million during 10 years, with a City contribution of 660 M$ along the first 5 years and a subsequent gradual increment in the price of the citizens water supply.

In **Costa Rica**, a national hydropower company pays US$ 10 a year per ha to the also private Monteverde upstream forest reserve, through a contract recognizing services such as "stabilization of land, soil protection, humidity and nutrient retention, water protection and biodiversity..:" . In Heredia (also in Costa Rica), due to the lack of institutional response to serious pollution, water limitations and deforestation pressure by livestock uphill, the public bottling company ESPH S.A. undertook an initiative introducing an ecosystem service charge in the water supply cost, accounting for around 1%-1.5% of the water bill. Incomes generated are earmarked to protect and restore the forest cover, and already incorporates 800 ha through voluntary contracts with forest owners.

At La Tigra National Park (**Honduras**) the annual water flow from the Park, used by the downstream city water company SAANA, was calculated as 12 million m^3. After evaluating the Park management cost, a US$ 0.15 / m^3 fee was set to cover this service.

3.8.2 Offsetting Environmental Impacts

These offsets are offered as compensation for the impact caused by works and infrastructure. Some countries require utility, telecommunications and energy companies to pay millions for the right-of-way to build and maintain electric, telecommunication or gas transmission structures inside protected areas. All over the world there are remarkable examples of these offsets. One recent example from Spain is provided below.

Box 3.12 ***Highway across Los Alcornocales Natural Park (Andalusia, Spain)***

The highway connecting Los Barrios with Jerez, in Andalusia (Spain), goes across one of the largest cork-oak forests in the world, home to important endangered species. The Regional Government (Junta de Andalucía) allocated 35-40% of the total works budget (more than € 313 million) to correcting and compensatory measures.
The compensatory measures (5-10% of the total budget) were defined by a team of experts, according to an agreement that the Junta de Andalucía signed with the Biological Station of Doñana. Among these measures there were specific programmes for the conservation of endangered species and habitats. Additionally, the regional authorities have committed to compensate the environmental impact of the highway through ecological programs like the reintroduction of the Imperial Eagle, the Osprey and the Otter into the Natural Park. The European authorities supported these measures and consider them as an example for future similar actions in Europe.
http://www.juntadeandalucia.es/economiayhacienda/fondos/poia_interreg/POIA/ejemplos/a381/a381

In the future, these initiatives are likely to involve the private sector, and be institutionalized rather than remaining as one-off cases. The European Union, has approved Directive 2004/35/CE on Environmental Liability Directive. This Directive is the first EU law specifically based on the "polluter pays principle" and pretends to ensure that environmental damage in the EU is prevented or remedied and that those who cause it are held responsible. "Environmental damage" includes damage to fauna, flora, habitats, water resources and land pollution causing significant harm to human health.

The Directive applies to protected habitats and species (Annex II 1.1.3.): *"Compensatory remediation shall be undertaken to compensate for the interim loss of natural resources(…) This compensation consists of additional improvements to protected natural habitats and species or water at either the damaged site or at an alternative site(…)"*. Under the Environmental Liability Directive, public authorities must ensure that responsible operators undertake or finance the preventive or remedial measures, and public interest groups, such as NGOs, are allowed to require public authorities to act, and take illegal decisions to courts.

3.8.3 Corporate Social Responsibility

In recent years, many public limited companies are becoming much more sensitive to their environmental footprint, they want to convey and promote a positive corporate image to the public and a link with conservation can help them do this. Other motivations for private sector involvement include access to capital as more and more investors require sound environmental performance and pension funds favour leaders in this sector. Green marketing and access to environmental security in the form of flood protection or pollination services may also be drivers for business to seek to sponsor PAs.

Numerous options for private sector involvement in various aspects of PAs are available. Which ones are most appropriate and ultimately adopted will depend upon the interests of the commercial firms, the opportunities available at the time and the policy environment created by government. Particularly suitable options include:

- Providing funding to PAs , either as a donation to increase visibility in relation to conservation activities or means of mitigating the environmental impacts of their activities
- Providing professionally qualified experts in fields such as finance, infrastructure development and maintenance, tourism and concession management
- Providing logistical support such as donating the use of boats, helicopter or light aircraft for PA purposes

Since the late 1990s, corporate environmental concerns have become a key component of Corporate Social Responsibility (CSR). Companies with well-known CSR Programmes obtain returns on image, social acceptance, advantages over competing corporations and improved interest from environmentally sensible investors (e.g. Shell and British Petroleum). Some of the most important stock markets have established lists of "environmentally responsible" corporations.

Some of these Programmes are open to competitive application for projects anywhere, while other funds focus on sites, sectors or countries where the parent company operates. Similarly, at national and local levels, business advertising or sponsorship can be an important fund-raising mechanism for PAs. In the Seychelles, a national bank has sponsored the purchase of waste bins in PAs. Both the British National Trust and WWF raise funds through credit cards issued by commercial banks. Jaguar, the automobile manufacturer, has contributed funds for the conservation of jaguars, their habitat, and to ex situ and in situ measures for their preservation over the last 20 years (IUCN 2006).

Box 3.13 A Park's Support from a Telephone Company in Slovenia

The mobile-phone company Mobitel supports different activities in the fields of culture, sports, nature protection and science in Slovenia, including being a major partner and sponsor for Birdlife-Slovenia. The company recognises the improved public appreciation for a "nature-friendly" corporation, which means higher subscription rates to their mobile phone offers. In 2002 the company decided to invest money in the restoration and protection of the Secovlje Salina Nature Park (650 ha). The Nature Park traditionally produces and sells salt, and here the company also supports the Park additionally by providing marketing tools. In fact, the Park yields direct economic benefits through salt sales and the growing number of visitors. The full responsibility for the management of the Park was given by the Republic of Slovenia to the private company by a concession contract. The company can share the Park revenues (9%) and use its image, but must in turn finance its recurrent costs (62%) and most importantly manage the area in accordance with the approved Management Plan, while the land within the Park remains State property. There is no special environmental fund within the company; the budget which is drafted by the Park authority is directly approved by the company's Board. It works perfectly for the Park, although there is always a threat of discontinuity as this environmental responsibility derives from the leadership and commitment from the present Board and Chairman.
Source : Sovinc, A. (2006)

3.8.4 Image Copyrights

Very often pictures or footage is taken in pristine natural areas like PAs for commercial purposes like advertising. I recent years PAs have become aware that this could be a source of income and have tried to envisage systems to charge image copyrights. In some countries charging image copyrights by a Public Authority like a PA is not straightforward in legal terms and feasibility of implementing this mechanism varies from country to country.

In Italy, the Campi Flegrei Nature Park (close to Rome) has recently managed to charge a copyright fee to an Italian mobile telephone operator for footage taken in the PA. The footage of just a few seconds appeared on TV as a popular commercial and portrayed a famous Hollywood actor lying on a grass field at sunset.

Following this example many other PAs in Italy have issued internal regulations defining the terms for taking picture and turning footage for commercial purposes within the PA boundaries. As a matter of fact, these internal regulations are not supported by clear national legislation, but nobody has objected or brought the case to court. The Box below provides an extract of such a regulation issued by the National Park of Abruzzo.

Box 3.14 Regulations for picture taking and footage turning in the National Park of Abruzzo

Picture and footage can be taken free of charge within the boundaries of the National Park of Abruzzo provided it is for personal use only. On the other hand, if the purpose is commercial, previous written authorisation is required to the Park Authority. If the authorisation is granted, specific fees will be charged and rules have to be respected. Fee charges are as follows :

- Film-making footage turning from 500 to 5000 euro
- Television footage turning from 200 to 2000 euro
- Picture taking from 50 to 1000 Euros

Assistance of Park personnel is included in these fees and nothing has to be paid separately to the individual employees providing assistance.
Any activity has to be performed respecting species of fauna and flora within the Park and the environment in general.
At least one copy of the footage and/or three printed copies of pictures taken have to be left with the Park Authority upon termination of the work.
In case of non compliance, the Park reserves the right to sequestrate all visual material and charge fines based on existing copyright laws.

3.8.5 Emerging mechanisms

Many conservation NGOs are experimenting with new fundraising technologies or importing financial mechanisms that have been successfully tried in other areas of national and international cooperation, including (Gutman and Davidson 2007):

Adopt a Park : Many countries "adoption" campaigns have been successful in attracting support from the public and from businesses for a variety of causes

and sites, from children's health and education to urban parks and highways. The same approach has also been used in conservation, particularly in relation to charismatic species. Most of these programs are based on fostering a special relation between the donor and the recipient, through information visits, token presents and public recognition (especially for business sponsors). In Italy, the Regional Parks of Adamello-Brenta in the Alps has launched a few years ago an "Adopt a Bear" campaign, which is partially funding the reintroduction ob the Brown Bear in the Park. Similarly, the regional Park of the Po Delta, covering the remnants of the wetlands associated with this large river delta, has launched an "Adopt a Flamingo" campaign.

Round-ups: In this mechanism, users allow utilities to round up (or salary payments to round down) the cents in their bills and donate the cents to a designated charity. Collection and transfer costs are low because modern payment systems are highly standardized and internet based. Even if each donation is just cents, the totals can be huge (Koch-Weser and Jacobs 2007).

Eco-labeling schemes: have been championed by NGOs, (certified wood, certified fish, sustainable soy, etc) and have met increasing business and consumer interest. Certification has grown exponentially in the last 15 years, and still has a large potential to grow, and also a large potential to improve their on-the-ground conservation impact thus becoming a force for biodiversity conservation on production landscapes.

Green markets (including organic, fair trade, and sustainably produced goods): with well over 30 billion dollars a year of world sales they command a small but fast-growing share in the world's food and fibers market. Furthermore, global demographic trends (i.e. an increasingly urban, older and richer population) suggests that demand for healthier, more natural (organic) and more environmentally friendly foods and fibers will continue to grow, raising large opportunities to leverage green markets to pay for sustainable agriculture and biodiversity conservation in productive landscapes.

Green investment funds: have been growing in high-income countries, mostly focusing on investing in the pollution control industry, clean energy and environment-friendly manufacturing industry. The few attempts during the 90s' to put in place international green investment funds to invest in biodiversity related businesses in developing countries folded due to poor performance or lack of investment prospects (IUCN 2006). Lately, new and larger green investment fund have emerged, focusing on clean energy and carbon sequestration, and may open new opportunities to finance biodiversity conservation, particularly in projects related to bio-carbon sequestration (Bayon et al. 2007).

Box 3.15 Italian Parks for Kyoto

In 2008, Federparchi (the Italian federation of Parks) has launched an ambitious project called *Parks for Kyoto* in collaboration with other organisations Kyoto Club (a group of entrepreneurs sensitive to climate change), Legambiente (environmental NGO), AzzeroCO2 (export firm in climate change accounting) and others. The project aims to plant trees in National and Regional Parks and Urban areas in support to the achievement of the Kyoto objectives. The project idea was based on the following estimates :
The total forested area in Italy is 6.858.979 ha, equivalent to 22,7% of total surface. Forested area within PAs is 800.000 ha, equivalent to 23% of total PA

surface. 1 ha of forest managed sustainably absorbs between 200 and 400 tonnes of CO2 equivalents per year. Considering an average of 300 tonnes of CO2 eq per year, Italian Parks are currently contributing by absorbing 300 x 800.000 = 240.000.000 tonnes of CO2 eq per year.
The project aimed at improving this contribution but the main problem was to identify areas for planting, considering that most of the land within PAs is privately owned. The problem was solved with agreements with the owners.
For every 20 Euros collected by the fund-raising campaign a tree will be planted, with the contribution used as follows:
60% - 12 Euro for planting a tree.
20% - 4 Euro for activities related with management of the forest (fire prevention, areal signals, certifications and emissions register, accountability and dissemination).
20% - 4 Euro for coordination activities of the Management Committee
In its first year 250,000 trees were planted (75% in Italy and 25% in developing countries) which have absorbed an estimated 175000 tonnes of CO2 equivalents.

3.9 PARTNERSHIPS FOR CO-FINANCING

3.9.1 Non Governmental Organisations

In organisational and managerial terms NGOs, the private sector and community organisations possess attributes that can complement government initiatives in protected areas. Because NGOs have often less bureaucratic organisational structures and management processes than governments, they can have the flexibility necessary to adapt to changing conditions. They may also be more efficiently operated since they are more closely linked to market processes than government agencies.

At the global level, some international NGOs have become extremely important financial conduits and managers, often with more resources than some national government departments. **The challenge here is to find appropriate and complimentary roles and activities**. The fundamental requirement for cooperation and co-funding lies in the alignment of the goals and objectives between the parties concerned.

Experience has shown many times over that the most satisfactory way to proceed is for the national PA agency to develop in accordance with governmental policy a framework or strategy upon which non government organisations can be invited to participate. The framework document should be in sufficient detail as to provide information on the objectives, priority actions, likely costs and time framework. The greater the degree of specification and the clearer the understanding the more likely are the chances of success. Once the NGO or organisation is in a position to join into the program, a Memorandum of Understanding or Agreement should be drafted so that the intentions of both parties are made clear and properly understood.

It is natural that different partners will have different attributes and strengths to bring to the arrangements being entered into. In recognition of this, each MOU should be specifically drafted to suit the circumstances of the arrangement and the outcomes to be achieved. One of the most effective roles for NGOs is harnessing the willingness to pay for protected areas by the general public, both nationally and internationally. Conservation financing began with the work of the NGOs that have been raising money and lobbying

for conservation actively for at least 100 years. NGOs with their considerable experience in obtaining results from limited budgets are an attractive source of short term and project specific funding for PAs. In addition to donating funds directly, international NGOs can help to organise and capitalise trust funds and debt for nature swaps and can serve as sources of information on various funding mechanisms. NGOs remain in the forefront of innovation in bringing more investors and more financing to the support of conservation.

In general, NGO programmes tend to focus on projects rather than providing long term sources of funds, although Trust Funds contributed to by NGOs are an exception. They are inclined to support activities such as management planning, staff training, species survival research, environmental education and community outreach and seek to maintain supervision and accounting control over the funds disbursed.

Box 3.16 Land and Marine Stewardship Programmes

Land Stewardship is a mechanism by which voluntary agreements for the conservation of natural resources are promoted between land owners and private or public entities (institutions, NGOs, foundations, etc). These may include management agreements, donations and land acquisition. In the Mediterranean context, the *Conservatoire du Littoral* is an example of a public entity with a conservation activity based on land acquisition. WWF-Italy started a similar action in 1968, and currently the so called Oasis are small and medium size areas acquired by WWF (46 areas totalling 5100 ha), or areas managed through renting or agreements with the owners (57 areas, 22,000 ha). In Catalonia (Spain) the Fundació Territori i Paisatje was established in 1997 as a social institution of the local banking entity Caixa Catalunya; one of its working strategies is land purchase for conservation, and acquisition of timber rights in mature forests. They have also developed over 70 agreements with small land owners adding another 9000 ha to the network. This foundation is part of EUROSITE, an organization of European private entities managing areas for conservation and one of the launching institutions of the Green Register of natural ownership, an international initiative promoted by the Balearic Islands and Catalonia, France and Italy, aiming at guaranteeing conservation of an important part of the Western Mediterranean coasts (Arquimbau et al 2001).

While land stewardship in private lands is being developed in some Mediterranean countries, a similar approach is also pioneering into the marine environment. The Ses Negres Marine Reserve (42 ha for strict protection and scientific research) was established on a biodiversity hot-spot by the Autonomous Government of Catalonia in 1993 and its management was delegated to the Nereo local NGO. The government does not allocate any budget to the reserve, but facilitates the local group to obtain conservation-related subsidies when available. Over the years, the NGO has developed skills to fundraise from a range of private sources, mainly from the nautical sector, sport marinas, and from local Bank foundations (www.nereo.org). The local government of Begur also collaborates with the management of the reserve.

Most interesting are the collaborative arrangements for a sea trust with the Fishing Ministry of Spain, local governments, diving clubs and marine

research centres for a network of *Posidonia oceanica* marine meadows which are protected from trawlers.
Sources: Ornat and Jimenez 2006

3.9.2 Private donor-driven foundations

Philanthropic foundations, or simply "foundations", are non-profit organizations with endowment funds established by wealthy individuals, groups, or corporations to make grants to charitable organizations. Foundations are managed by their own trustees or directors. Some such entities use the term "trust" or "fund" rather than "foundation" in their names, such as *Pew Charitable Trusts*. Also, some organizations that are called "foundations", such as the National Parks Foundation, are not philanthropic foundations. Rather, they raise money to carry out their own programs. Since these terms can cause confusion, it is important to research the foundation one is considering carefully.

A number of foundations grant funds for the purpose of environmental conservation at the international level. Most are based in the United States. It is often important to partner with a conservation organization in the country of the prospective foundation to be considered for funding. In fact, some US foundations can only fund NGOs registered in the US.

Foundations have specific missions and interests, and sometimes geographical focuses. Grant application procedures often specify what types of organizations may be considered for funding. It is most effective to apply for a grant to a foundation whose mission is closely aligned with that of one's own organization. The request for funding, or proposal, should be tailored to the guidelines of the specific foundation. Foundations generally do not fund operational, overhead or recurring costs. A proposal for a specific project or activity with clear goals and objectives is more likely to be successful than a general proposal that solicits funds for continuing operations of the organization. In addition, foundations are a good source for start-up funding of new initiatives and tend to be interested in the future self-sustainability of a program. Grants are competitive and competition from other potential grantees is normally intense. A proposal will not achieve its purpose unless the proposal is tailored to the donor's specific application guidelines. An ineffective strategy is to request funding for a project that does not fit the mission of one's organization just because it fits the foundation's mission.

3.10 BUSINESS MANAGEMENT

3.10.1 Business Planning

The idea behind the use of a "business approach" to protected area management is to encourage protected area towards a more entrepreneurial form of management. But in this case, the objective of the business is not to make a profit, but rather to improve the management of the protected area and make it financially as well as ecologically and socially sustainable.

This business approach is based on the idea that protected areas provide real economic benefits to individuals and society as a whole. These contributions

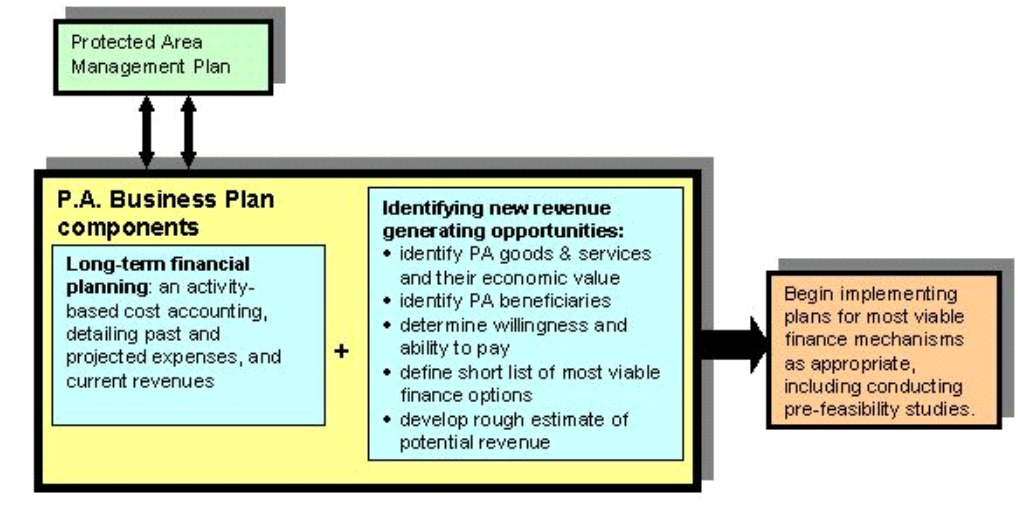
are often neither fully recognized, nor compensated. By identifying what are the environmental "goods and services" provided by a PA (such as clean air, clean water, hydro-electricity, wildlife, tourist areas, etc.) and who are the "customers" or beneficiaries of the PA, we can begin to quantify the monetary value of these benefits and generate payments for them. The business plan helps to summarize this valuation process and serves as a roadmap for implementing financial strategies that take advantage of biodiversity goods and services. As such, it identifies the financial sources and opportunities offered by a site for which existing and potential customers might pay (Phillips 2000).

Preparing a PA business plan requires an assessment of the protected area's resources and a plan for marketing these resources to meet financial goals. The first part of the business plan, **identifying the amount of financing required** to accomplish the goals, is known as the *long-term financial plan*. The second part of the business plan entails **identifying viable funding sources to meet these needs.**

These two main components of the business plan are shown in *Figure 3.4* below. Note that creating a business plan (and in particular, the long-term financial plan) requires having the protected area management plan in order. This means having clearly defined long-term goals in place (the strategic plan) as well as detailed short-term goals and corresponding management activities (the operational plan). This should be apparent, since managers cannot define their financial needs until they know what is intended to be done at each site.

This is not to say that a comprehensive management plan must be completed before developing the business plan. On the contrary, it is best if the business plan is developed in conjunction with the management plan, so that they may influence each other. For example, if planned management activities in the short term are financially unrealistic, this will emerge in the business planning process and the management plan can be adjusted accordingly. But it should be understood that, by and large, the business plan is a means of achieving the management plan, not the other way around. Ultimately, the financial details and funding sources identified in the business plan will be incorporated into the management plan.

Figure 3.4 Components of a PA Business Plan



Source : Inamdar and Merode 1999

Comprehensive instructions for the development of a Business Plan for PAs can be found in the CFA Guide which comes complete with pre-defined spreadsheets for financial planning and accounting purposes (www.cfa.org).

3.10.2 Accounting Methods

If a protected area or protected area system is to effectively report its financial health, some form of a uniform system must be established. Currently, there are numerous methods of accounting in the private and public sectors. If one desires to follow a business planning (i.e. activity based costing) approach, the most applicable standards are:

- Generally Accepted Accounting Principles (GAAP)
- Internationally Accepted Accounting Principles (IAAP)
- Uniform System of Accounts

Most protected areas are likely not following GAAP or IAAP. It would be a significant exercise to convert most PAs to GAAP or IAAP. However, the third standard, a uniform system of accounts, is much less complex and can be applied fairly easily to a protected area.

A uniform system of accounts is an industry based accounting system designed to standardize financial reporting. It is typically adapted by an industry or industry accountants. For instance, in the hospitality and tourism sector, there are uniform systems of accounts for lodging, restaurants, and other businesses.

Most government accounting systems focus primarily on cost accounting and fail to adequately consider revenue or income-based accounting (found more frequently in the private sector). This approach, therefore, will generally necessitate outside assistance and is most useful when attempting to ascertain the current and future potential of revenue generation as a percentage of the PA's and/or PA system's overall budget. This is very useful when considering the potential for less reliance on government funds or subsidies.

Error! Reference source not found. provides an example of a uniform system of accounts for PAs based on five areas, with examples of activities, revenues and costs that can be linked together and aggregated for each account.

Table 3.12 Linking Activities to Revenues and Costs in Activity Based Costing

PROTECTED AREA ACTIVITIES	SOURCES OF REVENUE	SOURCES OF EXPENSES
Natural Resource Management & Protection (RMP)	Grants Subsidies	Management & Administrative GIS
Cultural Resource Management & Protection (RMP)	Grants Subsidies	Management & Administrative Repair & Maintenance
Education & Interpretation	Courses & Seminars School Programs	Facility Maintenance Facility Operations
Visitor Use & Enjoyment	Leases Royalties	Fee Collection Visitor Safety
Environmental Services	Resource Use Permits	Permit Administration

Source : Cornelssen 2005

Once a uniform system is established, it is often helpful to identify what portion of the PA budget is derived by the revenue generation versus through

grants, taxes and subsidies. One method of doing this is through the application of the public benefits spectrum. In essence, activities can be placed on the spectrum as either a public good, private good, or some combination or both.

This analysis is helpful at both the site and system levels to make a preliminary determination of potential cost recovery, revenues, and the funding gaps. Importantly, until fairly detailed revenue and expense data is available, this analysis should be viewed simply as a barometer for comparison amongst protected areas and systems. In conjunction with an analysis of overall cost-recovery at the site level, a more detailed look at cost recovery levels for each of the major activities is helpful.

Table 3.13 Cost Recovery Options for PA Activities

	PUBLIC	MIXED	PRIVATE
EXAMPLES	Resource Protection	Visitor Centers	Overnight Accommodation
BENEFIT	Biodiversity Conservation	Educational	Relaxation & Rest
FUNDING SOURCES	Taxes Grants	Mix	Entry Fees Concession Fees
COST RECOVERY LEVELS	0 – 20%	20 – 80%	80 – 100%

Source: Cornelssen, 2005

This analysis should not only be completed for the current system. Some prospective analysis should be completed based on the output of a business plan. This is typically accomplished based on the results of a detailed revenue analysis and expense analysis. The cost recovery level is not intended to maximize revenues. Rather, it is designed to honestly reflect PA site and system level potential for cost recovery as well as the true need for taxes, grants and other forms of subsidies. Combined with a business plan, establishing a uniform system of accounts and calculating cost recovery levels will provide PA managers with powerful financial information (Cornelssen, 2005).

Box 3.17 EC LIFE project SelfPAs and the concept of PA "maturation"

Between 2005 and 2008, six Italian PAs covering the whole Italian territory from north (Alps) to South (Sicily) have worked in the context of an EC LIFE funded project called SelfPAs (Self-financing Protected Areas) to increase their level of financial self-reliance. The project had to change the standard accounting system within PAs to an activity-based costing system revealing to the PAs themselves, for the first time, the contribution of self-generated funds to their annual budget. Following this, a Business Plan was prepared to improve or diversify activities in an effort to increase this contribution. The results for 2007, the final year of the project, are displayed in the table below.

Partner SelfPAs	Self-generated income (2007)	% of total income (2007)
Parco Regionale della Maremma	€ 488.169	*22%*
Parco Nazionale delle 5 Terre	€ 2.504.500	*58%*
Parco Regionale del Delta del Po (E-R)	€ 819.000	*24%*
Parco Fluviale dell'Alcantara	€ 11.200	*1%*
Parco Nazionale del Vesuvio	€ 2.511.000	*43%*
Parco Naturale Adamello-Brenta	€ 837.000	*31%*

Besides quantification of the results achieved, the most important final conclusions of the project was that **no market based self-funding mechanism has any chance of success if a PA has not been able to effectively publicise ('Colonise') the territory with its identity and development vision.**
Therefore, the starting question for any PA business planning exercise is:
What are the conditions for a funding mechanism to be successful?
The answer to this question is not an easy and requires a closer look at the role (often innovative) PAs are shaping for themselves in the wider socio-economic development of a region or even a country. PAs are at different *maturation* levels. Some are still looking for their identity, others work hard to improve and impose it, other (the most evolved) have become a reference point for the territory, within their boundaries and beyond. The more mature amongst PAs form an integral part of the wider socio-economic context in which they are located and, often they represent a catalyst for local socio-economic development.

http://www.selfpas.it/en/progetto.html

3.11 LEGAL ASPECTS OF FINANCING

Appropriate legislation must be in place at a level of government appropriate to the PA to enable fees, charges and any revenue measures to be legitimately put in place. This is the first step to PA financing and unless properly performed puts at risk the legitimacy of the action and the revenue collected. Legislation is also required to cover the establishment of a fund to which the revenue collected can be legally deposited with a bank. Financial Regulations or similar exist in most countries to govern the handling of public money and these must be adopted by the PA agency.

*Methods of Fee Collection***:** Collection of fees is generally made by authorised staff of the PA agency. However it is common practice that this may also be under taken under a contract arrangement on a fee for service basis by others appointed to the task. A critical factor is that fees and other revenue collected are properly receipted and accounted for. This is important since in many PAs it may constitute an offence to be within the PA unless evidence of payment can be produced.

*Revenue Accounting System***:** In terms of being accountable to government and the auditors, it is essential that a robust and accurate financial information management system be in place for the PA agency. In a similar way proper banking arrangements must be in place and proper records of bank transactions maintained. The extent of the arrangements to be in place is generally provided in the Financial Regulations or similar documentation.

Staff Training and Compliance : Training of staff and achieving compliance with management accounting systems is a mandatory function for managing finances. Staff should not only be fully trained to meet internal requirements but sufficient staff with external qualifications should also be available to provide expertise and on line advice and guidance. As is the case with the US Parks Service and park management agencies in Australia, Finance Manuals or Instructions are produced by the agency which explain in detail the requirements to be met. Such manuals often serve as self guiding instructions and have been cleared with legal experts to ensure that there are no conflicts in the law.

Accompanying the Financial Instructions should be a companion document which provides guidance on Law Enforcement and Compliance. Most competently run PAs have such documents and in conjunction with internal training and competency testing provide a sound mechanism for PA field staff to confidently enforce the law. In accordance with the law wardens and inspectors are appointed in Australia with designated powers to issue infringement notices covering offenders who do not pay entrance fees or damage the environment. The ***EPBC Act*** is the Australian Government's central piece of environmental legislation on this matter (see *The Environment Protection and Biodiversity Conservation* **Act 1999).**

4 REVIEW OF POTENTIAL PROTOTYPES.

4.1 POTENTIAL PROTOTYPES TO CONSIDER

Table 4.1 provides an overview of some potential sustainable financing prototypes based on the international review provided in the previous section, and highlights some key pros and cons associated with each option. It also highlights the relative sustainability of the options. Some of these ideas are further considered and drawn upon in the recommendations in *Section 5*.

Table 4.1 Overview of PA Sustainable Financing Prototype - Pros and Cons

Model description	Pros	Cons	Sustain-ability
A) Diversifying incomes			
1) Payment for Environmental Services			
a) Flood control (on flood plains)	Payments encourage maintenance of natural resources and conservation of habitat. Additional revenues could be generated associated with existing protection provided by PA.	Can be complex to ascertain cause –effect relationship Can be difficult to set appropriate level of contributions and get agreements in place. PA management may not wish to operate the PA totally in line with flood defence objectives, as there may be occasions when it adversely effects recreation and biodiversity.	High
b) Water Supply	Payments encourage maintenance of natural resources and conservation of habitat. Additional revenues could be generated associated with existing protection provided by PA.	Opportunity costs of alternative land uses Can be complex to ascertain appropriate contributions and get agreements in place.	High
B) Visitor fees			
2) Capturing more visitor fees			
a) Visitor passes that allow visits to other Parks/PAs	Generally accepted practice in many countries where a national or regional PA system exists.	Does not work in situations where more than one PA jurisdiction operates Could result in decline in overall revenues	Medium
b) Charge by individual or by car?	Both are equally acceptable practice. Charging by car could work better in nature parks. Charging by car could help in promotion of visiting the Park in nature friendly way (ie fewer cars drive there).	System needs to be flexible enough to accommodate children, pensioners etc. Visitors of local residents (family etc.), holiday house owners may be difficult to charge – especially in nature parks (and PAs with many entrances).	Medium
c) Car parking (Self service parking meter – locals have free or cheap passes).	Assists to regulate parking in peak periods. Self service meters can easily be installed. Good for making visitors pay at locations where there are many access points and roads running through.	Resistance to paying parking fees if entry fees have already been paid. Cars congesting parking spaces outside of pay areas.	Medium

Model description	Pros	Cons	Sustain-ability
d) Car Parking with shuttles or other transport (e.g. electric trains) managed by Park	People do not pay for parking but for a transport service provided by the Park (might be more acceptable). Difficult for people to enter the park without paying	Requires staff to manage fluxes and transport unless concession is given to privates or local NGO Expensive to operate when few visitors. Costly initial infrastructure.	High
e) Electronic tagging system so that you need to display a tag. Tour operators have them – everyone must purchase them before going on a boat/entering a park (not reusable)	Minimises costs of fee collection with multiple entry points. Good at maximising returns. Easy to enforce. Tags can be come collectors items.	Need for supervision of the arrangement and have infringement system in place. Costly initial infrastructure.	High
f) Boat mooring system (electronic)	Minimises costs of fee collection and operates at all hours of the day.	Need for supervision of the arrangement and have infringement system in place. Costly initial infrastructure.	High
3) Price differentiation			
a) Foreigners pay more	More closely matches capacity to pay and willingness to pay. Likely to increase overall revenues.	Some nearby foreign countries may resist the concept (ok for wealthy ones) Seen as discriminating. Multiple levels of charging that need to be introduced and supervised.	Medium
b) Off peak charging	Allows local visitors lower cost access to facilities in off peak times, helping to spread congestion. Generally seen as equitable to both national and international visitors.	May result in less overall revenue than seeking to charge foreigners more.	High
C) Concessions			
4) Concessions - Extractive			
a) Concession fees paid to central and County government budgets and distributed back to PAs through the general budget allocation system. This is in effect the current system, although there is no link between the concessions and PA financing.	Consistent with general practice of funding government agencies. Allows cross subsidizing of concession fees across PAs.	Does not directly relate to costs borne by the PA or loss of environmental amenity. Currently not at all transparent in terms of linking concessions to PA finance.	Medium

Model description	Pros	Cons	Sustain-ability
b) Concession fees paid directly to PA budget. A percentage of concession fees (minimum of 25%) should be allocated to the Park from where the extraction occurs.	Direct relationship between revenue and any PA environmental damage or repair costs needed. Important additional source of PA finance. A fair and transparent system.	May conflict with government fiscal policy and general approach to revenue distribution in the budget context. Limits ability for cross-subsidizing of PAs.	High
5) Concession Approvals - Tourist Operations			
a) Concessions are let on public tendering basis.	Maximises revenue and ensures returns consistent with market rates.	May be difficult to include public service obligations without adversely affecting revenue.	High
b) Concessions are let on a short term (1-3 Year) basis.	Likely to attract new and innovative approaches. Can switch operator if existing operators are not performing well. Renewal process can allow best option to be selected every few years.	New investments required may not be able to be fully depreciated in this time frame. PA management may need to assist with provision of infrastructure. Administrative costs of letting concessions	High
c) Concessions are let on a long term basis.	Likely to attract higher level of revenue overall. Greater level of certainty in operation. Has the potential to provide training opportunities and more stable employment for local community members.	Infrastructure and service may tend to fall in quality as time goes on. Concessions need a mechanism to review scope and conditions over time and to adjust fees paid in line with market rates and profits being made.	High
D) Government management and contributions			
6) Trust funds			
a) General environmental fund with some money allocated to PAs. The Croatian Environmental Protection and Energy Efficiency Fund (EPEEF) already exists. Attempts could be made to secure more funds for PA management through arguing for the importance of financing non-park protected areas.	The Energy and Waste Environment Fund Already exists. Highly cost-effective to use existing fund. Potential for additional eco-taxes to provide income.	May be political issues. Fund may not wish to diversify.	High
b) Combined environmental and PA fund with income injected from PAs. The remit of EPEEF could be modified so that it could receive funds from Park income and this could then be redistributed through existing, or slightly modified disbursement mechanisms.	General fund already exists, so changes may not be too significant. Fund may be more willing to link up if additional PA revenues included in source.	May be political issues. Fund may not wish to diversify.	High

Model description	Pros	Cons	Sustain-ability
c) Create a new PA fund with income from Parks and other associated PA sources. A new PA fund could be set up to help distribute money from some of the Parks and to help leverage additional funds for PAs.	Could be a very effective way of raising and managing PA finance to allow it to be redistributed. More likely to help leverage other sources of funding to help finance PAs.	This could act as a disincentive for the Parks to generate more revenues than they need for themselves (although parks could be allowed to keep say 75% of their revenues, with the rest being redistributed). Could be expensive to set up. Central government may not be willing unless they can see overall net financial benefits to them.	High
d) PA funds for specific PAs. Individual PAs or Counties could potentially set up a fund for themselves.	Direct relationship between revenue earned and expenditure. Strong incentive for PAs to generate revenues for the Fund as the revenue comes back to them. More likely to help leverage other sources of funding to help finance PAs.	Could be difficult for MoC, state government or counties to agree to this. Possibly high administrative effort compared to amount of revenue involved.	Medium
E) Partnerships			
7) Management of Parks			
a) Remain as is, with MoC supervising operation of parks and nature protection aspects of County PAs, and County PIs operating County PAs.	Continuity of existing policies and outcomes. Seems to work reasonably well. Could enforce existing laws which says that national and nature parks should manage other PA's adjacent or in vicinity of the parks.	May not be cost effective. Does not encourage new and innovative approaches to be realised.	Medium
b) Parastatal management of parks (all parks or individual parks	Enables higher degree of flexibility to manage the PA. PA funding can be directed to the most urgent priorities. Generally able to respond quickly to changes.	Protocols need to be developed by government to cover matters of public policy. Government may need to compensate Parastatal for meeting public service obligations.	High

Model description	Pros	Cons	Sustain-ability
c) NGOs to manage some PAs on behalf of government	Positive results achieved elsewhere globally. NGOs can effectively harness volunteers to achieve low cost outcomes. NGOs can be good at raising revenues. NGOs can operate on low overheads and develop new ideas.	Government still has ultimate responsibility and needs to maintain close supervision of the NGO. Likelihood of differences of opinion arising over management priorities and actions. Results subject to NGO maintaining motivation for the work involved. Not many NGOs in Croatia have experience in management of PAs.	High
d) NGOs to assist with managing some aspects of some PAs	NGOs can effectively harness volunteers to achieve low cost outcomes. NGOs can be good at raising revenues. NGOs can operate on low overheads and develop new ideas. Parks do not relinquish all responsibilities to NGOs.	Could be problem of defining responsibilities, controlling and enforcement in case of failure to meet planned targets. Not many NGOs in Croatia have experience in management of PAs.	High
8) Management of hotels/restaurants in parks.			
a) Government (PA) owned (current situation)	Reliable source of revenue (although in many cases it is more likely to be an overall cost!). No costs in changing the set up.	Unlikely to provide for revenue optimisation. Governments generally do not have sufficient funds to maintain building infrastructure and to achieve a commercial rate of return. Ties up money that could be used for other more urgent or higher priority purposes (and for nature conservation).	Low
b) Public Private Partnership	Government achieve flow of revenue. Private operator provides expertise to manage the hotel.	Governments generally do not have sufficient funds to maintain building infrastructure and to achieve a commercial rate of return. Ties up money that could be used for other more urgent or higher priority purposes.	High
c) Privatisation (concessions)	Releases government funding for other purposes Private operator has higher level of expertise in hotel management. Private sector may invest in suitable infrastructure.	Government transfers control of operation. Less control over sustainability issues unless strict monitoring and enforcement. Private company may go bankrupt.	Medium

Model description	Pros	Cons	Sustain-ability
F) Business Management			
Accounting processes			
a) Existing accounting process	No major upheaval required No additional costs	Some activities may be losing much money and be inefficiently run	Low
b) Activity based costing	Can determine what aspects of the PAs are economically viable	Would be expensive to establish initially (although analysis could be undertaken for certain activities only)	High

5 RECOMMENDATIONS

5.1 KEY RECOMMENDATIONS

Table 5.1 below synthesizes some key recommendations that arose from the Croatian PA review, the international review and the assessment of prototypes. It is envisaged that this set of proposed recommendations will be reviewed and developed at the proposed study workshop (component 3 of this study). The table also provisionally identifies at what level the action needs to be taken, as well as its priority.

Table 5.1 Proposed Recommendations and Actions

Topic	Action	MoC	Park PIs	County PIs	Priority
A) Diversifying incomes					
1) Undertake study and training on **international sources of funding.**	Compile summary report on key potential sources of international funding with guidance as to how best to apply. Hold training on proposal writing.	Lead	Help	Receive	H
2) Review **park features** that could generate revenues.	Undertake a park registry to identify all possible features in PAs that could potentially help generate additional revenues. This should include: potential use of alien species; buildings for conversion/renovation/change of use; regulatory services (eg water supply and flood control for 'payments for ecosystem'). Follow up with brainstorming and scoping study to assess those with potential, and then develop an implementation plan.	Help	Lead	-	H
3) Review **other opportunities for raising revenues.**	Explore the potential for developing PA wide opportunities for raising revenues eg from payments for ecosystem services, souvenir shops, selling PA related stamps, car parks etc.	Lead	Help	Receive	H
B) Visitor fees					
4) Explore PA **entrance fee options for specific PAs and nationally.**	For selected PAs, undertake site specific assessments to consider whether overall revenues could be significantly improved through price differentiation and alternative visitor control schemes. Also consider whether it is worthwhile introducing a broader PA wide scheme using appropriate technologies.	Lead	Lead	Help	M
5) Assess options for **extending seasons and spreading visitors** across PAs.	Develop an initiative together with the Ministry of Tourism, Croatian National Tourist Board, county tourist boards and other interested organisations to explore ways of extending the visitor season for PAs and to encourage and attract visitors to inland parks.	Lead	Lead	Help	H
C) Concessions					
6) Explore and share best **strategies for developing concession approvals (ie visitor related).**	Undertake a project to investigate how best to develop and manage visitor activity related concessions, sharing experiences from within Croatia and exploring examples from elsewhere. This could involve holding a workshop.	Lead	Help	Help	H
7) Review **issues, legislation and options around concessions (ie extraction related)**.	Determine the case and an appropriate implementation process for changing the way concessions operate within PAs.	Lead	Help	Help	H

Topic	Action	MoC	Park PIs	County PIs	Priority
D) Government management and contributions					
8) Develop an overall integrated **national financial strategy for all PAs**.	Explore options for developing an approach for establishing a more strategic way of managing Croatia's PA financing system. Develop a finance database in the MoC for monitoring of PA finance (is sustainable finances and revenues rather than just costs). provide sustainable finance training.	Lead	Help	Help	H
9) Develop a **business case for increased government and local funds** for PA management.	Develop a business case for central and local government to increase their financial contribution to Croatia's PA system.	Lead		Lead	H
10) Improve coordination between Gov Ministries and departments.	Undertake a study to explore issues and opportunities relating to different Government Ministries and departments working more closely together.	Lead			M
11) Explore potential benefits from **merging local municipality PIs with County PIs.**	Assess options and the potential benefits for alternative ways to share entrance fee revenues between municipality PIs and County PIs.	Help		Lead	M
E) Partnerships					
12) Consider switching to a more **Parastatal PA system.**	The MOC should consider switching to a more parastatal PA management system (ie functioning more like a private company operating at arms length from the government).	Lead			M
13) Assess **Trust Fund options.**	The MoC should further evaluate alternative options for either developing the EPEEF or establishing separate PA Fund(s).	Lead	Help	Help	H
14) Explore **Public Private Partnership** options for hotels.	The MoC should explore **Public Private Partnership** options for hotels.	Lead	Help		M
15) Explore options for **NGO and volunteer involvement.**	The potential for greater involvement of NGOs should be considered bay all, with a long term view as to how this might develop over time (bearing in mind the current lack of NGO capabilities and fact that volunteering is not strong culturally).	Lead	Lead	Lead	M
16) Enhance **park co-ordination,** particularly relating to financing.	The MoC should continue to work with parks and Counties to see how parks and PAs can cooperate together and obtain economies of scale.	Lead	Lead	Lead	M
F) Business management					
17) Overhaul the **accounting and finance system** (eg use an 'activity based costing' approach).	The park and PA accounting procedure should be assessed and revised to incorporate an 'activity based costing' approach. All PA activities should be categorised and matched to cost and revenue streams. More focus should be given to sustainable financing rather than simply budgeting. Also review the sustainability of PI managed tourist facilities (eg restaurants and hotels etc.)	Lead	Help		H
18) Provide the right mix of **business and economics skills** for PA management.	The PA system would benefit enormously from having better access to a range of business and economics skills such as: marketing, activity based accounting, operational management, environmental economics and sustainable financing. Various mechanisms for providing these skills throughout the PA system should be analysed and implemented (eg recruitment, sharing skills, pro-bono and voluntary contributions etc)	Lead	Help		M
19) Require **business plans** to be developed, linked to PA effectiveness analysis, and coupled with training.	For those parks that have a well developed management plan and strategy, business plans should be developed. For those without management plans and strategies, business plans should ideally be developed in conjunction with them. Where possible, pilot projects should be developed, and links made to similar projects in the wider region.	Lead	Lead		H

Topic	Action	MoC	Park PIs	County PIs	Priority
G) Legal aspects					
20) Provide **training and materials on PA legislation.**	A review of the legislation is needed with a document produced to simplify the meaning and potential implications of PA legislation relating to financing (especially relating to concessions). Best practice in Croatia and internationally should also be included, and training provided for all parks.	Lead			H
21) Explore necessary **amendments in legislation** to avoid conflicts.	The park PIs and MoC should highlight what legislation is conflicting, and undertake an analysis as to how best to overcome the conflicts.	Lead	Help	Help	M
22) Support **land ownership resolution and mapping** studies.	The MoC should facilitate the park PIs and Counties to ensure that studies are undertaken to map out and resolve land and property related conflicts (eg PA borders and ownership issues).	Lead	Help	Help	H

Notes: MoC = Ministry of Culture, Park PIs = Park public institution; County PIs = County protected area public institutions; Priority = priority for action (H= high, M = medium and L = low). lead = suggested lead organisation. Help = it is suggested that these organisations whre relevant work with the lead organisation.

5.2 THE WAY FORWARD

This report contains a number of significant issues for Croatian politicians and government administration, and also propels park managers into a new paradigm. In our experience, it may be difficult for each of the players to develop an appropriate response unless there is help (or a push) on hand.

Moving from the recommendations to action is the difficult part, and assistance may be needed to both understand the recommendations and determine how best to implementing them. Some form of mechanism for delivery thus needs to be developed, which could be as follows:

- The Component 3 workshop reviews the proposed recommendations and prototypes to develop a final list of recommendations that are ranked according to ease of implementation and potential benefits to be gained.
- The Croatian government, PA staff and stakeholders develop a response to the Report within 6 months.
- The government and stakeholders discuss and agree an implementation strategy within 12 months of report, focusing efforts on the priority actions.
- Legislation is developed (or amendments made) and introduced into Parliament, a timetable is developed and public announcements made.
- New funding is made available to support the recommendations provided and operational plans are developed for building capacity to implement the strategy.

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Annex A

Descriptions and Issues for the Protected Area Case Study Sites

CONTENTS

A1 INTRODUCTION

This Annex provides an overview of the eight protected area case study sites used in this study. For each protected area there is a brief description, together with an overview of: costs and revenues, visitor statistics, and key problems and opportunities identified during the site visits. It is important to note that the problems and opportunities represent a mix of suggestions and comments from the park staff interviewed during the study, and initial views of the study team attending the interviews.

A1.1 NATIONAL PARK BRIJUNI

A1.2 SITE DESCRIPTION

The National Park Brijuni encompasses a group of 14 islands and islets with a total area of 7,420 hectares of which 3,395 hectares are land area (islands and islets). It is situated alongside the South-eastern part of the Istrian coast, and is distinguished by specific climatic, landscape, and cultural features.

The islands are partly covered with dense Holm oak forests that were partially cut in 19 t h century for the purpose of landscaping public gardens in one of the most popular summer resorts of that time. Fallow deer, axis deer, and moufflon were introduced in mid-20t h century and since then their populations move and graze freely on the wide lawns or else rest in the shade of centuries old oak trees. Apart from these and other introduced species, a number of autochthonous ones, of which the most numerous are birds also inhabit the Park area. Brijuni islands provide important resting sites along the winter flyways of migratory bird species, particularly song-birds. One of the oldest olive trees in the Mediterranean, planted as far back as the 4th century on the Veliki Brijun island still grows and bears fruit, attracting as a witness of long past times numerous tourists. The local waters of Brijuni which make up almost 80% of the Park surface have maintained their original beauty and value owing to implemented protection measures and are the habitat of numerous organisms typical for living communities of the northern Adriatic. The distinctly indented coast line with many bays and shallow water gives Brijuni exceptional landscape diversity.

About one hundred cultural, historical and archaeological sites and structures have been registered in Brijuni national park, among which the most Interesting are: a Roman summer palace, the remains of a Byzantine Castrum, monuments from the time of the Venetian Republic, the military fortress Tegethof and many others. Also worth mentioning are the impressive footprints of the Igyanodon dinosaur on the Cape Ploce and Barban peninsula, which testify that these reptiles once lived in our region.

Part of Island is still used by Croatian army and as holiday residence of the President of Republic of Croatia. The national park also runs a Safari park.

A1.3 COSTS AND REVENUES

There are two park departments: 1) the Conservation Dept and 2) the hotel, tourism and marketing Dept. The National Park Authority manages four hotels (one on mainland) and 10 villas (of which one is used as ethnographical museum, although it is currently shut because the roof leaks, and one as the Conservation office). The National Park Authority run all other tourist resources on the Island (restaurants, recreational resources, safari park etc.).

As shown in the Table below, the overall income for Brijuni is around 57 – 62 million kuna (HRK) in 2007 and 2008. However, total expenditures for protection, maintenance, preservation and use of the Brijuni National Park for nature conservation for 2008 was only HRK 3,438,000 out of which HRK 2,915,000 are from the Park's own resources, HRK 300,000 represent funds supplied by the Ministry of Culture, and HRK 223,000 represent funds from the Environmental Protection Fund. The Park is heavily financed from tourist catering activities, tickets, souvenirs and other promotional materials. Further details on the sources of finance are provided in Table 2 below.

Table 1.1. Overview of Income and Costs of Brijuni National Park Authority

INCOME				
Source of income	**2007**		**2008**	
	kuna	**%**	**kuna**	**%**
Ministry of Culture	7,213,757	12,7 %	7,045,999	11,4%
Tourism and other NP services	45,885,809	80,9 %	49,970,211	81,1 %
Visitors services (entrance fees etc.)	2,174,083	*26,4 %*	2,312,754	*26,0 %*
Berth incomes	14,982,037	*3,8 %*	16,027,064	*3,8 %*
Recreation services	2,138,994	*3,7 %*	2,348,837	*3,6 %*
Tourism services (Hotels and restaurants)	2,112,819	*40,5 %*	2,217,282	*39,8 %*
Other services	22,971,185	*2,7 %*	24,508,468	*4,2 %*
Other possessions (intangibles etc)	1,506,691	1,8 %	2,555,806	2,6 %
Donations	1,026,425	0,05 %	1,589,109	0,6 %
Other incomes	23,918	4,6 %	384,304	4,3 %
TOTAL	2,595,349		2,636,324	
COSTS				
Wage costs	20,699,756	38,2 %	22,241,183	38,3 %
Services & materials (energy, phone, office)	20,557,454	37,9 %	22,160,249	38,1 %
Depreciation costs	0	0 %	7,567,567	13,0 %
Financial charges	403,290	0,7 %	583,290	1,0 %
Grants	123,201	0,2 %	88,438	0,2 %
Other charges	2,603,592	4,8 %	2,327,090	4,0 %
Depreciation chargeable	44,387,293	18,1 %	54,967,817	5,4 %
TOTAL	**9,820,635**		**3,128,464**	

Table 2 - Detailed Income for Brijuni National Park Authority

	DESCRIPTION	*2007 amount (Kuna)*	*2008 amount (Kuna)*
1.	**INCOME FROM SALES**	**45,885,809**	**49,970,211**
1.1.	**Income from sale of products (shops & bar)**	**2,174,083**	**2,312,754**
1.2.	**Income from sale of services**	**43,711,726**	**47,657,457**
1.2.1.	Income from sale of hospitality services	22,971,185	24,508,468
1.2.2.	Income from sale of excursion services	14,982,037	16,027,064
1.2.3.	Income from sports	2,112,819	2,217,282
1.2.4.	Income from sale of transport services	311,397	437,043
1.2.5.	Income from berth rental	2,138,994	2,348,837
1.2.6.	Income from sale of telephone services	41,887	44,991
1.2.7.	Services of National Part Expert Service	265,640	945,243
	Income from sale of flowers	33,901	19,629
	Income from sale of game meat	165,407	826,805
	Income from fishing	39,890	56,731
	Income from internal sources	26,442	42,078
1.2.8.	Other non-itemized income	887,767	1,128,529
2.	**INCOME FROM ASSETS**	**1,026,425**	**1,589,109**
2.1.	**Income from financial assets**	**491,167**	**870,055**
2.2.	**Income from non-financial assets**	**535,258**	**719,054**
3.	**INCOME FROM GRANTS**	**7,237,675**	**7,430,303**
3.1.	**Income from grants from budget**	**7,213,757**	**7,045,999**
3.1.1.	Ministry of Culture – salaries	6,613,757	6,745,999
3.1.2.	Ministry of Culture – capital project	600,000	300,000
3.1.3.	Ministry of Culture – other	0	0
3.2.	**Income from grants – other**	**23,918**	**384,304**
4.	**OTHER INCOME**	**2,595,349**	**2,636,324**
4.1.	Income from damage compensation & refunds	**2,236,187**	**1,704,666**
4.2.	Income from sale of fixed assets	**27,709**	**241,816**
4.3.	Other not-mentioned income	**331,453**	**689,842**
5.	**INCOME TOTAL**	**56,745,258**	**61,625,947**

A1.4 VISITOR STATISTICS

The national park is readily accessible by boat from nearby popular coastal tourist destinations. On average, the Park annually has about 170,000 registered visitors. Visitors are mostly from the higher social classes.

Table 3. Number of visitors

Year	No of visitors
2006	165,395
2007	176,925
2008	173,620

A1.5 PARK CHARGES

Entrance fees are different for Croatian citizens (50% discount except in peak season) and for foreigners. Children up to 14 year old have a 50% discount. They also charge for boats to moor in their harbour.
They also they have a golf club for local residents of the area, plus rent bicycles and electric cars. They used to have stables to keep racing horses on the island for wealthy people.
They also hold conferences at the hotels in autumn and spring, to help extend the season.

Table 4. Visitor Entrance and Mooring Fees in kuna

	Month (and charge in kunas per person)			
Entrance fees	**July & August**	**June & September**	**April, May, October**	**November to March**
Individual adults - Visit to Veliki Brijun	210	200	170	125
Groups adults (minimum 25 people) – Visit to Veliki Brijun	170	160	150	100
Individual adults -Visit to Mali Brijun			170	
Groups adults -Visit to Mali Brijun (minimum 30 people) – with NP Brijuni boat			130	
Groups adults -Visit to Mali Brijun (minimum 30 people) – with other boat			110	
Diving			70	
Recreational fishing			300	
Visit to island Jerolim – adults			30	
Boat mooring costs				
	Length of boat (and charge in kunas per day)			
Month	to 14,99 m	15,00 – 24,99 m	25 – 39,99 m	More than 40 m
October to April	700	800	1,800	3,100
May, June & September	900	1,100	2,400	4,300
July & August	1,350	1,900	3,700	6,100

The park has 252 employee, of which 51 are seasonal and 182 are financed by park revenue. Only 66 employees are financed by Ministry of culture.

A1.6 PROBLEMS

1) **There are far too many fallow deer** (~1,200?), Axis deer (250), peacocks (~1000) and mouflon (~60) on the main island – totally denuding the island of its undergrowth, plants and etc. It also costs a lot to feed them (1 ton of grain every other day – costing 435,000 kuna/year = ~1% of the park budget! Some of the grain is from the national government reserves). These are alien (invasive) species and should be severely culled. It is argued by some that the law says they cannot kill 'wild' animals in the park, however, as these are fed and are alien species, this law should not apply.
2) **The visitor season is too short**. The carrying capacity of island is around 800 people (although sometimes 1000 visit at once), who are carefully controlled and 'herded' around for 3-4 hours through use of a 'car train'. Most visitors visit in the peak holiday period, and are mainly non-Croatian.
3) **There are too many buildings** left on the island that need to be used/maintained – this is an expensive legacy. Most are culturally important and interesting designs from the days of Tito. Plus there is a run down neglected zoo.
4) **There is no separate accounting system for the hotels/restaurants** and the rest of the park management, so there is no idea how economically viable they are. It seems the accounting system is already very complicated due to the requirements of the Ministry of Culture.
5) There are probably too many restaurants/cafes (10) on the island, plus two hotels (350 beds) and several villas for rent (all run by the park!).
6) The conservation office does not have all necessary experts and more finances should be invested in the programs of conservation of autochthonous wildlife and cultural monuments.
7) Because of an overlap in competence with the ports authority it is problem to organize environmentally friendly places for anchoring. The park only gets entrance fee from the boats – nothing for mooring fees, which go to the local harbour authority. The law says no anchors or buoys are allowed in the park where it is not planned for by a spatial plan! There appears to be a legal conflict between the Ministry of Sea and the Ministry of Culture.
8) Enforcing fish fines is difficult. The law is ok, but there is apparently such a backlog at the court that after two years the fine is void – although this has recently been changed to 4 years.
9) Managing waste water is an issue.

A1.7 OPPORTUNITIES

1) The alien species (axis deer, fallow deer, moufflon and peacocks should be culled in such a way to earn revenues. All the Croatian zoos already have plenty of them.
2) There are some interesting natural and cultural attractions on the Veliki Brijun are not shown to visitors (Could have extended tours where people pay extra? – or highlight that people need to stay overnight on the island to see them).

3) Some of the hotels/restaurants have recently been refurbished to quite a high standard – they now need to be run (independently?) professionally to make the most of it.
4) The park sees that there is scope for revenue opportunities through having a 'nature in schools' programme.
5) They want a visitor centre, and would envisage charging extra.

There is a concern that if the hotels are privatized, the owners would not care about nature conservation enough. They clearly need an appropriate partnership.

A2 NATIONAL PARK PAKLENICA

A2.1 SITE DESCRIPTION

The Paklenica National Park encompasses Velika and Mala Paklenica, well known river canyons vertically carved in the southern slopes of Velebit Mountain, and the broader surrounding area. In this relatively small area there is an exceptional diversity of geomorphological phenomena and forms, fauna and flora, attractive landscapes and virgin habitats. It is easy accessible and just a few minutes from the highway and 45 km away from Zadar.

Given that carbonate sediments prevail in the structure of the Paklenica canyons, various karst relief formations can be found: karrens, closed depressions created by stagnant water, denuded karst peeks, deep pits, caves, sinkholes, etc. There are about 90 speleological objects, among which the cave Manita pec is open to visitors. Forests cover two thirds of the Park area. One of the Park values are the old beech forests surrounding the well springs of Velika and Mala Paklenica, as well as the black pine forests at higher altitudes. From a botanical point of view, the most interesting aspect is the vegetation of rocks and screes, which include a number of endemic and relict species. One of the specific traits of the Park is its Mediterranean and rocky habitat for birds. The two Park canyons are also well-known for birds of prey.

This relatively small area of 9,600 hectares is popular among rock climbers, cavers, alpinists, mountaineers and bird watchers. In this protected area there are some 150 km of trekking paths and trails. It is also considered the best climbing center In Croatia, with more than 400 equipped and maintained climbing directions, among which Anic Cliff (400 m) is the most popular. The National Park Authority manages a camping site and has several small tourist facilities (small info points with refreshments and souvenirs).

A2.2 COSTS AND REVENUES

The park staff includes 5 rangers, 10 technical, 6 reception, 10 admin and some guides. Much of the Park budget comes from climbing competitions, mountaineers, bird watchers and other adventurers. As shown in Table 5, the overall park budget is around 8 million kuna per year.

Table 5. Overview of Income and Costs of Paklenica National Park Authority

INCOME			
		2008	
	Description	**Kuna**	**%**
1	Ministry of Culture	4,060,000 kn	49.7
2	Tourism and other NP services -Entrance fee & Camp	4,086,881 kn	50.0
2.1.	*Entrance fee & Camp*	*4,047,800 kn*	*49.5*
2.2.	*Concession*	*39,082 kn*	*0.5*
3	Other "donations"	29,700 kn	0.4
	TOTAL	**8,176,581 kn**	
COSTS			
1	Employees (34 permanent and 6-7 seasonal)	3,093,289 kn	36.1
2	Supplies, energy, services and other operating expenses	1,886,253 kn	22.0
3	Financial expenditure	81,367 kn	1.0
4	Other costs	58,708 kn	0.7
5	Outlays for financial assets and debt servicing	318,599 kn	3.7
6	Program for protection, maintenance and conservation	3,130,737 kn	36.5
6.1.	*Protection, maintenance and conservation*	*108,310 kn*	*1.3*
6.2.	*Marketing and use*	*298,141 kn*	*3.5*
6.3.	*Capital investments - Buildings & vehicles*	*2,724,286 kn*	*31.8*
	TOTAL	**8,568,952 kn**	

There are two local mountain societies and one from Zadar. They use and maintain one mountain hut (40 beds) and 3 shelters that are free to use. 8-10 people can sleep in the shelters.

Two years ago the park raised the entrance fees. They ideally only want to raise entrance fees again if they provide something new for the visitors. Probably around 95% of people pay for entrance tickets, with some locals not, but this is not considered a problem.

They have received money from the existing national fund (for electricity to help build the visitor centre).

The park now gets 30,000 kuna per year from the one shop in the park. This is a new concession, but they do not know if this is a good or bad price. A recommendation is that this should be monitored, and perhaps auctioned/re-negotiated every few years. Also, there is a tavern just outside the park that pays 70,000 kuna per year rent. There seems to be a problem with smells and

mosquitoes that needs to be sorted. Again, the park does not know how good value this is.

There is a popular cave (Manita peć) which is maintained by the park, and only open at certain times of the year for paying visitors.

A2.3 VISITOR STATISTICS

On average, the park annually has about 100,000 registered visitors (by the number of entrance tickets sold). On 1st may there is a 2-3 day climbing festival, with 2,000 – 3000 people attending each day. The peak in summer is around 1,100 – 1,500 visitors per day.

A2.4 PARK CHARGES

Table 6. Entrance fees in kuna

TICKET TYPE / PERIOD	November – March	April – October
Basic entrance ticket for adults (valid for 1 day)	**30,00 kn**	**40,00 kn**
Entrance ticket for youth (7 to 18 years) (valid for 1 day)	**20,00 kn**	**20,00 kn**
3-days entrance ticket/climbing permit (valid 30 days from purchase)	**60,00 kn**	**80,00 kn**
5-days entrance ticket/climbing permit (valid 30 days from purchase)	**90,00 kn**	**120,00 kn**
Supplementary entrance ticket for Manita peć cave for adults	**15,00 kn**	**15,00 kn**
Supplementary entrance ticket for Manita peć cave* for youth (7 to 18 years)	**10,00 kn**	**10,00 kn**

A2.5 PROBLEMS

1) The park would like to produce **a land ownership** map, as there are several run down houses and people want to renovate them, but there is uncertainty over ownership (especially within families etc). There are 30 abandoned

villages in the park. Article 112 of the Nature Protection law needs to be considered.

2) There seems to be a **problem with the law regarding sub-concessions** regarding the mountain society wanting to give the concession to someone else to charge and run the huts.

3) Croatia Forests apparently do not get money for managing trees in National Parks (eg for fire prevention, roads, deforestation etc). However, they do in Nature Parks, funded by the State budget. This means that there is a conflict as no one manages the forests in national parks, or at least there is no budget allocated for doing this, and the park cannot afford to do this.

4) There are **conflicts in the laws** eg between Forest and park laws. For example the forest law says there must be a specific forest man plan (that could cost around 1.5 million kuna). Also, for some activities (eg base jumping from airplanes), permission should be gained from the Min of Culture, but elsewhere the law says it should be that the park decides.

5) There are still **military mines** in the northern part of park, although government funds and donations have helped to clear them.

6) The park manager suggests that the Min of Culture should make parks more consistent (eg in terms of park information, leaflets, entrance fees, buying tickets online etc). Each park has to run its own website.

7) The park needs help to understand laws etc – some parks have their own lawyers – such services should be shared between the parks.

8) The park needs someone to work on education – to help run education programmes.

9) National park staff are not paid enough.

10) There are apparently insufficient facilities and facilities for volunteers to come and work at the park.

11) The accounting system is very complicated – especially for VAT purposes. Since 1993 they have had to change the system 4-5 times.

A2.6 OPPORTUNITIES

1) They should consider charging for car parking. Iit is an ideal context to do so – although they may need to consider the implications of some people parking outside the site and clogging up the small streets. Somehow one would need to prevent or control this, although the long walk to get to the park may already be enough of a disincentive to park outside the park.

The foreign visitors are not that aware of what the options are, in terms of staying overnight in the park.

There could be scope for charging 'climbers' more (ie those using ropes), because the park is paying for a mountain and climber safety service (100,000 kuna per year) to be there (although much is voluntary work). Plus the park has spent money to provide for the many climbing routes in the park. However, many climbers are not wealthy, and there are many other sites to climb in Croatia (ie substitute sites), but perhaps not so safely and in such a user friendly environment.

They have spent a lot on refurbishing an old wartime system of tunnels in the mountain to convert it into a visitor centre. There is a lot of work to do, but it could be an interesting and well visited centre. They would charge an entrance fee. It is due for completion in a few years. However, given that the costs seem to be over-running, and there is no business plan, perhaps this venture should be re-examined before committing further funds (eg considering further building and maintenance costs and likely visitor centre entrance fee revenues that may be generated. The Park then want to create a new car park outside the park, and have a shuttle bus/train to ferry people into the park and to the visitor centre. This should be considered carefully, and ideally use an electric vehicle.

The Park pays water fee (50,000 kuna per year) but actually helps manage/clean the water through the park. They should see if they can get paid instead – however, there is much water around. This should be investigated further.

The park does not want more new buildings in the park – although there could be scope for providing accommodation/rooms for hire within the park. There are very few local climbers. There is no local climbing club, agency or organization to provide training or guides etc. This could be a good opportunity for a local climbing business to start up?

The park apparently does not provide much of a natural flood protection 'regulating service' because it is karst and water passes through the rock fairly easily.

The national parks do sometimes exchange ideas, which is valued when this happens. For example, Medvednica has good concessions set up, and some ideas have been shared. Perhaps it could happen in a more structured way, and that potentially workshops could be run to get new ideas from other countries.

A3 NATIONAL PARK RISNJAK

A3.1 SITE DESCRIPTION

The Risnjak National Park has a large number of natural features distributed in a relatively small area: virgin forests and mountain peaks, well preserved mountain meadows, and dlnaric karst with its specific hydrology and relief. The Park is situated in the hinterland of Rijeka and Kvarner Bay (only about 15 km north-east of Rijeka), in the northwestern part of Gorski Kotar. The Park covers a surface area of 6,400 hectares. Beside the mountains of Risnjak and Snjeznik, the park encompasses a hydrological nature monument, the source and upper part of the Kupa River. Forests are the main natural phenomenon of the Park. Dense vegetation and geomorphological diversity provide habitats for numerous fauna species, especially birds. The three large carnivores are also abundant here: lynx (the mountain 'Risnjak' got its name after lynx since the Croatian word for lynx is "ris"), wolf, and brown bear. Some endemic subspecies, can be found in the River Kupa valley, adding to its environmental importance. There are two zones in the Park - strictly protected zone and moderately protected zone. More than 4,600 hectares are strictly protected, where the vegetation is left to its natural succession, and no activities are allowed.

A3.2 COSTS AND REVENUES

The Park Authority has 24 permanently employed (23 financed by Ministry of Culture) and 5-6 seasonal workers. The Park Authority manages a small pension (small hotel) with around 20 beds and small restaurant. An overview of income and costs is presented in Table 7, revealing an annual budget on the order of 6 million kuna a year.

Table 7. Overview of Income and Costs of Risnjak National Park Authority

INCOME					
		2007		**2008**	
	Description		**%**		**%**
1	Ministry of Culture	3,375,189 kn	55.6	3,358,815 kn	58.0
2	Tourism and other NP services	1,979,549 kn	32.6	1,898,147 kn	32.8
2.1.	*Entrance fee*	*502,946 kn*	*8.3*	*486,397 kn*	*8.4*
2.2.	*Hotel & Restaurant*	*1,476,603 kn*	*24.3*	*1,411,750 kn*	*24.4*
3	Other "help"	715,648 kn	11.8	534,812 kn	9.2
3.1.	*International donations*	*489,092 kn*	*8.1*	*135,429 kn*	*2.3*
3.2.	*Other country "help"*	*226,556 kn*	*3.7*	*399,383 kn*	*6.9*
4	Other incomes	4,119 kn	0.1	2,137 kn	0.05
	TOTAL	**6,074,505 kn**		**5,793,911 kn**	

COSTS					
1	Employees	2,368,072 kn	37.8	2,413,917 kn	41.5
2	Supplies, energy, services and other operating expenses	2,369,939 kn	37.8	2,318,022 kn	39.8
3	Financial expenditure	25,863 kn	0.4	18,291 kn	0.3
4	Damages paid to legal and natural persons	3,200 kn	0.05	6,785 kn	0.1
5	Procurement of non-financial assets	1,476,381 kn	23.6	1,055,550 kn	18.1
6	Outlays for financial assets and debt servicing	22,306 kn	0.4	7,946 kn	0.1
	TOTAL	**6,265,761 kn**		**5,820,511 kn**	

Other sources of income :

1. PANET project (2006-2008) – INTERREG IIIB (EU Fund) 609,066 kn + 36.000 kn Primorsko-Goranska county
2. Dinaris 2007-2008 - INTERREG IIIB (EU Fund) 2,113 kn
3. Fund for environmental protection and energy efficiency (2004-2008) - 771,756 kn
4. Ministry of tourism – 50,000 kn
5. Primorsko-Goranska county (2008) – 100,000 kn
6. Karst Ecosystem Conservation (2003-2007) – 5 million kn

A3.3 VISITOR STATISTICS

A highway is relatively near but the park is not so easily accessible without personal vehicles. The most numerous tourists are hikers, mountaineers and school excursions. On average, the Park annually has cca. 15,000 registered visitors (by the number of entrance tickets sold. The Park is mostly visited from May to September (most individuals visit in July and August). Foreigners are mainly from Germany, France and Italy, with some Dutch, Belgians and Austrians.

Table 8. Number of Visitors to Risnjak

Year	Number of visitors	Group visitors (school, hikers, mountain-climbers) (20 kn /person)	Individual visitors (40 kn / person)
2006	15,376	8,927	6,449
2007	20,593	13,169	7,424
2008	18,308	11,991	6,317

A3.4 PARK CHARGES

Table 9 – Risnjak park entrance fees

Tickets	Price
Adults	30,00 Kn (5 Euro)
Children and youth (up to 18 years)	15,00 Kn (2,5 Euro)
Children (below 7 years of age)	no fees
Mountaineers (with paid membership)	15,00 Kn (2,5 Euro)

In addition to park entrance fees, there is park overnight accommodation on offer ranging from a single room only at 240,000 – 260,000 depending on the season to 350,000 – 370,000 for full board.

A3.5 PROBLEMS

1) There is a conflict of laws, which is essential to get resolved. The law on nature Protection and new law on forests authorize both National park and Croatia Forests to manage the forests in the Park, but it is left to the park to do without any specific budget for it.
2) The local municipality thinks that the park should manage the roads and waste in the Park. The park thinks it should focus more on aspects relating to visitors in the Park (eg renovating mountain huts).
3) Many (say 99%) of foreign trips are day trips from the coast.
4) 10 years ago there was a different price for foreigners and locals, but apparently this caused problems. A concern is that differential pricing may cause additional transaction costs.
5) There are few people visiting in winter – especially when there is snow.
6) For people without entrance tickets, the law says you can fine them 200 kuna. However, without the police present, rangers cannot force them to pay the fine. The wardens just try to encourage them to buy tickets.
7) The water company actually charges the park (80,000 kuna per year) based on their land area – although they are in discussions with them on this.
8) The park has to pay a watershed protection fee (against flooding), although the park management is contributing to watershed protection!
9) The law on concessions and concession approvals is new, but not very clear. They need advice as to how to best understand and apply it!
10) There is a lack of camping facilities nearby (it is not allowed in the Park due to bears and wolves etc).
11) There is lack of good infrastructure at another entrance to the Park. The park would like a tarmac road to be made to the southern entrance.

1) They should make it easier and more appealing for foreign day-trippers to extend their trips and stay overnight. They should perhaps advertise an overnight package for those people on the coast, and link it to staying in a mountain hut.
2) They want a visitor centre and charge people to enter. However, they really should have a detailed and costed business plan for a new visitor centre, otherwise they are likely to cost far more than they earn.
3) They do have one observation tower for watching mammals (bears) at night, and charge 200 kuna per person per night in winter and spring. They could do this elsewhere in park, but would need to cost this out first). However, a major issue with attracting bears is the risk to nature and people that this may cause (eg bears becoming reliant and interested in humans). This practice needs to be considered carefully, with appropriate standards being adopted.
4) Croatian forests should help to pay for maintaining and tarmacing the roads towards the south west entrance of the park, which they would benefit from. However, before additional roads are developed, a visitor plan is required to ensure that associated negative impacts are controlled.
5) There is a water cleansing function in the mountains that should be explored (eg in terms of payment for ecosystem services).
6) There is a small flood control function that the mountains and their vegetation plays. This should be explored further.
7) The park advocates some form of Park Fund. Risnjak gets far fewer visitors and entrance fees than most parks, and as a result, do not feel they have a large budget to manage the area.

A4 NATIONAL PARK KORNATI

A4.1 SITE DESCRIPTION

The Kornati islands, the densest archipelago in the Mediterranean, located in the central part of the Adriatic Sea, have attracted attention by their beauty since ancient times. They are characterized by an exceptionally interesting geomorphology, exceptional indentation of the coastline and various communities of living organisms. The archipelago consists of 89 islands, islets and rocks with a total area of 21,700 hectares (4.900 ha of land and 16.800 of the sea surface).

Karst, typical for entire Adriatic coast, defines the landscape of the National Park Kornati. The contrast between rough and seemingly inhospitable land on the one hand and the exceptionally diverse sea bed on the other hand is quite impressive. The awe-inspiring "crowns" - high cliffs of the outer line of islands - greatly contribute to the attractiveness of the landscape. The islands are mostly covered with rocky pastures which give the Kornati islands a specific scenic beauty. The pastures are separated by simple dry walls and covered with grassland communities typical for arid climates.

The sea makes up more than three-quarters of the National Park area whose sea bed, due to its diverse and rich submarine life, is the most important feature of this protected area. Particularly well developed are the biocenoses of photophile algae and those of corals. The Kornati National Park sea bed is considered one of the most important biodiversity areas of the Adriatic Sea, due to 346 flora and 295 fauna species recorded to date. Kornati islands have been populated since ancient times. The development of civilization can be traced from the Neolithic to the present: lllyrian buildings, Roman salt pans, a Byzantine fortress, an early Christian basilica, a Venetian castle, Gospa od Tarca (Lady of Tarca) Church from the 1 6 t h century, etc.

A4.2 COSTS AND REVENUES

The total annual budget/income of the Kornati national park is 7 million kuna.

They have 20 employees and 20 seasonal workers, two motor boats, one main building and a small house that needs refurbishing. 10 receptionists, 4 rangers (2 on land 2 on island), 3 firemen, 3 on garbage boat, 1 geologist and 2 biologists, and 2 tourism promoters. A management plan will be ready next year.

The Park is half financed through a government budget, and half from entrance fees for boats, diving, tourist catering activities, souvenirs and other promotional materials.

A4.3 VISITOR STATISTICS

The Park is only accessible by boat from a lot of the coastline tourist centres. The Park is interesting to cruisers, divers and snorkelers. On average, the Park annually has about
60,000 registered visitors (by the number of entrance tickets sold). There are around 1000 – 1500 divers visiting per year.

A4.4 PARK CHARGES

Table 10 below shows the main park charges. Divers pay 150 kuna per day for diving with a dive company that has a concession. Private boats pay based on boat length (<11m, 11-18 and >18m) if they drop anchor, not if they just pass through. It is thought around 75% of boat users pay entrance fee. The restaurants on the islands that are used by visitors pay concessions as well.

Table 10 – Charges for Kornati National Park

INDIVIDUAL TICKETS – PER VESSEL DAILY		
Size of vessel	Ticket purchased outside of Kornati National Park	Ticket purchased in Kornati National Park
Under 11 m (or under 34 feet)	150.00 HRK	250.00 HRK
11 – 18 m (or 34 – 59 feet)	250.00 HRK	400.00 HRK
Over 18 m (or over 59 feet)	450.00 HRK	750.00 HRK
GROUP TICKETS – PER EXCURSION VESSEL DAILY		
FOR APPROVED VISITS (with approval)	Vessel capacity x 20.00 HRK	
FOR UNAPPROVED VISITS (without approval)	7,500.00 HRK	
Clients of the "Stay with a Kornati family" Program pay a ticket of 15.00HRK per person per day		
PERMITS FOR DIVING VISITS – PER DIVER DAILY		
FOR APPROVED DIVING VISITS (with approval)	150.00 HRK	
FOR UNAPPROVED DIVING VISITS (without approval)	300.00 HRK	
PERMITS FOR RECREATIONAL FISHING – PER PERSON DAILY		
PURCHASED OUTSIDE OF KORNATI NATIONAL PARK	150.00 HRK	
PURCHASED IN KORNATI NATIONAL PARK	300.00 HRK	
APPROVALS FOR PERFORMING ACTIVITIES (annually)		
Transport of visitors (per registered seat on a vessel)	30.00 HRK	

Organization of diving visits	1,000.00 HRK
Accommodation of visitors (per bed)	30.00 HRK
Catering activity	100.00 HRK
Camping	1,000.00 HRK
Commercial activity	1,000.00 HRK
The amount of fees for issuing approvals to be agreed directly with the director of the Public Institution "Kornati National Park"	

COSTS FOR SERVICES OF THE KORNATI NATIONAL PARK VESSELS		
Vessel	Ride	Waiting
Motor boat "Kasela"	1,400.00 HRK/hour	300.00 HRK/hour
Motor boat "Lunga"	1,400.00 HRK/hour	300.00 HRK/hour
Motor boat "Purara"	1,000.00 HRK/hour	300.00 HRK/hour
Rubber speedboat	800.00 HRK/hour	300.00 HRK/hour

A4.5 PROBLEMS

1) The biggest issue is how to devise an **appropriate way to charge for day-trippers** on visiting boats to maximize revenues. Boat trips take around an hour to get to and from the park. They have lots of large boats (15 – 20 in peak season) packed with (say 20-100) day-trippers visiting the Park. The boats currently pay 20 kuna per seat on the boat (ie a capacity based charge) every day the boat enters the park. This means that boats have too many people on board. Also, in the off season, boats may not go to the park as they have to pay so much and only a few people want to visit. However, the boat operators do work together and get one boatload of visitors together. This system is easy to operate for the park, but does not maximize revenues! Recommendation is to explore charging options in detail. There should be a proper boat licensing system with appropriate controls.
2) The park wants **300-400 places for yacht/small boat moorings** so they can charge more boats to enter (now they have only 30-40 moorings) and control them better. Dropping anchors kills Poseidon seagrass beds. However, there are legal problems and conflicts to get authorization for the moorings, with Min of Sea, Transport and Infrastructure and with the Min of Culture. These moorings could help enable the park to be self financing if the park can keep the revenues.
3) There is lots of garbage floating in from South Adriatic.
4) The Government uses facilities for workshops on GIS (~10 per year) – but do not pay for hire of the buildings etc.
5) There are not enough berthings for the large visitor boats – only 4 spots. This causes problems in the peak season.

A4.6 OPPORTUNITIES

1) The park would like to operate their own boat trips and guided tours.
2) The park would like to have more, and control, the moorings.
3) They may be a better system for charging all visitors (both on the commercial visitor boats and through moorings).
4) The park would like to have a visitor centre (but will need more moorings and a larger berth at their office on the island).

The park is currently pursuing 4 projects:

1) Buoys in the park
2) Visitor centre
3) A classroom on a boat
4) Multi-use boats (for collecting garbage, dealing with fires and controlling oil spills.

A5 NATURE PARK LONJSKO POLJE

A5.1 SITE DESCRIPTION

The Lonjsko polje Nature Park is located on an alluvial plane of the Sava River, in central Posavlje region. It is the largest protected flood plain (50,600 hectares) of the Danube catchment area, with valuable landscape and ecological features. It has been on the List of Wetlands of International importance of the Ramsar Convention since 1993.

The Park area can be flooded at any time of the year. Such a water regime has influenced the development of a mosaic of various habitat types and communities that are typical for flood areas. There is a diversity of wetland forests, grasslands, meadows, and water plant communities.

Regularly flooded common oak forests, picturesque wet grasslands surrounded by a network of water bodies and old houses, add to the attractiveness of the scenery. Thousands of hectares of these wet grasslands, still managed in a traditional manner, take you on a journey back in time, to a European landscape as it was a long time ago. Ponds and wet meadows provide habitats for waterfowl, such as spoonbills, little egrets, ferruginous ducks, white-tailed eagles, lesser spotted eagles, black storks, corncrakes, and whiskered terns; species that are rare or extinct in many parts of Europe. Some park areas, Krapje đol and Rakita, are protected as special ornithological reserves, while the whole Park is listed as an Important Bird Area of Europe (IBA). In addition to the traditional way of life and preserved autochthonous breeds of domestic animals, such as the Posavina horse and the Turopolje pig, the typical architecture of Posavina (more than 200-year old wooden houses) has also been preserved. For this reason the village of Krapje has been protected as an Architectural Heritage Village. Due to a great number of these nests, the village Cigoc has been proclaimed as the European Stork Village.

A5.2 COSTS AND REVENUES

The Park is primarily financed through government budgets and international projects (most important are EU LIFE projects). Table 11 below shows the annual budgets being in the order of 3 – 4 million kuna for 2007 and 2008.

Table 11 - Overview of Income and Costs of NP Lonjsko Polje Authority

	Description	2007	%	2008	%
INCOME					
1	Ministry of Culture	2,065,288 kn	58.2	2,612,245 kn	60.1
2	Ministry of Agriculture, Forestry and evelopment – subsidies & projects	206,630 kn	5.8	259,004 kn	5.9
3	International Funds and donations	879,578 kn	24.8	1,141,348 kn	26.3
4	Other donations	202,131 kn	5.7	45,100 kn	1.0
5	Own revenues (NP services and fees; guides, souvenirs etc.)	189,248 kn	5.3	285,092 kn	6.6
6	Other incomes	4,028 kn	0.1	1,542 kn	0.05
	TOTAL	**3,546,903 kn**		**4,344,331 kn**	
COSTS					
1	Employees salaries and overtime	1,151,504 kn	37.8	1,357,455 kn	41.5
2	Supplies, energy, services and other g expenses	1,809,503 kn	37.8	2,274,812 kn	39.8
3	Procurement of non-financial assets	654,926 kn	23.6	747,103 kn	18.1
3.1.	*Building*	*118,254 kn*		*383,049 kn*	
3.2.	*Vehicle and other equipment*	*409,632 kn*		*254,805 kn*	
3.3.	*Other*	*113,040 kn*		*109,249 kn*	
	TOTAL	**3,615,933 kn**		**4,379,370 kn**	

A5.3 VISITOR STATISTICS

A highway bounds the northern side of the Park so it is easily accessible. However, annually there are only about 10,000 -15,000 visitors (by the number of entrance tickets sold), but the real number is hard to predict. The most numerous visitors are anglers and school excursions. In addition, Lonjsko polje nature park is popular among bird watchers, cyclists and people who like the combination of tradition and nature in one place.

Table 12 Number of Registered Visitors to the Nature Park Lonjsko polje

Year	Number of visitors
2006	8.900
2007	16.450
2008	??

A5.4 PARK CHARGES

The Park is encouraged by the Ministry of Culture to finance itself by charging entrance fees. However, as the Park has many entrances it is difficult to organize entrance fee charges (as well as know number of visitors). The most numerous visitors, anglers, do not pay permissions to the Park as well as not paying an entrance fee. Moreover, there are 14 villages in the Park and many people live in the Park as well as relatives and friends visiting them. Table 13 below shows the charges that should be paid.

Table 13 Entrance fees in kuna

	Price in kuna
Children up to 7	5 kn
Children from 7 to 18	30 kn
Students, members of the 'Croatian Hiking Association' (HPD) and pensioners	30 kn
Adults	35 kn
Adults – in a group	33 kn
Educational program	400 kn + entrance fee 10 kuna per pupil
Expert guide – half day	350 kn
Expert guide – whole day	500 kn
Filming for commercial purposes	1000 kn
Shooting for commercial purposes	500 kn

A5.5 PROBLEMS

1) They are exploring agri-environment schemes and potential EU financing, but there are major problems over proving who actually implemented the agricultural improvements and whether they are eligible for funding.
2) The invasive species desert false indigo (*Amorpha fruticosa*) has overgrown many important wet pastures and it is difficult to control it spreading, especially on pastures with less livestock.
3) There should be at least 50 % more livestock on pastures to control the invasive desert false indigo plant.
4) There are not enough employees in the Nature park Authority – they are frequently having to work overtime.
5) On the northern border of the Park is big depot of toxic waste (near Kutina).
6) Most of meadows and pastures are common land. Recently, the Authority got permission to manage the common land. The Authority intention is to give the land in concessions to local farmers. As the owner of the common land is state, legally is problem for farmers to get subsidies for management of that land.

7) There are 14 villages in the park inhabited mainly by old people. There are few incentives to keep the younger generations around.
8) The 'nature park regulations' are apparently not approved by the Ministry of Agriculture.
9) It is a new park and needs to be supported by other Ministries too.
10) The LIFE and EU project funds take up an enormous amount of administration time to bid for and then manage!

A5.6 OPPORTUNITIES

1) The park needs to find a better way to monitor people entering the park and paying through some form of electronic card system (an idea for the future). The park manager suggested the 'Vienna Card pass' system http://www.wienkarte.at/EN/?l=e.
A study should explore pass options, how they can be implemented, and consider costs and benefits.
2) There should be potential to somehow get the Zagreb water authority and Bosnia to pay the park for managing the water flow of River Sara, which prevents serious flooding downstream.
3) The key to success is to develop sustainable integrated agriculture schemes and agri-tourism.
4) In 2004 there were no registered beds in the park, but by 2009 there are 77 beds available for visitors provided by the local population (assisted by the Ministry of Tourism). The park is trying to encourage provision of such tourist facilities, so that more tourists will come. Perhaps in the future it can start charging concessions for these services.

A6 NATURE PARK PAPUK

The Papuk Nature Park is one of the most recently established nature parks in Croatia with a total area of 33,600 hectares. It was protected due to a high diversity of biological, geological, landscape and cultural features, encompassing almost the entire Mountain of Papuk and the western part of Mountain Krndija. The park is also the first Croatian Geopark and the 30th member of the European and UNESCO Global Geopark Network.

Almost 95% of the Park area is covered with forests, some of which are especially protected for their natural and landscape characteristics. From a geological point of view, Papuk Nature Park is of special significance because it comprises almost all types of rocks from the Paleozoic and Quaternary Periods, diverse geological structures and textures, and karst phenomena and relief forms. The locality of Rupnica in the north-western part of the Park, has been protected as the first geological monument in Croatia, due to vulcanite cascades unique in Croatia

The Papuk Nature Park area has a cultural and historical reputation. The medieval period has left a particularly valuable heritage in the form of eight fortification structures on the rim of Papuk among which the old town Ružica is unique in the Slavonian region by its beauty and state of preservation. In addition, there are tombs ("tumuli") from the late Iron Age with valuable finds of utensils, jewellery and weapons.

A6.1 COSTS AND REVENUES

The Park is mostly financed through government budget, with some finances coming from tickets, souvenirs and other promotional materials. The overall income and costs are around 3 million kuna per year. However, there are plans for an education centre (a further 3m Kuna), and a geo information centre (7m Kuna).

Table 14 Overview of Income for Papuk Nature Reserve

INCOME					
	Description	**2007**		**2008**	
			%		%
1	Ministry of Culture	2,522,162 kn	84	2,380,974 kn	85
2	Donations and other funds	224,500 kn	7	105,000 kn	4
3	Own revenues	264,844 kn	9	282,843 kn	11
	TOTAL	**3.015.837 kn**		**2.791.216.kn**	

A6.2 VISITOR STATISTICS

A highway is about half an hour away which makes the Park relatively accessible. The annual number of visitors is around 5500 by number of sold tickets, but estimate of all visitors is between 85,000-130,000. Entrance fees are charged just for organized tour visitors (Table5), and as parking fee to most popular picnic area, Jankovac. The most numerous visitors are mountaineers, school excursions, cyclists, rock climbers, gliders and people from nearby areas.

Table 15 Number of visitors to the Nature park Papuk

Year	Number of sold tickets	Estimated number of visitors
2006	4,224	75,000
2007	5,760	85,000
2008	5,283	130,000

Of the visitors, only an estimated 1% are foreign at present. From November to March, few visit as is cold. The main season is from April to June, whish is also when there are school trips. Sept-Oct is relatively busy if it is warm, especially for older people and hikers.

A6.3 VISITOR CHARGES

Table16 Entrance fees in kuna

Category	**Price in kuna**
Children , students, members of the 'Croatian Hiking Association' (HPD) and pensioners	20 kn
Adults	25 kn
Expert guide – half day	250 kn
Expert guide – whole day	350 kn

A6.4 PROBLEMS

1) Around 95% of people do not pay entrance fees because it is too difficult to enforce, as there are so many entrances (over 100), and so many people are very local, plus the borders are not clear. There are no villages or shops inside the park. Many roads are just transit roads that just pass through.
2) The park does not get paid any concessions from the extractions (ie from forests, quarries, water and hunting). These all happen on a significant scale, and the money from these goes direct to County Budget, and the park gets nothing directly. The parks would like a proportion of the extraction fees (2.5% goes direct to County). There needs to be a change in the law to allow some of this concession fee to go to the park.

3) There are around 15 hunting societies, but only one ranger to monitor!
4) It is a fairly new park (it only started in 2002), and so is not that recognized and supported by other Ministries and organizations.
5) There are around 2000 people visiting during summer weekends in Lake Orahorica – they would not want to pay.
6) Angling concession/permission is not paid to the nature park authority, although it should be. One lake was made into a fishing spot and they charge anglers, but have not paid park their concession for the past 2 years.
7) Around 90% of the park is forested. They have now agreed 5% is to be protected by the Croatian Forests from logging. The Forest Stewardship Council requires management of trees is Natura 2000 sites.
8) The park was not included in latest 'Lonely Planet' and 'Eyewitness Travel' guides to Croatia, which are commonly used by international tourists. They must be included in other similar and future guide books.
9) The park management board is dominated by Croatian Forest members (3 out of 5), so it is biased and difficult to make changes.

A6.5 OPPORTUNITIES

1) It is a geo-park, and they should (and are) making the most of this Brand/title and image.
2) The park staff are extremely enthusiastic and proactive despite poor pay conditions.
3) The park could try to get hunters to cooperate and inform of illegal poaching. At the moment, the staff are under-resourced and need the police to help enforce the law. A change in the legislation to give rangers more powers would help.
4) Car park charges and 'car fees' should be thoroughly explored. They could charge non-locals a different amount!? They could only have to pay for stopping in car parks/laybys etc. They could install 'pay and display' meters or sell tickets via mobile phones or in nearby villages, or online etc.
5) Water is abstracted and should be paid for to the park.
6) There could be more well published hiking and other events (eg cycling/climbing events etc) out of season.
7) The park seem to think that people in group tours are happy are generally happy with paying more fees, although perhaps school children parents may not be so keen.
8) The park staff would like some form of Environment Fund, perhaps with all parks sharing money.
9) The park does not want to run tourist facilities, but they do want to help develop/facilitate development of tourism infrastructure, and to help market the site. This could eventually lead to more concession approvals for them.

A7 PUBLIC INSTITUTION IN ŠIBENSKO – KNINSKA COUNTY

A7.1 COUNTY DESCRIPTION

Šibensko – Kninska County has a total of 5,600 square kilometres of which 2,994 square kilometres are land area. The county is situated in middle south region of Croatia. This County encompasses National Park Kornati, National Park Krka and Nature Park Vransko jezero. The Public Institution is responsible for protection of all other protected areas (and nature protected features – species), except above mentioned National and Nature parks. In the County are around 9 different protected (or areas proposed for protection) of different sizes (from less than one hectare to several thousand hectares). Also, in County are 97 areas of Croatian Ecological Network of which some are completely in the County and some are just partly in the Sibensko-Kninska County. Most of the Croatian Ecological Network areas will be part of Natura 2000 network. Although, all sites are in very popular tourist regions, none of the sites is especially popular (visited) because of its nature phenomena.

A7.2 COSTS, REVENUES, VISITORS AND CHARGES

The Public Institution (PI) is financed by the County budget, except for any international project funds it can manage to get. It has a budget of approximately 1,000,000 kn. The major expenditures are employees wages, purchase of basic equipment and several scientific research. There are no visitor fees at any sites as yet, but there the PI is exploring concession approvals. Several concession permits are in process of approval (eg for canoeing), and this is seen as a welcome source of revenue.

The PI is a partner in INTERREG (EU funded) project SIPA with budget of 180,000 Euro (Guduča canyon). The PI is included in the COAST project (financed by UNDP) - St. Antonio Chanel. UNDP finance an employee in the PI for a period of two Years.

No entrance fees are charged for any sites and there is no information about number of visitors at any site. Moreover, some sites are very popular tourist hotspots (like the center of town Šibenik) and densely inhabited or visited because of cultural heritage.

A7.3 PROBLEMS

1) Inadequate staff, equipment (boats!) and resources to do their job. The PI has only one ranger for all Croatian ecological network sites (97) and other PA (9). The PI has only existed for less than 2 years, and there is lack of human resources (ie a deficit of rangers and other experts in nature protection) and a lack of equipment (for example a boat for monitoring the maritime PAs).
2) The borders of the protected area sites (as well as Croatian Ecological Network sites) are not adequately defined and marked/mapped.

3) The PI is responsible for water ways in many places but gets no money from mooring fees or boats. There is much illegal mooring, and they have no boats to do anything about it. There is also a lot of anchor damage as a result of the boats.
4) Visitors pay a great deal to go to national parks, but nothing towards the adjacent protected areas that are managed by the County. However, Article 72 of the nature law should be considered, as it may be that these adjacent areas should be managed by the park PIs.
5) The PI would like money to develop a visitor centre, plus access at sites and visitor boards etc. However, perhaps the PI should join up with existing visitor centres, for example the one in Skaradin for Krka national park.
6) The majority of the population in Sibensko-Kninska county is not familiar with the existence of the PI. More effort should be put in education for local population and promotion of the Public Institution.
7) Environmental and nature protection should be united in one Ministry, and also the law for the nature protection should be revised.
8) The NGO sector in Croatia is not very powerful to help with protected areas.

A7.4 OPPORTUNITIES

1) There could be good lessons to be learned from Zadar County as to how they manage their environment.
2) The PI is currently in process of trying to get concessions for rafting, climbing, safaris, guiding and fishing.
3) There is great potential for EU and international funds – but they need help to bid for them.

A8 PUBLIC INSTITUTION IN VARAŽDINSKA COUNTY

A8.1 COUNTY DESCRIPTION

Varaždinska County has a total of 1,261 square kilometres. The County is situated in the middle north region of Croatia around the town Varaždin (60 km North-East of Zagreb). In the County are around 30 different protected areas (or areas proposed for protection) of different sizes (from less than hectare to several thousand hectares). Also, in the County are 30 areas of Croatian Ecological Network of which some are completely in the County and some are just partly in the Varaždinska County. Most of the Croatian Ecological Network areas will be part of Natura 2000 network. Some sites are in densely visited region (for example Varaždin graveyard) but many still do not have any or adequate tourist infrastructure for visitors.

A8.2 COSTS, REVENUES, VISITORS AND CHARGES

The Public Institution has two employees (Director and Conservation manager) and is financed by the County budget. It has a budget of approximately 700,000 kn (between 450,000.00 to 740,000.00 HRK in the last four years). Other sources of revenues are donations from municipalities and donations. The major expenditures are employees wages (50-60 %), purchase of basic equipment and several Conservation programs (30 – 45 %). It has one small office for all Croatian ecological network sites (97) and other PAs (9). As such, an average of approximately 70,000 to 200,000 per annum is allocated to natural heritage programs, while the rest is spent on PI ordinary business costs (wages, fuel, energy, stationery, phone, representative bodies' fees, accounting services and other tangible operating charges).

The PI is trying to obtain an additional 100,000 to 200,000 HRK for the realization of natural heritage programs from various other sources (eg donations, trust funds and similar, as well as from the budgets of individual municipalities and towns whose territory includes the protected areas.)

There are no **entrance fees** charged at any sites. As some places are in the middle of towns there is no information on the number of visitor. Moreover, some sites are very popular tourist hotspots (like Varaždin graveyard) and densely inhabited or visited because of cultural heritage. Zasticenog castle is popular. The building is funded by National Heritage, whilst the PI helps protect some of the grounds.

As there are no 'national' or 'nature' parks, the local population do not anticipate protected areas as an important part for development of the County. Moreover, protected areas are perceived as an obstacle for further development, as there are no obvious tourist benefits from them. The view of the PI is that the Legislator did not consider enough specifics and needs of County Public institutions.

The PI does not have a ranger, which is essential for the functioning of the PI. It should be invested more in capacity building. Also, the office is not adequately equipped and is too small.

The PI believes that the government should be more involved in financing of the County PA, especially in management and finances of the areas of Croatian Ecological Network. More involvement, instructions and help, is expected from government expert institutions.

A8.3 PROBLEMS

1) There is no current categorization of PAs in County in terms of whether they are local, county or national importance.
2) The county PI and local nature protection funds depend exclusively on the Varaždin County and the current political situation, which causes problems as local politics influences the budget. Only finances come from County budget, and the amount is far too small to do their job. Only 2 of them.
3) The local community does not perceive the protected areas (which are not national or nature parks) as important for county development, and the county is thus reluctant to allocate funds for nature protection-related projects. Furthermore, nature protection at local level is often viewed as a hindrance to further development since such areas are smaller, not exploited for tourism and they currently do not generate financial benefit.
4) The protected areas are not self-sustainable (indeed, there are no entrance fees at any sites) and the PI is not currently unacquainted with the manner of achieving this.
5) There is a lack of local, national and international experience related to granting concessions and concession approvals for lower category protection sites at local level.

A8.4 OPPORTUNITIES AND SOLUTIONS

1) Don't want to go down route of charging fees – but seek to offer school activities and group tours/programs etc. However, care is needed here that they cover costs or ideally make money.
2) They like the idea of a national environmental fund for PAs, since the funds for the nature protection projects supplied by the existing Environmental Protection and Energy Efficiency Fund are very small and insufficient.
3) The participation of the State and any other assistance from state institutions in the field of nature protection at local level, would be very helpful (eg joint preparation of projects regarding funding from the EU funds and similar), as well as advising on the experience of other countries in the management of protected areas which are not classified as national or nature parks, but rather as nature monuments, significant landscapes, park architecture monuments, park-forests, etc.
4) They like the idea of establishing a nature protection fund (and financing of the protected areas after categorization, condition and risk assessment and establishing priorities).

5) For protected area landscaping projects in the Varaždin County, aggregating funds from the county budget and from the budget of municipalities/cities where the protected site is located, is good practice. The guiding thought was to carry out activities requiring greater funds in phases, throughout several years, and to allocate the same amounts in municipality/city budgets as the amounts allocated from the county budget. In this sense, the same procedure may, perhaps, be applied to the allocation of funds for activities related to the protection of sites of national or international importance in the State Budget. Categorization, condition assessment, setting priorities and then financing from the State Budget.
6) The PI expects the State and the competent institutions in charge of nature protection to provide the county PIs with better support and assistance (financial, professional and operative) in terms of protecting Natura 2000 sites. Furthermore, an efficient ecological network management implies incentives and other measures aimed at preservation of species and habitats. This requires preservation measures, clearly defined objectives and management plans for each site.