

IMPROVING PROTECTED AREAS

Michael Getzner,
Michael Jungmeier (eds.)



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To our kids

FOREWORD

Development of the world economy – economic growth in industrialised countries and, at a faster pace, in emerging economies and low-income countries – implies increased pressures on natural resources and the environment. One answer to these global challenges – including global warming, depletion of natural resources, deforestation and desertification – is the protection of areas which still have not or only marginally been integrated into the modern, expansive system of economic activities and which, at the same time, constitute significant parts of a natural and cultural heritage to be preserved for future generations.

The number and scope of these Protected Areas is increasing. Obviously it is not sufficient to delineate such areas on a map: they have actively to be protected and they have to be managed with respect to admissible forms of utilization like traditional farming or tourism, but also with the aim to enhance public awareness of the importance of such protective measures, including the necessity to spend tax money on this purpose.

It is the aim of the newly introduced, innovative programme “Management of Protected Areas” at the University of Klagenfurt to provide just these competencies and knowledge in the relevant fields to command the complex tasks of management in this field. The need for such a programme was demonstrated in the response to this offering, drawing participants from countries around the globe. This publication documents a major outcome of their endeavours in Klagenfurt, an abridged version of the theses that had been delivered at the end of the university course. The topics of these theses also show the complexity of an integrated management of Protected Areas, as well as the diversity of aims and tasks waiting for the graduates of this programme in their home countries.

To start this programme was an experiment with considerable risks. The present volume documents the success of this initiative for which the Faculty of Business Management and Economics at the University of Klagenfurt wants to express its congratulations to Michael Getzner and Michael Jungmeier, to all the students and lecturers, as well as our gratitude to all the supporting institutions, which made this project possible.

Hans-Joachim Bodenhöfer
Dean of the Faculty of Business Management and Economics

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1 INTRODUCTION, INTENT AND STRUCTURE OF THE BOOK

Michael Getzner, Michael Jungmeier

The current book brings together the manifold works and projects accomplished in the first round of Klagenfurt University's postgraduate study programme "Management of Protected Areas" that started in September 2005 and ended in July 2007.

The study programme has its origin in many collaboration of both of us, Michael Getzner (economist) and Michael Jungmeier (ecologist). We were first bound together in a feasibility study on the Gesäuse National Park (Austria) back in 1997. We found that especially in the fields of Protected Areas, economics and ecology can be wonderful complements in both achieving the ecological necessities and regional economic development. The concrete idea for the study programme was discussed during and after completion of an international research project called IPAM – Integrative Protected Area Management. This, and other research projects, provide the scientific basis of the current study programme.

The current book presents the outcomes of the students' works in terms of their master theses. It is interesting to see the broad variety of the thesis work, both regarding the choice of viewpoints, approaches, and methods. We find papers related to single species as well as some dedicated to networks of Protected Areas and national legislation for implementing frameworks for Protected Areas.

The book starts with chapters dealing with biodiversity conservation and visitor management, followed by papers on legal frameworks and management effectiveness. A separate section deals with economic and financial issues, while the last chapter is on quality management, communication and participation.

It is not only the scientific work done by all participants, but also the realization of many of suggestions made by them. Due to the work of students, legal frameworks have been implemented or changed, the methodologies developed have already been used widely, and some of the former students are now managers in Protected Areas.

The book finishes with an overview of the study programme itself, and of a presentation of the network in which the students, the programme, and all

stakeholders are embedded. We hope that the book is received well in the community, and that one of the main aims and visions of our programme, the effective and efficient conservation of biodiversity worldwide, is supported by our and the students' works.

2 INTEGRATIVE MANAGEMENT OF PROTECTED AREAS – A NEW SCIENTIFIC DISCIPLINE?

Michael Getzner, Michael Jungmeier

2.1 Introduction

Is the “management of Protected Areas” a new scientific discipline, or just a collection and practical application of elements of other scientific fields such as biology, ecology, economics, management science, and humanities? The emergence of a new “discipline” (even if inter- and transdisciplinary approaches prevail) can usually be observed by the acceptance of field-specific textbooks, scientific papers and studies of the subject, and education offers specifically addressed to the discipline. In the light of this definition of a scientific discipline, it is useful to sketch the history of Protected Areas as a major field of activities – both scientific and political.

A “protected area” is land (area) set aside for specific purposes of conserving natural (and often also cultural) heritage, according to IUCN (World Conservation Union): “... land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means“ (IUCN, 1994). The basic idea of Protected Areas stems from imperial hunting sites where the aristocrats could go for hunting trips and would have high chances of hunting success. However, the conception of Protected Areas has, of course, significantly changed over time. The imperial hunting sites as well as feudal or colonial hunting reserves were meant to exclude unauthorized hunting and “protect” wildlife from illegal (non-aristocrat) hunting.

The first Protected Areas in the sense of conservation for purposes other than hunting were natural monuments, and the national parks established in the USA in the 19th century (e.g. Yellowstone National Park, 1876). Natural monuments and national parks were important not only from the viewpoint of conservation but also in the sense of national heritage and pride. Other early prominent examples include

the conservation of the forests the capital city of Austria, Vienna, which were protected from development and conventional forestry in 1872.

The complexity of establishing and managing Protected Areas has increased since then, with the starting point of conserving biodiversity – genetic, species, ecosystem and landscape diversity – to enhancing economic development, secure cultural and social systems in peripheral regions (both nationally and world-wide), and to promote sustainable development. This range of potential aims of Protected Areas has been developed over time, resulting in a broad range of tasks for managers of Protected Areas such as ecological management, education, communication, business management and administration.

The establishment of Protected Areas has only rarely been an issue of biodiversity alone. Even in the “old days” of US national parks, these Protected Areas gained importance for the national self-esteem as well as, already very early in the 20th century, for the tourism industry. Protected Areas carry a big load of aims and arguments that mirror economic, but also social and cultural developments. Besides the aim to conserve biodiversity, Protected Areas have been connected to “cornerstones of sustainable development” (World Bank, 2003), “pillars of regional and national identities” (Bonaiuto et al., 2002), “regional sustainable development” (Mose, 2007), contributing to conflict resolution in “peace parks” (Ali, 2007), and are “learning sites” for science and social development.

Parallel to the development of the aims of Protected Areas, the expectations and demands towards Protected Areas have grown rapidly. For instance, Protected Areas have been labelled “landscapes of hope” for underdeveloped regions (Mose, 2006).

Besides these labels and aims of Protected Areas, a huge variety of legal categories, definitions and aims of Protected Areas have been developed, among others IUCN’s categorization, international conventions (e.g. Convention on Biological Diversity, CBD; RAMSAR convention for the conservation of wetlands), European Union’s Natura 2000 regulation (Habitat and Birds Directives), national, regional and local regulations on nature conservation. Nearly all these regulations include not only the conservation of biodiversity in their portfolio of objectives, but also reference to other issues such as education, science, information, visitor experience, and economic development. For instance, IUCN’s national parks according to category II of the IUCN system refers to the conservation of biodiversity and the natural processes in an ecosystem, as well as to education and information, visitor management, and scientific research.

With the manifold aims and objectives of Protected Areas, the task of planners, managers and administrators in the field of Protected Areas is not only one of

natural sciences (e.g. biology and ecology), but includes the full range of management instruments and processes of companies (firms) with the special purpose to conserve biodiversity while sharing benefits with all stakeholders. This wide field of aims and activities of Protected Areas has been acknowledged by the Convention on Biological Diversity by addressing the issues of benefit sharing, stakeholder involvement, and sustainable use of resources, and sustainable development.

Discussing the concept of and challenges for Protected Areas is certainly a very interesting venture. While the number of Protected Areas and networks of Protected Areas has grown rapidly¹ during the last decades, public awareness also increased dramatically. With more and more land devoted to nature conservation, stakes are high for all stakeholders such as land owners (private and public), holders of property rights (such as fishing and hunting rights), local and regional communities, NGOs (Non-Governmental Organizations), politicians and, generally, all tax payers.

Despite the fact that Protected Areas are prominent in terms of their importance for biodiversity conservation and sustainable development, there is a lack of a general theory of Protected Areas. Currently, only a handful of textbooks touch upon the variety of different fields of activities of Protected Areas, mostly from the viewpoint of Conservation Biology. Furthermore, there are a number of journals devoting at least some space to the management of Protected Areas, in many cases picking out a disciplinary aspect such as Ecological Economics, Conservation Biology, Journal of Nature Conservation, Journal of Wildlife, and Journal of Environmental Management. Textbooks concentrate on a broader view of PA management (see for details of the following Getzner, 2007). While the “Conservation Handbook” (Sutherland, 2006) addresses biodiversity conservation from a closer biological viewpoint, and includes only partially other topics such as economics and business administration, two major volumes cover most of the topics interesting for planners and managers of Protected Areas. The more general volume, “Protected Area Management – Principles and Practice” (Worboys et al., 2005) addresses PA management not only from an ecological viewpoint but includes, among other topics, management, communication, visitor steering, benefit sharing, and indigenous people. Similarly, “Managing Protected Areas“ by Lockwood et al. (2006) covers as well most of the ground of PA management with a comprehensive “global view”. A recent practical overview has been provided by Alexander (2008). These textbooks (some of them with with 800+ pages) are

¹ For instance, the number of sites in Europe according to the Habitats and Birds Directive has grown to currently over 27,000 sites in countries of the European Union.

major introductions and should not be missed on any bookshelf of PA managers. However, some European specifics are not dealt with, for instance, the details and management consequences of Natura 2000 sites and networks are not touched upon, and “paper parks” in transition countries of Central and Eastern Europe need specific attention in the grey zones of corruption, lack of public funds, and low awareness regarding natural heritage.

2.2 The management of Protected Areas as a new discipline

The management of Protected Areas is certainly a rising professional field due to the high demand for educated and skilled personnel in many European regions. Not only has the number of Protected Areas with significant global importance, such as National Parks and Biosphere Reserves, increased, but the new regulations towards Natura 2000 sites, and national developments such as Nature Parks, have created many sites on paper for which management schemes and administrations have to be established in the next few years. While the job description becomes clearer, the manifold aspects of this professional demand for PA managers manifest itself only slowly in forming a scientific discipline. This is probably due to the wide range of topics and issues, and also personal skills, which a manager of a protected area should be aware of. First of all, the question arises what a protected area really is from the viewpoint of management and economics. There is no similar organization like a protected area which focuses on natural science (biology) and at the same time involves a broad range of management topics.

We like to conceive a protected area as a firm in classical economic terms as an institutions organizing production, with a broad range of inputs (factors of production), such as personnel, infrastructure, land, but also information and collaboration from a variety of stakeholders. The outputs (products) of this firm are, for instance, biodiversity conservation, sustainable development, economic and other benefits, information, education and raising public awareness. A protected area is from its very nature a not-for-profit company but rather tries to achieve its goals – often stated in the laws and establishing documents of the protected area – with the minimum intake of resources. Protected Areas as special purpose firms (companies) produce on the one hand public goods (biodiversity conservation) – financed through public funds –, but also partially private goods (such as exhibitions and information materials, local and regional produce), and meritory goods (education). Many goods produced are of mixed character in between these classifications.

The most important disciplines contributing to a “science of the management of Protected Areas” are

- conservation biology and ecology: Natural science forms the basis of management plans and practice with managers needing to have at least a comprehensive basic understanding of ecosystem dynamics, species diversity and composition, survival strategies, and threats to biodiversity, often with a local focus (such as Alpine vs. desert ecosystems, marine vs. land ecosystems).
- management and business administration: PA managers are “managers” in the classical sense and have to apply knowledge, among others, on business organization, personnel, marketing, accounting, communication.
- management of public enterprises: This discipline on the interface between management and business administration, and (micro-) economics, contributes to the distinct character of companies being organized possibly as a profit-oriented company, but nevertheless have to deal with bureaucracies, public money and accounting rules, and with legal and other formal obligations.
- ecological economics: The “science of sustainability” is an often neglected discipline as many PA managers studied biology, ecology, or landscape planning, but do not have basic economic knowledge. Ecological economics contributes to the understanding of the relations between the ecological and economic system, and provides many important elements such as economic valuation of natural goods (species, ecosystems).
- culture, philosophy, sociology: These disciplines provide the basic understanding of reasoning of biodiversity conservation in a cultural, and social and societal context, focusing on the embedding of Protected Areas into the economy and society.
- education sciences: The presentation of information, providing insights into ecosystem dynamics, and educating visitors is a major task of Protected Areas.
- planning science: The structure of a planning process, and the importance of goals, objectives, aims, measurability of outcomes, logical frameworks etc., contribute much to ecological management plans.
- psychology, group dynamics: Dealing with the manifold expectations of all stakeholders involves the broad range of communication and inclusion of different opinions and viewpoints. PA managers often have to contribute soft skills such as organizing workshops, resolving conflicts, and dealing with diverse personalities.
- law and legal science: As many aims and goals of Protected Areas are codified in public law, PA managers have to base their decisions on firm legal ground.

The forming principles of the “science of management of Protected Areas” are depicted in Figure 1. It becomes clear that the forming principles of this new science include both positive and normative perspectives. For instance, sustainable development is on the one hand considered as a positive concept in the sense that ecological, social and economic aspects of development are analyzed, and that the development of a protected area over time is evolutionary and process-oriented in its very nature, presenting both a certain target (state) as well as the process. However, sustainable development is also considered a normative concept in the sense of prescribing a certain policy goal, or at least, principles for achieving the right path and perspectives towards the long-term goal of sustainability. The positive and normative character of the management of Protected Areas can also be found in other forming principles such as ecological effectiveness and economic efficiency. Both can be analyzed from a positive perspective (e.g. natural science methods for analyzing ecological effectiveness and economic efficiency of a certain environmental management scheme), but are also central normative goals to be achieved. Policies of PA management have also to be (normatively) judged by their effectiveness in ecological and economic terms.

Other forming principles include inter- and transdisciplinarity. Interdisciplinarity has already been discussed above by highlighting the importance of several scientific disciplines to be included in the work, education and research agenda of PA management. However, in many cases, knowledge needed for effective and efficient PA management can only be generated during the planning and decision process in a transdisciplinary way together with all stakeholders. For instance, the effects of a certain ecological policy can often not be analyzed by research in an ivory tower-like setting but have to be assessed by relevant stakeholders who hold local and regional tacit knowledge which is not codified (e.g. many local biotopes may not be registered accordingly for the problem in question). The management of Protected Areas as a new discipline can therefore be labelled “post-normal science” (Funtowicz and Ravetz, 1994).

While the forming principle of the long-term and intergenerational perspective is somehow self-explaining – by including concepts such as biodiversity, dynamics, and also ethical aspects –, it has also to be stressed that internationality and the proper consideration of the global nature of many problems of Protected Areas is crucial for successfully managing a PA. For instance, providing biodiversity can be considered as providing a global public good (genetic and species diversity). Management principles, practices and instruments can often be used in different national contexts, and problems of biodiversity conservation are not limited by national boundaries (“peace parks”, “inter-national parks”).

Identification and sharing benefits is a major issue particularly in developing countries. Poverty is generally considered one of the main drivers of biodiversity loss (Hassan et al., 2005). Enhancing regional development and providing and sharing benefits for the local residents in peripheral regions is therefore a crucial principle if ecological management should be successful. The process-oriented character of PA management is comprised by the forming principle of communication, participation, and good governance. One could add “empowerment” as an additional aspect since Protected Areas sometimes also involve social groups at the fringe of society. Participation may theoretically be reasoned, for instance, by the approach to procedural rationality and discursive ethics (O’Hara, 1995).

Finally, the Protected Areas may contribute significantly to innovation in several fields such as ecology, management, and political science.

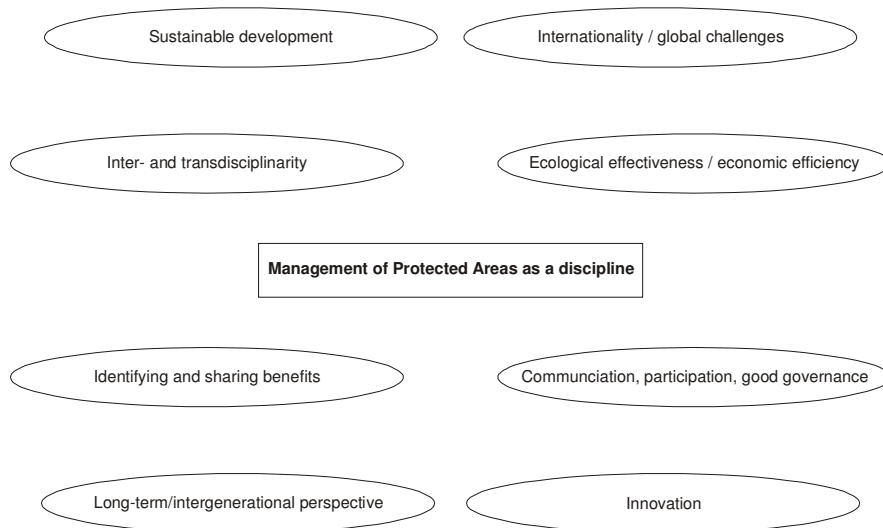


Figure 1: Forming principles of the Management of Protected Areas as a discipline

2.3 Summary and conclusions

Summing up, the management of Protected Areas can be considered a inter- and transdisciplinary venture, taking the manifold achievements of other

disciplines and combining these in a new framework. It can be considered as a new “discipline”, or it can be considered as presenting many elements from natural, economic, and management science approaches. Nevertheless, the fields of work for PA managers includes all these different elements. Out of these, new education, training, and research options emerge that highlight the need for specific and cross-section knowledge and skills.

3 CUTTING-EDGE TOPICS IN THE MANAGEMENT OF PROTECTED AREAS

3.1 Biodiversity Conservation and Visitor Management

3.1.1 Safeguarding Threatened Species: River Dolphins (Nepal)

Sunita Chaudhary, Nepal: “Status of, and threats to, the Ganges River Dolphin (*Platanista gangetica*) in the Koshi River, Nepal”; Supervisor: Dr. Kalemani Jo Mulongoy, Secretariat of the Convention on Biological Diversity (CBD), Montreal, Canada.

Globally the Ganges River Dolphin (*Platanista gangetica*) is listed by IUCN (World Conservation Union) as endangered. In Nepal, this dolphin is critically endangered as a result of dam construction, other types of habitat manipulations, water pollution and adverse human activities. This dolphin species is ecologically considered important for its key role in indication of healthy river ecosystems and availability of clean water for the people living in the area. It is protected by law in Nepal. Information on the status of its population in the Koshi River is scanty but needed for the development of a strategy to halt its loss and if possible to revert its trend. This limited information is a major constraint for the protection and conservation of this endangered mammal. The dolphin status in the Koshi River is a matter of concern and there is an urgent need to update information on its current status.

In order to address this information gap, a dolphin population survey was carried out in the mainstream of the Koshi River in Nepal. The hotspots and potential sites of dolphins in the Koshi River were identified and mapped to make suggestions for their protection (see Figure 2). The threats both direct and indirect to the reduction of dolphins were identified at the local and national level. The need of integrating identified hotspots of dolphin into the Koshi Tappu Wildlife Reserve was assessed as a way to provide and strengthen the protection of the dolphins. Information was gathered using Participatory Rural Appraisal Tools

mainly through Focus Group Discussion and Key Informants Survey, and by a review of literature. A direct count method and synchronized survey were conducted for assessing the dolphin population.

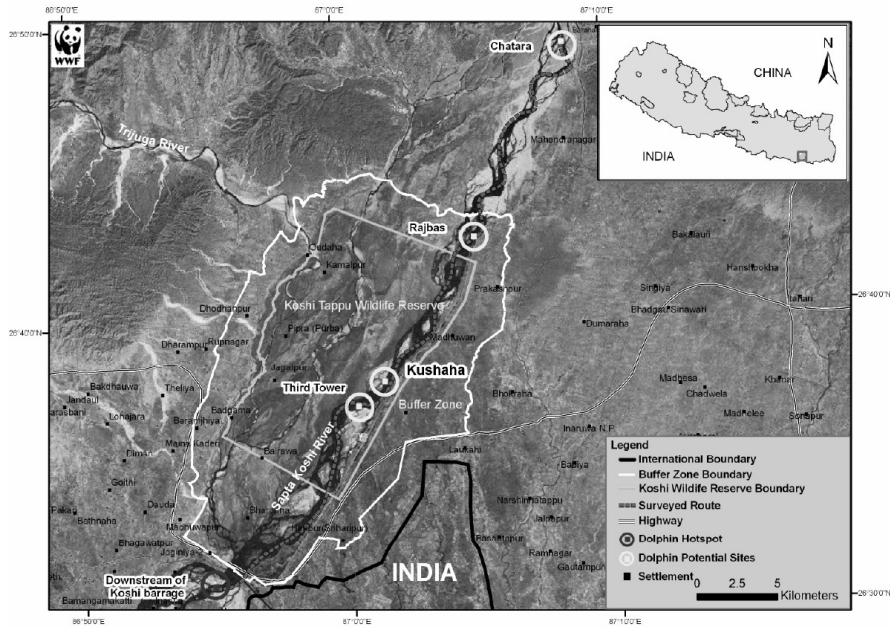


Figure 2: Hotspots and potential sites of the river dolphins in the study area of the Koshi River system

During the present study no dolphins were sighted in the river section north of the Koshi Barrage. However, the local people recalled the occurrence of one or two dolphins, indicating a decrease in the dolphin population in the last decade in the river section north of the barrage. In the river section south of the barrage, a total population of 15 individuals was counted within a distance of 2 kilometres downstream of the barrage. The present study identified the southern section of the Koshi Barrage as the hotspot and Chatara, Rajabas, Kushaha and the Third Tower areas as the potential sites of the dolphins in the Koshi River system. The Koshi Barrage area is subjected to severe anthropogenic stresses causing pronounced habitat degradation in the area. The Koshi Barrage poses a severe threat to river dolphins upstream as it prevents the migration of the dolphins from downstream of

the barrage and has increased the vulnerability of these dolphins. The degradation of habitat accompanied by intensive fishing, fish poisoning, and water pollution are also posing threats to the Koshi dolphins (see Figure 3). Ineffective law enforcement and lack of awareness of the endangered status of the river dolphins among local people has also contributed to the population decline of the dolphins in the Koshi River in Nepal.



Figure 3: Fishing in the southern section of the Koshi barrage

Without an immediate and concerted conservation effort the Ganges river dolphin will almost certainly become extinct locally and may be nationally in the near future. Single piece meal protection efforts may not be enough for the conservation of this species in the Koshi River. An integrated ecosystem approach should be adopted not only relying on legislation or focusing on the river dolphins and their habitats but also maximising economic and social well-being in a sustainable manner is needed to protect the remnant Koshi dolphin population. Integrating the southern section of the Koshi Barrage identified as a hotspot into the buffer zone area of the Koshi Tappu Wildlife Reserve could be an option for protection of dolphins. The area should be conserved and managed under the Buffer Zone Management Regulations of Nepal. A sustainable ecotourism, incorporating all tourist attractions of the area should be implemented in coordination with the local community and the Koshi Tappu Wildlife Reserve. This could be an incentive for the local people in favour of dolphin conservation as well as for community

development. An ecosystem-based dolphin conservation action plan/strategy is an urgent need in the country and should be developed at the earliest possible date.

3.1.2 Managing Visitor Flows: Gesäuse National Park (Austria)

Lisbeth Zechner, Austria: “Visitor management in the Gesäuse National Park - a mixed approach including a checklist”; Supervisor: Univ.-Ass. Dr. Arne Arnberger, University of Natural Resources and Applied Life Sciences, Vienna, Austria.

In 2003 the “Gesäuse” was designated as National Park according to the IUCN category II; according to the EU legislation it is a Natura 2000 site as well. Both categories of Protected Areas have different objectives and priorities, which the National Park’s visitor management concept follows by balancing the aims of nature protection with that of high quality nature experience and recreation.

The concept is mainly based on the model of VERP – Visitor Experience and Resource Protection Framework – the principles of which are currently being used in many US National Parks. The steps of the concept are shown in Figure 4.

More than 32,000 people attended the national park’s visitor programmes in 2006, which offer special events in winter and summer, and education programmes for school kids and university students. Major visitor facilities include the information centre in the town of Admont and the pavilion in the village of Gstatterboden with a geological exhibition. Three nature trails guide visitors along the Enns river and the Johnsbach creek.

Main activities include hiking, climbing, mountain biking, rafting, canyoning and recreation at the river in the summer. During winter ski mountaineering is the main activity. Detailed data on the number of visitors, recreation quality and crowding on trails are not available, yet.

The risk analysis showed high risk of spoiling for river habitats and disturbing species mainly due to rafting. In addition, hiking and ski mountaineering has had a negative affect on grouse species (Table 1).

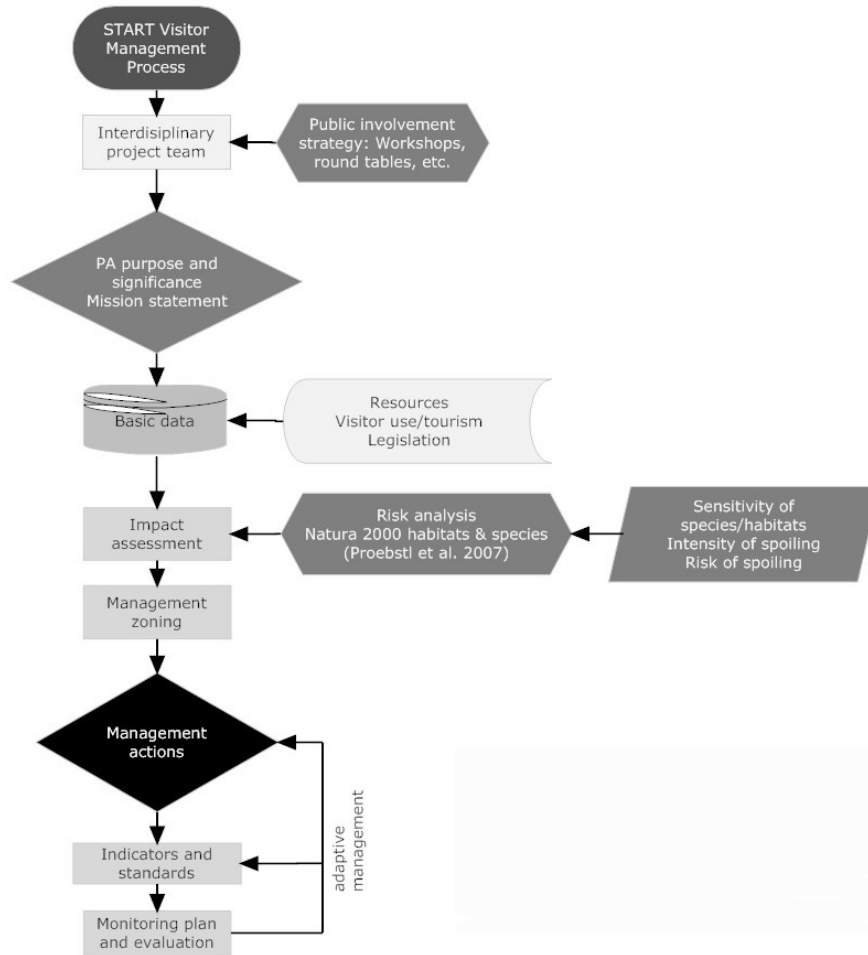


Figure 4: Flowchart with steps of the visitor management concept

Table 1: Results of the risk analysis for Natura 2000 habitats and species
(1 = low risk of spoiling, 2 = moderate, 3 = high)

	Conservation status										
		Hiking	Climbing	Rafting, kajaking, etc.	Canyoning	Recreation at the river	Angling	Mushrooming	Aviation	Ski mountaineering	Snowshoeing
Natura 2000 habitats and species											
3220 Alpine rivers and the herbaceous vegetation along their banks	B	1		3	1	3	2				
1098 Ukrainian brook lamprey <i>Eudontomyzon mariae</i>	B			3	1	1	1				
1131 Varione <i>Leuciscus souffia</i>	C			3	2	2	2				
1163 European Bullhead <i>Cottus gobio</i>	B			3	1	1	1				
1355 Otter <i>Lutra lutra</i>	C			3	2	3	3				
1902 Lady's slipper <i>Cypripedium calceolus</i>	B	2									
A091 Golden eagle <i>Aquila chrysaetos</i>	B	2	1							3	2
A103 Peregrine Falcon <i>Falco peregrinus</i>	B								2		
A104 Hazel grouse <i>Bonasa bonasia</i>	B	2						1		3/1	2
A108 Capercaillie <i>Tetrao urogallus</i>	B	3						1		3/2	3
A215 Eagle owl <i>Bubo bubo</i>	B								2		
A217 Pygmy owl <i>Glaucidium passerinum</i>	B							1			
A223 Tengmalm's owl <i>Aegolius funereus</i>	B							1			
A234 Grey-headed woodpecker <i>Picus canus</i>	C	1									
A408 Ptarmigan <i>Lagopus mutus</i>	B	3							2	3	
A409 Black grouse <i>Tetrao tetrix</i>	B	3							2	3	1
Additional habitats and species:											
Common sandpiper <i>Actitis hypoleucos</i>	'C'			3	2	3	3				
Red deer and chamois <i>Cervus elaphus</i> , <i>R. rupicapra</i>	'A'	1									
Alpine marmot <i>Marmota marmota</i>	'A'	2/1									
Grayling <i>Thymallus thymallus</i>	'B'			3	1	1	1				
Speikboeden	?	2									

Depending on the visitor activities and management requirements seven management zones were designated: river zone, nature trail zone, hiking zone, climbing zone, ski mountaineering zone, resource protection zone and developed zone (Figure 5).

For each zone; the type of area, natural resources within sensitive habitats and species, accessibility and potential activities, visitors' experience, intensity of use, infrastructure and management, as well as development and future conditions are described.

According to the precautionary principle, management actions can already be taken as soon as any sign of negative impact on species or habitats is detected.

Existing planned management actions are listed for each management zone. Planned management comprises for instance the amendment of the Navigation Regulation, temporal limitations of rafting and canyoning, the rule to walk dogs on leash only, the improvement of markings, information panels and enhanced ranger control in sensitive habitats as well as management actions for sensitive species such as grouse.

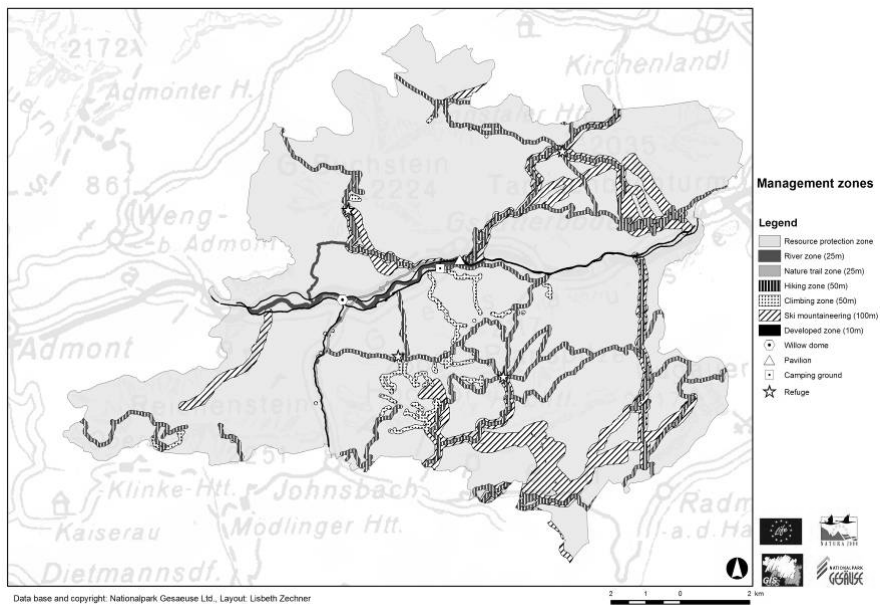


Figure 5: Management zones of the Gesäuse national park

Within this concept a first definition of indicators and possible standards as well as a draft of a monitoring plan is included. It will be completed and improved within the next two years. In order to achieve this, different experts will be involved. Resource indicators include mainly Natura 2000 habitats and species as well as other sensitive species (e. g., ground beetles, common sandpiper for the river zone). Social indicators comprise visitor numbers, crowding, satisfaction on recreation quality, observation of wildlife, pollution by garbage and faeces, and

have to be collected via visitor surveys. In addition, a monitoring plan to control the efficiency of management actions is necessary.

Although the legal, natural and infrastructural conditions are different compared to U.S. parks, the VERP framework was selected because it seems to be the best applicable framework for the current situation in the Gesäuse national park. Still, the framework had to be adapted to these local specifics.

3.1.3 Parks without Barriers: Gauja National Park (Latvia)

Meldra Langenfelde, Latvia: “Accessibility of Protected Areas – management aspects. Case study of Gauja National Park, Latvia”; Supervisor: Željko Kramarić, consultant, Croatia.

Universal accessibility is one of the basic human rights (UN regulation in 1993) but it is nevertheless often not perceived as important in many Protected Areas of European countries. Many managers of protected area do not have the required knowledge and understanding of this issue. Very often, disabled people are like a “forgotten” target group of Protected Areas, although they make quite a significant part of the society – there are many millions of disabled people just in Europe who would like to exercise their basic human right on accessibility and right to choose how to spend their free time.

Why should a protected area be accessible? A territory adapted to the requirements of accessibility can improve nature conservation work (better guidance of people, more people interested in this topic and increased acceptance), it “brings more money” into protected area as well as improves the acceptance of it among the whole society. Accessibility of a protected area does not mean just thinking of disabled people. Adapted facilities become accessible also for many others as well, such as elderly people and families with small children.

The adaptation process is quite complicated and requires involvement of various partners and target groups, like disabled people and their organisations, local people, transport companies and municipalities. Only then the work will be fruitful, if there is a strong cooperation and consideration of all aspects.

Besides the adaptation process is also very demanding to managers and protected area staff as well. The success of the process is depending very much on awareness of staff that should receive comprehensive training. A lot of attention should be paid to preparation and dissemination of information to disabled people about the visiting possibilities in a protected area, as well as extensive work in promotion and labelling should be done. It is also important not to forget regular

consultation among the accessibility specialists in Protected Areas because in the course of time various aspects – funding, conservation priorities, demography situation, design statements and use patterns of disabled people – may change.

In my study I review all these aspects and compile a kind of an action plan (tool kit) for managers of Protected Areas in Europe for adaptation of an area to the standards of accessibility. Furthermore, I describe the current situation of accessibility in Gauja National Park in Latvia in more detail, which is the oldest, largest and most visited national park in Latvia.

The contents of the master thesis are:

- problem setting – why accessibility to Protected Areas is needed (legal, social) – importance of outdoor recreation for (local) people / need for free time, economical and nature conservation aspects – possible benefits and difficulties;
- theoretical background – exploration and comparison of the experience gained so far in European Protected Areas and elaboration of a tool kit / an action plan for introduction of accessibility in Protected Areas;
- empirical study – auditing of Gauja National Park territory and elaboration of suggestions for accessibility improvement in the area;
- summary and conclusions.

The aims of the master thesis are:

- exploration and comparison of experiences of several European countries, like Germany, Great Britain, the Netherlands and Sweden;
- elaboration of an action plan for a protected area administration that would like to adapt the area to the requirements of accessibility based on analysed literature and several case studies;
- elaboration of recommendations for adaptation of the Gauja National Park territory (proposal for an annex to the management plan of Gauja National Park).

The results of the master thesis are especially important for ongoing projects in Gauja NP related to the improvement of tourism facilities.

For elaboration of the theses following methods have been used:

- collecting and analysis of information published so far on this theme;
- compiling of opinions and experience of protected area managers, organisations of disabled people, as well as specialists of accessibility;
- auditing of the Gauja NP territory;
- summarising of management tools for introduction of accessibility in Protected Areas.

The practical information and consultations about the elaboration of the master thesis were done during:

- a seminar on accessibility at the beginning of May, 2007, for tourism specialists (prepared by the author);
- workshop for representatives of Protected Areas of Latvia on accessibility (end of June, 2007);
- workshop for representatives of Protected Areas of Europarc Nordic-Baltic section on accessibility (end of August, 2007);
- a common EU project (program Youth) with disabled young people from the Apeirons association (01.06.-23.10.2007).

In order to support the implementation of the aims of master thesis in reality, the material can be used for a preparation of a project proposal about accessible Protected Areas of Latvia for submission to the Latvian Foundation of Environmental Protection (material for a new management planning tool – accessibility promotion manual in Protected Areas of Latvia).

3.1.4 The “face to the visitor” – Park Rangers in Austria

Martin Hartmann, Austria: “Professional park ranger services in Austria – Steps towards an integral job description”; Supervisor: Dr. Martin Solar, Triglav National Park, Slovenia.

Thousands of people visit Austrian national parks each day. National park rangers are usually the first and often the only representatives of the park to have direct contacts with visitors. As such they are the “human face” of Protected Areas. Well-organised services of skilled and motivated rangers are the best guarantee for both adequate protection of nature and satisfied, well-informed visitors. In Austria there are different circumstances in which park ranger services function. Six national parks have six different internal education programmes for their own staff, varying in time, contents and qualification. Otherwise the tasks and duties of the ranger, just as the competencies, are totally diverse in the particular national parks.

The objectives of the study are

- a detailed database of existing training and development procedures amongst the ranger services in Austria national parks; and
- the establishment of a database of existing standards, career development, entry qualifications and working conditions in ranger services throughout Austria. This should be done by questionnaires with responsible people and staff members.

In Austria, the occupational image of “national park ranger” is faced with a challenging situation as far as a career in national parks is concerned. Apart from

different employment relationships, which are based partly on the variety of the compulsory framework, only a vague agreement on the minimum standard of the training of ideal staff exists. The dedicated effort of the single national park administrations in order to ensure optimal training on the specific national park for these group of employees, leads nevertheless to a very individual qualification of a small group – and without a realistic perspective for an Austria-wide adoption of a corresponding job description. If not only “ranges” are included, but also the categories “free lancer”, “employed with a service contract” and “self-employed”, the total number of employees gives an impression of the urgency for further regulation of the ranger job. Advantages will emerge for both sides – rangers as well as national parks. Separated into single national park administrations, probably these challenges will not be perceived in the long run.

The advantages of a standard job description – under whatever name – as well as standard instruction and further training frameworks are obvious. Such frameworks would include a clear and comprehensive description and definition, which would be helpful in respect of activities in other areas (e.g. NATURA 2000-areas), it offers a definition and clarification of compulsory frameworks (no random assessment of the activities through partly overwhelmed advocates of public authorities), the qualitative equality of the training by courses and seminars based on joint criteria, as far as the contents are valid for all parks (with a considerable potential for synergies and economic advantages). Furthermore, the standardisation will provide a welcoming image towards the public, visitors and ecopolitical actors, a correct and exactly defined differentiation towards the confusing number of “similar” jobs like forest pedagogic, and nature guides, an easier realisation of development funds, and last but not least an improved communication within the international environment.

The extent of the tasks from the classic “guiding activities” to fields like area control, natural space inventory, visitor infrastructure and much more, would be combined with a flexible employment model (for instance, similar to different tourism jobs). It is obvious that the recent frameworks of the different national park administrations do not or just partly fit these ideas. First of all, the financial and organisational questions have to be figured out. At the moment the typical “job model” of a freelance national park ranger is subject to strong seasonal variations. An almost complete workload during the “visitor intensive” summer is followed by a “winter depression”. There are only few possibilities to cover these “hard times” by other more or less equal tasks (such as ski teacher). The reluctant long-term perspective leads mainly to the loss of highly qualified, motivated staff, as soon as a secure employment appears. From many personal conversations I know that most of our ranger colleagues wanted this function mainly for idealistic reasons. In the

future our efforts to establish the long-term and qualitative job outline “national park ranger” should apply to sustain the motivation and qualification of ranger personnel all year round.

3.2 Legal Frameworks and Management Effectiveness

3.2.1 Implementing European Legislation: Natura 2000 in Malta

Joanna Borg, Malta: “An Analysis of the Implementation of Article 6(3) and 6 (4) of the Habitats Directive (Directive 92/43/EEC) in Malta”; Supervisor: Mag. Michael Jungmeier, E.C.O. Institute of Ecology, Klagenfurt, Austria.

The Habitats Directive includes various provisions related to the management of protected sites and species. Article 6 deals specifically with the management of Natura 2000 sites. The guidelines issued by the European Commission in 2000, “Managing Natura 2000 sites: The provision of Article 6 of the “Habitats” Directive 92/43/EEC” identify this article as the most important article in the Directive related to management of Natura 2000 sites, determining the relationship between conservation and land-use.

Articles 6(3) and 6(4) extol the importance of assessing the impacts of plans or projects which may affect Natura 2000 sites. This assessment must be connected to the site’s conservation objectives and must not only consider individual plans and projects, but must also take into account the cumulative effect of plans and projects on the site in question. A proposal which yields a negative assessment can only be considered further if it is of overriding public interest, and there are no alternative solutions which eliminate the negative impacts identified in the assessment. In cases where priority habitats or species are to be negatively affected, the only reasons of overriding public interest which may be accepted are those related to public health or safety, benefits to the environment, or other reasons subject to the EU Commission’s opinion. In any case, if a plan or project is to be accepted despite a negative assessment, the member state is obliged to inform the commission, and consult with the commission about adequate compensatory measures to be adopted and put in place before the plan or project is initiated.

At any rate, Articles 6(3) and 6(4) make it very clear that the aim of each member state should be the avoidance of negative impacts on the Natura 2000 sites. Where this avoidance is not possible, the member state should seek to

investigate alternative solutions which reduce the negative impacts, and then explore compensatory measures to mitigate the residual negative impact.

The present study investigated the plans and projects that were accepted in Maltese candidate Natura 2000 sites, to determine whether or not Articles 6(3) and 6(4) are being implemented correctly, and to determine methods to improve the implementation before the Maltese sites are officially adopted into the Natura 2000 network. Once the sites have been adopted by the commission, the incorrect implementation of the article may lead to the initiation of infringement procedures.

Maps of the sites, with an overlay of all the applications approved after the sites were selected, were obtained. It was only possible to assess planning applications located within the sites, due to limitations of time and resources; however, it is imperative to note that Articles 6(3) and 6(4) apply to all applications which may have a significant negative impact on any Natura 2000 site, irrespective of the location of the proposed development.

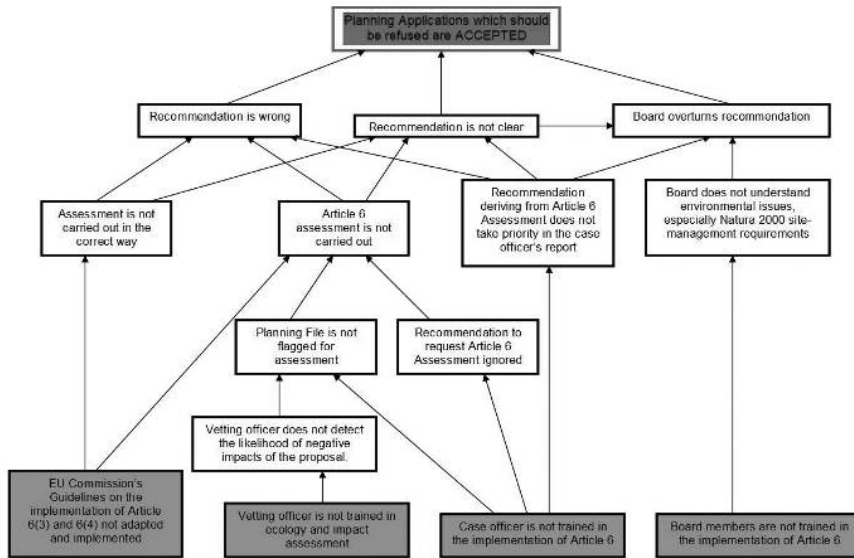


Figure 6: The problem tree helps to distil the problem down to its roots

The aim was to obtain a general idea of the size and context of the current situation, focusing on the number of planning applications that were assessed and accepted since the sites were declared candidate Natura 2000 sites, and how many

of these were recommended for refusal. A selection of applications was then assessed further to determine the problems with the current procedure for assessment.

Out of the 26,804 applications submitted since 26th September 2003, 341 (1.27%) were located in Protected Areas. 105 (30.8%) of these were accepted. Although this is rather reassuring, the most alarming fact is that 63 (60%) of these accepted applications were recommended for a refusal, but this recommendation was overturned by the decision-making bodies within the competent authority.

From the analysis of the 15 selected applications, it resulted that the problems with the procedure can be drawn down to four main reasons, all of which can be tackled (see Figure 6 and Figure 7)

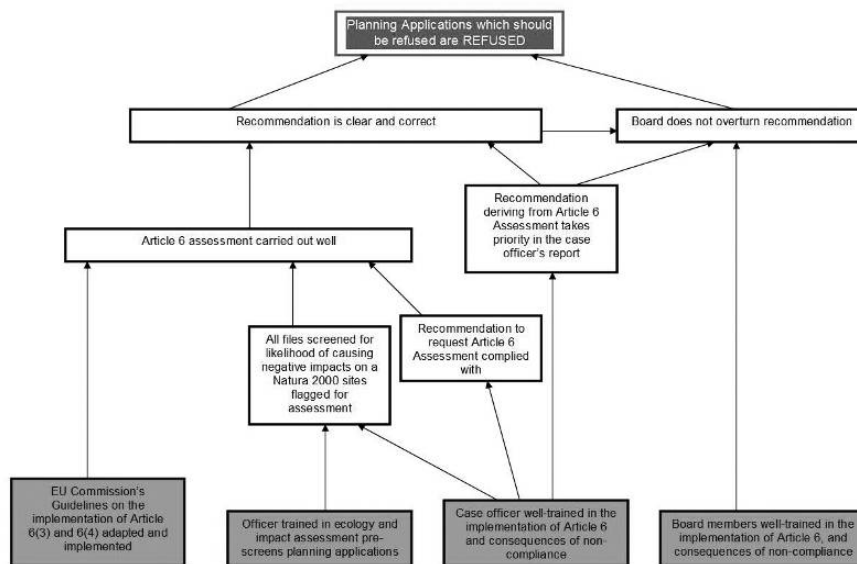


Figure 7: The solution tree helps to identify solutions to the problem at hand

The recommendations made to the management of the competent authority revolve around these four main roots.

- An official guidance document must be drafted and approved with urgency.
- Staff, including vetting officers and case-officers, must be trained to deal with the screening of planning applications, and impact assessment.

- Decision-making boards must be trained in the implementation of Article 6, and the consequences of non-compliance.

Further recommendations made to management included the possibility of reshuffling staff so that the impact assessment team is self-contained and fully functional, and the increase in staff complement to allow it to include the screening of planning applications for Article 6 assessments together with its current duties.

A work-shop for the training of staff members and decision-making boards and committees was planned and presented to management. This workshop will focus on the assessment procedure and the interpretation of such, as well as the consequences of non-compliance.

The potential for international co-operation and information exchange should also be considered. Malta, with its years of experience and rigorous planning system, can contribute to the standardisation of the assessment of plans and projects within the EU, as well as improve its own standards.

3.2.2 Improving Marine Protected Areas

Renate Visotschnig-Bruckschwaiger, Austria: “Planning Effectiveness of Marine Protected Areas – a Practical Tool”; Supervisor: Dr. Christoph Imboden, consultant, Switzerland.

Within the concept of management effectiveness, tools have been developed to assist the management of Protected Areas (PAs) in reaching their goals. This is especially important for marine PAs (MPAs) because of their inherent complexity (e.g. more life-cycle migrations of species, no boundary “fencing”). Adequate planning of a Marine Protected Area is the basis for effective management of the site later and the eventual achievement of the conservation purpose. The tool developed by the author in the course of the thesis can be used to guide and evaluate the planning process. The framework is a system of indicators and a combination of score-card and checklist elements, integrated in an Excel spreadsheet. It is meant to be applied by the MPA planning team both during the planning process as a guideline to the diverse issues that have to be considered, as well as at the end to assess the degree of effectiveness in planning. Thorough planning is the basis of the operational phase of the MPA.

The following aspects are considered in the assessment tool:

- Overall effectiveness of the strategic planning should be assessed (e.g. planned time frame suitable for conservation; are the targets the right ones to achieve the objectives).

- Stakeholder involvement (e.g. relation of stakeholders to the site, value assigned to conservation by stakeholders).
- Status of the context (e.g. values to be protected and their significance, threats and opportunities of the area, external influences and vulnerability, stakeholder engagement and local communities, national context).
- Legislation and formal set up (national legislation, land tenure and enforcement are the basis for conservation; e.g. legal status of the MPA, mechanisms for controlling unsustainable human activities, enforcement of MPA legislation and of the MPA).
- Identification of goals and objectives of the MPA (goals of the MPA must be clear and directed towards the underlying vision; assessment of the risks preventing the achievement of individual goals).
- The design of the MPA needs to allow efficient functioning of the site (e.g. effectiveness of site design and reserve zoning; integration into a system of MPAs and their larger management plan).
- Management planning (e.g. management plan (MP) requirements - has detailed zoning been included; have programs, goals and actions been described; general format of the MP, effectiveness of the MP, communication within the MPA and with the stakeholders, financing, work plan, checklist for biophysical, socio-economic and governance goals).

The results of the assessment are then analyzed and conclusions and recommendations for an actions plan are formulated; the strategic plan and the MP should be adapted in the case of shortcomings.

Figure 8 is an example for the indicators for “Design of the MPA”: If all important aspects have been considered, the planning team will reach a score of 100%. In the below example, several aspects need to be reconsidered since the team achieved only 77,78% out of 100%. The individual indicators provide guidance as to where shortcomings are to be expected.

Framework for Assessing Planning Effectiveness of Marine Protected Areas		
Design of the Marine Protected Area		
	Score:	14 77,78%
Effectiveness of Site Design		
1) Size vs. Objectives		
The planned MPA site is large enough to meet its objectives	3	x
The size of the planned MPA is only large enough to meet part of the objectives	1	
The size of the planned MPA is not (yet) large enough to meet the objectives	0	
Score reached :	3	100,00%
2) Design adequacy		
The site does not need any additional corridors or buffer zones for effective conservation management	3	
The design has inadequacies but these can be improved	2	x
The design has inadequacies that put constraints on the achievement of major goals/ objectives	1	
The design has inadequacies that make achieving the site's major goals/objectives impossible	0	
Score reached :	2	66,67%
The design of the reserve aids in achieving the goals/objectives (additional score)	1	
Score reached :	0	
3) Maintenance of management zones		
The different management zones of the marine protected area will be well maintained	3	
Adequate maintenance of the different management zones will be difficult	1	x
Adequate maintenance of the different management zones will not be possible	0	
Score reached :	1	33,33%
4) Boundary demarcation and awareness		
The boundary of the protected area is known by the management authority, local residents and other stakeholders and is appropriately demarcated	3	
The boundary of the marine protected area is known by the management authority, local residents and other stakeholders but is not (appropriately) demarcated	2	
The boundary of the marine protected area is not known by the local residents or other stakeholders but is known to the managing authority	1	
The boundary of the marine protected area is not known by the management authority, local residents or other stakeholders	0	
Score reached :	3	100,00%
Reserve Zoning		
Reserve zones defined; land- and sea-use patterns planned according to the usage standards of the zones – local stakeholders were included/ are included in the process	3	
Participatory process under way to plan the land- and sea-use patterns conform to usage standards of the zones	2	x
Research/ Studies under way to determine the appropriate use; stakeholders will be included	1	
No division of use zones within the reserve	0	
Reserve zoning defined but without the participation of stakeholders	"-1"	
Score reached :	2	66,67%
Coastal Management Plan		
The Marine Protected Area will be part of a larger coastal management plan	3	
The Marine Protected Area will eventually be integrated into a larger coastal management plan but the process will remain incomplete for some time	2	x
There are some discussions about the integration of the marine protected area into a coastal management plan but the process will not begin in the near future	1	
There are no discussions and plans about the integration of the marine protected area in a larger coastal management plan	0	
Score reached :	2	66,67%
Additional Scores		

Figure 8: The indicator “Stakeholder Involvement” as an example for the indicators for “Design of the MPA”

3.2.3 Establishing a Network of Large Protected Areas: Parks in Switzerland

Christine Fehr, Switzerland: “New Parks in Switzerland – Comment from an NGO point of view”; Supervisor: Marija Zupancic-Vicar, IUCN Regional Councillor, Slovenia.

In the first part of the thesis, the new legislation for parks in Switzerland was commented from the conservation NGO’s viewpoint. In the second part, the specific engagement of the conservation NGO Pro Natura was analysed in order to find the most effective roles to promote new parks.

After the creation of the first and only Swiss National Park in 1914, no more parks have been created in the country for 90 years. An important movement for new parks started at the end of 1990’s, promoted by Pro Natura, the leading Swiss nature conservation NGO through it’s national campaign “Let’s create a new national park!” (see Figure 9). Pro Natura aims to create at least one new national park in Switzerland by 2009 and a network of different parks contributing to biodiversity conservation in Switzerland.



Figure 9: Official logo of the Pro Natura campaign “Let’s create a new national park!”

The necessary revision of the federal nature conservation law was approved in 2006 by the Swiss Parliament. Three new categories of parks were established in the law: the national park (IUCN cat. II), the regional nature park (cat. V) and nature discovery park (small version of cat. II, provisionally called “peri-urban nature park” in the thesis). New parks are based on voluntary participation. Regions can apply for park labels and federal subsidies if they fulfil certain

standards defined by a federal order and directive. The federal order was put to public hearing in spring 2007 and was enacted at the end of 2007.

Two new national parks, around 20 regional nature parks and two nature discovery parks are currently developed all over the country. The first parks will be designated in 2008. Federal authorities plan to establish 15-20 new parks with a total annual budget of € 6 million. Added to the budget are funds from cantons, municipalities and private donors.

Pro Natura's comment on the federal parks order was compiled on the base of literature and an internal consultation procedure, including some external expertise. The final comment was published in the media and sister organisations and submitted to the authorities in April 2007.

In this comment, the parks order was appreciated as a step in the right direction since it demanded high standards for national parks and specific efforts for positive landscape development in the parks. Nevertheless, improvement was demanded on important points. A strategic selection of park areas along national conservation goals and the specific promotion of unique nature values in the park areas were proposed. For national parks, stronger support by the federal authorities was demanded, for adequate compensation of land use restrictions. Long term legal protection and competences of management bodies were considered as insufficient, notably in national parks. High standards for national park core zones were defended, combined with time-flexible implementation. For regional nature parks, more binding standards for protection and development were demanded. The risk of abusing conservation budgets for economic development in regional nature parks was pointed out.

Media coverage after the publication of the comment was nearly complete in German-speaking Switzerland, Pro Natura's messages were transferred. 80 contradictory comments were submitted to the authorities, 90% were basically positive. The order was approved in its final text by the Swiss government the day before submitting this study. A short review showed a certain improvement of the order regarding the standards of regional nature parks, while the high standards for national parks generally were maintained. Other Pro Natura requests were not considered in the order; these points will be postulated again to be introduced in the directives of implementation.

For the analysis of Pro Natura's engagement in parks, three internal workshops with competent staff members were held in summer 2006. Methods applied were: guided group discussions, World Café and SWOT analysis, which were later completed by internal written sources and bilateral contacts. Results were documented, summarised and interpreted by describing methods.

As a result, the terms „added value for nature“ and „sound park project“ were specified, and 16 different roles of Pro Natura’s work in parks were identified (see Figure 10): integrative and supportive roles (initiator, board member and sponsor), „self-made nature protection” (land owner, PA and project manager and project commissioner), advisory/ instructive roles (independent advisor, and instructor), networker roles (lobbyist, networker, information and data provider) and distanced/controversial roles (public campaigner, critical observer and opponent).

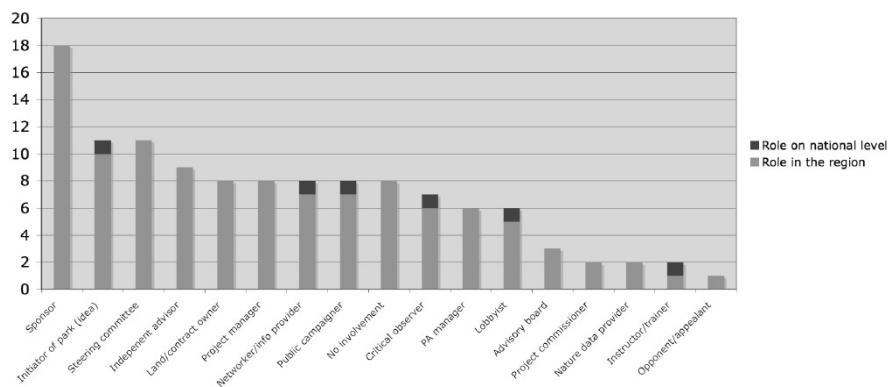


Figure 10: Number of cases in which the different roles are taken by Pro Natura in the park projects

Reflexion on Pro Natura’s specific potentials and limits allowed further recommendation of roles to be enforced: from the manager to the commissioner, sponsor and board member, from independent and distanced roles to supportive and instructive roles.

The study was carried out by applying De Faria methodology, focusing on eight aspects, namely, bio-geographic characteristics, threats, legislation and policy, management planning, administration, management programme, legal uses and illegal uses. However, the field of evaluating effectiveness is a broad area and can be carried out as far as possible as respecting resource availability. The current study was done through SWOT analysis, group discussion and interviews. Elements such as context, planning, input, process and outputs of the IUCN-WCPA framework, are covered.

Based on the information contained in the management plan, regulations, guidelines and other existing planning instruments, a scorecard with five different criteria (0-4) of management scenarios were developed with the optimal condition having the highest value for each indicator of each aspect. The percentages obtained were interpreted in terms of management effectiveness using the 5 management levels from unsatisfactory to very satisfactory as reference (see Table 2).

Table 2: Rate of Management Effectiveness

<i>Rating</i>	<i>% of optimum</i>	<i>Significance</i>
0	<35	Unsatisfactory
1	36-50	Minimally satisfactory
2	51-75	Moderately satisfactory
3	76-90	Satisfactory
4	91-100	Very satisfactory

As an example, the five different criteria for the biological status of the park were identified and assessed as shown in Table 3.

It was found through this study that there are significant bio-geographical resources and satisfactory legislation and policy. However, there are several threats which need immediate attention so as to conserve these resources in the long term. Habitat degradation due to exotic species, poaching, uncontrolled construction causing floods and pollution are serious threats to the park. Although there are good policies and plans these are still not yet desirably implemented. Various factors have influenced the management of CNP. For example, inadequate budget and infrastructure made efficient, effective and timely management difficult. Moreover, the political situation and economic trends are highly influencing factors in the effective management of Protected Areas. The overall management of the CNP was found moderately satisfactory so various management interventions still need to be implemented to achieve the objectives of the park (Figure 12). More efforts should be exerted in habitat management and

species conservation. More research and monitoring are expected to be undertaken for sufficient updated data for better planning and implementation.

Table 3: Biological status

Criteria	Value	Reached value
Biodiversity and ecology are predominantly conserved with specific action plans to preserve focal species and their habitat.	4	
Biodiversity and ecological values are being conserved with few focal species with action plan	3	√
Some biodiversity and ecological values are being partially degraded but the most important values have not been significantly impacted	2	
Some biodiversity and ecological values are being severely degraded. There is no action plan for conserving such values.	1	
Important biodiversity and ecological values are being severely degraded. There is not any action plan for conserving such values.	0	

The author found the methodology very stringent, encouraging profound analyses. Enough relevant data and periodic monitoring reports and research feedbacks are very important to set and define various criteria for a suitable rating system. The park management can go through thorough evaluation of any specific aspect, such as inputs and processes that are undertaken for management which would help make decisions on what and where corrective actions are to be undertaken.

Evaluation of management effectiveness greatly depends on the periodic monitoring reports and research feedbacks. However, spending time and resources on monitoring and evaluation system often seems a low priority compared with the many other pressing management needs. But this could lead to serious danger for management in the long term. So, although this study is not claimed to be a comprehensive one, the findings of the study are expected to help corrective management practices in a more adaptive, effective and participatory approach.

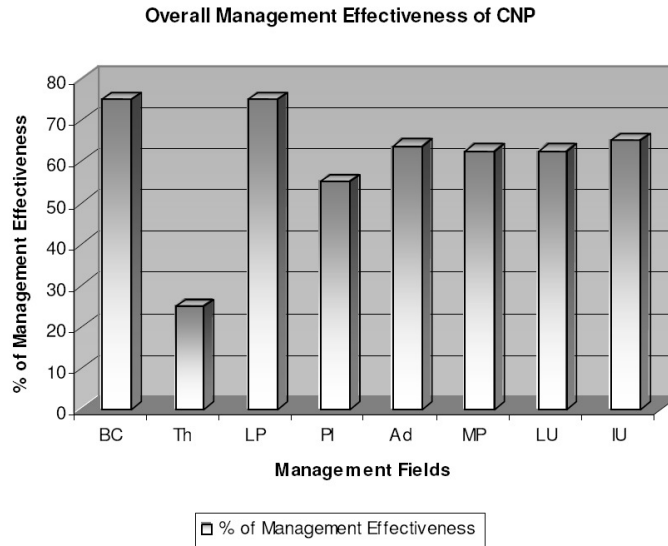


Figure 12: Overall Management Effectiveness of CNP

Legend:

BC - Biogeographically characteristics

LP - Legislation and policy

Ad - Administrative

LU - Legal Uses

Th - Threats

Pl - Planning

MP - Management Plan

IU - Illegal Uses

3.2.5 Evaluating Management: A New Tool for Europe

Bernd Pfleger, Austria: "Evaluation of the Management Effectiveness in Central European Protected Areas - a Critical Revision of the 'Parks in Peril Site Consolidation Scorecard'"; Supervisor: Prof. Robert S. Pomeroy, Ph.D., University of Connecticut, USA.

To provide European Protected Areas with a useful management effectiveness assessment methodology, this study evaluated the national parks 'Thayatal' in Austria and 'Berchtesgaden' in Germany (Figure 13) with the 'Parks in Peril Site Consolidation Scorecard'.



Figure 13: Lake 'Königssee,' the main visitor attraction in the alpine Berchtesgaden national park in the south of Germany

The scorecard approach focuses on main processes and capacity, assesses the basic requirements for an effective management in a relative short time and has been used in Latin America and the Caribbean for many years. The scorecard uses in total 17 indicators with each indicator being divided into five levels, whereby at least level 4 should be reached.

After a critical review of results and methodology, recommendations for applying and improving this scorecard were developed.

The evaluations were carried out by the management of the two Protected Areas as self-assessment in March 2007, assisted by the author as an external facilitator (Figure 14). Additionally representatives of all relevant stakeholder groups were interviewed in accordance with the Site Consolidation Scorecard to check whether such a stakeholder involvement makes sense for this kind of methodology.



Figure 14: Evaluation in the national park Berchtesgaden

The evaluation was mainly carried out together with director Dr. Vogel and the head of the planning department, Ms. Künzl.

The results show that both national parks are in a good condition and only a few issues remain where action is necessary (Figure 15). More management aspects have to be improved in the Thayatal national park than in Berchtesgaden, but on the other hand they achieved a higher degree of ‘excellent’ management. However, both lack a proper vision, appropriate goals and a comprehensive monitoring plan, which are all crucial issues for successful and effective management. Such a situation might be similar in other sites in Central Europe. People involved in management of Protected Areas should therefore place a high emphasis on these issues.

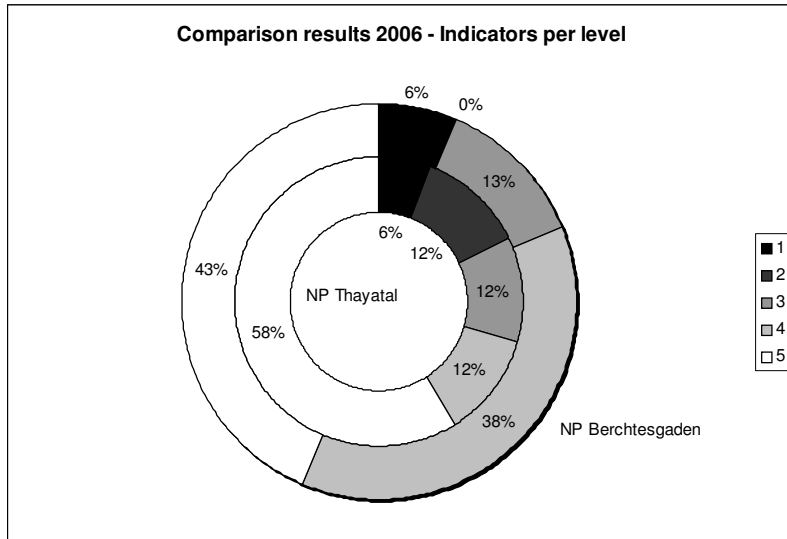


Figure 15: Comparison of percentage of indicators which belong to level 1-5
 From initial scores 2006 between Thayatal and Berchtesgaden national parks

The evaluations demonstrated that the benefits of the scorecard evaluation increases immensely due to the stakeholder involvement. Therefore, participation should take place in every case. Moreover, this methodology is applicable for IUCN category II Protected Areas in Central Europe and other parts of the world with a similar context. It can probably be used for a large variety of different Protected Areas as long as there are a few personnel on site. The efforts are small enough and most Protected Areas possess the necessary resources to carry out the evaluation. Nevertheless the study illustrates that modifications and improvements are necessary to increase the applicability and usefulness of the methodology for Central Europe and in general. Based on these recommendations a 'European version' of the 'Parks in Peril Site Consolidation Scorecard' was developed which is available as a download on the programme's homepage: www.mpa.uni-klu.ac.at.

3.3 Finances and Economics

3.3.1 Sponsoring in Protected Areas: Alpine Parks

Barbara Ursula Müller, Austria: “Park + Corporation = Sponsorship: Experiences of Selected Protected Areas in the Alpine Region”; Supervisor: Dr. Francis Vorhies, Earthmind, France.

“Growing interest within the corporate sector in funding or sponsoring Protected Areas [...] presents a major opportunity for increasing Protected Areas financial resources, their diversity and sustainability” (Emerton et al., 2006).

Over the recent decades funding of biodiversity conservation – including the funding of Protected Areas – has become a major topic of global attention. Although Protected Areas worldwide receive up to USD 10 bn in funding per annum, this spending volume is regarded as inadequate for the management of the current – but even more so for a more representative future – global park system. A constantly growing number of Protected Areas are facing the need to extend their portfolio of income sources (predominantly consisting of domestic government budgets and international donor assistance) to the private sector. One way of doing so is to think about co-operating with the private sector in the form of sponsorships.

In contrast to fundraising for parks in the form of donations, sponsorships are characterised by a mutual exchange of means or services by the contracting parties. Sponsorships can be seen as the provision of means (like money, other tangible and intangible means like equipment, services, know-how etc.) to parks by institutions (corporates, foundations, NGOs etc.) with the donor’s intent to simultaneously pursue own corporate (communicative) goals. Strategic sponsorships are tools of corporate communication which are intended to enhance and market the sponsor’s competitive internal and external position whereas for parks it offers access to new sources of resources while demanding professional services in return.

Sponsorships are very prominent in the financing of sports, and increasingly popular also in arts, media, education and social issues. It is especially the sponsoring of environmental organisations or projects – like the support of parks – which needs to consider additional dynamics for the donor as well as the receiver to be credible and authentic with their target groups and the general public.

The applicability of and experience with sponsorships for the funding of parks vary among countries and are dependent – among others – on the regulatory framework and institutional setting of the park, on ethical values of the society it is

embedded in, on the willingness and capability of park management as well as the interest and capacity of private sector partners.

The aim of the research is to

- introduce the concept of sponsorships in the framework of parks;
- highlight the current practices of corporate involvement in selected Alpine parks in terms of sponsorships (type, value and uses of means received by parks, the type of services provided by the park to the sponsors in return for their means, organisational setting and structures, planning and handling procedures); and
- condense experiences to identify potential success factors and limitations of this fundraising instrument for parks.

Results are based on the survey among park managers, on an internet-based sponsorship visibility check and on discussions with selected park managers, sponsorship consultants and financing professionals.

The study takes a look on the site-level involvement of companies in Alpine parks. The assessment of current sponsorship practices is based on an online survey distributed to 131 parks in Austria, France, Germany, Italy, Slovenia and Switzerland. Out of 45 respondents, 21 parks (or 16% of the total survey reference group) are currently active in the field of sponsorships, another 13 parks receive some other form of private sector contributions. These numbers exhibit that there is already considerable fundraising experience among Alpine parks. Nevertheless, the research suggests that only a small number of parks have structures and procedures in place capable of supporting a “professional” management of sponsorships. Although the handling of sponsorships varies significantly among parks, the basic understanding of success factors and limitations is rather homogeneous (see Figure 16).

The study therefore contributes to knowledge building on financial needs and capacities within Protected Areas in order to reach the goal of financial sustainability of Protected Areas around the globe. It is targeted at protected area managers and authorities thinking about developing co-operations with companies in the form of sponsorships and at anyone interested in the present state of sponsorship practices of Alpine parks.

	Parks without sponsorships	Parks with sponsorships
Success factors	1 Clear strategy & structures (C) 2 Appealing projects (D) 3 Long-term partnership (F)	1 Good personal network (E) 2 Good park brand (A) 3 Appealing projects (D)
Limitations	1 Suitable sponsors (F) 2 Lack of resources (B) 3 Limited appeal of park (A)	1 Lack of resources (B) 2 Limited appeal of park (A) 3 Lack of appealing projects (D)

Clustered factors rearranged in sequential process order:

	# nominators	
Park brand	3	A
Resources	2	B
Strategy & structure	1	C
Projects	3	D
Network	1	E
Sponsors	2	F

Figure 16: Ranking of success factors and limitations for sponsorships in Alpine parks

Although private sector contributions will in general probably remain only a limited co-financing tool for the global protected area network in the near future, the research shows that sponsorships – when developed and managed systematically – can lead to attractive contributions to park budgets on an individual site level especially in developed countries with a solid and dedicated corporate sector.

3.3.2 Funding Protected Areas: Romania

László Potozky, Romania: “Small Grants Programmes as Effective Tools for Financing PAs in Transition Countries – The Case of Romania”; Supervisor: Dr. Michael Getzner, University of Klagenfurt, Austria; Mag. Michael Jungmeier, E.C.O. Institute of Ecology, Klagenfurt, Austria.

Romania is probably the richest European country from a biodiversity point of view. It has a relatively large number of Protected Areas (over 1,000). With the

exception of the largest Protected Areas and a third of smaller and medium areas, the majority of the PAs do not have any administration, being so called “paper parks”. One of the main causes of this situation is the lack of governmental funding for biodiversity conservation. Since 1990 the Romanian government has hardly allocated any funds directly to Protected Areas. Even today, just 27 out of more than 1,000 Protected Areas receive some public funding. Under such conditions small scale and independent funding, through small grants programmes have been the only source that has assured the “survival” of PAs over the prolonged transition period.

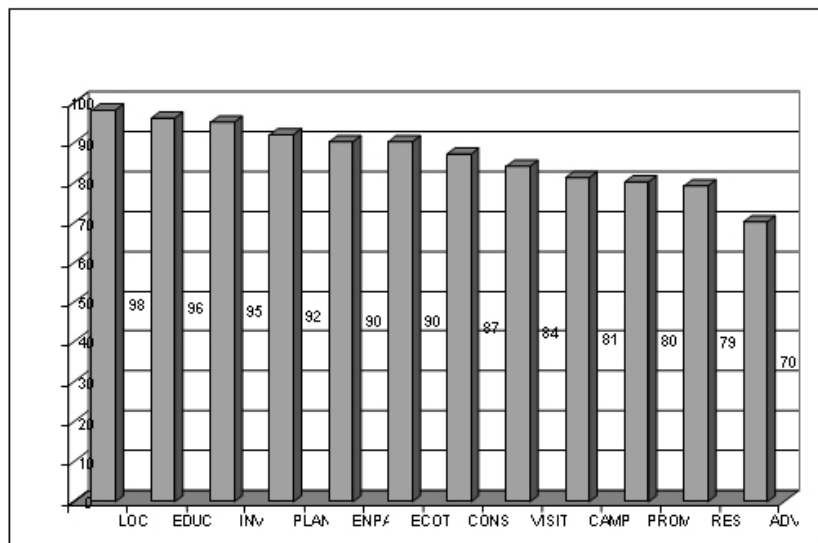


Figure 17: Opinion of PA managers and conservation NGO representatives related to effectiveness of Small Grants in PA management related fields

Maximum achievable score for each category: 125; LOC – Involvement of Locals and Other Stakeholders; EDUC – Educational Programs; INV – Inventory of Species/Habitats; PLAN – Management Plans; ENPA – Establishment of New Protected Areas; ECOT – Ecotourism projects in PAs; PROM – Promotion, marketing of PAs; CONS - Direct Conservation Measures; VISIT - Implementation of visitors’ management measures, CAMP – Campaign against biodiversity/PA damaging projects; ADV - Advocacy, lobby for improving legislation in the field of conservation; RES – Research.

The aim of the study was to explore and demonstrate the effectiveness of small grants programmes in supporting projects that target PAs in countries in transition (the Romanian case) and the multiple benefits along with the challenges, lessons learned and the limits of such programmes.

More specifically the paper is focusing and evaluating the results achieved in different PA related fields (ecotourism, biodiversity protection, Natura 2000 implementation, advocacy and watchdog activities for PA conservation, PA administration etc.) through projects funded in the framework of small grants programmes.

The study is using a wide range of methods such as: overview and summaries of more than 40 grantee reports about PA related projects, case studies, grant statistics, surveys of environmental funders' representatives, interviews and questionnaires with PA managers and with those NGO representatives that are administering PAs in Romania (see Figure 17).

The results of the study make a strong argument in favour of small grant programmes as successful PA financing tools in countries in transition with special emphasis on concrete conservation projects. At the same time it intends to demonstrate that small money can indeed make a difference if spent in a strategic way.

3.3.3 Wilderness as Model for Economy: Management Bionics and Sustainability

Thomas Schuh, Austria: "The Dürrenstein Wilderness Area as a Model for Bionic Management and Sustainability – A Trial for a New Way of Utilization of a (Strictly) Protected Area"; Supervisor: Dipl.-Ing. Wolfgang Suske, Suske Consulting, Austria.

The Dürrenstein Wilderness Area (DWA) in Lower Austria is the first and up to now, the only Protected Area (PA) in Austria designated and approved by IUCN as category I (= wilderness area) (see Figure 18).

Being a Wilderness Area, it offers an exceptional nature experience hardly to be found elsewhere in Central Europe. At the same time, IUCN category I implying that access to the area and public use are strictly limited and controlled.



Figure 18: The Rothwald virgin forest. A complex viable system and a living model for sustainable development

The main aim and innovation of the study was to blend the concepts of management-cybernetics, bionics and sustainable development in order to distil new views and inputs for the management of complex viable systems, for instance social organisations, and to use the protected area as reference and living model. The findings of the thesis have been used to develop a seminar for participants of all fields of society and industry, which will be held in the area. During the seminar the participants will learn about management bionics and sustainability, enjoy the nice venue and will take part in an excursion into the wilderness area.

The methodological approach for the bionic management part of the thesis was based on systemic comprehension of analogue organisation patterns and problem resolution strategies of biological and anthropological systems.

The idea behind this type of bionics is to investigate the variety of problem resolution strategies (or evolutionary principles), which can be found in nature and to try to draw conclusions for complex systemic questions in human society and economy, particularly in terms of sustainable development. The following 13 evolutionary principles have been investigated in the thesis:

- Self-organisation (Emergence);
- Swarm intelligence;
- Biodiversity ensures adaptation capability;
- Cooperation is more successful than competition;
- Disturbance supports diversity;
- The greatest potential is at the edge;
- Different strategies to use a resource;
- Principle of changing the function;
- Shortages promote cleverness, affluence leads to stupidity;
- Isolation enhances specialisation but aliens can destroy the system;
- Constant innovation does not necessarily lead to a competitive advantage;
- Keystone species are the glue of a system;
- Efficient use of energy.

Biodiversity, as we encounter it today is the result of more than 3 billion years of biological evolution, or to speak in economic terms, 3 billion years of biological R&D, that has led to the global “market-presence” of life, with an extremely high diversified range of “products” = species and ecosystems.

For the analogical approach used in this work, species and ecosystems are regarded as “complex viable systems” or organisations, which have to deal with analogue problems like human societal and economic complex systems.

So why shouldn't we try to learn from nature?

Characteristic examples and features from the PA, e.g. the oldest trees in Austria like a 1,000 years old yew (see Figure 19), the virgin forest, avalanches, wind breaks, ecotones, stags, raised bog species, etc. have been used to explain successful and sustainable (in terms of long-term viability) problem resolution strategies of nature and to translate them into an organisational management context.

Hence, they could serve as models for economy, business or management to get anthropological systems towards sustainable development.

In fact, the Rothwald virgin forest has been found to be a perfect model for sustainability in terms of efficient use of resources, like nutrients, water and energy by maximizing its gross-productivity while at the same time it is having a zero net-productivity. Losses of material and energy are reduced to an absolute minimum.



Figure 19: The 1,000 years old yew, a tangible example for sustainability

The seminar was held very successfully for the first time in cooperation with an Austrian management system certification and consulting company in October 2007, with participants of varied fields of industries and public authorities.

The long-term vision of the seminar would be to embed the seminar programme into a sustainable tourism concept, where regional added value is optimised.

Getting a high profile target group to the area and to the region could be a substantial benefit (indirect profitability) for the entire region while imposing little additional pressure on the PA.

The type of bionics explained during the seminar is a rather new approach, whereas the investigation of biological “problem resolutions” in the technical context has a long tradition going back to Leonardo da Vinci and further.

For Austria, and in the field of PA utilization, it’s an innovative trial, that could offer new opportunities for other PAs as well and as a side effect would plant the

seeds for sustainability, higher valuation of nature, biodiversity and ecological issues into a very important, influential target group.

If social organisations, like for-profit organisations, non-profit organisations, governmental organisations, non-governmental organisations, etc. are regarded as complex viable systems which operate in complex, ever changing environments, their accepted overall goal should be to stay viable and in business for as long as possible. Therefore the following key aspects should be considered for the management of these organisations (see Table 4). It's important to point out that these factors are of course interconnected; hence all of them need to receive equal attention.

Table 4: Key aspects of complex viable systems

<i>Core capacity to sustain viability</i>	<i>Rationale</i>	<i>Assets & evolutionary principles</i>
Ability to learn	Constantly changing environments need adaptive methods, which can only be developed if the organisation is a learning system.	Self-organisation, Swarm intelligence, Diversity
Flexibility & adaptability	Only organisations which are able to keep the necessary degree of flexibility and are able to adapt to changes will have a long term perspective.	Diversity, Intermediate disturbance
Communication	Efficient and effective internal and external communication is a vital asset for information transfer in each complex system. Communication is somehow the glue of social organisations.	Self-organisation, Swarm intelligence
Regeneration	Viable systems are characterised by their ability to regenerate.	Self-organisation, Intermediate disturbance Efficient use of energy
Self sufficiency	Viable systems are characterised by a highly efficient and wise use of resources following the principle of minimum input and maximum output.	Scarcity (enhancing cleverness) Efficient use of energy
Identification	Viable systems are open systems. It is vital that exchange processes can take place BUT it is also important to define and know about the borders of the system to create system identity.	Emergence, Self-organisation

3.3.4 Tourism Development: Sevan National Park (Armenia)

Arpine Jenderedjian, Armenia: “Potential Analysis for New Tourist Offers – the Case of Sevan National Park (Armenia)”; Supervisor: Mag. Michael Jungmeier, E.C.O. Institute of Ecology, Austria.

Lake Sevan is a unique symbol of natural and cultural heritage of Armenia. This region has an extraordinary meaning for every Armenian because of its natural, historical and cultural values. This thesis represents a study of possibilities and preconditions (legal, socio-economic, natural and cultural) for developing sustainable tourism in Sevan National Park.

All aspects of tourism were thoroughly analysed on the basis of research concerning possibilities of tourism development in Sevan National Park. Contingent valuation questions of dichotomous choice were asked to respondents to elicit the park’s financial situation, visitors flows, level of organisation and their responsibilities. Additional data were collected with the help of literature survey. Recommendations were prepared on the basis of SWOT analyses and a logical framework.

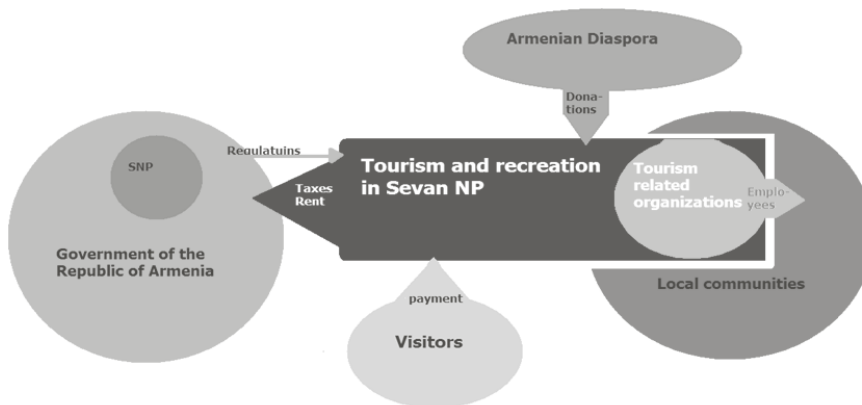


Figure 20: Interconnections in the sphere of tourism and recreation in Sevan National Park – present situation

The results led to the conclusion that many organisations deal in the sphere of tourism and recreation in the park, with weak infrastructure, low level of services, confusing situation in legislation and lack of national park involvement in tourism. Tourism is not beneficially and effectively managed by the park administration (see Figure 20). In contrast to this, the area is the most popular and traditional place for recreation and picnics. Each year thousand of visitors arrive to spend holidays at shoreline during summer time.

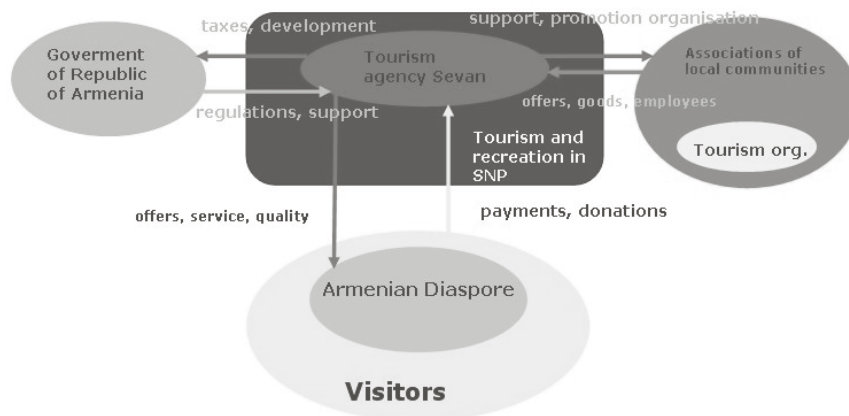


Figure 21: Interconnections in the sphere of tourism and recreation in Sevan National Park – proposed situation

A list of recommendations was prepared on the basis of results as well as a set of suggestions for improvement and development of sustainable tourism in Sevan National Park (see Figure 21). The recommendations can be grouped into the following categories: improvement of National Park management (“new role”), development of new services/packages and creation of additional working places/value added. A more detailed list of activities, measurable indicators and treats which can have an influence on tourism was developed for each group.

3.3.5 Improving Livelihood: Chitwan National Park (Nepal)

Lila Bati Timilsina, Nepal: “Contribution of Buffer Zone Management on Livelihood Support – a Case Study from Chitwan National Park, Nepal”; Supervisor: Dr. Michael Getzner, University of Klagenfurt, Austria.

The conflict between the park and people in Chitwan National Park in Nepal (see Figure 11 at page 41) is an old but everlasting phenomenon since the declaration of the area as a national park. The main factors behind the conflict in the proposed study area are poverty, lack of awareness towards biodiversity conservation and insufficient flow of natural resources. The Buffer Zone Management Programme has been implemented to achieve better conservation of biodiversity through livelihood improvement. The study was carried out in the buffer zone of Chitwan National Park to study the contribution of buffer zone management to livelihood improvement by exploring

- livelihood capitals and their availability to people;
- the vulnerability context of the community; and
- the livelihood strategies.

Chitwan National Park (CNP) was selected which is the oldest national park in Nepal (established in 1973), covering 932 km² in the sub-tropical lowlands of the country. It is famous for unique biodiversity of flora and fauna, and outstanding natural features. The government established its buffer zone with an area of 750 km².

Barandabhar and Kerunga buffer zone user committees were selected randomly for the study. Both qualitative and quantitative data were collected. The Participatory Rural Appraisal (PRA) tools, such as focus group discussion, key informant survey and questionnaire survey were used for the data collection. In total 104 respondents were selected for the questionnaires survey by systematic random sampling.

Human fatalities, injuries and agricultural crop damage by wildlife are the major shocks. Dependence on government funding for development activities and forest encroachment were the main trends. Most of the users have positive attitudes towards the buffer zone management programme. The five livelihood capitals (natural, social, human, financial and physical) have been effectively improved after the implementation of the programme. Both Buffer Zone User Committees have established endowment funds to reduce the vulnerability contexts. Community based organisations have made progress in networking with park authorities as well as other governmental and non-governmental

organizations. Vulnerability situations have been reduced by establishing the endowment fund and saving credit mechanisms in the community. Increased agricultural products and sustainable availability of natural resources are the major livelihood outcomes. Figure 22 and Figure 23 show the livelihood improvements of the community in the study area through the BZ management programme.

The study recommends a monitoring and follow-up programme for further supporting the communities and the management of the area. Furthermore, the awareness activities, the maintenance of trenches and fences, and literacy programme should be implemented in the future. The study also recommends to improve the livelihood of residents through Protected Areas (Buffer Zone Management Programme) and to adopt the BZ programme in other developing countries.



Figure 22: Community infrastructure: Public hand pump supported by the BZ management programme



Figure 23: Alternative energy source (bio-gas stove) provided by BZ management programme

3.4 Quality Management, Communication and Participation

3.4.1 Branding of Nature Parks: Austria and Germany

Christine Klenovec, Austria: “USP of Nature parks in Austria and Germany – status quo and creating a guideline”; Supervisor: Dr. Michael Getzner, University of Klagenfurt, Austria.

Thinking about Protected Areas and marketing as a part of business administration and management, it seems to be a kind of antagonism at the first view. Over many decades Protected Areas have been some constructions of biologists with very high idealism. They encouraged themselves to protect nature as the basis of all our lives and they have been fighting against destroying it. Nature itself has been the centre of activism. Nature protection is quite a hot potato in our times too. In 2002 the Convention on Biological Diversity (CBD) recognised the need of action. Together with its parties the CBD defined the need for a significant reduction of

biodiversity loss till 2010 (www.cbd.int/2010-target). Nevertheless, as shown by the Living Planet Index by WWF, biodiversity is still declining rapidly and nature protection is still an issue of conflicts.

On the other hand the number of Protected Areas such as nature parks is significantly increasing every year. Besides the challenge of nature protection different Protected Areas nowadays have to compete for attention and for sufficient funding. Depending on the level of protection many PAs have to offer recreation opportunities, education, regional development or scientific research. Wilderness areas have to focus especially on nature protection and science while nature parks or biosphere reserves have to integrate regional development, recreation and education additionally to nature protection. The competition does not only concern the variety of recreation and education offered within the field of Protected Areas itself but also with other institutions offering recreation and education such as theme parks. Without doubt there is a demand for every protected area to find a position on the “market of PAs”. There exists a need to define the strengths and the characteristics of a special site and to define a unique selling proposition (USP). Other than those mentioned searching for public funds or defining a position in an umbrella association support the need of creating a USP for each nature park.

Nature parks are Protected Areas to safeguard cultural landscapes with all their values. Man has taken part to create these landscapes in interaction with nature and man will be needed to preserve them in future. Especially nature parks in Austria and Germany should be developed as sustainable model regions. The four pillars nature/landscape protection, recreation, education and regional development should interact and strengthen each other (www.naturparke.at; www.naturparke.de). Focussing on nature parks in Austria and Germany the current study deals with the question of positioning a protected area – in this case different nature parks – in the broad market of PAs. What do these nature parks need to handle marketing aspects? How much sense does it make to create a USP for a nature park? When should a USP be created and should it be done by the PA management itself? How can a USP be created? How much value should be related to an USP? USP creation for nature parks has quite a young history in Germany and Austria. The study summarises the status quo based on interviews and creates a kind of guideline for finding a unique selling proposition for each nature park.

3.4.2 Towards a New Quality: Nature Parks in Tyrol (A)

Birgit Koch, Austria: “Criteria of Quality for the Nature Parks in Tyrol”; Supervisor: Mag. Johannes Kostenzer, Department of Environmental Protection, Regional Government of Tyrol, Austria.

In the federal state of Tyrol, there are four officially designated nature parks based on the Tyrolean nature conservation law.

The law constitutes it in just a few words that a nature park has to serve recreation and education purposes. No further criteria are mentioned. Therefore, the study focuses on developing criteria of quality for the nature parks in Tyrol, considering the specific natural and cultural conditions, the socio-economic dynamics and the environmental policy in Tyrol.

The aim of the thesis is to get a practical tool for ensuring the quality and the values of the Tyrolean nature parks. For achieving a national and international approach, the situation of Austrian nature parks and adjoining states is regarded. Already applied criteria of quality and knowledge of different Protected Areas are considered, compared and summarised. International expertise of diverse organisations like PAN Park or Europarc federation are used to develop and determine a strategy and methodology for compiling criteria of quality for the nature parks in Tyrol. A basis for discussions is elaborated, including all aspects and relevant topics, which are related to nature parks. Applicable criteria are phrased for the five main topics:

- Nature conservation;
- Research;
- Education;
- Recreation; and
- Regional development.

For the implementation of a finalised version further steps are necessary, like consulting with various stakeholders and pressure groups or clarifying the financial and human resources components.

3.4.3 Transboundary Management: Carei Plain (Ro/Hu)

Cristian Remus Papp, Romania: “Feasibility Check of the Designation of a Transboundary Protected Area between Romania and Hungary (the Example of Carei Plain and Bátorliget)”; Supervisor: Marija Zupancic-Vicar, IUCN Regional Councillor, Slovenia.

The Carei Plain (Romania) – Batorliget (Hungary) transboundary area is situated in the eastern part of the Pannonian Basin (see Figure 24). This is one of the few steppe areas in Europe which hosts a high level of biodiversity, from species, listed in Annex II and respectively IV of the Council Directive 92/43/EEC, to natural habitats of community interest, listed in Annex I of the same Directive. On the Romanian side, there are a large Site of Community Interest (SCI) and three nature reserves. On the Hungarian side, the situation is somehow similar from the Protected Areas point of view, as there are several nature reserves, a Special Area of Conservation and a national park nearby.

Moreover, the interaction between, and harmonious living together of different ethnic groups (Romanians, Hungarians, Germans and others) in the region over time, has resulted a unique cultural values.

There are also threats both to the natural and cultural values of the region. The population is aging since young people are moving to cities. In this way, some of the traditions are about to disappear, especially today with the Europeanisation and globalisation processes. As for the threats to biodiversity, most of them include human activities like mechanised mowing, use of pesticides, forestation with allochthonous species, especially with acacia (*Robinia pseudo acacia*, L.), and under-grazing.

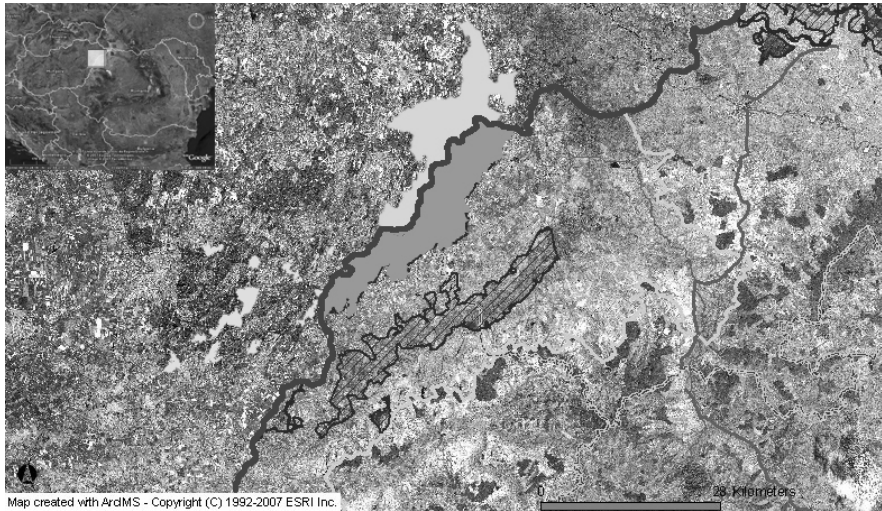


Figure 24: The Carei Plain (Romania)–Batorliget (Hungary) transboundary area

In order to safeguard the natural and cultural values of the region, discussions, and workshops were held with regard to the possibility of designating a transboundary protected area. Two workshops were organised on this topic since the year 2004. The second and most important workshop so far, held in April 2007 in Satu Mare, Romania, brought together representatives of 35 institutions and organisations from both sides of the border. Moreover, representatives of IUCN/WCPA (Marija Zupancic Vicar) and the University of Klagenfurt/E.C.O. Institute of Ecology (Michael Jungmeier) supervised the workshop and contributed with their expertise to the entire study.

The feasibility check has been performed using the IPAM (Integrative Protected Area Management) Toolbox. It included the identification and analysis of stakeholders, face-to-face meetings and interviews, identification of opinion leaders, and an analysis referring to the problems and risks identified during the discussion process with key stakeholders from both sides of the boundary. The important aspects (space, culture, economy) were condensed into clear statistics, in order to obtain a good overview of the region. In addition, a SWOT analysis of the cross-border collaboration was completed, revealing that there is a high level of strengths and opportunities, but also some consistent weaknesses and threats. A

“rough” spatial picture of the future transboundary protected area has been drawn at the end, based on the existing data.

It turns out that there are real chances to be successful in the protection and conservation of the outstanding natural and cultural values of the Carei Plain – Bátorliget Region. Most of the problems and risks can be counteracted in time.

The most desirable form of protection of these values would be a Transboundary Nature Park, ideally shared by the majority of stakeholders. However, a complete feasibility study should be prepared in order to identify the best form of collaboration between the two countries. If it is concluded that a nature park cannot be established for the protection and conservation of the region’s values, due to the difference of legislation, or lack of funding, other types of cooperation should be initiated (from good personal contacts (already existing), to coordinated systems of conservation (the use of standardised monitoring forms for various species, common databases and websites)).

The next steps to be taken with regard to the transboundary collaboration include the continuous information of all stakeholders and the preparation of a feasibility study, which takes much more aspects into account.

3.4.4 Involving Resident People: Flathead Indian Reservation (Montana, USA)

Susanne Glatz-Jorde, Austria: “Cultural Differences in Perception of Management Purpose of Tribal Buffer Zone – A Case Study about the Mission Mountains Tribal Buffer Zone on the Flathead Indian Reservation, Montana”; Supervisor: Alan Watson, Aldo Leopold Wilderness Research Institute, Montana, USA.

Protected area management experts of theory and practice agree on the necessity of broad stakeholder involvement as a key to effective management. Especially buffer zones around strict Protected Areas need to integrate conservation and social goals to enhance the positive and to reduce the negative impacts of conservation on neighbouring communities and vice versa. Management is supposed to be adaptive and collaborative to respond to a changing social situation. Proactive methods like Rapid Rural Appraisal are appropriate to gather information which needs to be integrated into management decisions to avoid conflicts.

The study aims at demonstrating the need of broad stakeholder involvement in a changing social situation by showing differences in philosophy towards

management purposes of a buffer zone by different cultural groups. Implications for future management decisions integrating different views are discussed.



Figure 25: Mission Mountains Tribal Wilderness (higher elevation) and buffer zone (lower elevation)

The case of the Tribal Buffer Zone at the Flathead Reservation, Montana (see Figure 25) shows how applied social science helps to understand cultural differences in the intercultural setup of the tribal Buffer Zone. The area is of high spiritual value and has been set aside for the continuation of the tribal culture and to protect the wilderness. Tribal residents attach different values, threats, perceptions of proper use and management ideas to the area than non tribal residents. On the reservation the latter are an increasing group of residents in the buffer zone on private land. While tribal people see the buffer zone as part of the Wilderness and attach nearly the same values Non tribal people see the buffer zone as less restricted resource management area and a place to live. Implications for management are derived from the analysis. Management strategies need to incorporate the differences without compromising the tribal values and the cultural integrity of the place to achieve acceptance for proposed management decisions.

The role of the buffer zone needs to be extended from pure protection to a management area, where measures are applied to protect the wilderness but also to protect the residents from negative impacts of the wilderness, like fire. Buffer zone management has to change in some ways. Measures should be set to reduce the fire danger without impacting the scenery and without commercial timber use. The current trust issue should be addressed through the establishment of strong control

mechanisms. The communication between management and residents needs improvement. Comprehensive land use planning jointly with landowners to address the population pressure issue should be started. Residents' views should be influenced on some points. Non tribal people should be aware of the meaning of the place and how to minimise impacts. Tribal people become aware about necessary management measures. A common vision for the buffer zone as a result of a participatory planning process would be a starting point.

If management takes up all the necessary steps, there is still the remaining dilemma of private landowners in the buffer zone. The most pressing issue – the increase of population pressure and development of private land – cannot be stopped through management regulations.

4 “WHAT IS THE MOST IMPORTANT SKILL OR KNOWLEDGE FOR A PROTECTED AREA MANAGER”

Bernd Pflieger

We collected answers from protected area experts about the crucial question for prospective managers during on-site several excursions. Here are the results to the title question:

“Ask and ask and ask local people. What are their opinions, what are traditional activities. Explain to them why the area is protected. Ask them what they want. If you tell them they should make a pension they say: “We are lumberjacks, that’s not our business.” But if somebody wants, you must give him the opportunity.” (Vaclav Brown, first secretary of the director of Sumava National Park, 11.2.2006, Volary, Czech Republic)

“The most important task for a protected area manager is to know in detail the natural values of the area. Where the most are endangered natural values, what protection these ecological communities need where this protection is required.” (Arnold Steiner, botanist, working for the road and river construction department of the canton Wallis, 3.5.2006, Zermatt, Switzerland)

“Participation is very important, but for some tools, e.g. guided tours, just do it and show people that it works.” (Peter Oggier, chief manager of Pfyn-Finges Nature Park, 4.5.2006, Pfyn-Finges, Switzerland)

“The secret of a protected area manager is to deal with people in a responsible way, try to do the best without making promises and give them the feeling that you care about the problem.” (Barbara Mertin, ranger of Danube Floodplains National Park, 3.7.2006, Schönau, Austria)

“The most important aspect is the contact with the people (in the starting phase) and a financial background (a sufficient budget).” (Robert Heuberger, project manager for Nature Park Dobratsch, 10.9.2006, Dobratsch, Austria)

- “Communication, because we have to deal with many stakeholders. An agricultural science background is not bad and do not expect that we are competent in every field, management of Protected Areas is teamwork.” (Attila Fersch, head of the public awareness department, Fertő-Hanság National Park, 5.7.2006, Sarrod, Hungary; Franz Haider, head of the department of administration and finance, Lake Neusiedl – Seewinkel National Park, agreed)
- “As a manager of a protected area you have to be a generalist orientated person who relates well to people, but you need to be committed because it is not a well paid job.” (Richard Clarke, Centre for European Protected Area Research, University of London, 7.7.2006, Vienna, Austria)
- “The most important and the biggest challenge is the new way of dealing with economy in the whole area.” (Günther Loiskandl, manager of Wienerwald Biosphere Reserve, 7.7.2006, Vienna, Austria)
- “You have to be wise. You have to have a wide knowledge, not only ecology, also basics in economy and public relations, as well as the right attitude towards people so that they think they lead the park.” (Andrej Sovnic, manager of Sečoveljske Soline Nature Park, 30.8.2006, Sežana, Slovenia)
- “The most important aspect for a protected area manager is to have enough human resources. The human dimension is 90%: Having a strategy, how to talk to people. As a result a protected area manager should be a politically independent human dimension manager.” (Bernhard Gutleb, head of nature conservation department of Carinthia, 5.2.2007, Klagenfurt, Austria)
- “Soft skills; trouble shooter; good conflict solver, e.g. for conflicts with land owners or with the hand that feeds you (government and politicians); possess good ideas for getting funds to become independent.” (Gernot Orgis, secretary at the department of nature conservation of the Carinthian government, 5.2.2007, Klagenfurt, Austria)
- “Mixture between patience, tenacity, and the ability to manage people. Definitely social skills are most important! You have to work very hard and do not lose humour. Moreover, you need political support as an organisation. Finally you should always have clear goals and strategies. However, communication is the key.” (Peter Rupitsch, manager of Hohe Tauern National Park, 7.2.2007, Klagenfurt, Austria)
- „Personality. The most important skill is conflict management. Furthermore, you need a thick skin. Finally, people should be involved in the process, they

should get economic benefits.” (Robert Pomeroy, associate professor at the Department of Agricultural and Resource Economics, University of Connecticut, expert for management effectiveness of marine Protected Areas, 9.2.2007, Klagenfurt, Austria)

“You need a thick skin, some special knowledge on nature and you must be intelligent to settle up a functional financial organisation. Finally the social aspect to work well together with your employees is very important.” (Werner Franek, manager of Gesäuse National Park, 10.2.2007, Admont, Austria)

“There is no one skill, but strong personal connection to the region is essential. It must be important for you. The necessary skills depend on the circumstances, but you should have a background in conservation and be able and except different points of view.” (Carl Manzano, manager of Danube Floodplains National Park, 12.2.2007, Admont, Austria)

“Diplomatic behaviour. However, that does not mean to accept everything.” (Guido Plassmann, director of ALPARC, 13.2.2007, Admont, Austria)

“The most important issues for protected area managers are: protected area management effectiveness evaluations; participation, especially of the local population; raising public awareness.” (Jose Vicente, director of the master programme for Protected Areas in Madrid, 26.4.2007, Entracque, Italy)

“Biological knowledge is useful, but not enough. Very important is to know financial basics (how to make a budget). A very essential skill is diplomacy: do discuss, deal with other groups. That means to have clear ideas and goals, but to be flexible and able to discuss.” (Patrizia Rossi, manager of Alpi Marittime Nature Park, 27.4.2007, Entracque, Italy)

“A thick skin, a clear vision and diplomacy.” (Michl J., nothing more to add, 29.4.2007, Entracque, Italy)

“To ensure a high motivation within your employees to get a strong team, to fight against the own administration in the ministry to bolster your staff, and to provide the necessary resources.” (Michael Vogel, manager of Berchtesgaden National Park, 23.3.2007, Berchtesgaden, Germany)

“Common sense. Experience. To be able to deal with your stakeholders.” (Christoph Imboden, independent consultant for nature conservation, 30.5.2007, Windischgarsten, Austria)

THE MOST IMPORTANT SKILLS OR KNOWLEDGE

“You need the technical knowledge as a basis, but also a sense of entrepreneurship. It’s a mixture of both.” (David Sheppard, head of the IUCN Programme on Protected Areas, 21.5.2008, Bonn, Germany)

5 THE EDUCATION PROGRAMME

5.1 “Knowledge to protect and innovate” – Start 2005

“Shaping a sustainable future on the basis of professional know-how”. The chancellor of the University of Klagenfurt, Prof. Günther Hödl (†), presented the new education programme in April 2005 at a press conference. The University of Klagenfurt has a research focus on Middle and Eastern Europe and is prepared to face the challenges of the 21st century: “We need well educated and highly motivated personalities to conserve, manage and develop the natural as well cultural heritage of the continent.”

“We are very proud that our idea has been able to attract international partners. For example, institutions like IUCN/WCPA, Europarc, WWF-international, Network of Alpine Protected Areas, MaB-Programme, Ramsar-Convention or Pan-Parks agreed to contribute to the programme”, the scientific directors of the programme, Mag. Michael Jungmeier and Prof. Michael Getzner, said, and added that “the programme will focus on up-to-date approaches of integrated management of Protected Areas”.

On October 21st the M.Sc. programme “Management of Protected Areas” started officially. 21 participants from seven countries, the members of the Advisory Board, the lecturers and some 120 guests celebrated in the Museum of Modern Art in Klagenfurt (Figure 26).

Keynote speakers of ICUN, Europarc, Convention of Biological Diversity, Ramsar-Convention and many others congratulated and expressed their appreciation and support. Presentations of new technologies in the management of Protected Areas and diverse art performances were given throughout the night.



Figure 26: Opening Event

Participants, members of the Advisory Board, lecturers and directors celebrate a night dedicated to the future of Protected Areas. (From left to the right): Getzner Michael, Wieser Christian, Liebel Günther, Imboden Christian, Marija Zupancic-Vicar, Rupitsch Peter, Hails Sandra, Hartmann Martin, Borg Joanna, Klenovec Christine, Zechner Lisbeth, Koch Birgit-Agnes, Mulongoy Jo Kalemani, Chaudhary Sunita, Hradetzky Regine, Succow Michael, Visotschnig-Bruckschwaiger Renate, Nakarmi Ganga, Jungmeier Michael, Langenfelde Meldra, Timilsina Lila Bati, Pflieger Bernd, Schuh Thomas, Kolar-Planinsic Vesna, Jenderedjian Arpine, Biner Jürg, Fehr Christine, Papp Christian-Remus, Müller Barbara, Potozky Laszlo Romulus, Glatz Susanne.

5.2 “An outstanding educational offer” – Overview of the programme

Promoting sustainability, handling conflicts, increasing benefits, conserving biodiversity – the planning and management of Protected Areas involves many different

legal, administrative and technical realities. The demand for highly skilled experts is growing immensely.

Our vision is to promote biodiversity conservation and regional sustainable development in Europe and worldwide by educating and training efficient and effective managers of Protected Areas (Figure 27).

The learning goals are:

- an excellent and comprehensive understanding of the aims and roles of Protected Areas in relation to the conservation of biodiversity and (integrated) regional development.
- detailed knowledge when applying the full range of tools available for the management of Protected Areas so that they can effectively fulfil their aims.
- an ability to analyse and solve problems encountered when establishing, planning and managing Protected Areas, to conduct inter- and transdisciplinary dialogues with all stakeholders and to develop and implement appropriate integrated solutions.
- the development of hard and soft skills to create mutual benefits of nature conservation on the one hand, and for the local population on the other hand, particularly in peripheral regions as well as in developing countries with the aim of sustainable regional development.

The management of Protected Areas is considered in an integrating way. The management shall account for all three “pillars” of sustainability to make Protected Areas to regional “cornerstones” of global sustainable development

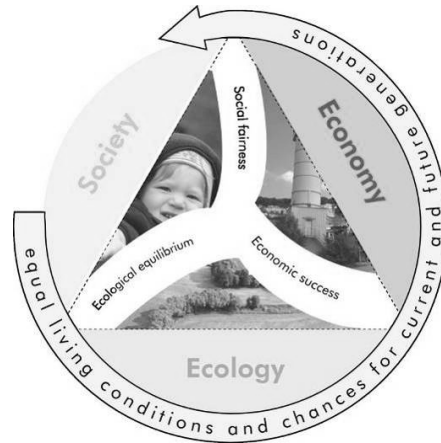


Figure 27: The Klagenfurt Approach

The lecturers of this program are internationally acknowledged experts from organisations and institutions. By attending the programme, the participants become part of an international network of experts that enables them to solve the complex problems in everyday life in Protected Areas.

1st term: Theoretical and scientific fundamentals of the management of Protected Areas

2nd and 3rd term: Practical aspects of the management of Protected Areas (toolbox & best practice)

4th term: Supervised implementation of applied and/or scientific research projects

The programme has a focus on:

- European and international categories of Protected Areas
- Nature conservation strategies in Central and Eastern Europe
- Integration of socio-cultural, economic and ecological aspects
- Participative approaches in the management of Protected Areas
- New technologies and methods
- Strategies and instruments for communication, participation and benefit sharing.

The MSc programme is set up in cooperation between the University of Klagenfurt and E.C.O. Institute of Ecology, a company specialised in planning and consulting Protected Areas (PA). An international Advisory Board is established in order to support and control the quality of courses and theses (Figure 28). The programme's patron is Prof. Michael Succow, holder of the Alternative Nobel

Price 1997, who has said that, “the M.Sc. programme ‘Management of Protected Areas’ is an outstanding and innovative educational offer intended for managers and planners of Protected Areas. It not only provides important training but also professional impetus for nature conservation in Europe”.

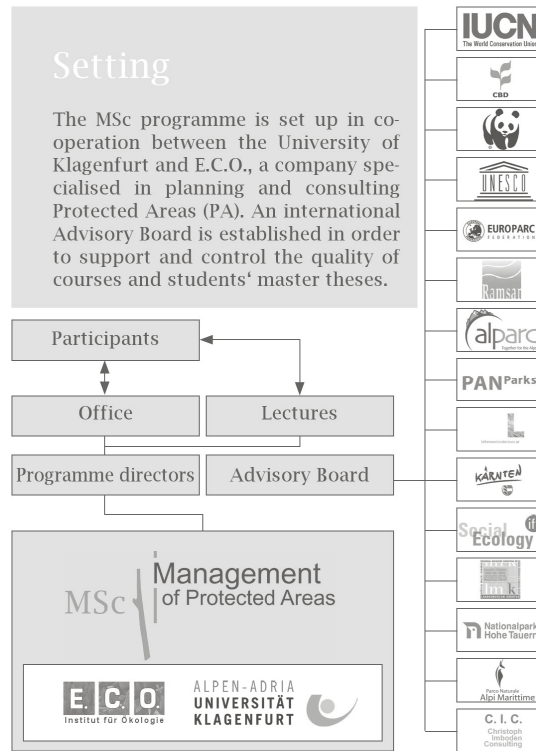


Figure 28: Structure of the programme

The programme is set up in cooperation between Klagenfurt University and E.C.O. The directors of the program are supported by an Advisory Board which links the programme to many relevant institutions on the national, European and international level. The members of the board meet twice a year and are also in contact with the participants.

5.3 “A network to work with” – Partners

Besides the Advisory Board the MSc programme is embedded into a network of partners (Figure 29).

- Alumni Club: The alumni, the lecturers and the advisory board of this post-graduate education programme are building up a globally active personal network for protected area experts. Via regular meetings, workshops, excursions and an interactive platform the members stay in contact, study further in the field of protected area management, exchange opportunities and support each other. Moreover, the Alumni Club is open for external protected area experts.
- Europarc Working Group on Academic Education: this working group was established in 2006 through an initiative of the Universities of Klagenfurt and Madrid. Europarc, the umbrella organisation of European Parks, is very much aware of the importance of education for highly skilled experts to run the sites. In the working group standards and requirements for the academic education are discussed. The exchange of staff, experts and participants is organised. European projects shall be developed.
- Central European Initiative: In the frame of this initiative scholarships for participants are financed in cooperation with some CE Universities.
- CBD Memorandum of Understanding: By invitation of the CBD (Convention on Biodiversity) the University of Klagenfurt joined a memorandum, linking the MSc programme to some very distinguished educational and scientific institutions.

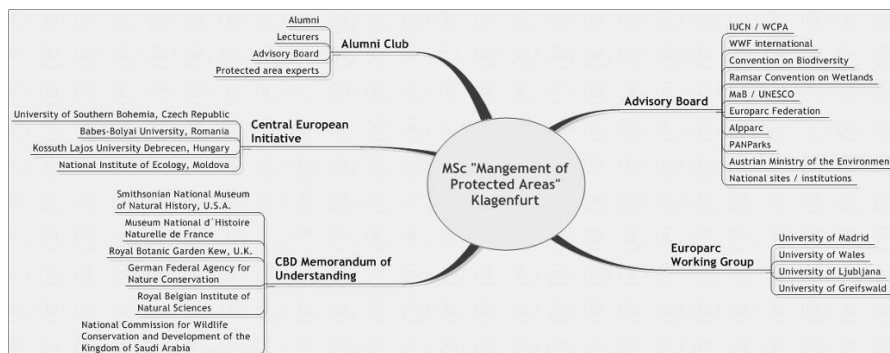


Figure 29: The network of the M.Sc. programme

The M.Sc. programme is well embedded into a network of partners and friends and will become an important link in European and global conservation.

5.4 “Working on a tight schedule” – the Programme 2005

Module 1: 21. – 27.10.2005, Klagenfurt and Hohe Tauern National Park, Austria

After three years of preparation the new Master of Science Programme „Management of Protected Areas“ was launched in 2005. The first module started with a big opening event in Klagenfurt in October 2005. Some 120 people came together to celebrate a new era for Protected Areas. Internal group building sessions and courses on biodiversity and protected area basics in Klagenfurt and Hohe Tauern National Park followed, interrupted by a hike to the Stappitzer See (Lake Stappitz) looking for the “Loch Ness Monster” of Klagenfurt, the “Lindwurm”.

Excursions:

- 25 October 2005: Lake Stappitz, Hohe Tauern National Park, Austria

Module 2: 3. – 13.2.2006, Ceske Budejovice and Sumava National Park, Czech Republic

After three months of hard work on assignments the next module started in Ceske Budejovice in February 2006. It was a module full of diversity: Learning about stakeholder analysis, sociological, cultural and economic foundations, ecology and ecosystems in theory and practice on the one side, survival training in a snowstorm in the Sumava National Park on the other. We used shoes, cross country skies, plastic bags, pushed cars, and at the end everybody came home safely.

Excursions:

- 6 February 2006: Trebon Basin Biosphere Reserve, Czech Republic
- 10 February 2006: Sumava National Park, Czech Republic

Module 3: 28.4. – 7.5.2006, Zermatt, Switzerland

The Matterhorn is not a protected area so far, but it should be. Therefore module 3 took place in the roof of a biohotel in Zermatt in May 2006 so as to allow us to be able to see the Matterhorn all day long. Moreover, the participants explored the floristic, faunistic and culinary specialities of the Zermatt region. Besides, regional development, information technologies, as well as financial, administrative and project management foundations in the field of protected area management were covered. The programme started being more and more protected area specific...

Excursions:

- 30 April 2006: Gornergart, Zermatt, Switzerland
- 1 May 2006: Area around Zermatt, Switzerland
- 4 May 2006 Pfyn-Finges Nature Park, Switzerland

Module 4: 30.6. – 9.7.2006, Vienna, Austria

“Communication is the key” (Peter Rupitsch, head of the advisory board and manager of Hohe Tauern National Park, 2007). Therefore, in Vienna three courses dealt with that topic in July 2006. Moreover, strategic, spatial and management planning as well as protected area systems were on the agenda, interrupted by excursion to the Fertő / Neusiedlersee Cultural Landscape World Heritage site in Austria and Hungary, the Biosphere Reserve Vienna Forest and an “adventure” boat trip in the Danube Floodplains National Park.

Excursions:

- 3 July 2006: Danube Floodplains National Park, Austria
- 5 July 2006: Fertő / Neusiedlersee Cultural Landscape World Heritage Site, Austria and Hungary
- 7 July 2006: Cobenzl, Vienna Forest Biosphere Reserve, Austria

Module 5: 30.8. – 10.9.2006, Slovenia and Klagenfurt, Austria

Visiting the famous Škocjan limestone caves, a World Heritage Site was impressive, but a bath in the Mediterranean Sea in Piran on a hot summer day was just as wonderful. This was part of a short optional trip to marine Protected Areas in Slovenia and Italy. Back in Klagenfurt in September 2006, we immersed ourselves into the world of planning Protected Areas in module 5: Feasibility check, basic investigation, management plan, implementation plan, etc. and visited Ramsar sites, national parks and nature parks in Carinthia and northern Slovenia.

Excursions:

- 30 to 31 August 2006 (optional): Natural World Heritage Site Škocjan Caves, Slovenia; Sečovlje Salina Ramsar Site, Slovenia; Miramare Marine Reserve, Italy
- 2 September 2006: Jezersko, Kamnik Alps, Slovenia; Sablatnigmoor Ramsar Site, Austria
- 7 September 2006: Triglav National Park, Slovenia
- 10 September 2006 (optional): Dobratsch Nature Park, Austria

Module 6: 2. – 13.2.2007, Klagenfurt und Gesäuse National Park, Austria

A well planned protected area is worthless if it is not managed properly afterwards. As a consequence the next module in Klagenfurt and a castle nearby the

Gesäuse National Park in February 2007 dealt with managing Protected Areas successfully and effectively. These were cold and snowy days, but relaxing “chimney” talks and dinners heated up our hearts and souls.

Excursions:

- 2 February 2007: Lendspitz-Maiernigg Natura 2000 Site, Austria
- 10 February 2007: Gesäuse National Park, Austria
- 12 February 2007: Visitor facilities in the Gesäuse National Park, Austria

Module 7: 29.3. – 3.4.2007, Aggtelek National Park, Hungary

The last term was dominated by the supervised implementation of a research project for our master thesis. Nevertheless, by the end of March 2007 in Aggtelek National Park in the northeast of Hungary other interesting topics were on the agenda, such as visitor management or impact assessment.

Excursions:

- 2 April 2007: Aggtelek National Park, Hungary

Module 8: 26. – 29.4.2007, Alpi Marittime Nature Park, Italy

How to monitor ibex (mountain goats) or fish? Such practical aspects were part of our module in the Alpi Marittime Nature Park in April 2007. Moreover, we explored the south-western Alps, met and celebrated with colleagues from a related MSc programme in Madrid and discussed marketing and branding Protected Areas.

Excursions:

- 27 April 2007: Alpi Marittime Nature Park, Italy
- 29 April 2007: Alpi Marittime Nature Park, Italy

Module 9: 13. – 16.6.2007, Klagenfurt Days of Protected Areas

The last module was part of the Klagenfurt Days of Protected Areas in June 2007, a melting pot of protected area experts from all over the world. Next to the advisory board meeting of the programme, the first regional conference of the “Protected Areas Network” (PANet) Project, the meeting of the directors of Austrian national parks, an international workshop of CIPRA, and some other international events and meetings, the participants presented their master thesis at an international colloquium on Protected Areas, followed by the graduation ceremony. Finally it was time to celebrate.

THE EDUCATION PROGRAMME



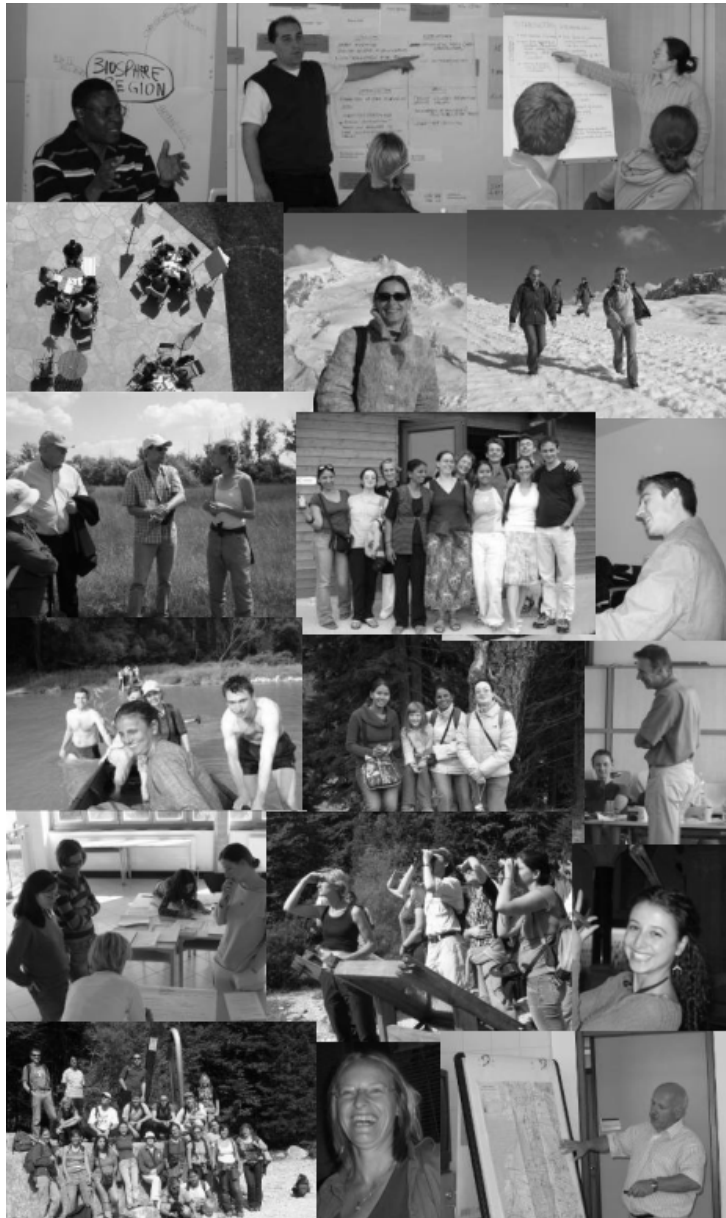
THE EDUCATION PROGRAMME



THE EDUCATION PROGRAMME



THE EDUCATION PROGRAMME



THE EDUCATION PROGRAMME



THE EDUCATION PROGRAMME



THE EDUCATION PROGRAMME



5.5 Lecturers

(in order of their appearance in the courses of the programme)

Mag. Dr. Christian LACKNER; University of Klagenfurt, Department of Organisational Development and Group Dynamic, Austria

Prof. Dr. Michael SUCCOW; Michael Succow Foundation for the Protection of Nature, Germany

DI Günter LIEBEL; Federal Ministry of Agriculture, Forestry, Environment and Water Management, Abt. II/4, Austria

Dr. Marija ZUPANCIC-VICAR; IUCN Regional Councillor, Slovenia

M.S. Vesna KOLAR-PLANINSIC; Ministry of the Environment and Spatial Planning, Slovenia

Mag. Kristin DUCHATEAU; Austrian Development Agency (ADA), Austria

Dr. Bernard LANE; Red Kite Environment Ltd, United Kingdom

Mag. Malgorzata WADOWIAK; University of Klagenfurt, Department of Innovation Management and Entrepreneurship, Austria

Dr. Rainer HARMS; University of Klagenfurt, Department of Innovation Management and Entrepreneurship, Austria

A.o.Univ.-Prof. Dr. Michael GETZNER; University of Klagenfurt, Department of Economics, Austria

Ass Prof. Dr. DrSc. Jaroslav BOHÀC; University of South Bohemia, Agricultural Faculty, Czech Republic

Prof. Dr. Zoltan VARGA; Kossuth Lajos University Debrecen, Faculty of Science, Department of zoology and evolution, Hungary

Zoltan KUN; PAN Parks Foundation, Hungary

Dr.habil. Karen ZIENER; University of Klagenfurt, Department of Geography and Regional Studies, Austria

Univ.-Prof. Dr. Paolo RONDO-BROVETTO; University of Klagenfurt, School of Management and Economics, Austria

Prof. Dr. An CLIQUET; University of Gent, Department of Public International Law, Belgium

Dr. Francis VORHIES; Earthmind, Switzerland

Dr. Engelbert RUOSS; UNESCO Office in Venice, Italy

Prof. Dr. Ingo MOSE; University of Oldenburg, Regional Sciences Working Group, Germany

DI Wolfgang SUSKE; Suske Consulting, Austria

Dr. Hanns KIRCHMEIR; E.C.O - Institute of Ecology, Austria

Mag. Iris VELIK, consulting & mediation, Austria

Mag. Michael JUNGMEIER; E.C.O.- Institute of Ecology, Austria

Dr. Christoph IMBODEN; Sustainable Development Biodiversity Conservation, Switzerland
DI Dr. Hannes SCHAFFER; mecca environmental consulting, Austria
Jernej STRITIH; Sustainable Development Consulting, Slovenia
Dr. Frits HESSELINK; HECT Consultancy, The Netherlands
Dr. Gloria PUNGETTI; Cambridge Center for Landscape and People, United Kingdom
Richard CLARKE MSc., Birkbeck University of London, Centre for European Protected Area Research, United Kingdom
Prof. Dr. Wolfgang SCHRÖDER; Technische Universität München, Wildlife Biology and Management Unit, Germany
Mag. Paul SCHREILECHNER, Biogis Consulting Schreilechner KEG, Austria
Dr. Tobias SALATHE; The Ramsar Convention Bureau, Acting Head Regional Unit Senior Adviser Europe, Switzerland
Dr. Peter ZIMMER; FUTOUR Environmental, Tourism and Regional Consulting Ltd., Germany
Mag. Dr. Christian KOMPOSCH, ÖKOTEAM, Austria
Ao Univ.-Prof. Mag. Dr. Robert NEUMANN; University of Klagenfurt, Department of Organization, Human Resources & Management Development, Austria
Mag. Peter RUPITSCH; Hohe Tauern National Park, National Park Administration Carinthia, Austria
Ass. Prof. Robert S. POMEROY, PhD; University of Connecticut - Avery Point, Department of Agricultural and Resource Economics, USA
Markus PETZL; Institut für Markenentwicklung Graz, Austria
Univ.-Prof. Dr. Mag. Georg GRABHERR; University of Vienna, Department of Conservation Biology, Vegetation and Landscape Ecology, Austria
DI Robert UNGLAUB; Archi Noah, Austria
Dr. Helmut FRANZ; Berchtesgaden National Park, Department Research and EDP, Germany
Dr. Jan MÜLLER; Forstconsult Ökonomie von Wald und Landschaft, Germany
Mag. Christian LANG & Mag. Ameli PAULI; Pronatour Outdoorsolutions, Austria
Zeljko KRAMARIC, MSc.; Free Lance Consultant, Croatia
Dr. Carl MANZANO; Danube Floodplains National Park GesmbH, Austria
Dr. Guido PLASSMANN; ALPARC - Reseau Alpin des Espaces Protégés, France

5.6 International Advisory Board

Mag. Peter RUPITSCH; Hohe Tauern National Park, National Park Administration Carinthia, Austria

Prof. Dr. Michael SUCCOW; Michael Succow Foundation for the Protection of Nature, Germany

DI Günter LIEBEL; Federal Ministry of Agriculture, Forestry, Environment and Water Management, Abt. II/4, Austria

Dr. Marija ZUPANCIC-VICAR; IUCN Regional Councillor, Slovenia

Zoltan KUN; PAN Parks Foundation, Hungary

Dr. Christoph IMBODEN; Sustainable Development Biodiversity Conservation, Switzerland

Dr. Tobias SALATHE; The Ramsar Convention Bureau, Acting Head Regional Unit Senior Adviser Europe, Switzerland

Dr. Guido PLASSMANN; ALPARC - Reseau Alpin des Espaces Protégés, France Univ.-Prof. Dr. Marina FISCHER-KOWALSKI; University of Klagenfurt, Faculty for Interdisciplinary Studies, Institute of Social Ecology, Austria

Mag. Bernhard GUTLEB; Federal Government of Carinthia, Department for Nature Conservation, Austria

Kalemani Jo MULONGOY; Secretariat of the Convention on Biological Diversity, Principal Officer - Director of the Scientific, Technical and Technological Matters Division, Canada

Philippe PYPAERT, UNESCO Office in Venice, Italy

Patrizia ROSSI, Parco Naturale Alpi Marittime, Italy

Dr. Martin SOLAR, Europarc Federation, Council member, Slovenia

DI Gerald STEINDLEGGER, WWF International, European Forest Programme, Austria

Dr. Christian WIESER, Museum of the Federal State Carinthia, Austria

5.7 Directors and Editors

Michael Getzner

„As an economist, and having worked in the context of biodiversity and Protected Areas management for quite some years, I am glad that the University of Klagenfurt has established such a programme helping to increase efficiency and effectiveness of nature conservation, by educating professionals and striving for a better understanding of the importance of biodiversity conservation.”



- Field of expertise: Professor of Economics, specialised in Environmental and Ecological Economics, Regional Economics, Public Finance and Economic Policy

- University of Klagenfurt, Department of Economics, Austria

- michael.getzner@uni-klu.ac.at

Michael Jungmeier

„Working in and for Protected Areas is one of the most interesting, challenging and rewarding responsibilities, you can have. After some 15 years of planning and consulting Protected Areas I am very proud to be in charge of developing and executing this MSc – programme. I find myself substantially supported by the



experts of the Advisory Board and an international team of lecturers. I find in this MSc – programme a unique platform for exchange of experience. Again, I am looking forward to meeting the participants from different Protected Areas, representing some of the most beautiful and precious regions of the world.”

- Field of expertise: Ecologist, conservation ecology, planning and preparing Protected Areas, communication design

- C.E.O. of E.C.O. – Institute of Ecology, Austria: lecturer at the University of Vienna, Department for Ecology

- jungmeier@e-c-o.at

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