



## Congress Report »Environment, Conservation and Sport in Dialogue«

### Biodiversity and Sport – Prospects of Sustainable Development

4<sup>th</sup> Congress at the  
German Sports University Cologne  
on 4 and 5 March 2008

within the framework of the 9<sup>th</sup> Conference  
of the Parties to the Convention on Biological  
Diversity in Germany 2008



ONE NATURE • ONE WORLD • OUR FUTURE  
UN Conference on Biological Diversity Bonn 2008

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#### **Project Management BfN**

Michael Pütsch, FG II 1.2

#### **Editors**

Ralf Roth, Edwin Jakob, INOEK

#### **Layout**

Frank Armbruster

#### **Printing**

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## Federal Environment Minister Sigmar Gabriel Greetings

Intact nature is equally important for both outdoor sports enthusiasts and nature conservationists. I am therefore pleased that the 4th Conference on “Environment, Nature Conservation and Sport in Dialogue” focussed on the issue of biological diversity and sport. The participants discussed and elaborated the limits and opportunities of linking protection and sustainable use. The aim was to strengthen cooperation between sport and nature conservation, in particular in the run-up to the 9th meeting of the Conference of the Parties to the Convention on Biological Diversity in May in Bonn and against the background of the German government’s National Strategy on Biological Diversity.

Conserving biological diversity is as great a global challenge as combating climate change. It is essential to mankind’s survival and well-being. Species, habitats and genetic resources are being lost every day. If we carry on this way, we are threatening the very foundations of our existence and are thus wiping the Earth’s hard drive. We have to become more considerate in our use of nature. And

we have to raise awareness of this among sports enthusiasts.

I see this conference as part of our campaign on the importance of biological diversity for our lives. The highlight of the campaign will be the UN Conference of the Parties to the CBD in May 2008. I would like to thank the Advisory Council on the Environment and Sports to the Federal Environment Ministry for the initiative on this year’s conference and the German Sport University in Cologne for its successful organisation.



Sigmar Gabriel,  
Federal Environment  
Minister

A handwritten signature in black ink that reads "Sigmar Gabriel". The signature is written in a cursive, flowing style.

Sigmar Gabriel  
Federal Environment Minister

## Walter Schneeloch, Vice-president for Popular Sport and Sports Development at the German Olympic Sports Federation

### Welcome

Mr Lauterwasser,  
Professor Roth,  
Congress participants,  
Ladies and Gentlemen,

May I first congratulate the Federal Ministry for the Environment, the Federal Agency for Nature Conservation and the German Sports University on their continuation of the Congress series "Environment, Conservation and Sport in Dialogue". May I at the same time thank the organisers for the invitation and convey to you all the best wishes of the Committee of the German Olympic Sports Federation and its president Dr. Thomas Bach. May I in addition congratulate the organisers on the fact that in taking up the subject "Biodiversity and Sport" they are dealing with an aspect that is as topical as it is important, since in this range of topics the practice of sport requires guidance provided by theory as well as political course-setting. For this reason the attendance of the DOSB at this congress is more than just the fulfilment of a duty.

On both days of the Congress experts from the fields of science, politics and sport will be informing you comprehensively about the prospects of sustainable sport-related development, about Natura 2000 and sport, and about the development of green spaces. I shall not succumb to the temptation to anticipate what the speakers and experts have to say. Permit me, however, to highlight at

the start three aspects which are particularly important to the German Olympic Sports Federation.

Firstly: May I first recall a double shift in perspective that we are already familiar with: on the one hand the relationship between sport and the environment and its stakeholders has improved significantly. Whereas at the conference here in Cologne in 2002 talk was still of "difficult and conflict-laden interplay", we have for many years been increasingly following common paths. The sports organisations under the umbrella of the DOSB, the state stakeholders in the environment, led by the Ministry for the Environment, and the environmental and conservation organisations are in regular dialogue, consult with one another and increasingly work together to formulate environmental and climate change policy challenges, which are not diminishing at all. May I at this point thank the Advisory Council on the Environment and Sports to the German Federal Ministry for the Environment and its Chairman Mr Erwin Lauterwasser for the variety of impetuses to this development.

The other shift in perspective concerns the emphasis on integrated approaches in sport to sustainability, which increasingly take the place of pure environmental protection. The IOC environmental conference a few months ago, which Prof. Dr. Franz Brümmer also attended, made it clear that this shift in perspective eight years after the publication by



the IOC and the UNEP on “Agenda 21 for Sport and Environment” has been introduced in international sport and has become irreversible.

Secondly, these two basic positions form the background for our joint actions. I have the impression that with the formation of the German Olympic Sports Federation the work with regard to the cooperation between the environment and sport has not only been seamlessly tied in with the activities of its precursor organisations in the DOSB, but also that a great variety of new impetuses are evident on both sides. In line with the shift in perspective that has already been explained, sports associations, state environmental and conservation bodies and the relevant organisations should not only improve the reconciliation of interests, but should also cooperate even more closely when it is a matter of giving concrete form to environmental policy challenges by means of projects and measures through the medium of sport and by winning over the extensive networks of our 91,000 clubs to be just as active for the topic of sustainability as the over 27 million members in our sports clubs.

I confirm that the German Olympic Sports Federation is ready and willing to make an active contribution to this work. The sports clubs should incorporate the principles of sustainability and environmental protection into their objectives to an even greater extent. And at the same time there could hardly be a better medium than sport for an environmental policy that is modern and orientated towards the people. This applies to the important work in club and popular sport just as much as it does to outstanding plans with significance for the whole of society, such as for example the bid

for the 2018 Winter Olympics in Munich.

May I at this point mention the many concrete activities of the DOSB and its member organisations. We have brought some of their projects with us and these are on display in the poster exhibition in the foyer. In a little over two months the UN conference on biological diversity will be taking place in Bonn, to which we will be making a contribution with our sporting youth and in cooperation with the German Federal Foundation for the Environment – see the competition entitled “Discover Diversity”.

Thirdly, please allow me to make a few final comments to mark the current occasion: The Federal Nature Conservation Act 2002 is a good example of a successful balance between the interests of sport and of the conservation of nature and the countryside. We all know that work is currently in progress on an Environmental Code. The planned amendment to the law on nature conservation must not under any circumstances fall behind this status. Sport that does not harm the environment is an added value for nature, the countryside and the people in equal measure. It should therefore be firmly established in the objectives of the Environmental Code as a principle from which there will be no deviation. In addition we could also wish for a whole series of further specifications in the Environmental Code, have already made this clear in the proceedings to date, and will also continue to be actively involved in the formulation of the Environmental Code.



Walter Schneeloch, Vice-president for Popular Sport and Sports Development at the German Olympic Sports Federation

Ladies and Gentlemen, I assume that in 2010 the Fifth Congress will again be held here in Cologne. I would be pleased if we could also extend our cooperation to this congress format and to a greater degree than currently. In this we are happy to actively include the spectrum of work and the potential of club and association sport under the umbrella of the DOSB.

I hope you, the participants in the Congress, will have many positive impressions and contacts, interesting discussions and good outcomes from the Congress, which may result in forward-looking courses being set for the future. Thank you very much.

## Erwin Lauterwasser, Chairman of the German Advisory Council on the Environment and Sports

### Introduction

Ladies and gentlemen,

As Ms Klug, the Parliamentary State Secretary, is unfortunately unavailable, it falls to me as Chairman of the German Advisory Council on the Environment and Sports to convey to you her thoughts on this topic and to open this 4th Congress "Environment, Conservation and Sport in Dialogue". First of all, I must express heartfelt thanks to Professor Roth and his team for organising and staging the Congress. The German Advisory Council on the Environment and Sports to the Ministry of the Environment has once again taken the initiative to continue the dialogue between representatives of environmental agencies, nature conservation associations and sport in this series of Congresses, which began in 2002 with a Congress devoted to the general discussion of issues relating to the environment, nature conservation and sport. In 2004, the focus shifted to sports in protected areas and included discussions on the incorporation of sport into nature conservation legislation and on the improvement of sport and environment management in protected areas. The Congress in the World Cup year (2006) focused on environmental accountability in major sporting events. It laid out the environmental concerns which can and must be taken into account in organising and holding this type of events and expressed the fact that, due to the high level of resonance enjoyed by sporting events among all layers of society, sport is the perfect vehicle for advocating and promoting consideration for the environment and its resources.

Within the framework of this 4th Congress taking place today and tomorrow, we will focus particularly on the following question: "How can we combine the preservation of biodiversity with sustainable sporting usage?"

The choice of topic is no accident, as this year's Congress is in direct correlation with the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity, which will take place in Bonn in May.

The global challenge of preserving biodiversity presents just as great a challenge as that of coping with climate change. And this issue is just as fundamental for humankind. Unfortunately, however, it has not yet reached the level of awareness achieved by climate change. This is probably also due to the fact that, unlike climate change, biodiversity loss does not make itself felt through extreme weather conditions, such as storms, floods and heat waves. Instead, it is a gradual process, which has, until now, scarcely been apparent to the general public.

The Conference of the Parties to the Convention on Biological Diversity this coming May has, therefore, been selected as an appropriate occasion on which to launch a campaign on the significance of biodiversity in our



Erwin Lauterwasser, Chairman of the German Advisory Council on the Environment and Sports

lives. This Congress is part of that campaign.

Last year, the German “Unterwegs für Vielfalt” (“En route to diversity”) tour raised awareness of the value and benefits of biodiversity. Biodiversity enables the earth’s complex system to function – and guarantees that it will continue to function. This message was taken right to the pedestrian precincts of our cities.

At the moment, however, the train is travelling in a different direction. Every day, species, habitats and genetic resources are being lost. Federal Environment Minister Gabriel uses the following analogy: if we continue as we have been, we are undermining the very foundations of our own existence and deleting the hard drive of the operating system we call Earth!

The performance of the ecosystems which ensure clean air, drinking water quality, fertile soil and much more is difficult to measure in terms of economic value. A scientific study from 1997, however, estimated the annual value of all the earth’s ecosystems at between 16 and 64 trillion US dollars.

The annual market value of the products derived from the genetic resources can be calculated more precisely. It lies between 500 and 800 billion US dollars. Species extinction, the obliteration of ecosystems, and the reduction of genetic diversity considerably reduce this value. One example of this is the over-fishing of our seas. If, through ruinous fishing, fish stocks are driven to the brink of extinction, the fishing industry will also be at risk of dying out.

The community of states has agreed to

significantly reduce the current rate of biodiversity loss by 2010. Germany has also committed itself to this goal, and, to this end, has prepared a national strategy on biodiversity, which was passed by the Federal Government on 7th November 2007. The strategy represents a consistent system of ideas, concrete quality and action goals, most of which have specific target dates, and concrete measures by which to achieve these goals. In total, the strategy contains around 330 goals and 430 measures on all topics relating to biodiversity.

One such topic is sport and recreation. This is an area in which people experience the value of biodiversity at close range. Sport and recreation depend on intact nature and viable landscapes. The national strategy on biodiversity, therefore, places particular emphasis on this concept: the significance of recreation in natural landscapes for man’s physical and psychological wellbeing. Sport and recreation also serve to illustrate the fact that nature and landscape conservation cannot be restricted to rural areas. One of the strategy’s goals, therefore, is to create sufficient high-quality recreational spaces close to residential areas by 2020. These are to be barrier-free, i.e. suitable for use by people with disabilities, easily accessible by public transport and with clearly-designed visitor management concepts. Another goal involves considerably increasing the number of regional parks and open space networks in areas surrounding major cities.

Millions of people in Germany regularly engage in outdoor sporting activities or enjoy recreational walks in natural landscapes. Such activities must not be the exclusive preserve of those who live in rural areas. Instead, those who live in our cities also have a right to participate in sports and recreation in natural

landscapes. Despite this fact, priority nature conservation and recreation areas in urban agglomerations increasingly having to yield to economic interests. This is a short-sighted local government policy. An online survey carried out by the local government association for administrative management (KGSt) in 2004 showed that 98 percent of all city-dwellers consider green areas and parks to be very important. Cities with sufficient green areas, therefore, have clear advantages when it comes to competing on location quality.

The Federal Ministry for the Environment is calling upon local authorities to create spaces where people can experience nature and enjoy exercise close to residential areas, and is currently supporting this goal by publishing a guideline drawn up by the Germany Sport University Cologne. This guideline provides local authorities with a strategic concept for managing exercise spaces in the city. It should be perceived as a guide to creating appropriate spaces and it is to be hoped that it will influence municipal practice accordingly.

This example is, however, also representative of a modern nature conservation policy which combines biodiversity protection with sustainable use. Athletes and those participating in recreation, who understand the value of intact natural landscapes, are nature conservation's allies. These allies are necessary when it comes to implementing the visions and goals described in the national strategy on biodiversity.

This will only happen if both government and non-government stakeholders work together. The following are just a few measures which can be undertaken by non-government participants in sports:

- The first item is the creation of concepts for ecologically-compatible sporting activities, which can, for example, be developed in collaboration between sports associations and nature conservation agencies.
- Sports associations can also implement environmental management systems, such as EMAS or ski-area audits.
- The sports equipment industry should refrain from depicting activities which are detrimental to nature in its advertising.
- Nature conservation goals can be taken into account early on in planning sports facilities, like golf courses or glider airfields. This type of facilities can often be combined into a network of biotopes.
- Educational opportunities in sports should be more frequently combined with environmental education opportunities.

These few examples demonstrate just how diverse the opportunities are. But government participation is also required. This involves the Federal Government reporting on the implementation of the strategy and on the extent to which the goals have been achieved once per legislative period. Many of the goals are to be implemented in the not-too-distant future; there is, therefore, no time to delay or to neglect our efforts!

Implementation was therefore begun immediately the strategy was passed by the Federal Government and, in December 2007, a follow-up process involving both non-government and government stakeholders was launched. The opening event was the 1st National Forum on biodiversity held on 5th and 6th December 2007 in Berlin, and this will be followed by a total of seven regional forums held between January and June 2008. Each of the regional forums focuses on one of the

key topics enshrined in the national strategy and serves to carry the strategy process to the various German regions. These events are aimed both at raising awareness of the national strategy on biodiversity among a wider audience and in every region of Germany and at inviting and motivating people to participate in implementing the strategy. At the regional forums, high-ranking representatives from both the federal and state governments, from politics, administration and associations, and from local communities, regional politics, nature conservation and land use come together in discussion with experts on the topic at hand. All participants have the opportunity to express their wishes for the implementation process. Information on planned projects and measures taken by the various parties involved in implementing the national biodiversity strategy is collected. The results from all the regional forums are summarised in a publication which will then be discussed at the 2nd National Forum on Biodiversity in autumn 2008.

Today and tomorrow, the Congress will focus on the significance of biodiversity for

sports and recreation and the effects of such usage on biodiversity. A similar event this autumn will highlight such interdependencies in the field of tourism. Hiking, jogging, walking, canoeing, sailing, rowing, or simply enjoying some peace and quiet are particularly attractive activities when they can be practiced in beautiful surroundings – for which, in turn, biodiversity is a basic prerequisite. Both for tourism and nature-based sporting activities, natural and landscape diversity represent a resource which cannot be taken for granted and which we must protect from over-use.

Over the next two days, you will hear many interesting presentations and countless ideas pertaining to these issues. All participants are invited to enter into discussion with national and international experts and to support the implementation process on preserving biodiversity, particularly in the context of sporting activities, to the best of their ability.

Ladies and gentlemen, I wish this Congress every success.

## Opinion of the Advisory Council on the Environment and Sports to the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

### Biological Diversity and Sports – Opportunities for Sustainable Development

The Advisory Council on the Environment and Sports acknowledges the great achievements which have been made possible over the past years by nature conservationists and sports associations which allow a successful coexistence for both uses. Numerous agreements and cooperation initiatives at local and regional level show that a responsible and sustainable use of natural resources for the benefit of sports and recreation is possible even in a densely populated country such as Germany.

The Advisory Council specifically welcomes the progress made in the field of incorporating sports and recreation into nature conservation laws as has been made possible by the amendment of the Federal Nature Conservation Act and calls for a complete incorporation of these provisions into the Environmental Code and the nature conservation laws of the Federal States.

Life on earth exists almost everywhere and the secret of its success is diversity: the higher the amount of species and the more diverse the genetic pool, the better the chances for adaptation to new conditions and for survival. For this reason we must do all we can to preserve and protect biological diversity!

However, this diversity is endangered! Biological diversity and opportunities for exercise and recreation suffer visibly and specifically

from fragmentation of habitats and space in the vicinity of settled areas where it becomes increasingly difficult to experience nature. The loss of this formative experience is therefore not only a threat for biological diversity, it also poses a risk to human health, the quality of life and the development of a regional identity.

The way our societies draw on and use their surroundings as well as their lifestyles have been identified by the Advisory Council as further causes for the decrease in biological diversity and consequently the threat for indigenous species of fauna and flora. This is not only a specifically ecological or economic problem, it also reflects the social and cultural alienation of large sectors of society from values and concepts such as appreciation of local natural surroundings or the natural basis for life.

For many people biological diversity has become a term to which a certain abstract value is attributed but in large conurbations in particular, the term is not associated with the preservation of nature and landscape as an indispensable basis for life. We cannot accept any further losses in suitable habitats and the associated loss in species. The Advisory Council therefore supports the Nature Alliance campaign on biological diversity and appeals to sports associations and clubs to further step up their efforts to incorporate sustain-

ability criteria into their programmes and with this to embrace the objectives of biological diversity preservation and conservation, at the same time contributing to keeping up the role model sports have always had.

The Advisory Council on the Environment and Sports stands in agreement with the National Strategy on Biological Diversity in its demand for a designation and securing of areas in the vicinity of settlements as areas for sports and recreation activities in harmony with nature. Particular attention has to be paid to their upgrading and sustainable development. This will help to ease the strain of the competition for space where there is a regional lack of semi-natural spaces for leisure and recreation.

Exercise, health and sports activities play a key role and are of major importance for the population in parks and protected areas.

The Advisory Council noted that Natura-2000 sites (under the Habitats Directive) play a major role in the preservation of biological diversity. Sports and recreation activities are relevant and traditional uses in many Natura-2000 sites. Therefore the Advisory Council

supports the development of management concepts for sustainable sports and recreation activities in keeping with the conservation targets of the Habitats and Birds Directives. Everything on offer in this respect will have to be geared towards the capacity of the sites to absorb these activities unharmed in ecological and social terms. Involvement of all user groups is the key to acceptance for management plans under the Habitats Directive. Round table discussions are a tried and tested means to incorporate sports and recreation uses into the planning and concrete implementation phases.

The Advisory Council appeals to nature conservation associations, government agencies for nature conservation and sports associations to join forces and make use of the opportunities provided by the link that exists between physical activity in natural surroundings and the potential for education regarding sustainable development. Effective management of sports and recreation activities in protected areas necessitates a clear commitment to the concept of integrative nature conservation, a sound data basis and appropriate management methods.



## The Advisory Council on the Environment and Sports to the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Prof. Dr. Franz Brümmer	Committee for Sports and Nature
Ministerialrat Harald Jendrike	Saxonian State Ministry for the Environment and Agriculture
Erwin Lauterwasser	International Ski Federation (FIS) Environment Advisor
Prof. Dr. Ralf Roth	German Sports University Cologne, Institute of Outdoor Sports and Environmental Science
Michael Stoldt	German Sailing Association
Pia Kremer	Federal Ministry of the Interior Department SP 5
Klaus Hübner	Bavarian Society for the Protection of Birds
Regierungsdirektor Torsten Kram	State Chancellery Rhineland-Palatinate Department 232
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Prof. Dr. Christian Schrader	University of Applied Science Fulda Social and Cultural Studies
Silva Voss	Member of the executive board BUND Germany
Prof. Dr. Karl-Heinz Erdmann	Head of the division "Social Affairs, Sustainability, Tourism and Sportactivities"
Regierungsdirektor Dr. Gordo Jain	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Division N II 3, Environment and Outdoor Recreation, Sports, Leisure Activities and Tourism, Protected Areas and Regional Development

**Kari Lahti**

Superintendent,  
Oulanka National Park

METSÄHALLITUS, Natural Heritage Services,  
Ostrobothnia  
Torangintaival 2, 93600 Kuusamo

<http://www.metsa.fi>



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**Brief biography**

Kari Lahti, born in 1965, is a trained botanist working as a Parks Superintendent in Ostrobothnia/Northern Finland. He is Director and Team Leader of the Oulanka and Riisitunturi National Parks and two large nature reserves. His area of responsibility includes the operational management of all facilities within the nature reserves (including three visitor centres) as well as budget and finance management. One of his current projects and also one of the most important undertakings in the region is the cross-border cooperation between the “twinned parks” of Oulanka in Finland and Paanajärvi in Russia. Kari Lahti worked as a Programme Officer in the IUCN Headquarters in Gland in 2007 and was released by his employer (the Metsähallitus Natural Heritage Service (NHS)) for this period. At the IUCN, he was jointly responsible for further developing the CBD Programme on Protected Areas and the protected area management categories. He also prepared the 2008 World Conservation Congress and the World Protected Area Leadership Forum. His professional experience with respect to managing large-area nature reserves was gained as Customer Service Manager of the Metsähallitus Natural Heritage Service, Managing Director of a visitors’ centre in Liminganlahti bay, Project Manager for the development of sustainable nature tourism in the Oulanka-Paanajärvi region (Interreg IIIC project) and as a tour guide in Finland, Estonia and Norway. In addition to this, he spent two and a half years as an editor of nature programmes for Finnish television.

Kari Lahti

## Protected areas as a destination for recreation Metsähallitus, Natural Heritage Services (NHS) of Finland

### Abstract

The growing need to discover and use the whole potential range of services Protected Areas (PAs) may provide is obvious. This naturally creates challenges as regards to the fundamental objective for protection - biodiversity. PA managers should more often recognize this pressure as a potential tool to secure the integrity and conservation values of PAs – it should not only be seen as a challenge but also as an opportunity.

Recreational use of PAs can be divided to two major approaches: local use-approach and tourism-approach. Local use is intense in urban PAs and tourism concentrate on rural PAs. Especially within regions where tourism is/could form a backbone for the local economy, PAs need to be able to show the benefits they bring in and services they provide for regional development. PA managers should play an important role in turning the “business as usual” development of tourism destination towards a creation of Green Destination, where destination level sustainable use of areas and resources is a key priority. The major elements for success are: ability to demonstrate the wide range of benefits provided by PAs, ability to create strategies by participatory approaches and lastly ability and commitment to use available methods and tools to execute the strategies in all levels – vertically and horizontally.



Fig. 1. A “Green Destination”: The Oulankajoki river meandering through Oulanka National Park in NE Finland. Photo: Metsähallitus

### 1. Background:

Traditionally Protected Areas (PAs) provide aesthetic and spiritual experiences for visitors. The understanding of PAs as a destination for physical renewal and subsequent mental health and balance is increasing in particular in regards to urban environments with limited natural space around. The pressure due to the growing need of multiple use of Protected Areas is increasing and there are consequences and opportunities to be seen.

There are a number of threats that are explicitly connected with the growing number of visitors of PAs. Therefore it is of outmost importance that we take note of these threats and do analyse them thoroughly prior to creating recreational/tourism related strategies and similar. Concepts like LAC, Limits of Acceptable Changes that measures the impacts

of recreational use are needed since the primary obligation of the protected area manager is to conserve the biodiversity and other natural values the PAs harbour.

The benefits that PAs provide for life on earth include ecological, economical, social and cultural modules and recreational use of services provided by PAs plays integral part in many of these modules.

There are two general views to be considered in discussions regarding the relation between recreation and protected areas. The management challenges and the practices are very different whether the

1. PA is located in the vicinity of urban area where the manager's biggest challenges often lie on securing the conservation outcomes against heavy pressure of use frequently with illegal activities caused by unsound recreational use, vandalism etc..
2. PA is located in rural, remote area/region where the local communities or/and local economies rely on the ecosystem services

provided by the PA. In this case the manager's biggest challenges lie on how to make sure that the conservation outcomes are met and at the same time support and do not harm the local community.

## 2. Recreation in Protected Areas as a source of economic benefits for local communities.

Tourism industry and nature oriented tourism in particular is one of the largest economic engines today (international tourism grew by 10% in 2004) and it generates tremendous direct economic benefits critical to the economies of the majority of less developed countries. The rate of growth is in great part driven by growing interest in nature oriented tourism and thus the increasing numbers of visitors to Protected Areas.

Examples:

1. The 50000 residents of Lupane-Game-Management Area in Zambia raise annual revenue of 230000 U\$ from two hunting concession.
2. The Maya Biosphere Reserve in Guatemala generated an annual income of c. 47 M U\$ and provides employment to 7000 people.

One of the major risks within a country/region where PAs' financing relies only on tourism revenue and where political environment is unstable. Political crisis can quickly create a situation where most of the services will be shut down due to lack of any income. There is thus a huge threat also for the actual conservation if the financial sustainability is not in place.

Fig. 2. A "Green Destination": Indigenous inhabitant of Oulanka NP Brown Bear. Photo: Jari Peltomäki



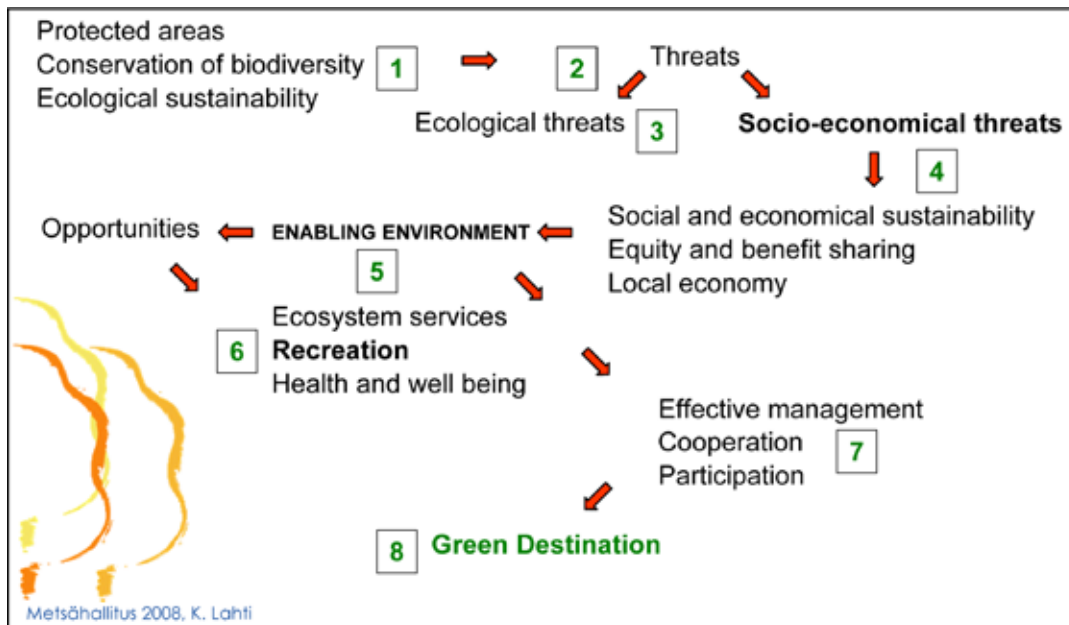


Fig. 3.

1. Conserving valuable biomes, ecotypes, forests, coral reefs, species, scenery, landscape etc. needs action of conservation and understanding of the framework of ecological sustainability behind it.
2. In global context the fundamentals regarding the nature conservation are to understand the threats and at the same time to realize opportunities protected areas provide.
3. Ecological threats such as climate change, invasive species, pollution etc. are extremely important issues and readily recognized but socio-economical threats are not as evident.
4. Socio-economical threats for and due to protection like increased poverty, uneven benefit sharing, weakening of local well being subsequently causing illegal activities, hostile environment and such negative impacts to protected areas and their sustainable management are particularly difficult to overcome.
5. Managers need to incorporate the available tools and lessons learned regarding socio-economical sustainability and equity and benefit sharing in to their day-to-day work and find the ways to support local economy in order to create the key element of success: ENABLING ENVIRONMENT.
6. ENABLING ENVIRONMENT creates opportunities and solves problems. The ecosystem services such as "recreation services" and "health and well being services" can be seen as indirect benefits and services that protected areas provide for people since they need in most cases active management practices and thus human interference. Recreation can be seen as a service to people providing adventure, outdoors experiences, new skills etc. and health and well being services can be seen as more focused activities aiming at concrete human well-being impacts.
7. In order to achieve the goals set for sustainable use of PAs, there is a need for a process that involves not only the manager but also all relevant stakeholders, local communities, tourism sector, authorities etc. including effective practices, wide participation and cooperation.
8. Potentially one major outcome of the unbroken chain described on the picture 1 can lead to tourism destination that fulfils the criteria of "Green Destination"

The benefits of PAs extend spatially far beyond their boundaries. In order to support and argument the benefits, consideration of PAs must be incorporated into wider sustainable development and economic strategies.

### 3. Protected Areas, Green Destinations?

There are many aspects for PA managers to be taken under consideration in order to create sound management practices regarding recreation and benefits driven from na-

ture oriented tourism. Conservation and recreation can be successfully linked by proper planning. Number of key elements as tools and means to manage Protected Areas must be chained in right order to facilitate sound process and outcomes (Figure 3).

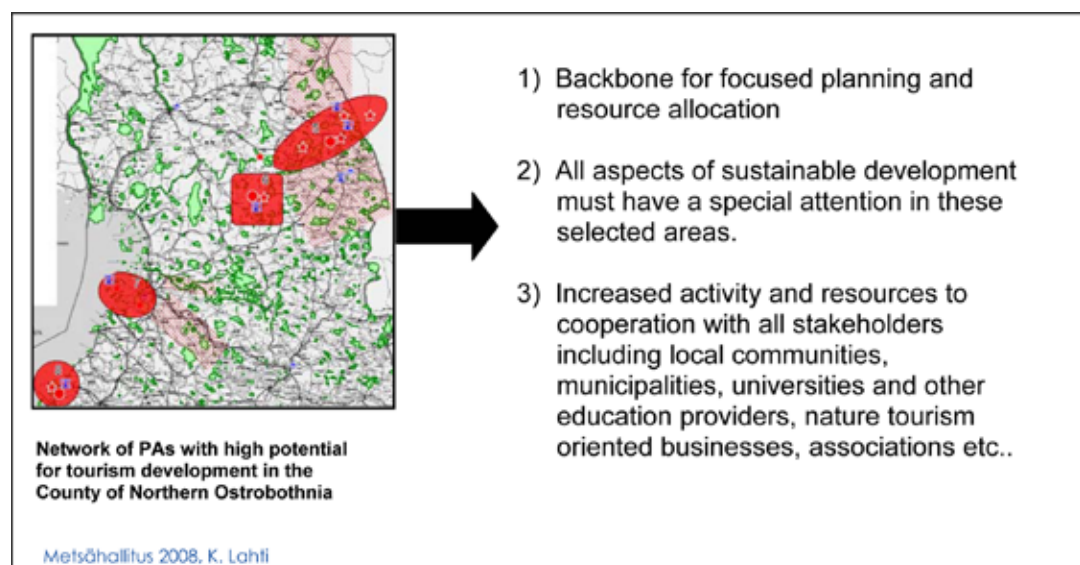
#### 4. National Network Protected Areas with high potential for Tourism Development

Sustainable resourcing and financing of PAs is a huge constrain and challenge globally. The agencies/ organisations responsible for nature conservation should be encouraged to focus on strategic planning on tourism development in all levels. Such planning conducted by participatory manner brings about many benefits to all relevant stakeholders.

In Metsähallitus Natural Heritage services in Ostrobothnia region an exercise was carried out to set up a "Network of Special Interest Protected Areas for Tourism Development" (Figure 4). Steps are described below:

- 1) Examination of the existing and planned tourism strategies by the regional authorities, municipalities etc. to find out the possible overlap and gaps between the directions of NHS and other authorities.
- 2) Development and creation of a combined map that reflects the matching interests between the strategies of regional authorities and NHS in tourism development. The circles represent the strategic areas that were identified as key areas for tourism development.
- 3) Incorporating the concept of "Network of Special Interest Protected Areas for Tourism Development" in to the regional planning and day-to-day operations.
- 4) Decision to allocate resources strategically as a major step towards more sustainable approach.
- 5) This network of special interest PAs forms a basis for guidelines for NHS in order to meet the challenges in regards to sustainable development of these rural and remote areas with a strong emphasis on nature oriented tourism.

Fig. 4. Network of PAs with high potential for tourism development in the County of Northern Ostrobothnia





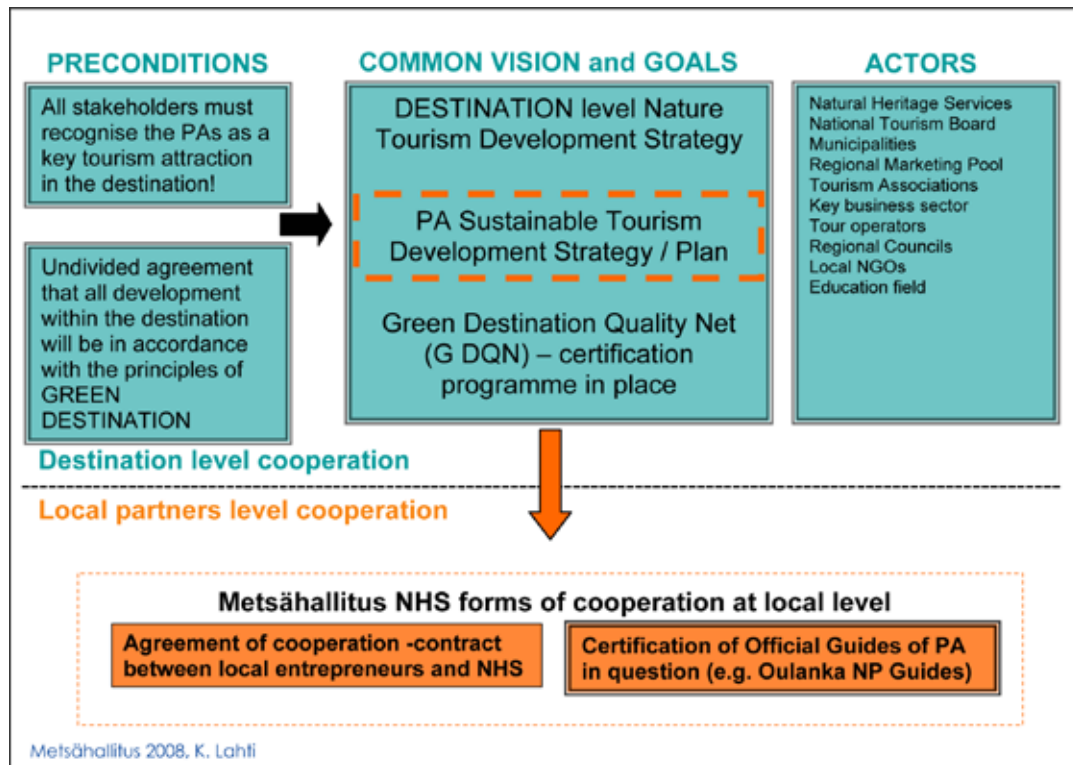


Fig. 5. Theoretical framework by NHS on how to establish sound cooperation practices between the PA managers, authorities and other relevant stakeholders within regions / destinations.

## 5. Destination level and local level cooperation

There are critical preconditions for overall cooperation and there should be a link from regional level cooperation to local level cooperation. Often, in practice, the local level cooperation exists long before the regional collaboration level is achieved.

## 6. Value of recreational use of Protected Areas for all relevant stakeholders

To generalize there are four interest groups involved with use of PAs and their resources:

1. PA Managers
2. Local communities and stakeholders
3. Tourism industry
4. Visitors

1) From PA managers perspective the Protected Areas need recreational use in order to

- promote nature conservation
- create enabling environment for sustainable development to secure the biodiversity values of the PAs
- secure sustainable financing of PA

2) From local communities perspective the recreational use of PAs provides

- means to compensate the disadvantages of protection for the traditional livelihoods and land use practices
- opportunities for employment
- opportunities for further education in rural/remote areas

3) From tourism industry perspective the recreational use of PAs provide them with

- growing business opportunities
- image and marketing benefits
- exceptional environments for their services and products

4) From visitors perspective PAs provide a haven

- to interact with nature
- to learn and educate themselves
- to relax physically and mentally
- for adventurous experiences in unique environments





**Michael Vogel, Dr.**

Head of Berchtesgaden National Park

Berchtesgaden National Park

Doktorberg 6

D-83471 Berchtesgaden

<http://www.nationalpark-berchtesgaden.de>



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**Brief biography**

Dr. Michael Vogel, born 1952, studied and worked from 1974 to 1986 at the University of Marburg under Prof. Dr. H. Remmert. His studies to become a grammar school teacher in the subjects of biology and geography were followed by a successful doctorate. His university research work in the area of animal ecological ecosystems led him to spending study and research periods at the University of Minnesota. He also became one of the first German scientists to be stationed a number of times at the British Antarctic Survey in the sub-Antarctic and Antarctic (as part of the “Ecology of Antarctic Land Insects” focus programme of the German Research Foundation) and also spent a subsequent period at the Instituto de la Patagonia in Punta Arenas, Chile.

After moving to the Bavarian Academy for Nature Conservation and Landscape Management (ANL) in 1986, he led the Research Planning and Coordination department and subsequently the ANL’s ecological teaching and research station in Laufen/Strass. In 1996, he moved to the Bavarian State Ministry for Land Development and Environmental Affairs in Munich where he managed the Working Group of the Federal States on Nature Conservation, Landscape Management and Recreation (LANA). From 2000, Dr. Vogel was a member of the nature conservation policy unit of the Nature Conservation and Landscape Management department and Team Leader for the Upper Bavarian administrative district for procedures implementing the Habitats Directive and Birds Directive guidelines in Bavaria. Michael Vogel has been head of the national park administration of Berchtesgaden National Park since 01/07/2001.

Michael Vogel

## Large-area natural habitat reserve: protecting biological diversity, recreation and sport

### History, zoning of Berchtesgaden National Park

Berchtesgaden National Park is Germany's only Alpine national park. It is located in south-east Bavaria and directly borders Austria. Back in 1910, an area of 8,600 hectares in the south-eastern part of what is today's national park was designated the "Berchtesgaden Alpine Plant Sanctuary". The principal intention behind this was to stem the trade in Alpine plants. The reserve was extended to some 20,400 hectares in March 1921 with the designation of the "Königssee Nature Reserve". In response to the idea of making the Watzmann mountain accessible by means of a cable car, the Association for German Nature Conservation (DNR) decided to call for a national park in 1953. This idea was picked up again during European Nature Conservation Year in 1970 and culminated on 13/7/1972 in the decision of the Bavarian Parliament to plan a Bavarian Alpine park in the Königssee Nature Reserve. The "Decree on the Alps and Berchtesgaden National Park" came into effect on 1/8/1978 covering an overall area of 20,808 hectares. Berchtesgaden National Park is considered IUCN category II. 66.6% of the total area is allocated to the core zone (natural development dynamic), 23.5% to the permanent buffer zone (maintaining the cultivated landscape, active management measures) and 9.9% to the temporary buffer zone. Since 1991, the National Park and its surroundings have been a recognised UNESCO biosphere reserve.



Fig. 1. Watzmann Mountain (2713 a.s.l.) in Berchtesgaden National Park

### Functions

National parks are important nodes in any system of natural reserves, both nationally (Germany is home to 14 national parks) and internationally (there are also 14 national parks within the area delimited by the Alpine Convention). National parks generally have the highest legal protection status and are designated large-area nature reserves.

### Foundations

The legal foundations and guidelines for the development of Berchtesgaden National Park include the nature conservation laws of the Federal Government and the state of Bavaria, the National Park Ordinance, European guidelines such as the Habitats Directive and the EU Directive on the Conservation of Wild Birds, the obligations from the Alpine Convention, internationally valid IUCN Guidelines

and more specific agreements and/or obligations such as the Action Plan for Reserves in Europe, the requirements for the European Diploma for the Protection of Ecological Resources (extended 2005 – 2010) and the ARGE-ALP Resolution on the Formation and Management of Alpine National Parks.

### Target system

The overriding task of the target system of Berchtesgaden National Park is to protect nature in its natural dynamic while its process conservation concept incorporates local subgoals and duties relating to research, recreational use, the preservation of historical monuments, environmental education and communication.

### The characteristics of Alpine habitat

The temperature decreases as you go higher (1°C every 200 metres), as do moisture lev-

els despite heavier precipitation, the oxygen content of the air and the air pressure. The sun's rays (UV radiation) and the strength of the winds increase as you go higher. The adaptation strategies of Alpine flora are aligned with the short growing season (1 week's less growing per 100 m), long-lasting snow coverage and many frosty days. The adaptation strategies of the Alpine flora are controlled by the low temperatures, long-lasting snow coverage and the lack of nutrition.

### Biodiversity of Berchtesgaden National Park

Not every animal and plant species in the park has been identified yet. To date, the following animal species have been identified: 15 species of fish, 8 species of amphibians, 7 species of reptiles, approx. 100 species of breeding birds and 40 species of visiting birds, 55 species of mammals and ?? species of insects. Of the animal species which have been identified (across all groups), there are 113 species on Germany's and/or Bavaria's Red Lists. With regard to the plant species, 2000 species of fungi, 640 species of lichen, 400 species of moss and over 1000 species of vascular plants have been identified. Of the vascular plants, 108 species are protected and 69 are on Germany's and/or Bavaria's Red Lists. Of these, 20 species are near-threatened.

### Visitors to Berchtesgaden National Park

Berchtesgaden National Park gets approx. 1.5 million visitors each year. However, there are conflicting priorities between nature conservation and recreation as tourists and locals looking for recreation can have an adverse



Fig. 2. Alpine ibex (*Capra ibex*)

effect on natural resources. The conflict between recreation and nature conservation is an indispensable part of nature reserve management especially due to changing social conditions. In this context, the importance of natural landscapes for recreational activities is increasing in particular. In addition to this, different recreational activities need to be differentiated between as each place differing demands on the natural habitat depending on their form and are therefore associated with different effects. Furthermore, information about the spatial needs of the different activities is indispensable. Therefore, the individual activities have to be concretely localised within the landscape in order to be able to carry out a conflict analysis.

Visitors who come to Berchtesgaden NP are motivated by a desire to experience nature and the scenery (35%), for physical activity (30%), to go on excursions (19%) and to relax and recuperate (12%). 60% of visitors to Berchtesgaden NP stay four hours or more, 27% stay for up to four hours and just 1% stay less than one hour.

The activities of visitors to Berchtesgaden NP relate to experiencing nature and the scenery (72%), hiking (71%), photography (59%) and plant and animal observation (51% and 40% respectively). Active sports are named by 11% as their preferred activity. Therefore, sporting activities are not the prime motivation of most visitors. Nevertheless, there are strong links with sport and sporting leisure activities in certain areas.

For example: Experiencing nature from the air; hang gliding and golden eagles in Berchtesgaden National Park



Fig. 3. Visitors in the Wimbach Gorge

Hardly any other sports give you an experience as close to flying as hang gliding and paragliding. When these activities first took off, nature conservation groups feared they would have a negative impact on nature. Guidelines were worked out by Berchtesgaden National Park with the aid of the Allianz Environmental Foundation for the preventive protection of the golden eagle. What was new about the way in which the authorities at Berchtesgaden approached this is that cooperation with those involved in the sport was sought. The main objective of the project is captured in the motto „cooperation not confrontation“, i.e. cooperation between nature conservation and nature sports (and other user groups, e.g. helicopter clubs) was heavily prioritised by passing on data from sensitive areas (= current location of eyries) in order to prevent in advance any disturbances in these areas. Automated information systems were also installed (homepage with up-to-date information on sensitive areas and in-





Fig. 4. Group of children enjoying the garden in the information point Hintersee

formation boards at the cable car stations and the launch locations for hang gliders). These measures have quickly established themselves and are now being applied across the whole of Bavaria. Environmental education and PR work have been another key aspect of this project.

Example: (winter-time) recreational use with potential effects on grouse (wood grouse, hazel grouse, black grouse and alpine ptarmigan):

The main activities in Berchtesgaden National Park in relation to this are ski mountaineering with the following characteristics:

- Ascent and descent over a wide area ("startling")
- Main motive: Physical activity, to experience nature
- Spatial distribution: Base of the valley to the summit
- Temporal distribution: Nov – May (Feb – mid-April) after daybreak
- Conflicts: The grouse tend to be active in the mornings, mating season in spring
- Trend: Strong growth

and snowshoeing with the characteristics:

- Easy to learn, over a wide area, away from

paths/routes

- Main motive: To be alone, to experience nature without infrastructure
- Spatial distribution: Less steep areas, below the timber line
- Temporal distribution: Jan – March, morning – late afternoon
- Conflicts: Long day with encroachment on habitats, mating season in spring
- Trend: Strong growth, moonlight tours, alternatives relating to a lack of snow, non-skiers

In Bavaria and specifically in Berchtesgaden National Park, two large projects have been implemented in relation to this: the "Wild Animals and Mountain Skiing" investigation sponsored by the Bavarian Ministry for the Environment and the "Environmentally-Friendly Ski Mountaineering" project of the German Alpine Association (DAV). The joint guidelines, topics and goals have set as priorities ecological compatibility, maintaining the possibilities of sporting use, the intensive involvement of public authorities and associations and the principle of the right to choose freely. These go hand-in-hand with checking the success and optimisation of the measures and agreements as well as intensive information and PR work.

### Basic evaluation and visitor management

Apart from collecting data on those looking for recreation and their leisure activities, their actions, the spatial and temporal usage patterns and their behaviour as it affects the management of a nature reserve with the objective of protecting nature, the data which is collected also has to be managed, analysed and processed accordingly, made accessible and presented.

To carry out basic evaluation for concrete action, the following are important:

- Linking information;
- Forming awareness;
- Being aware of interrelationships;
- Recognising long-term developments and trends;
- Knowing partners/strengthening cooperation;
- Identifying potential areas of conflict or development.

Visitor management can be derived from this, with measures for influencing visitors in relation to their spatial and quantitative distribution and their behaviour.

This should keep activities away from sensitive areas or should attempt to channel or guide these towards less sensitive areas. The instruments can be “hard” ones such as control (direct measures) and/or compulsory measures (legal restrictions, commands and embargoes) or „soft“ ones such as good communication. Instruments such as tours, information signs, guided excursions, nature trails, brochures, maps, guides, etc. can be used.

## Conclusion

Every management should know:

- What are the different forms of summer and winter activities?
- How many people carry out which activities?
- Where do the individual activities take place?
- Which infrastructure is essential for carrying out the individual activities?
- Which infrastructure is available to man-

agement in relation to guiding/managing visitors?

- Which infrastructure is actually relevant for nature or landscape-dependent recreational use?
- How many visitors use the infrastructure?
- Is the infrastructural equipment suitable for the number of visitors?
- Who is responsible for maintaining/repairing the individual infrastructural elements?
- Which institutions support/advertise the various forms of summer and winter activities?
- Which organisations have visitor numbers?
- Which organisations/infrastructures located outside of the nature reserve are relevant?

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**Ulrike Pröbstl, Prof. Dr.**

Head of the Institute of Landscape  
Development, Recreation and Conservation  
Planning

University of Natural Resources and Applied  
Life Sciences, Vienna  
Peter-Jordan-Straße 82, A-1190 Vienna

<http://ifl.boku.ac.at>



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**Brief biography**

Prof. Dr. Ulrike Pröbstl graduated with an engineering degree from the Technical University of Munich in 1984. She then did her doctorate (Dr. rer. silv.) in the Forestry Faculty of the Ludwig Maximilian University in Munich. She completed her postdoctoral qualification in 2000 at the Technical University of Munich. Ulrike Pröbstl has been running the private planning firm AGL since 1988. Her professional work has focused in particular on the areas of leisure and recreation as well as nature conservation, regional development and landscape planning. She has been a member of the Bavarian Chamber of Architects since 1990.

During her career, she has succeeded in combining scientific and private enterprise paths. She was appointed to the University of Natural Resources and Applied Life Sciences in Vienna in 2003, occupying the newly created position of Professor for Landscape Development. Her current research topics in the area of tourism include: conflict solution in nature conservation, climate change and tourism, the Natura 2000 sport and tourism area of conflict, GPS use for leisure and tourism and the requirements of an aging society. Besides numerous memberships of professional and scientific organisations (including IUFRO, IASNR), Ms. Pröbstl is also engaged in the promotion of women in science and in integrative nature conservation. She is a member of the chief nature conservation committee of the Bavarian State Ministry for Land Development and Environmental Affairs, the Steering Committee of the Bavarian Academy for Nature Conservation and Landscape Management, the environment committee of the German Ski Association and other groups.



## Ulrike Pröbstl and Petra Sterl

### **Natura 2000: Integrating sport and tourism into management planning**

#### **1. Introduction**

The idea behind “Natura 2000” is a fascinating one – a network of life within Europe, without heed to national borders. The aim of Natura 2000, the European network of nature reserves within the framework of the Habitats Directive and the Birds Directive (European Commission 1992 and 1979), is to preserve the rich natural heritage of the European Community for ourselves and future generations.

By networking valuable habitats, it is hoped that the steady decline in many species can be reversed. Since the 1980s, as researchers began to increasingly focus on the effects of tourism and recreational use, it has been clear that these activities are also contributing significantly to species decline in Germany. Korneck and Sukopp (1988) consider tourism and recreation the third most important cause of species decline, after agriculture, forestry and hunting. The mountainous and coastal regions that are of particular value for tourism also have especially valuable areas which are protected by Natura 2000, the European concept of natural heritage preservation. The effects are becoming ever more visible in many mountainous regions in particular, such as the Black Forest and the Alps. The sensitive habitat in the Alps has to cope with around 120 million visitors each year.

As a result, many member states of the European Union are questioning how these valuable areas, the Natura 2000 regions, can

be protected and which measures or even restrictions may be needed in order to maintain or improve their quality.

A so-called cultivation or management plan (European Commission 2005) is one suitable instrument. The Habitats Directive does not stipulate that such a plan must be put in place, but it is always useful when different usages must be regulated and coordinated with one another. This applies to most Natura 2000 regions.

#### **2. The Management Plan for Natura 2000 Regions**

Besides suggesting the maintenance and development measures which are needed, the management plan also indicates possible usage limitations and deals with existing strains and adverse effects. As a result, restrictions on sport and tourism can also be considered and represented in the management plan.

Some of the most important components of the management plan are:

- A description of the region, including earlier forms of usage of the land if applicable,
- Surveying and evaluation of the current situation,
- Definition of protection goals and impediments which might prevent these goals from being achieved,
- Compilation of conservation and development measures,

- Costing,
- Suggestions on monitoring and results checking.

In relation to this, it should be emphasised that the European Commission, as expressed in the orientation guides to Natura 2000 regional management, intended that the management plans be drawn up in cooperation with all local actors and interest groups. Therefore, the management plans should be formulated such that they can be generally understood, that the interests of those who want to use the areas are taken into account and that the costs of any planned measures are specified. The significant tasks in the planning process, including participation, are shown in the following illustration (Fig. 1).

The explanation below on the importance, role and good practical examples of management planning relates to the three important blocks of tasks: stocktaking and evaluation, the development of suitable measures and participation taking socio-economic interdependencies into account. The possible roles of sport and tourism are also explained and discussed.

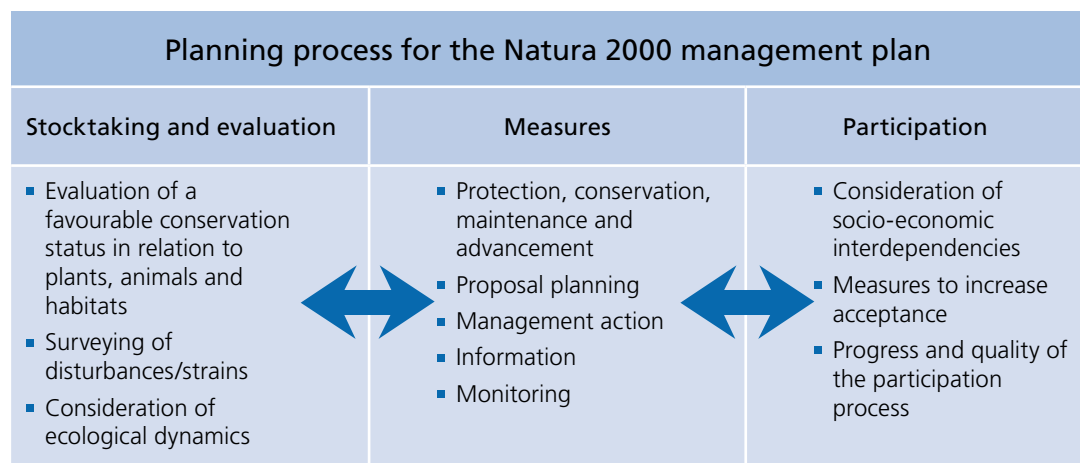
## 2.1 On the importance of stocktaking and evaluation

Planning is always structured on stock-taking and evaluation. The same applies to management planning. Misjudgements and therefore unnecessary restrictions on recreational use or on what is on offer in terms of tourism and sports can arise if a differentiated analysis of the cause-effect relationships between the activities and the protected species or habitats has not been carried out. This can be very clearly shown in two examples from top-class nature reserves.

*Case Study of Karwendelgrube: Natura 2000 region and Karwendelgebirge nature reserve (German alpine region).*

Both the vegetation and snow grouse found in a sub-area of the Karwendelgrube adjoining a cable car building were to be protected. Because of this, an order forbidding access to the area of the depression (the "Grube") was issued. Children in particular did not like heeding this as the area is a good one for sliding down into the depression. Even at the end of winter when all the snow is already gone from the lower levels, there is still always a lot of it to be found in the Karwendelgrube area due to avalanche activity.

Fig. 1. Components of the planning process for Natura 2000 management plans



The mountain railway tried to “legalise” these snow activities for its visitors. This resulted in a long-running dispute of many years which only ended when the findings from a differentiated mapping were produced showing the areas where the snow grouse spend the winters and summers (see Zeitler 2002).

According to this study, the winter activities were not causing any problems due to the way in which the snow grouse are using the habitat and care simply has to be taken in summer to avoid there being frequent visitors to the depression. In this case, only minimal visitor management measures are needed (an information board in the summer) as the area is rarely frequented at that time of year anyway.

*Case study: Riding in the De Hoge Veluwe Natura 2000 region (national park in the Netherlands)*

The De Hoge Veluwe National Park in the Netherlands is one of the country's oldest. The park is the habitat of numerous endangered species and has been listed as a special protection area under the Habitats Directive and the Birds Directive. What is special about the region is its management of equestrian sports. Since May 2006, following a differentiated stocktaking and evaluation of all of the ecological interdependencies, horse-riding has been allowed throughout the national park and not just on the 45 kilometres of indicated bridle paths. Only the bridle paths in the more heavily visited areas are maintained.

The reason for this is the detailed ecological stocktaking carried out in the area which looked at the interdependencies of the equestrian sports. Most riders use the indicated paths. Only a few riders who are more

familiar with the area leave the bridle paths and ride across the protected areas. This extensive use and marginal disruption to the topsoil has a number of positive natural consequences. The small holes left by the hooves partially release sandy soil. This mosaic is the ideal habitat for rare species of grasshoppers. Therefore, the riders are contributing to maintaining the habitat for the endangered grasshoppers found in sandy areas. The stocktaking has led to other positive effects. Plant seeds grow better along the edges of the paths. Young juniper plants in particular can be found along the bridle paths.

The consequences of these findings have been discussed with the riders. This concept will be maintained as long as the riders continue to comply with the required behaviour (see also <http://www.hogeveluwe.nl>).

## **2.2 Requirements with respect to stocktaking and evaluation**

These two case studies underline the importance of carrying out a stocktaking which relates to the object of protection and which also looks at the interdependencies between the sports and the object of protection in a differentiated form.

Therefore, before discussing prohibitions on recreation, sport or tourism in management plans, the individual cases need to be analysed accordingly. However, creating a differentiated stocktaking is not only indispensable in terms of adequately protecting habitats and species but also – as the following examples show – when proposals and/or management action need to be drawn up and implemented in view of people looking for recreation and tourists. In areas with protected species and/or habitats where customised

planning for people looking for recreation, sportspeople and tourists needs to be drawn up, the following information is indispensable for the management planning (see Fig. 2).

Figure 2 clearly shows that the information which is needed to develop measures for countering disturbances and strains on species and habitats and the information which is indispensable in order to draw up a plan that is in the interests of those looking for recreation and of tourists is frequently identical. Coordinated and cooperative gathering of this data benefits both objectives. Unfortunately, these synergy effects and fundamentals for efficient management measures are rarely availed of.

In this context, we should address how the data mentioned above regarding the distribution, number, activities and motives of visitors

can be acquired and what effort is required to do so. The following illustration clearly shows that there are basically many different sources of information which can lead to the same results in certain circumstances. A number of sources are shown for example purposes in Figure 3. In each individual case, combining data, e.g. counts and aerial photographs, or the use of existing tourism data such as entrance tickets with surveys can help in the search for the crucial answers to the respective questions. Through creative and specific selection, the crucial information for management (e.g. visitor management for the protection of wild animals) can be derived from this in a cost-saving manner (see Fig. 3). However, the following example from the Ötztal region in Austria shows that the selection of methods can have a big influence on the evaluation and derivation of measures. A careless decision made for cost reasons can have wide-reaching consequences.

*Example of ski touring in the area of black grouse habitats at the Ötztal mountain in Austria.*

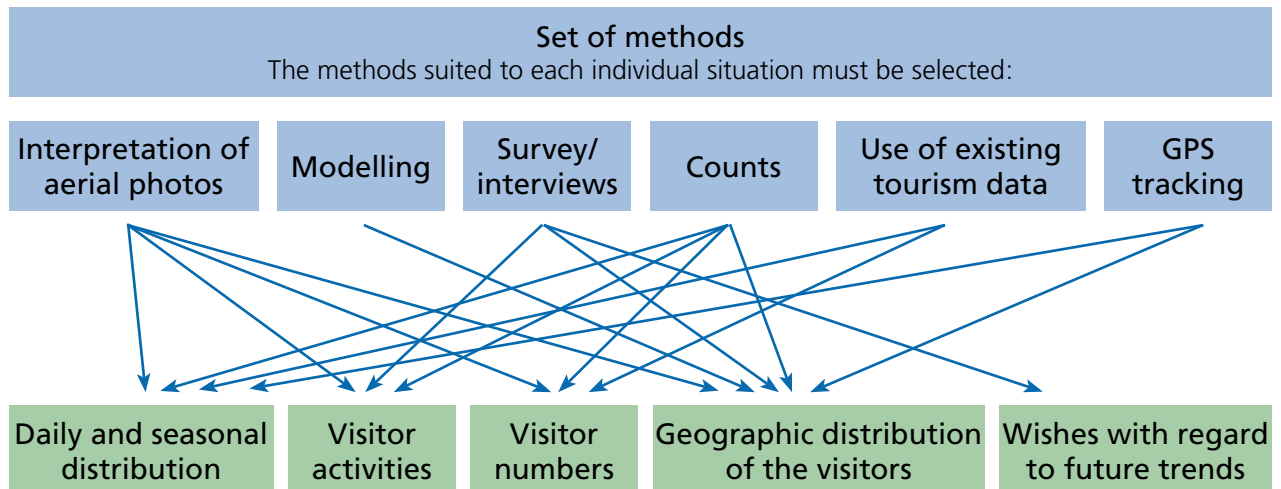
This investigation involved recording the intensity of tourist use of the Ötztal region in winter. Following an inspection of the area, conversations with those familiar with the locality (tourism office, ski personnel) and research in guides on ski touring and tourism brochures, it emerged that the conflict potential relating to the black grouse and ski tourists should be investigated and clarified within the context of the management plan and visitor management (see also Sterl et al. 2007).

Ski touring in the habitat of the black grouse can lead to significant disturbances. Black grouse are particularly at risk from human activities in winter while disruption in

Fig. 2. When carrying out management planning in recreational and tourist areas, information relating to visitors is often the same as information about the objects of protection.



Disturbances and strains affecting species and habitats	Interests of those looking for recreation and of tourists
Taking the example of disturbances <ul style="list-style-type: none"> <li>■ Damage to vegetation</li> <li>■ Affected species</li> <li>■ Number of visitors</li> <li>■ Daily and seasonal distribution</li> <li>■ Visitor distribution</li> <li>■ Visitor activities</li> </ul>	<ul style="list-style-type: none"> <li>■ Tourism significance of the region</li> <li>■ Tourism offers, services and infrastructure</li> <li>■ Visitor numbers</li> <li>■ Visitor distribution (crowding)</li> <li>■ Visitor activities (attractiveness)</li> <li>■ Future trends...</li> </ul>



summer and autumn is considered less serious (Menoni and Magnani 1998). Several studies have shown that winter sports can play a major role in the decline in local populations (Meile 1982, Miquet 1988, Miquet 1990, Zeitler 2000). Skiers, ski tourers and, increasingly in previous years, snowshoers are using the winter habitats of the black grouse (Menoni and Magnani 1998), while attractive locations for winter sports enthusiasts, such as crests, ridges and levels, are also often traditional mating locations for the black grouse. Due to the limited and low-energy nutrition available in winter, flights requiring a lot of energy can have a significant impact. Besides the competition for space, the temporal competition between winter sport enthusiasts and the black grouse also plays a significant role. Evening activities, with headlamps in some cases, have increased so that the times of the day when the black grouse can eat without being disturbed have been getting even shorter (Zeitler 2006). In this context, Zeitler (2006) also points out that isolated disturbances which can be compensated for should be assessed differently to regular disturbances.

When selecting the methods for collecting data, it was possible to rule out some methods right from the beginning. Field observations were out of the question due to the layout, the steepness of the terrain, the lack of infrastructure and the weather. As there wasn't any way to mount a video camera in a suitable location in the area being investigated, video observations were not possible either. Neither were turnstiles or pressure mats suitable for recording ski tourers. The following four methods were used at the Ötscher mountain to determine the temporal/spatial distribution of visitors and to thereby arrive at conclusions on possible influences on the evaluation of sporting activities in relation to the habitats:

- Counting visitor numbers
- Route surveying
- Carrying out aerial surveys of the region
- Recording routes by means of GPS devices

## Counting visitor numbers

An advantage when counting visitor numbers was that there are only a few areas where the ski tourers can set off from and so it was

Fig. 3. By selectively combining methods, it is usually possible to end up with the information needed for the management plan.

possible to record all of the ski tourers with just two monitoring stations. From this, it was possible to obtain information on the overall number of visitors and the distribution of visitor densities at different times of the day, however it was not possible to discern from this where the visitors went within the area of investigation.

### **Carrying out aerial surveys of the region**

By using aerial photos, it was possible to record the spatial distribution of visitors. The photos showed the spatial distribution of sportspeople at the time they were taken. The advantage of seeing a picture at just a particular point in time is that you can simultaneously and quickly take into consideration large areas of investigation.

### **Route surveying**

Surveys with a card in which the selected ski tour could be marked were handed out to the sportspeople. Other information regarding regular behaviour and preferred usage was also surveyed. Those surveyed were thereby able to mark typical routes that had already been entered on the card or mark out their own route on it. The results from this indicated the spatial distribution and seasonal use of the area. There was great willingness at the Ötztal mountain to take part in this survey.

### **Recording routes by means of GPS devices**

In order to record routes, GPS devices were given out to the sportspeople when they set off and collected again at the end. Using the GPS devices, information on the spatial distribution of visitors can be acquired. The data is also valuable in terms of the information it can provide about times as the position

of the visitor with the GPS device is permanently indicated. It was also possible to draw conclusions on the behaviour of visitors (e.g. rest stops) from recording this information. Besides the willingness of visitors to take the device with them, the weather also played a significant role in collecting the data. There weren't any problems in relation to shielding from vegetation or steep passages (Heine et al. 2004).

The results of these different collection methods are compared below. The core habitat of the black grouse is delimited in light grey in each of the map sections. The dark lines show the respective findings on the distribution of the ski tourers. The results show that the risk to the black grouse habitat can be misjudged due to the various methods and a sufficient conservation status might be assumed. The GPS tracking in particular gives a good indication of the size of the area which is subject to disturbance. Therefore, appropriate management planning must select the "right" method in relation to both the wild animals and the user groups. In contrast to this, when analysing recreational use by bathers in the area of the chain of lakes between Ruppolding and Reit im Winkel, aerial surveying actually proved a very suitable method.

## **2.3 Adapted measures and management concepts**

Besides the survey methodology, other criteria are also necessary for adapted management planning. As shown in Fig. 7, these not only include giving appropriate consideration to the sensitivity of a species (e.g. black grouse faced with disturbances from off-piste skiers in the winter) and the usage intensity which arises from the number of visitors and



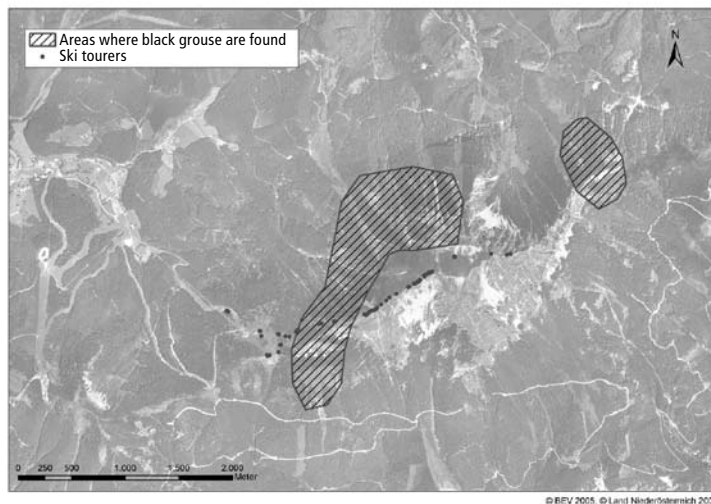


Fig. 4. Ski tourers in the area with black grouse (aerial photo evaluation) (Sterl et al. 2007)

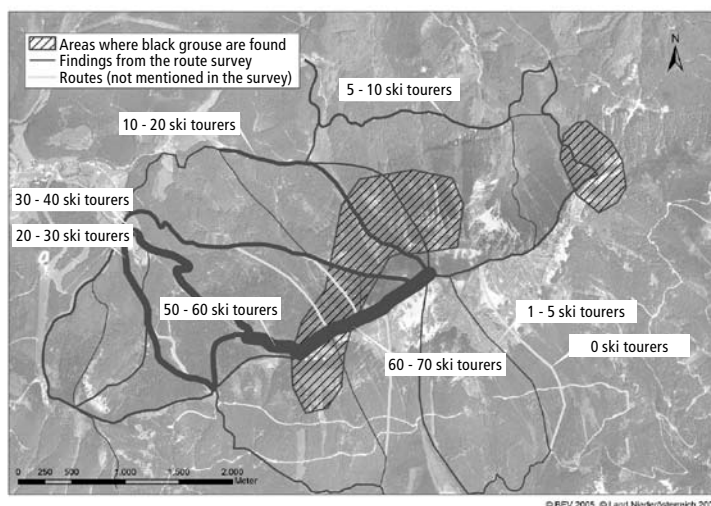


Fig. 5. Ski tourers in the area with black grouse (route survey) (Sterl et al. 2007)

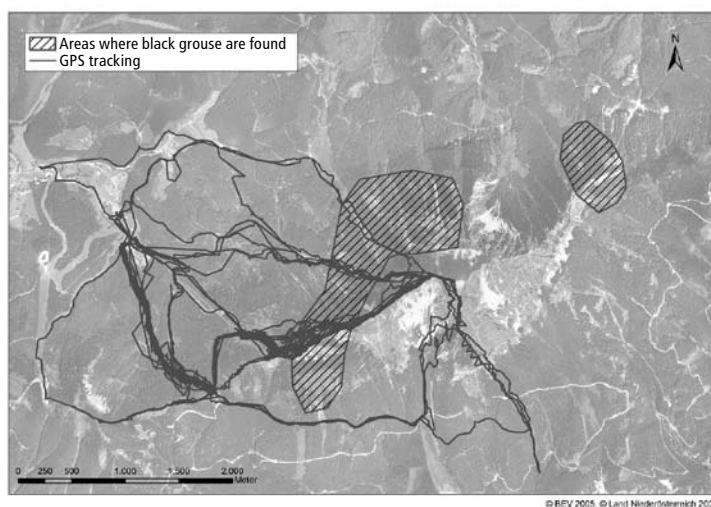
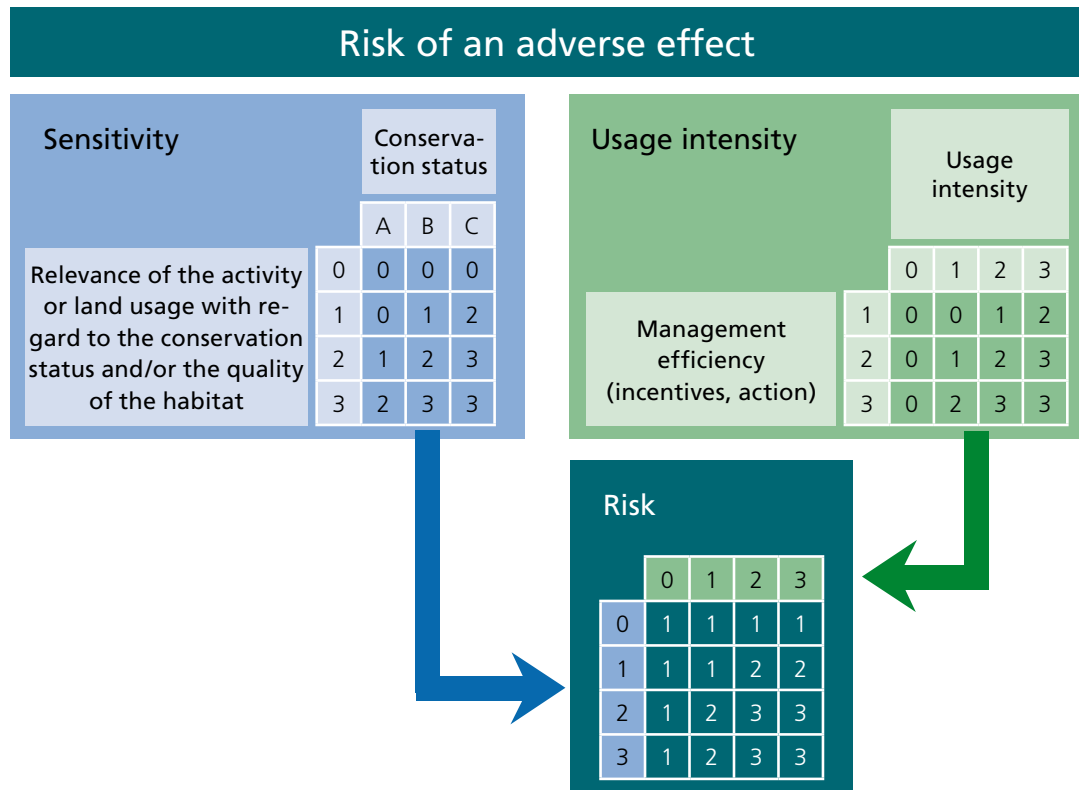


Fig. 6. Ski tourers in the area with black grouse (GPS tracking) (Sterl et al. 2007)

Fig. 7. Risk analysis as the basis for adapted management planning



the efficiency of the management, such as the visitor management. When skiers are effectively managed, the risk to wild animals is reduced.

#### *Case study: Visitor management concepts for Oulanka National Park, Finland*

As the case study from Finland shows, adapting to the sensitivities of species does not necessarily have to have negative effects on tourism. There are valuable and very sensitive habitats and species in the national park in the very diverse landscape north of Kuusamo. To protect the rare species, a visitor can only enter the park with a professional guide. The tourism activities in the park are carried out by certified tour vendors. From the visitor's point of view, the high quality of the tours and zoning measures give them a special tourism product, while an economic contribu-

tion is also being made to the region through the local guided tours (see also <http://www.panparks.org/Network/OurParks/Oulanka>).

### 3. Summary and requirements for successful cooperation

Management planning creates the conditions for appropriately estimating interdependencies and correctly assessing possible risk. At the same time, management planning can also create the conditions for new products and co-operations. Besides compatible tourism offers and activities, this also includes a sustainable concept for sport and tourism in Natura 2000 regions. This presupposes the following:

- Provide information – particularly in relation to professionals in tourism – so that a



- common discussion level can be achieved,
- high-quality stocktaking which looks at more than just the nature and species protection issues,
- cooperative round-table management planning, and
- the development of measures which promote win-win solutions.

Various examples from Europe published in the new Natura 2000 brochure on sport and tourism ("Natura 2000 Sport und Tourismus", Pröbstl et. al. 2008) illustrate that cooperative solutions and a positive effect on the regional economy are possible under these conditions.

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**Neil McCarthy**

General Manager Parks and Marine  
Parks Victoria

Parks Victoria  
Level 10, 535 Bourke Street  
Melbourne Vic 3000

<http://www.parkweb.vic.gov.au>



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**Brief biography**

After completing his Bachelor degree in Forestry, Neil McCarthy acquired a Master in Business Administration. He also successfully completed one of Australia's most respected leadership programmes in 1999, the "Leadership Victoria Programme". He has been working in the area of natural resource management for 25 years, such as in forestry (where he acquired professional experience in Japan, for example), in park management and in nature conservation. Neil McCarthy played a leading role in the establishment of Parks Victoria and Melbourne Parks and Waterways. He was significantly responsible for the introduction of a strategic management approach to the Australian park industry. Neil McCarthy has been the Curator at the Centre for Economic Development of Australia for ten years. He managed the foundation of the Parks Forum, the umbrella organisation of Australian and New Zealand park administrations and is currently its chairman. Neil McCarthy is also a member of the IUCN World Commission on Protected Areas (WCPA).

## Neil McCarthy

### Healthy Parks Healthy People

### A new direction in park management

#### Introduction

Parks have an important function globally and nationally to protect biodiversity, cultural heritage and provide opportunities for visitors to enjoy and appreciate natural and cultural landscapes. Victoria's parks protect large areas of spectacular landscapes, support abundant native flora and fauna and provide clean water and fresh air. They enable connection to Country for Indigenous people, provide links to Victoria's post-settlement heritage, offer spectacular settings for people to enjoy the outdoors and contribute to the state's social and economic well-being.

Parks are loved by just about everybody, which is in itself a measure of their inherent value to people. Yet, we often overlook the extensive benefits we derive from them. Apart from the obvious benefits of open space for physical activity, parks are sanctuaries from urban pressures, places for people to connect and havens for children to explore the wonders of the natural world. Parks help provide us with a sense of place, cultural identity and spiritual nourishment. We experience a greater sense of health and well-being, of connection and meaning when immersed in the living systems that sustain us. Parks Victoria has a clear role to play enabling people to experience the health benefits associated with our precious natural environment.

Like many natural resource management agencies around the world, Parks Victoria also needs to remain relevant to communities and

governments in the midst of many other important considerations. Issues affecting education, health, security, transport, energy, and water, among others, can overshadow parks when legislators are considering environmental priorities. However, there is no need to exclude one priority at the expense of another. Increasingly governments are encouraging more holistic strategies that foster partnerships between sectors and which involve collaborations that realign common interests.

In line with this more symbiotic approach to service delivery, Parks Victoria is repositioning itself as a provider of services with deep societal benefits rather than a custodian of natural values alone. We are reshaping the role of parks in the community and their value to society. This paper provides a synopsis of Parks Victoria, highlighting the benefits of parks, the role of the organisation and an outline of this burgeoning transformation.

#### What does a Park provide?

When parks were first introduced around the beginning of the nineteenth century, it was hoped that they would reduce disease, crime, and social unrest as well as providing "green lungs" for the city and areas for recreation and revival. These assumptions were used as a justification for providing parks and other natural sanctuaries in cities, and preserving wilderness areas outside of cities for public use. Today those early assumptions have been verified by research and experience, and

current park management is progressively adjusting to its role in contributing to an array of such outcomes.

The primary role of the parks network is the conservation and management of natural values. Natural values relate to the ecological and geological assets within parks, and encompass diverse flora and fauna including many threatened and endemic species, communities and ecosystems. The state of these values varies, ranging from ancient, pristine wilderness to parks whose natural ecosystems have been greatly modified by previous land uses.

Parks provide many other benefits beyond the fundamental conservation role however. In the last twenty years, governments have recognised that parks and open space contribute greatly to a society's economic capital. In Australia, the nature-based tourism industry is worth over a billion dollars annually and many parks such as the internationally renowned Phillip Island Penguin Parade contribute as much as one hundred million dollars a year to Australia's economy.

Further, and perhaps more importantly, parks contribute to social capital. Social capital is a relatively new and nebulous concept, but an important one. Social capital refers to the links between people which facilitate networks, norms, trust and co-operation. Clearly, using this definition, parks play a significant role in establishing and maintaining social capital by providing attractive settings conducive to a great range of social activities.

## **PLANTS, WILDLIFE AND LANDSCAPES** – protecting biodiversity

The natural values that parks provide have both intrinsic importance, that is, importance in themselves apart from the presence or needs of people, and instrumental importance, meaning that they are of direct or indirect benefit to people.

Parks in all forms help protect our natural resources, water, soils, rocks, landscapes, caves, the irreplaceable biodiversity of the unique indigenous flora and fauna (terrestrial and aquatic), as well as introduced species in ornamental and historic plantings.

Australia's parks are of immense intrinsic, cultural and aesthetic importance. In a world of rapid development and population growth and consequent natural resource demand, an integrated approach is needed to address the impact of landscape and environmental fragmentation.

## **NATURE'S HIDDEN GIFTS PROVIDER** – ecosystem services

Parks have an underappreciated, yet vital role in providing ecosystem services, the natural processes and products that nature provides for free. These essential services include:

- the purification of air and water;
- detoxification and decomposition of wastes;
- regulation of climate;
- river flows and groundwater levels;
- prevention of soil erosion;
- regeneration of soil fertility;
- pollination services;

- pest insect control; and
- the production and maintenance of biodiversity.

Despite current concerns regarding climate change, the crucial role of vegetation (protected by parks) in storing carbon, providing heat sinks, releasing oxygen, helping to maintain rainfall and preventing ground water from rising, is taken for granted.

### **ECONOMIC GENERATOR**

#### **– financial outcomes**

Whilst parks themselves are often free to access, there are many ways in which they provide an economic benefit. National, regional and local economies gain from parks through the revenue and jobs generated through tourism. Tourism promotion relies heavily on park images as the ‘attractor’ for promoting a region.

Urban parks are of huge economic value to their respective communities and are often the feature of both local promotions to encourage tourism and lifestyle investment initiatives. In urban areas, residential property values for locations with a park proximity and views are invariably higher; a dynamic that is driven by demand.

Parks are also of great therapeutic value and thus economically important in terms of the preventative and remedial health services they provide. Future health care burdens are alleviated as a result of healthier populations, while existing problems are relieved through the resultant speed of recovery, lower prescription drug dependency and reduced nursing or carer time.

Ecoservices act on such a grand scale and with such complexity that they are irreplaceable. If these services were given an annual monetary value they would run into billions of dollars.

### **CONNECTIONS TO COUNTRY**

#### **– respecting traditional ownership**

Most of us can relate to a feeling of awe or inspiration at a fantastic view, a beautiful bird or tall mountain forest. At times these ‘places’ are considered to have a sense of spirituality. Many indigenous peoples think about this country and this landscape as the very heart of their culture. ‘Caring for country’ is the fabric of indigenous social, spiritual, economic and physical wellbeing and the basis of their lore.

Parks Victoria supports indigenous Victorians’ roles and rights. This includes acknowledgement of prior ownership, the importance of continuing cultural practices including harvesting and hunting, and sharing the benefits of the use of traditional resources. Many sites of importance to indigenous people are located within parks. There, they are not only protected but they also foster in visitors understanding and respect for Victoria’s traditional owners.

### **FEEL BLUE, TOUCH GREEN**

#### **– assisting mental well being**

Our relationship with nature is deeply intertwined with both the human conscious and subconscious mind. In recent years, there have been concerted attempts to empirically examine this relationship, especially in the dis-

ciplines of biology, ecology, psychology, and psychiatry. Many researchers have come to the conclusion that people depend on nature for psychological, emotional and spiritual needs. It was E. O. Wilson, the renowned American biologist who popularised the concept and term biophilia defining it as "the connections that human beings subconsciously seek and need with the rest of life". The benefits that can be gained from, interacting with nature continue to be investigated. Early findings have indicated that parks, through providing access to nature, play a vital role in human health and wellbeing.

When urban parks were first planned in the nineteenth century, there was a strong belief in the potential health advantages that would result from open space. It was believed that exposure to nature fostered psychological wellbeing and reduced the stresses associated with urban living, as well as promoting physical health. Research on the benefits of nature carried out over the last two decades has confirmed those original nineteenth century beliefs. Parks can foster psychological wellbeing, reduce stress, boost immunity, promote healing in psychiatric and other patients and is most likely essential for human development and long-term health and wellbeing.

## **GREEN GYMS**

### **– recreational settings**

Our sedentary lifestyle has led to increasing obesity. People who are obese suffer increased risk of high blood pressure, high blood cholesterol, congestive heart failure, stroke, gallstones, osteoarthritis some types of cancer (breast and prostate), female reproductive health, and bladder control problems

in addition they are at greater risk of psychological disorders like depression, eating disorders, poor body image and low self-esteem.

Parks provide the main outdoor venues for recreation and physical activity - formal and organised like sporting matches, as well as casual and informal like walking or bike riding. Then there are those parks that offer underground or water based experiences like caving, swimming, diving and canoeing.

Parks are also a focal place for childhood development through playground facilities, learning to ride a bike, fly a kite, and simply space to run around. The introduction of dog walking routes and off-lead areas in parks encourages exercise and contact with an animal which have further benefits of their own.

## **EMOTIONAL CONNECTION**

### **- inspiring our hearts and souls**

Parks are emotive – just try to close or change one and see the reaction – the normally silent majority will be there protesting! Imagine a world without parks.

We have favourite outdoor places that we love to visit and that sense of place attachment has a profound and personal effect for each one of us. It may be a place of exhilaration, escape or simply one that brings back memories. Whether we visit alone or as a group, parks can evoke inspiration, awe, enjoyment and fun.

## BONDING PLACES

### – connecting families and communities

Whether experienced as a visitor or volunteer, park activities contribute to social capital by providing spaces for social connectedness, family and friendship bonding, and a common sense of wellbeing.

Located in parks, sporting clubs and programs are not just providers of opportunities for physical exercise but, maybe more importantly, facilitate teambuilding, socialisation, friendships, community connectedness and civic pride.

Some of the more recent immigrants view and use parks in different ways according to their own particular heritage. Many come from a rural existence where the earth and land was important to both subsistence and culture. Only recently have park managers been pro-active in understanding these perceptions and in seeking to better assist their integration into local communities.

### NATUREWORKS – our outdoor class room

Parks are places where an individual can come in contact with the natural world, indigenous culture, our heritage and ecological and geological processes. Parks provide experiential learning for school and university education and research to assist our understanding and to reinforce the importance of protection – a further value of their very existence.

Subliminally and overtly parks also provide opportunities for awareness raising, learning and understanding. These may occur through

brochures and signage or simply casual observation. School groups use parks for environmental education, including rock-pool rambles on the coast. Research has shown that contact with nature improves cognitive functioning, so what better place to learn!

## About Parks Victoria

### Vision

An outstanding park and waterway system, protected and enhanced, for people, forever.

### Purpose

We exist to:

- conserve, protect and enhance environmental and cultural assets;
- responsibly meet the needs of our customers for quality information, services and experiences;
- provide excellence and innovation in park management; and
- contribute to the social and economic well-being of Victorians.

### Who are we?

Parks Victoria was established in December 1996 and is a statutory authority that reports to the Minister for Environment and Climate Change. Parks Victoria's Charter is to manage parks and other assets on behalf of the State.

Parks Victoria comprises of an Independent Board responsible for the governance and oversight of the organisation on behalf of the Minister. The Board has ultimate responsibility for the governance of Parks Victoria and

determines the strategies and policies to be adopted. It delegates day-to-day responsibility for operations and administration to the Parks Victoria executive team, which works closely with the Board. The Parks Victoria's executive team consists of a Chief Executive, Deputy Chief Executive and four general Managers.

Parks Victoria's annual turnover is 160 million Australian dollars. It is a diverse, decentralised agency with more than 1,000 employees located at 120 work centres in five regions throughout Victoria. Approximately 70 per cent of the staff are professionals with formal qualifications in park and reserve management, environmental management and recreation. This highly skilled and experienced team includes specialists in business systems, financial management, planning and marketing, and over 400 rangers based in parks, bays, and waterways.

### What we manage

Parks Victoria is the custodian of a diverse estate of significant parks in Victoria, and is also responsible for the recreational management of Port Phillip Bay, Western Port and the Yarra and Maribyrnong rivers. The park estate comprises:

- 40 national parks
- 13 marine national parks
- 11 marine sanctuaries
- 3 wilderness parks
- 27 state parks
- 31 metropolitan parks
- 61 other parks (including regional and reservoir parks)
- 2,789 natural features reserves and conservation reserves
- 8,400 Aboriginal Affairs Victoria registered Indigenous cultural heritage sites/places
- 2,500 (non-Indigenous) historic places
- 3.96 million hectares (17% of Victoria) – total area of parks and reserves

### CARING FOR THE NATURAL ENVIRONMENT

The parks network protects representative examples of the largest and most undisturbed ecosystems in Victoria as well as a wide range of significant flora, fauna and remnant vegetation within more developed agricultural and urban landscapes.

Victoria's parks contain:

- examples of 93% of the state's recorded native flora species;
- examples of 86% of its recorded native fauna species;
- 31 of the 35 threatened vegetation communities;
- more than 50% of the area of Victoria's Ramsar-listed wetlands;
- 1,464 threatened flora species (88% of Victorian total);
- 280 threatened fauna species (89% of Victorian total);
- 32 threatened communities (89% of Victorian total);
- 115 reference areas (80% of Victorian total); and
- generate more than one-third of Victoria's water run-off.

In 2002, Parks Victoria took on responsibility for the management of Victoria's unique and diverse system of Marine National Parks and Marine Sanctuaries. The system includes



13 Marine National Parks and 11 Marine Sanctuaries that protect over 5% of Victoria's coastal waters.

## PROTECTING OUR CULTURAL HERITAGE

Parks Victoria manages the most extensive and diverse collection of cultural heritage places in the State. More than 7,800 Indigenous cultural places and 2,800 post settlement heritage assets have been recorded to date in Victorian parks. These sites evoke our past through images of Indigenous culture, early settlement, coastal shipping, colonial defence, mining, natural treasures and historic huts. Protecting our shared heritage enables us to learn from the past and help shape the future.

Places of significance to Indigenous people include evidence of dwellings such as rock shelters and stone hut foundations, artworks on rock surfaces, burial sites, scar trees, and quarries or surface scatters associated with the manufacture of tools.

More than 7,800 Indigenous cultural places have been recorded in just over two per cent of the total area of the parks network. This represents 31% of the total recorded in Victoria, including a large proportion (85%) of the state's known art sites.

As the Traditional Owners of Victoria, Indigenous people have a strong desire to care for their traditional lands. Traditional Owners have cultural and spiritual obligations and responsibilities to Country. For Victoria's Indigenous people, cultural heritage is fundamental to identity and relationships - to place, to kin and to the spiritual world. Through the

guidance of Elders, each new generation is provided with a deeper sense of responsibility, obligation and respect and belonging to family, community and Country. For Indigenous people, cultural heritage is the future, and when disconnected from it, people's health, well-being and cultural obligations can suffer.

Post settlement heritage assets in Victoria's parks include lighthouses, major building complexes, archaeological ruins, gardens, huts and shipwrecks. More than 2,800 historic cultural assets are recorded in 374 Victorian parks. The majority of these occur in terrestrial National Parks (58%) and are highly variable, ranging from archaeological ruins to gardens, large homes and shipwrecks.

## ENHANCING THE VISITOR EXPERIENCE

Victoria's parks provide a vast array of recreational settings for visitors, from social gatherings in urban parks to overnight hikes in wild and remote places. Parks Victoria is the major provider of nature based tourism in Victoria. There were 76.1 million visits to the Parks Victoria estate in 2006-07. The vast majority of parks are accessible, with only Reference Areas and some water catchments unavailable for public access. Parks provide 1,400 sites with visitor facilities and 3,700 kilometres of walking tracks. Of the 14,000 kilometres of roads in parks, 8,900 kilometres is available for public vehicle access and most are also available for other recreational activities.

More than 40,000 people participated in ranger-led interpretive programs in 2006-07. Comprehensive education programs for children are also on hand to help them under-

stand the environment they live in as well as their cultural history. Parks Victoria encourages Victorians to take an active role in the management of parks and reserves through our community participation and volunteer programs.

### **CONTRIBUTING TO THE VICTORIAN ECONOMY**

Victoria's parks bring measurable, direct and flow-on economic benefits to local, regional, state and national economies. They underpin the daily functioning and prosperity of many regional communities as well as deliver direct and indirect benefits to the tourism, education, health, transport, sport and recreation industries. Three of Victoria's national parks (Grampians, Port Campbell and Wilsons Promontory) alone contribute \$487 million annually to the state's economy.

Parks cost money to manage, but this money generates a significant economic benefit. Ultimately, there is a greater return to the community than the original amount invested. For example, a \$2.6 million investment in park management services within the Grampians National Park contributes \$246 million annually to Victoria's economy, largely through tourism activities.

### **PROVIDING SOCIAL AND HEALTH BENEFITS**

The enjoyment visitors gain from activities available in Victorian parks is just the beginning of what they offer. Research conducted around the world has shown that contact with nature has significant health benefits

and can lead to a more cohesive and healthy society.

Parks are particularly important for providing this contact with nature in Victoria because in some cases it may be the only opportunity for some people to have this experience, particularly for those living in urban areas. Visiting a park, finding peace and solitude, spending time with others, interacting with and caring for nature, being physically active and learning about the environment and cultural identity can bring significant health benefits to individuals and have a positive social impact.

While the economic and environmental value of parks can be quantified, parks also contribute to physical and mental health by protecting biodiversity and ecosystem services such as water and clean air, as well as supporting recreational, tourism and employment opportunities.

Research, initially commissioned by Parks Victoria and expanded by Parks Forum, underlined the importance of nature to human health and well-being. Although the evidence produced by this literature review was not new, for the first time it consolidated international research and presented findings based on the overall weight of evidence, particularly in regard to cardiovascular disease and mental health. It shows that individuals who are active and feel connected to others and to their community are healthier in body, mind and spirit.

Recognising the strong links between parks and social benefits, Parks Victoria was involved in establishing the People and Parks Foundation to encourage community involve-

ment in parks. Example projects managed by the foundation have included the Sea Search community monitoring program, the Feel Blue Touch Green initiative to support mental health and the Green Connections program to encourage landscape scale revegetation projects.

### **Healthy Parks Healthy People**

#### **A new direction in park management**

Parks Victoria's Healthy Parks, Healthy People philosophy seeks to reinforce and encourage the connection between a healthy environment and a healthy society, particularly as more people are now living in urban-dominated environments and have less regular contact with nature.

Parks Victoria is identifying how parks and the natural environment can contribute to broader societal goals. To achieve this, collaboration is required with non-traditional partners, such as those within the health and community sectors. Together, we hope to forge a new role for parks as a provider of fundamental societal benefits rather than a custodian of natural values alone.

However, this kind of collaboration does not just happen; a shift in deep-seated, fragmented ways of understanding parks is required across a whole range of sectors. Political support, champions, leadership, research and public awareness campaigns are all necessary to shift into a new park management paradigm.

Beginning as a promotional campaign to highlight the connections between a healthy environment and a healthy community,

Healthy Parks Healthy People has evolved into a new park management paradigm supported by many of Australia's leading park and health organisations. The key elements are outlined below.

### **GETTING VICTORIANS ENGAGED AND CONNECTED**

It recognised that, while support for the principle of land being set aside for parks is widespread in Western societies, the rhetoric is not always realised in practice when competing with commercial interests. The importance of parks is only top-of-mind when the integrity of a well-known park is threatened. So another challenge for Parks Victoria, as for many park agencies, is how to heighten people's sense of the value of parks.

Almost everyone's physical and mental well-being can be improved by visiting a park. To encourage Victorians to visit parks, to inspire them to play a role in their care, and to provide „healthy“ places for body, mind, and spirit, Parks Victoria developed a comprehensive integrated communications program.

The first challenge was to develop a genuine and effective positioning in line with Parks Victoria's core values. The positioning needed to trigger a perception in the minds of the public of an organisation that exemplified the qualities and attributes of custodianship, environmental protection, and a contribution to a civil society. The clear and simple slogan „Healthy Parks, Healthy People“ was developed, implying that the environmental health of parks results in a healthy community and that spending active recreation time in a well cared-for park environment can lead to great-

er health and fitness of both individuals and society.

Broad-based awareness was generated through an eight-week radio and print promotion program, with activities supported by editorials in the national press. A festival showcased state-wide park and recreational opportunities and displays from community and recreational groups celebrating the benefits of outdoor recreation.

Parks Victoria 'Healthy Parks Healthy People' television advertisements aired for two weeks in April 2006 on metropolitan channels 7, 9, 10 and SBS, and on regional television, Prime, WIN, and Southern Cross. The campaign was very well received by the general community, staff and stakeholders. Enquiries to the Parks Victoria Information Centre and website traffic increased during the period of the campaign. Copies of the free colour 'Guide to Victoria's Park Reserves & Waterways' were mailed out to callers.

Further, a partnership was established with a national television program „Postcards,“ which features an actual park ranger as a presenter and highlights park venues and visitor opportunities. Each segment is tagged with the „Healthy Parks, Healthy People“ message and the Parks Victoria's telephone information centre number. The series was so successful it was placed in the popular time slot of 7.30 p.m. Saturday, and has received even higher ratings. Later, this courtship with television evolved into a partnership with 'Coxy's Big Break', a similarly high rating program.

Advancing the Healthy Parks Healthy People agenda also involved developing partnerships with several peak health bodies.

These alliances gave extra credibility to the campaign by legitimising the links between a healthy park system and a healthy society. Support was sought and obtained from the Royal Australian College of General Practitioners, Asthma Victoria, the National Heart Foundation, and Arthritis Victoria.

## **LEADERSHIP AND BUILDING STRATEGIC ALLIANCES**

Parks Victoria has developed a 'can do' leadership style that has enabled the organisation to respond quickly to emergencies such as the recent wildfires that raged across the state, while also developing innovative solutions to more chronic problems. All senior managers participate in leadership development programs internally and externally and the majority of its executive managers complete the innovative, year-long leadership program conducted by Leadership Victoria.

This investment in leadership has resulted in a more proactive and collaborative approach to common park management challenges and the development of several innovative initiatives.

### **Sporting shooters - unlikely allies**

In 2003 Parks Victoria established a partnership with the Sporting Shooters Association of Australia (Victoria) to trial feral goat control in the Murray-Sunset National Park. As part of the agreement, association members completed an accreditation course to ensure good marksmanship, safety and environmental awareness. A Memorandum of Cooperation was signed in 2005 between Parks Victoria and the association to continue the feral goat program and expand it to in-

clude feral pigs and other parks. The program has been successful in reducing the feral goat population in Murray-Sunset National Park and is a model for other cooperative feral animal control programs and is being adopted elsewhere in Australia.

### **Connecting bicycle trails**

Parks Victoria has continued to work with key partners and stakeholders including local government, VicRoads and Bicycle Victoria in the delivery of the 'bike trails for a liveable city' initiative which promotes the construction of new trails in developing areas, improving the connection between existing trails, and linking communities to places of work, activity centres and Melbourne's park network.

### **Indigenous partnerships**

Parks Victoria worked in partnership with other Victorian Government agencies to promote Indigenous business opportunities and tourism and develop educational and interpretation materials at a number of locations. Parks Victoria also participated in whole-of-government mediation discussions for Native Title and non-Native Title outcomes. There are two formal partnerships in place: the Yorta Yorta Cooperative Management Agreement and Brambuk, with several others in process.

### **Indigenous employment**

The number of Indigenous staff employed by Parks Victoria has now reached 60, representing approximately 6% of Parks Victoria's workforce. Indigenous staff have worked in a variety of field-based, regional and corporate roles. Indigenous people were also engaged in casual, seasonal and contract positions as opportunities arose. Parks Victoria has set a short-term target of increasing Indigenous employment to 10% of its workforce.

### **Engaging with a diverse population**

Community programs which support people from Culturally & Linguistically Diverse backgrounds. Highlights include: development of a multilingual Park note translated into 33 languages, training for Parks Victoria Information Centre staff to increase their capacity to manage callers from non-English speaking backgrounds, including the use of interpreter services; provision of park information to the Welcome to Victoria Kit which is distributed annually to every new migrant child entering the education system; partnerships with the Victorian Multicultural Commission to promote events in parks; and a new Volunteer Bilingual Park Guides program commencing in partnership with Northern Melbourne Institute of TAFE, Merri Creek Management Committee, City of Whittlesea, Department for Victorian Communities (Office of Women's Policy) and Go For Your Life. The 11 graduating guides conduct tours in a second language including Turkish, Arabic, Spanish, Macedonian, Sudanese and Greek to newly arrived and culturally and linguistically diverse communities to assist them in understanding and appreciating their local open spaces, flora and fauna.

### **Ageing but active**

Parks Victoria supported the Victorian Seniors Festival, encouraging seniors to enjoy Victoria's parks and join in a range of healthy activities across the State.

### **People & Parks Foundation**

Through the People & Parks Foundation, over 100 disadvantaged young people were supported, in conjunction with the Variety Club, to be involved in camps which gave them an experience of nature. Further, over 500 volunteer hours were spent with the

Sea Search program which monitors Victoria's marine national parks and sanctuaries. Data from this program across 15 marine and coastal parks and reserves helps Parks Victoria to manage these areas.

### **Parks Forum**

Parks Victoria continued to contribute to the functioning of Parks Forum (the Australasian peak body representing park management organizations, established in April 2004) through representation on its Board (as Chair) and Standing Committees.

### **Walk 21**

Parks Victoria was a member of the organising committee for the 7th International Walk 21 conference, 23-25 October 2006, in Melbourne. Participation included presentations and a display on the Great Ocean Walk.

## **EXCELLENCE IN PARK MANAGEMENT A NEW KIND OF PARK MANAGEMENT AUTHORITY**

### **Legislative framework**

Overall arrangements regarding the relationships and responsibilities for the provision of services to the Department of Sustainability and Environment (DSE) are set down in the 'Management Agreement' between Parks Victoria, the Minister and the Secretary to the DSE. Parks Victoria's management services are delivered within State policy and contractual agreements, and in accordance with specific statutory responsibilities.

Excellence in park management requires a detailed understanding of the diverse natural, cultural and recreational values that occur in

parks, their significance and the factors that impact on them. This knowledge, combined with legislative and policy directions, forms the basis for clear, long-term strategies to achieve the best possible outcomes for Victoria's parks and reserves. Rather than focusing on individual parks, Parks Victoria has adopted a systematic and integrated park management approach.

The long-term goal of park management in Victoria is for parks to be places in which:

- natural values and ecological processes are maintained and restored for their long-term viability;
- Indigenous people's rights, aspirations and needs are acknowledged and Indigenous culture is conserved and managed in partnership with Traditional Owners and Indigenous communities;
- places and objects of significant heritage value from European settlement are conserved for current and future generations to enjoy and understand the legacy of previous generations;
- environmentally sustainable and culturally appropriate recreational, social and economic benefits of parks are available to Victorian communities.

To achieve this goal, Parks Victoria has developed an integrated management framework that reflects accepted standards outlined by the IUCN (The World Conservation Union).

More detailed planning identifies how objectives are delivered and the resources required. Once plans are implemented, assessing what was achieved and whether changes are required is critical to ensuring that ongoing management is effective.

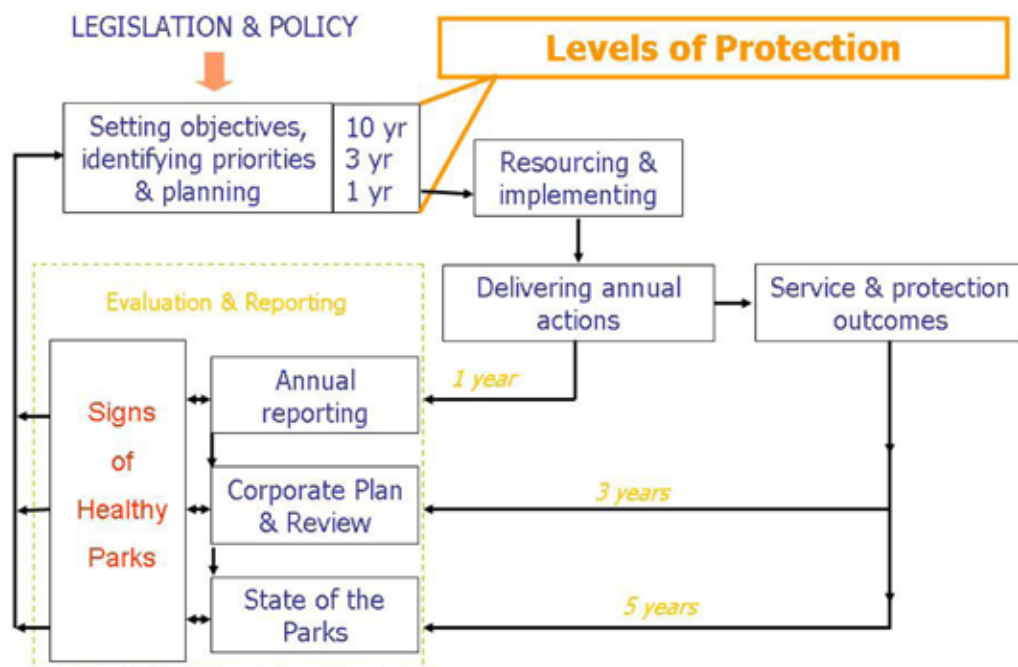


Fig. 1. Parks Victoria's Management framework

The management framework that Parks Victoria works within draws on proven practices that have been part of park management in Victoria for many years. In common with all park managers, resources to achieve goals are finite. Accordingly, Parks Victoria has developed a range of systematic tools to help prioritise management to areas of greatest value, whether ecological, cultural or recreational, and to areas at highest risk. Examples of these tools are Levels of Service and Levels of Protection.

#### Strategic Allocation and Decision Tools Meeting an appropriate level of service

Parks Victoria developed its 'Levels of Service' framework to provide an objective and clear context for establishing and delivering services and facilities. It enables Parks Victoria to prioritise visitor services and direct resources where they are needed most. The model

brings together a range of key factors such as visitor use profiles, customer satisfaction, economic indicators, equity requirements and environmental factors.

A range of service categories have been developed, including:

- access (roads, tracks, car parks);
- management services (ranger presence, cleaning, litter removal);
- information, interpretation and education (signage, information shelters); and
- recreational facilities and amenities (toilets, drinking water).

Parks Victoria conducts a Visitor Satisfaction Monitor (VSM) every second year to build a demographic profile of park visitors and identify their preferred activities. The monitor identifies levels of visitor satisfaction with facilities and services in parks and at piers and also assesses the overall experience had by visitors. This information is used by Parks Vic-



toria to improve parks for visitors.

### Meeting an appropriate level of protection

‘Levels of Protection’ is a tool to aid planning and resource allocation by placing individual parks in a state-wide context. It groups parks according to biodiversity criteria and allocates broad conservation objectives to each group.

The ‘Levels of Protection’ framework has been developed using some common elements advocated in the state and national biodiversity strategies to apply a relative value to biodiversity attributes occurring in parks and reserves across the network. On this basis priorities for the management of those attributes within parks and reserves have been determined.

A key principle of the Framework is that protected area planning and management is conducted in a bioregional context. The bioregional value, and hence management priority, of biodiversity attributes in parks and reserves has been assessed on the basis of:

- conserving the range of ecosystems and existing biotic diversity;
- the occurrence of attributes that depend on a particular park for their security;
- conserving ecosystem structure and function through addressing high risk threats;
- higher ecological viability and integrity of populations.

‘Levels of Protection’ establishes a hierarchy of management response that will be useful to park managers in delimiting the

management effort to be applied in parks and reserves in each group, and for determining management and resourcing priorities. Six terrestrial (A1, A2, B, C, D, & E) and three marine (A,B, & C) LOP park groups have been defined. For each group is assigned:

- Characteristics
- Conservation Objectives
- a Level of Protection

At one end of the spectrum parks in the A1 group are generally large, intact and protect the most species and habitats. The conservation objectives for A1 parks are to maintain or improve the condition of values and the assigned Level of Protection is a „high priority for active management“. At the other end of the scale are E level parks that are generally small with few natural values where the objective is to maintain values and give management priority only to emerging threats.

### State of the Parks

There are however, components of the framework that are still being built and implemented, particularly the way that outcomes of management are measured and evaluated across a network of approximately 3,000 parks and reserves. State of the Parks reports play a critical role in evaluating management across this network, identifying practices to be implemented more broadly and areas for improvement.

Parks Victoria has developed an integrated approach to park management that brings together the annual cycle of resource allocation (Corporate planning and Business Planning) with the long term outcomes and directions



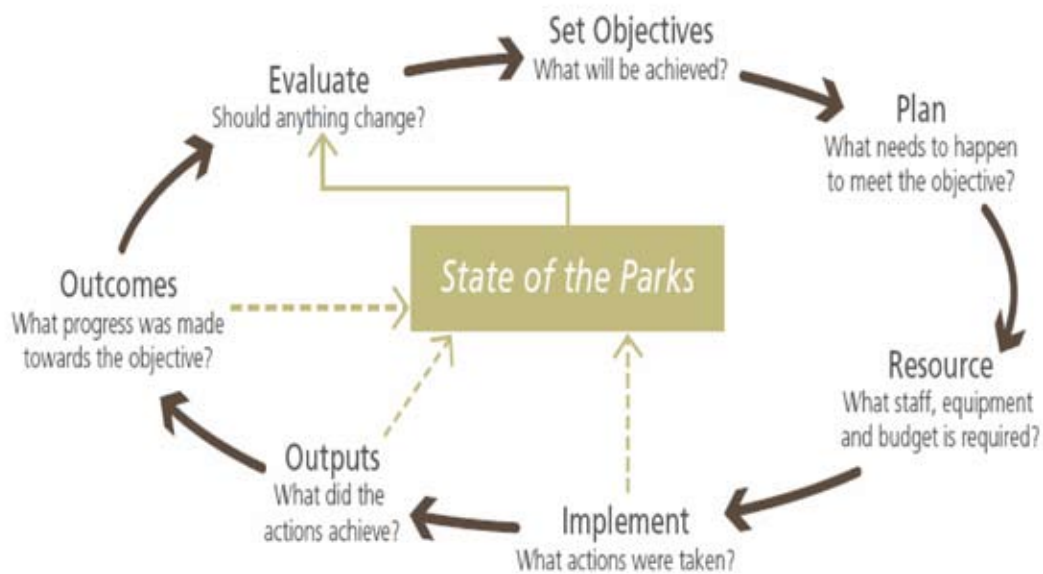


Fig. 2. Parks Victoria's management framework and the role of State of the Parks reporting

setting establishment in management plans and Government policies. The integrated management cycle (figure 2) has been further developed for State of the Parks reporting.

### Corporate strategy

Parks Victoria's Corporate Plan is a forward looking document guided by Parks Victoria's statutory obligations, the government's vision for Victoria and relevant government policies and strategies. It provides an overview of our long term vision, and the 3 year strategies to realise that vision. It defines the external relationship between Parks Victoria's services and the Government's Vision for Victoria. It includes the one year 'Business Plan' with programs and priorities to be delivered in the current year which is the tool by which we specify the services to be delivered each year.

The Corporate Plan is developed each year with input from the Parks Victoria Board, ex-

ecutive, staff, DSE, and guided by government policies and specific initiatives. The Corporate Plan and Business plan are endorsed by Parks Victoria's Board and provided to the Minister for approval annually.

The Corporate and Business Plans are also used internally to guide the development of our internal Regional and Divisional Output Plans that are then used as input into the development of Action Plans. This is then used to guide the development of individual workplans. The planning components are described in the diagram below.

Park management is becoming increasingly sophisticated, and Parks Victoria staff are well qualified to address the challenges involved in balancing protection of our natural heritage with the needs of visitors. The efficiencies of a single, fully integrated organisation enables more resources to be devoted to environmental protection and the development of visitor services. Integrated environmental policy, planning and research functions have

been established to ensure that standards of excellence and efficiency are achieved. This will result in a stronger focus on conservation, driven by state of the art environmental management systems.

### Linking People and Spaces

Within the greater Melbourne area, open space responsibility resides with 31 municipal councils and a number of individual organisations, including Parks Victoria. As the only entity with metropolitan wide responsibilities (37 parks covering 6,200 hectares) the state government charged Parks Victoria with preparing a strategy and vision for continued growth and improvement of Melbourne's open space network. Linking People and Spaces was prepared in parallel with a Metropolitan Strategy (by the Department of Infrastructure). It takes into account the population growth predictions (numeric and spatial) for the next 20 years and demographic indicators of significance.

The key principles of the strategy are partnerships, equity of access, diversity, flexibility, and sustainability. It identifies the benefits of open space under headings of conservation (including that many of the state's rarest flora and fauna species are found within the metropolitan area), urban lifestyle, and economic and health/well-being. The strategy sets out a coordinated, consistent approach to future urban open space planning and provides a logical connection to protected area values and issues. Parks Victoria has used a similar approach for the Marine National Parks system.

The report was prepared through a com-

munity consultation process and subsequently released as a government-endorsed direction. The process and the future implementation provide continued opportunities to re-emphasise the relevance of urban open space and its linkages to parks for habitat corridors.

### The Road Ahead

Parks Victoria will continue to advance the societal value of parks here in Victoria. We will broaden the role parks play and build awareness in Australia that parks are a vital part of a healthy and sustainable future. Parks Victoria has set in motion a process that will help achieve this aim.

The Future of Parks project was commenced in October 2007. It was established to explore directions for park management and Parks Victoria's custodial role and to consider the role of the Parks division. Two whole of division workshops were held in October and December and during the intervening time staff worked in Discovery Teams to explore the key questions identified at the first workshop.

Themes emerging from this exercise include:

- Whilst recognising that the connection of people to parks and to nature has a long history and is an enduring value we need to ensure we are relevant to today's societal needs and to be planning for the future.
- Climate change response – we need a plan, action and communication about what it means for parks
- We need to be better engaged with the community – listening, educating, build-

ing support and partnerships and meeting people's needs

- To be excellent park managers we need an evidence base for decision making. We need knowledge, expertise, data and commitment to performance evaluation
- We need to expand people's understanding of the benefits of parks and to strengthen the connections between people and parks to achieve mutual benefits. (Healthy Parks Healthy People)
- We need to be a sustainable organisation; environmentally, socially and financially. We need to operate in an environmentally sustainable way, to foster social cohesion amongst staff and to secure the resources required to manage parks well.

Parks Victoria will widen the scope of this exercise commenced by the Parks Division to include a broader audience within and eventually outside of Parks Victoria.

In conjunction with the Future of Parks project, Parks Victoria has also been restructuring its Parks Division to give greater focus to Healthy Parks Healthy People. The restructuring provides an opportunity to organise functions and accountabilities to respond to the directions emerging from the Future of Parks project.

More generally, Parks Victoria will continue to grow our understanding and ability to care for the diverse natural and cultural values of the parks network, identify and respond more effectively to potential risks, ensure there are improved opportunities for people to experience and appreciate parks, and better prioritise and target future management programs.

## Supporting Healthy People

The future of recreation, tourism and visitor services management

- Substantial increase in funding to replace ageing park infrastructure such as facilities and roads at priority locations.
- With rapid urban growth in Melbourne's north, west and south-east, new residents will require open space for recreation. A number of new parks are currently being planned or implemented to cater for these increased recreational demands.
- The demographics and preferences of park visitors in Melbourne and regional Victoria is changing and Parks Victoria will need to adapt and plan ahead to meet these changing needs. Issues such as the ageing of the population, increased obesity, changing recreational needs

The future of community involvement in parks

- Parks Victoria will further develop new partnerships to implement community programs such as supporting research to quantify the contribution parks make to physical and mental health and social well-being.
- Community involvement in parks will be encouraged through partnerships with a wide range of external organisations
- With volunteer numbers in some organisations declining, Parks Victoria will work with volunteers to focus activities on priority tasks as well as expand community-based monitoring programs to involve volunteers in the collection of information that helps in the management of park values.

### Ensuring Healthy Parks

The future of natural values management within parks

- Weed and pest animal programs will continue to be targeted to those parks with highest natural values and greatest risk.
- A number of new partnerships and projects are being developed to address rehabilitation of degraded land within parks and to reconnect isolated reserves.
- Ensuring the protection and viability of threatened species populations will continue to be a major challenge.
- The impact of population growth on the natural values of parks near urban growth corridors and coastal growth areas is un-

clear and will be the focus of future research.

- Landscape scale conservation strategies will continue to be developed and implemented.
- The parks network will be managed to increase the capacity of natural systems to cope with, or adapt to, changing climatic conditions in the future.

By reinforcing the connections between the health of our park system and the health of our community, Parks Victoria is nurturing a truly sustainable society, one which recognises its dependence upon and place within the environment.



**Ralf Roth, Prof. Dr.**

Head of the Institute of Outdoor Sports and  
Environmental Science  
German Sports University of Cologne

Am Sportpark Müngersdorf 6  
D-50933 Cologne

[http:// www.dshs-koeln-natursport.de](http://www.dshs-koeln-natursport.de)



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**Brief biography**

University professor Dr. Ralf Roth, born 1963, is married with 3 children.

He is the Head of the Institute of Outdoor Sports and Environmental Science at the German Sports University of Cologne, Head of the „Sports Tourism and Recreation Management“ M.A. course and Chairman of the Innovation and Technology Centre for Sustainable Sports Development (CENA). He is a founding member of Future Mountain Int. and spokesperson for the „Sport and Space“ committee of the German Association of Sports Scientists. His research focuses on: offer and product trends in sport tourism, environmentally-based effect analysis and risk management, sustainable development of spaces for sports and destination management, current trends in the sports and leisure market.

Ralf Roth and Stefan Türk

## Move people – develop green spaces

Being physically active while enjoying nature and the landscape is a core element of recreation demand in Germany, and not only in areas outside of towns and cities. Recent studies have shown that open space in residential areas is increasingly being used as an informal arena for sporting activities.

Therefore, there is no doubt that green and open space close to residential areas contributes to good health, an increase in mental and physical well-being and thus an increase in the quality of life.

Other aspects with a social link include an increase in environmental awareness through the medium of ecological connections, the contrast between areas where one can experience nature and the built environment and the positive expression of cultural development. In addition to this, ecological functions, such as habitats for animals and plants, an improvement in the bioclimate through the filtering of air pollutants and respirable dust, an increase in atmospheric moisture, air convection, temperature equalisation and the contribution to groundwater formation can also be mentioned. Of increasing importance are the economic aspects of the appreciation in a location's value and the marked increase in the local and regional image for the growing urban and business tourism sector, for example.

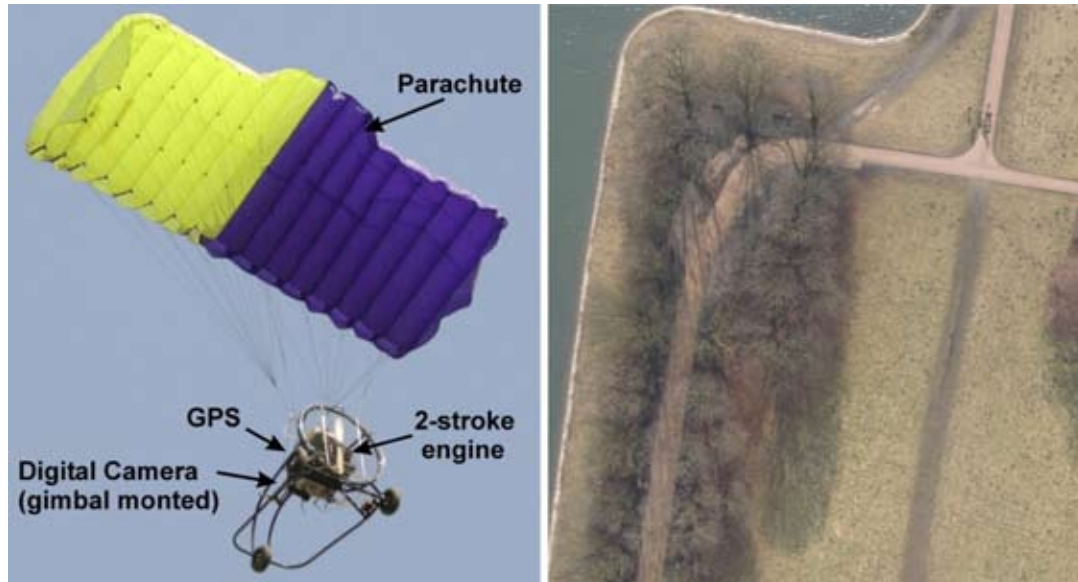
The aspect of responsibility for providing health care to the population in particular represents the central societal field of activity.

Various sources, such as the World Health Report and the German Council of Health Care Advisors, have confirmed that the health of approx. 2/3 of school children in Germany is currently at risk due to their lack of physical activity and that 80% of adults have back problems. As a consequence, the experts believe that Germans could stay healthy for an extra 5-10 years if they only became more physically active and watched their diet. A reduction of 25% in health expenditure would also be possible with targeted prevention.

It could even be said that eating healthily and partaking in regular and moderate sporting activity in an attractive landscape puts your well-being and health into turbo drive.

The increasing importance of green areas as spaces for physical activity is accompanied by fundamental changes within the sports system itself and general societal value shifts. While the physically active are less interested in battling it out with other sportspeople, motives such as fun and well-being are increasingly coming to the fore. Therefore, health-oriented and physical activities, such as running, cycling and Nordic walking, are particularly in demand. At the same time, these leisure activities have to be as individual, short and thus flexible as possible given the narrow window of time available. Organised sport and its often rigid organisational structures and mandatory memberships must rise to these challenges. In fact, informal and self-organised activities already account for around two-thirds of all sporting and physical

Fig. 1. Un-manned aerial vehicles (UAV) can be used to monitor visitors, tracks and landscape-related parameters



pursuits. Open space close to residential areas are particularly suited to this as, unlike traditional sports facilities and arenas, they are open to all, can be „booked“ at short notice and can be reached quickly. For the rest, studies on the sports behaviour of the population have confirmed that this desire for stamina, health and fitness has the highest significance in almost all age groups > 20 years.

As the importance of green spaces for physical activity and recreation and the associated fields of activity, opportunities and risks increase, there are a range of issues with regard to the increased pressure on the areas being used. The significance which green space close to residential areas actually has for physical activity and sport must be clarified and detailed. The effects of the changed sports behaviour on the suitability and use of recreational space close to residential areas must be investigated. Are there enough suitable methods available for surveying the actual use and sports behaviour or should new methods be developed? What demands are placed on “green” space for physical activity

and who decides how to deal with changed requirements? And finally, there has to be clarification of how offers and products for green space can be developed and under which kinds of planning law framework conditions with respect to leisure and recreational activities close to residential areas it is possible to implement them.

The right investigation methods are needed in any case to systematically survey and evaluate recreational and sporting use and associated motives, needs and conflicts. With respect to research on space for activity, important data can particularly be recorded by surveying the actual use of sport and recreational areas in nature and the landscape close to residential areas. This can be done initially through direct observation such as field observation and fixed counting stations. Indirectly, the relevant data can be captured via automatic cameras, video systems, aerial photographs, satellite images and drone flights. In the case of the latter, unmanned aerial vehicles (UAV) can be used to monitor visitors, tracks and landscape-related parameters.



ters. Large spaces can be adequately surveyed over precise coordinates in a relatively short space of time from the air, tantamount to a very comprehensive snapshot in time of the use and usage opportunities of a defined recreational area.

Visitor numbers can also be registered by recording entrance tickets and special permits. Books of arrivals and tours and the evaluation of Internet forums/GPS tracking can also provide quantitative information. Mechanical and electronic counting devices, such as the familiar turnstiles and sensor systems, and also induction loops can supply further important usage data. And finally, the evaluation of indirect usage tracks – litter, trampling damage and erosion – should not be forgotten.

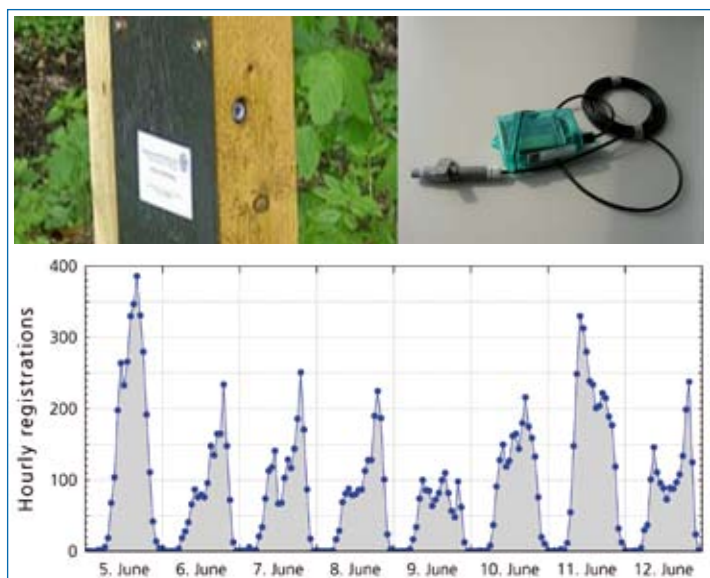
Visitor employed photography, a very effective social research method, particularly in Anglo-American countries, can also be used as part of a research study. Interviews based on pictures are carried out with the test subjects. The test subjects are sent out with a positive/negative mapping task to photograph in the area under investigation, the pictures are recorded and then they are commented on subsequently in a discussion lasting at least half an hour. These interviews are transcribed and subsequently evaluated using coding systems. In this way, very interesting qualitative statements can be made and secured. Impressions of the landscape and subjective findings which ultimately are crucial to shaping the value of a recreational space can be accessed with this method. The experience of nature and of that which is understood by the term nature is then much easier to conceive and no longer remains an abstract concept. The significance of this in providing the better understanding that is needed between outdoor

sports enthusiasts and nature conservationists should not be underestimated. Most outdoor sports enthusiasts are interested in engaging in sporting activities, but this is not their only motivation. Being outdoors and close to nature are important in order to truly and fully utilise the recreational and balancing potential and to really enjoy physical activity.

Furthermore, studies surveying sports behaviour ultimately help to close data gaps in the evaluation of urban areas for recreational and physical activity. For example, a local questionnaire campaign at popular spots is one tried-and-tested method. However, one should take into consideration when surveying active sportspeople that they are exercising and are only available for a few minutes before or after this exercise. Therefore, it is absolutely crucial to concentrate on what is significant, which means that careful preparation is required.

The results of all of the methods mentioned above for surveying visitors give an interesting overview of the usage demands placed

Fig. 2. Visitor numbers and their distribution over time can be registered by automatic counters



on spaces for physical activity that are located close to residential areas. Thus, the requirements of physically active users incorporate the issues of nature and the landscape and the demand for attractive and varied landscapes. The existing infrastructure must have a sufficiently large network of paths and trails, while the route surfaces must be conducive to sporting activities. The routes should be kept clean and intact and there should not be any refuse along them. Only then will the prominent desire for maintenance and upkeep be fulfilled. And finally, the routes and spots in the respective open space must be designed in a way that takes note of usage conflicts, such as those known from traffic and other user groups. Focal points of usage and certain profiles can be recognised at every green space. The activities practised vary according to how the spaces are equipped. Finally, different types of space can be characterised. There are spaces for physical activity of importance to entire cities, spaces with a greater local significance and, of course, pivotal axes which are to be considered transfer spaces.

As a complement to this mixture of different methods, we can also look at the study of 20 German cities where public authorities held structured interviews with the relevant experts on the usage and design of open municipal space. In doing so, over 50 respondents from education, youth and sports authorities, green space, forestry and environmental agencies, and construction and urban development units tabled over 700 pages in total of transcribed information following one to two-hour discussions. These stakeholders and decision-makers criticised the sectoral thinking patterns found in many places, usually with insufficient communication structures between different areas. Often there is ac-

tual ignorance about internal administrative competences outside of the subject area. The possibilities for synergy through intersectoral work are heavily underestimated or not even perceived. Instead of this, decisions are not even made due to the problem of justifying public expenditure. Ultimately, the stakeholders often lack the traceable fundamental data needed to make sustainable decisions on how to make the corresponding adjustments to how their green space is managed.

Ultimately it is also clear from this that the municipal planning authorities have not sufficiently taken the changed initial requirements on board. This applies to both sport and landscape planning. The sport development planning concepts which have existed to date or have been drawn upon, such as the “Guidelines for Sport Development Planning” (Leitfaden für die Sportentwicklungsplanung) of the Federal Institute for Sports Science, or the cooperative planning of Wetterich and Eckl, do tackle the issue but do not really offer any practical guidelines on how to implement the planning. The target-oriented planning of facilities where sport can be played, i.e. of spaces which are not primarily intended as areas where sport and leisure activities would be carried out, has been impossible to date or has been limited to offer planning. The approaches to landscape planning in residential areas have also drawn on quieter or more traditional forms of recreation. The reason for this principally lies in the limited knowledge of the actual requirements of physically active recreation-seekers which go beyond the general changes in physical activity patterns. It would seem that the only way to work out sustainable usage, planning and conservation concepts would be on the basis of a comprehensive analysis of physical activity behaviour

in open space near residential areas. Furthermore, there must be a broad basis for the planning. Therefore, an intersectoral concept which brings together all of the relevant decision-makers for the planning of active recreation and bundles the competences of the individual institutions is needed. The changed requirements can only be satisfied through the cooperation of the individual planning bodies.

Such an intersectoral concept was worked out as part of the “Space close to residential areas for recreation, outdoor sports and experiencing nature” R&D project of the Institute of Outdoor Sports and Environmental Science of the German Sports University of Cologne, as commissioned by the Federal Agency for Nature Conservation and funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The findings from this research process are now available in a condensed form with an action concept for the management of areas for physical activity in a city. These guidelines are called “Move people – develop green spaces” (Menschen bewegen – Grünflächen entwickeln) and can be seen as a code of practice for the management of areas where people can be physically active, incorporating not only sport but also urban development and landscape planning into the planning of recreation, outdoor sports and experiencing nature in space close to residential areas. It makes the most comprehensive and sustainable development of open space close to residential areas possible. The guidelines have been worked out for implementation into practical planning. This means that numerous opportunities for the practical implementation of the management of areas of physical activity have been highlighted here on the basis of

practical and already implemented examples, compact checklists and other aids. The code of practice on implementation is to the fore. It can and should help decision-makers in local authorities to ensure that green space near residential areas is not only made available in the future, but will also be developed according to the needs of the population and with the aim of promoting their health. The code of practice can be obtained free of charge from the Federal Agency for Nature Conservation.

In the corresponding research report, the aforementioned research methods and the detailed investigation flow for the R&D project are described in detail and there is a summary of the individual findings. The fundamental structure for the management of areas of physical activity developed from these is described. The research report has appeared in the “Nature Conservation and Biodiversity” (Naturschutz und Biologische Vielfalt) series, volume 51 (booklet distribution service of the Federal Agency for Nature Conservation at Landwirtschaftsverlag Münster).

Further information can be requested from the authors.

**Vladivoj Vancura**

Conservation Manager  
PAN Parks Foundation

PAN Parks Foundation  
Pf 264  
9002 Győr, Hungary

Tel +421 44 5223 436  
Fax +421 44 5221 214

<http://www.panparks.org>



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**Brief biography**

Vladivoj Vancura completed his Bachelor of Forestry Science in 1981 at the Forestry University in Zvolen, Slovakia, and then successfully completed a post-graduate course on the “Management of Natural Resources” in 1986. Vlado Vancura worked for the National Park Service in Slovakia from 1982 to 1996. In order to build on his experience and knowledge in the area of nature reserve management internationally, he decided to work as a volunteer for the US National Park Service, spending two years in the country which spawned the idea of national parks. Following this, he worked for another six months for Parks Canada. After 1996, Vladivoj Vancura intensively devoted himself to the Slovakian NGO “A-Project” and was appointed Regional Coordinator of the PAN Parks Foundation for Central and Eastern Europe in 2000. In his role as Conservation Manager, he has had lead responsibility since 2002 for the verification process aimed at implementing and adhering to the strict PAN Parks principles and criteria and the Parks’ sustainable tourism strategies. He is also involved in the further strategic development of the PAN Parks principles and criteria and is an important interface between park administrations, NGOs and the PAN Parks Foundation.

Vladivoj Vancura

## Tourism service providers as partners for the conservation of biodiversity - the PAN Parks Sustainable Tourism Strategy

### Preface

Europe is without a doubt the continent where nature has been most affected by human influence. Indeed the rich biodiversity found in some parts of the “old” continent are very interconnected with, and dependent upon, human management. The European landscape has been shaped through thousands of years of human activity and it is part of our cultural, social and economic heritage.

Due to this close relationship between nature and human development, it is sometimes forgotten that there are remains - even if only in small fragments covering altogether no more than about 1% of all territory - of small, yet important, areas of what can be called “virgin,” “natural,” “wild,” or “wilderness” areas. These are areas where we can still find natural systems where man has had only minimum influence.

PAN Parks voluntarily shares practical lessons learnt on how to approach a wilderness area management, how to allow for an area of sustainable use, and how to enable local communities to derive benefit from the wilderness area. (Miko 2007)

### A. PAN Parks in nutshell

#### Providing wilderness experience opportunities in Europe’s certified PAN Parks

A few, but hopefully growing number of people, value Europe’s natural heritage as much as its cultural heritage. Wilderness



Fig. 1. The three columns of the PAN Parks vision

however was somewhat missing from the image of Europe – until recently. The vision of wilderness is a concept that reaches deep into the heart and emotions of most people. It is well known throughout the globe, but most Europeans do not know, that they can still find exceptional remnants of wilderness in their own continent. These places are the PAN Parks, where people can uniquely experience vast amounts of nature in its purest form, offering opportunities for relaxation, active leisure or nature enjoyment. Experiences in European wilderness areas can be life changing experiences.

### At the beginning was a dream

It was almost 10 years ago that the first steps were taken to realise a marriage between conservation and the tourism industry in the most important wilderness areas of Europe. This initiative, implemented by the PAN (Protected Area Network) Parks Foundation (PPF), awards wilderness areas that meet the highest standards of management for conservation and sustainable human use with the



Fig. 2. Providing visitor experiences based on pristine nature is one way in which support for conservation and local communities is created. Photo: Pascal Languillon.

PAN Parks quality seal. It can be considered as a gold standard for well-managed protected areas.

This programme views tourism as an opportunity for nature conservation rather than as a threat. It is used as a means to give economic value to wilderness areas and to create support for conservation. By creating unique and high quality opportunities for wilderness-based recreation, this marriage has proven to be successful, as it results in benefits for nature, for communities in and around the protected area and in unique experience opportunities for visitors.

### Believe of PAN Parks

PAN Parks believes that: "To see primeval forests or mountains where wolf, lynx, or brown bear still roam freely you do not need to travel to very distant places – yet. It is enough to visit one of the certified PAN Parks in Europe" ([www.panparks.org](http://www.panparks.org)). If you ask an average European to mention a national park you will probably hear such names as Yosemite or Yellowstone (in the US) or Kruger (in RSA). If you ask specifically for the name of

a European park, one might probably be able to mention only one which is close to home.

To build up knowledge and understanding of wilderness issue in Europe means not only bringing more tourists to less visited wilderness parks but also restructuring visitors flows in wilderness parks that are under high tourism pressure. PAN Parks stimulates such tourism to Europe's wilderness. Wilderness areas then have economic value which results in more political and social support at the local, national and international levels. PAN Parks also works with local businesses in rural areas and by doing so creates support for conservation and commitment to sustainable tourism development in the region.

### PAN Parks Vision

PAN Parks is the gold standard for combining excellence in protected areas management with nature-based tourism development world-wide through the eyes of governments, local people and visitors.

### The backbone of the PAN Parks

The backbone of this initiative is its transparent certification process. If a protected area wants to become a certified PAN Park, it must meet each of PAN Park's strict principles and criteria. This process is aimed at defining the quality standard that both protected areas and local business partners must maintain in order to become and remain certified. The verification process is a transparent third-party audit, and if a candidate is successful, the process provides stakeholders (i.e., donors and visitors) with a guarantee that the protected areas management objectives and activities are compatible with biodiversity protection and sustainable tourism.



### Ten years of work

After 10 years PAN Parks has developed into a unique initiative for two key reasons:

- 1. Principles and Criteria** - Aimed at conservation, visitor management, and engaging local communities and businesses to take an active role in protecting their wilderness.
- 2. Network - Partnerships** between conservation and tourism sectors, and brings donor agencies closer to project implementation in protected areas.



Fig. 3. As of February 2008, there are ten certified PAN Parks. In the coming years, more will follow throughout Europe.

### PAN Parks Quality Standard

The PAN Parks concept is based on strict Principles and Criteria that are verified and monitored by independent verifiers. Each Principle is equally important and therefore protected area can be certified only if meet all 5 comprehensive Principles. It consists of 5 comprehensive Principles and to maintain the PAN Parks Quality Brand all 5 Principles have to be successfully verified.

#### Principle 1: Rich Natural Heritage.

PAN Parks are large protected areas, representative of Europe's natural heritage, and protect international important wildlife and ecosystems.

#### Principle 2: Nature Management.

Design and management of the PAN Park aims to maintain and, if necessary, restore, the area's natural ecological processes and biodiversity.

#### Principle 3: Visitor Management.

Visitor management safeguards the natural values of the PAN Park and aims to provide visitors with a high-quality experience based

on the appreciation of nature.

#### Principle 4: Sustainable Tourism Development Strategy.

The Protected Area Authority and its relevant partners in the PAN Parks region aim at achieving a synergy between conservation of natural values and sustainable tourism by developing and jointly implementing a Sustainable Tourism Development Strategy.

#### Principle 5: Partnerships.

PAN Parks' tourism business partners are

Table 1. Size of wilderness area in certified PAN Parks. Certified wilderness is one of the most significant achievements of the PAN Parks Core Purpose. This table shows a short summary of this achievement.

National Park	Park Areas	Wilderness Areas
Bieszczady	29 202 ha	18 425 ha
Fulufjället	38 414 ha	22 140 ha
Oulanka	27 720 ha	15 027 ha
Central Balkan	71 669 ha	21 019 ha
Retezat	38 138 ha	14 215 ha
Panajarvi	104 000 ha	30 000 ha
Rila	81 046 ha	16 350 ha
Majella	74 095 ha	16 200 ha
Borjomi Kharaguli	76 000 ha	50 325 ha
Archipelago	50 219 ha	10 600 ha
<b>Total</b>	<b>590 503 ha</b>	<b>214 301 ha</b>

legal enterprises that are committed to the goals of certified PAN Parks and the PAN Parks Foundation, and actively cooperate with the local PAN Parks group to implement the PAN Park region's Sustainable Tourism Development Strategy effectively.

### B. Sustainable Tourism Development Strategy and Local Business Partners

Two last principles deal with sustainable tourism in the surrounding region. Principle 4 indicates when the region around and stakeholders cooperating with a Certified PAN Park can be certified under PAN Parks and Principle 5 indicates the verification standard for tourism-related business partners (BPs).

Principle 4 and 5 like Principle 2 [conservation management] and Principle 3 (visitor management) are management/process principles but Principle 4 and 5 are different from the Principles 1, 2 and 3, because fulfilling exceeds the responsibility of the management of the National Park and involves the Local PAN Park Group. Principles 4 and 5 are process oriented stakeholder principles.

Fig. 4. Enjoying nature in Central Balkan National Park / Bulgaria



### Sustainable Tourism Development Strategy

PAN Parks Foundation believes that Sustainable Tourism Development Strategy - is a framework to achieve a symbiosis between the conservation goals of certified PAN Parks and sustainable tourism development in the PAN Parks region. Sustainable tourism development can be a valuable option for a protected area only if net benefits for nature protection and local communities can be guaranteed. Therefore the STDS should guarantee that most benefits generated by sustainable tourism stay in the PAN Parks region.

### A tourism strategy for PAN Parks in five steps

To fulfil this condition of the PP Quality Standard takes time. Usually 3 years when applicant is able to show that the Protected Area Authority and its relevant partners in the PAN Park region aim to help biodiversity conservation and sustainable tourism support each other by developing and implementing a Sustainable Tourism Development Strategy.

The strategy gives an outline of the steps which need to be taken to develop and manage tourism, whereas details on the type of tourism activities to be developed cannot be included since this will depend on the specific attributes of each park in terms of physical and geographic features, the socio-cultural context, and its accessibility for tourism markets. In general, though, tourism activities likely to be planned for and encouraged will include hiking, mountain-biking, camping, bird-watching, canoeing/kayaking, horse-riding and cross-country skiing or winter walking. All of these are based on the natural re-



sources of the park and require low-impact installations.

### Year 1. Gather support and evidence

In Year 1, systems to develop the LPPG should be set up.

**Step 1.** Establish governance systems for the LPPG: members, management structures, statutes, rights, voting systems, responsibilities and tasks. These will include plans to verify local business partners, responsibilities for writing and implementing the strategy, determining budgets, and fundraising. Part of this first step will include listing business partners for P5 (beyond the potential partners we expect in P4). This is an ongoing process and so is expecting that things can change.

**Step 2.** Collect data on the impacts of tourism (economic, social and environmental), the tourism potential of the area, and the carrying capacity. An analysis of the strengths, weaknesses, opportunities and threats of tourism will need to be carried out. Step 1 and 2 will happen at the same time.

### Year 2. Plan and implement

The plan is written and initial implementation starts in Year 2. This is a demanding year. Fundraising may mean that this stage extends into Year 3.

**Step 3.** The draft plan must be finalised at least one year before PAN Parks verification, because need to see not only that the plan exists, but that it is being implemented.

**Step 4.** Implementation of the plan needs to begin, because need for evidence that



things are happening according to the plan. A plan in itself is not sufficient evidence.

Fig. 5. Perfect winter day in Rila National Park / Bulgaria

### Year 3. Implement and monitor

By now, the LPPG will have been in operation for two years, having set up its systems, conducted a situation analysis of tourism in the region and consulted with stakeholders. The findings will have been written up as part of a plan, and implementation of this should be in process. The LPPG should conduct an internal audit of the effectiveness of the strategy prior to requesting PAN Parks verification.

**Step 4 (continued).** Approval of the strategy by the relevant authorities and stakeholders, with evidence that it is being implemented. Funding has been allocated for the first stage, and fundraising for the subsequent parts of the strategy is in place.

**Step 5. Monitor.** Based on comments from verification and the internal audit and review conducted by the LPPG, LPPG members will improve the plan to be implemented and reviewed between Years 3 and 4. From

now onwards it is expected that the LPPG should be able to develop annual lists of actions/tasks arising from the plan and keep records of actions taken and of the impact of tourism on the local economy, environment and society.

### **Local PAN Parks Group**

The Local PAN Parks Group is an important element in the PAN Parks verification process and must be developed in each certified park. This group is a collaborative partnership between local businesses, park managers, and tourism organizations. Together they develop a Sustainable Tourism Development Strategy.

### **Local business partners who join:**

Local business partners are another important element of overall concept but they also have to meet certain criteria e.g. follow national legislation, support verified PAN Park and its management goals, participate in the implementation of the STDS, contribute to the quality improvement of the region's tourism offer, etc.

The STDS is used to ensure that local business partners meet the highest green tour-

ism standards and work in harmony with the park. Local businesses are certified and regularly monitored to ensure they are meeting these standards.

The certification standards for the local business partners is based on either a nationally relevant certification scheme, or on a generic set of standards suggested by PAN Parks Foundation.

### **Benefit for local business partners**

The benefit to Certified Local Partners is the approved use of the PAN Parks logo which acts as a green tourism quality guarantee for visitors, and in turn provides reassurance of standards to potential international tour operators who may enlist the services of the partner. It also gives the partner access to PAN Parks international marketing efforts.

In the network, there is a diverse range of businesses that provide not only accommodation and food, but also services such as guiding, dog sledging, snow shoeing, rafting and even taxi services that take visitors to the start of the trails!



**Hansruedi Müller, Prof. Dr.**

Head of the Research Institute for Leisure and  
Tourism (FIF) Bern

FIF Bern

University of Bern

Pf 8573 CH-3001 Bern

<http://www.fif.unibe.ch>



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**Brief biography**

Hansruedi Müller, born 1947, teaches “Theory and Politics of Leisure and Tourism” at the University of Bern and has been heading up the Research Institute for Leisure and Tourism (FIF) since 1989. He began his scientific career as an assistant to Prof. Dr. Jost Krippendorf. He gained his most important practical experiences during his versatile work with the Swiss Railways (SBB) and as president of Swiss Athletics. His research work focuses on sustainability, value creation, the experience economy, quality and destination management.

Hansruedi Müller

## Alpine tourism in search of a sustainable development path – three decades after “The Landscape Eaters” by Jost Krippendorf

### 1. Alpine Tourism – The situation then

In 1975 Jost Krippendorf published his book “The Landscape Eaters” with the subtitle “Tourism and recreational landscapes – a curse or a blessing?” The book was actually a polemic paper on the development of tourism at the time and the themes it took up included:

- The avalanche of tourism – perspectives on holiday traffic
- The approaching city – perspectives on day trip traffic
- The multiplication of infrastructure – the great eating up of the landscape
- The boom in second homes
- About caravans, mobile homes and tents
- Count-down to destruction

In 23 statements Krippendorf challenged politicians, businessmen, tourism experts and tourists to think about what sort of future they wanted and about how this future could become probable: Re-evaluate the aims of tourism policies (1), issue building bans as interim solutions (2), think in terms of larger areas (3), concentrate on key aspects rather than applying the principle of indiscriminate all-round distribution (4), set load limits for the countryside (5), have the resident population make decisions (6), weigh up costs and benefits (7), save on land by concentrated building (8), maintain and encourage agriculture (9), keep particularly prized landscapes free of development (10), care for the forests (11), protect our waters (12), switch to public

transport (13), create towns that are pleasant to live in (14), solve the economic problems of land-use planning (15), make those responsible pay up (16), equalize travel periods (17), manage the number of beds – less expansion (18), promote tourism that does not involve technology (19), improve architecture for holidays and leisure (20), intensify research into tourism (21), better training for those responsible for tourism (22) and keep the public informed and interested (23).

The tourism industry needed a long time to come to its senses – it was deeply shocked at the ‘landscape eaters’ label. Krippendorf was called a traitor and a doom-merchant and was banned from setting foot in certain Alpine regions of Switzerland. Nevertheless, to a large extent this analysis still holds good today. Many aspects of it have even intensified. Some new problems have been added to the situation, e.g. climate change, the difficulties posed by noise, electrical and light pollution and the development of leisure activities with the sequestration of new spaces all year round and round the clock. However, most of his statements still continue to hold good today. The criticisms of tourism have been heard and yet practical constraints still hold sway.

### 2. Alpine tourism – The situation today

Modern Alpine tourism is facing great challenges. There are many changes in both

the closer and the more distant environment of Alpine tourism and these changes are now turning out to be particularly turbulent. Although we are learning more and more about our world through travel, exploration and discovery, its interrelationships become ever more complex and hard to understand. Those in charge in the Alpine tourism industry are facing great challenges: Globalisation with increased pressure of competition, structural problems with increasing pressure of change, low profitability with growing financial pressure, technological development with increasing pressure for innovation, the boom in demand with increasing pressure on resources, the development of what is on offer with increased pressure on the landscape, climate change with growing pressure to diversify, the change in values with the acceleration in pressure to adapt.

The turmoil in the closer and the more distant environment of Alpine tourism also makes its mark on the holiday behaviour of modern man at leisure. Put more simply, ten different trends can be identified that govern tourism in Alpine regions:

- The trend towards individualisation: The demand is for more flexible travel offers for independent travel according to the tourist's own ideas.
- The trend towards safety and high standards: The demand is (supposedly) for safe trips with cultural and educational elements. Both purely passive recuperation and also hyperactive sport are out.
- The trend towards experience: The demand is for travel offers in an inspiring atmosphere and providing intensive, varied experiences. "Calculated madness" is fashionable.
- The trend towards greater well-being when on holiday: The demand is for types of holiday that provide stressed people with holistic revitalisation. There is a future in wellness packages with healthy food, exercise, beauty treatments, a great variety of different therapies and plenty of recuperation.
- The trend towards comfortable surroundings: The demand is for holiday destinations and accommodation with atmosphere and a high degree of comfort, almost by way of native retreats.
- The trend towards far-away sun: The demand is for travel destinations with guaranteed sunshine, especially during the cold, wet periods of the year.
- The trend towards cheaper trips: The demand is for inexpensive offers so that several trips can be taken. Overcapacities and the Internet are pulling the strings of this trend.
- The trend towards more frequent, shorter breaks: The demand is for travel offers to provide some variety.
- The trend towards spontaneous decisions to go away: The demand is for offers with a surprise element that can be booked at the last minute.
- The trend towards being mobile when on holiday: The demand is for travel offers with being on the move as the main attraction.

Travellers are tending to become more environmentally-aware and more demanding, even with regard to environmental concerns. They have learnt to live in passive houses, to stroll around pedestrianised areas in towns and to buy organic, fair trade and eco products. And yet they have not really become any more responsible towards the environment and, as far as holidays go, they show a very

opportunistic understanding of the environment. We always become aware of environmental impact when our own holiday happiness is called into question. And beware: The new phenomenon of climate change and also the decline in biodiversity can barely be appreciated by the individual without scientific proof.

This description of the future of tourism makes it clear that some conflicts have yet to come to a head, in particular

- the growing pressure on the last natural reserves and therefore also on biodiversity,
- the increase in distances travelled and the associated increase in energy consumption with its serious consequences,
- the increasing risk that holiday destina-

tions will degenerate into fast-food items of the throwaway society.

In connection with increasing ecological threats on the one hand and an increasing sensitivity of tourists towards the environment on the other, many proposals have been developed as to how environmental responsibility can be increased amongst management. In tourism this is also always a matter of the securing of increasingly threatened existence for the long-term. This is because when you are dealing with wonderful sandy beaches, with water clear as glass, with the fascinating world of glaciers, with slopes of virgin snow, with clear, healthy air, with relaxing peace and quiet and untouched nature then efforts to preserve such tourist visions will also pay off economically.

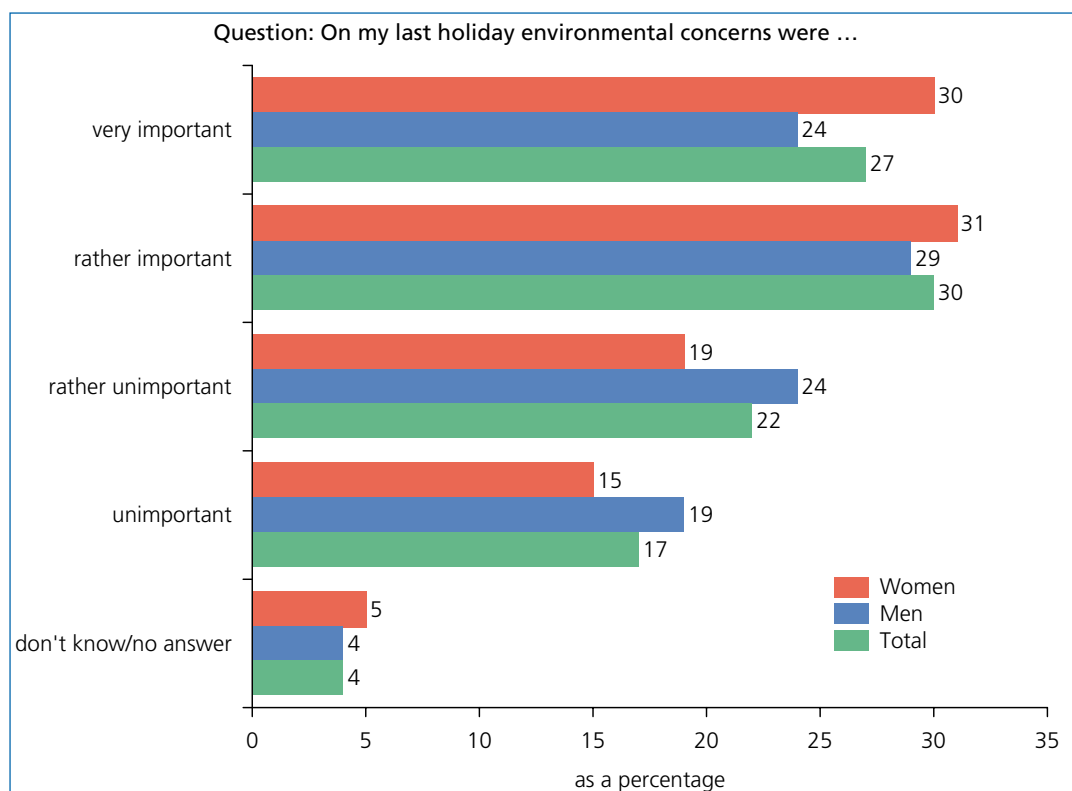


Fig. 1. Environmental awareness of tourists when on holiday  
Source: FIF (Research Institute for Leisure and Tourism) University of Bern: Tourism and environmental behaviour, Bern 2001, p7

### 3. Climate change as today's greatest challenge

Climate change is one of the greatest challenges of our time. Tourism experts in the Alpine region who address this subject always come to similar conclusions: Climate change with increasing general global warming and changes in precipitation at the same time must be taken seriously as real change. We must appreciate the fact that the rapid progress of this current process of climate change is largely caused by mankind.

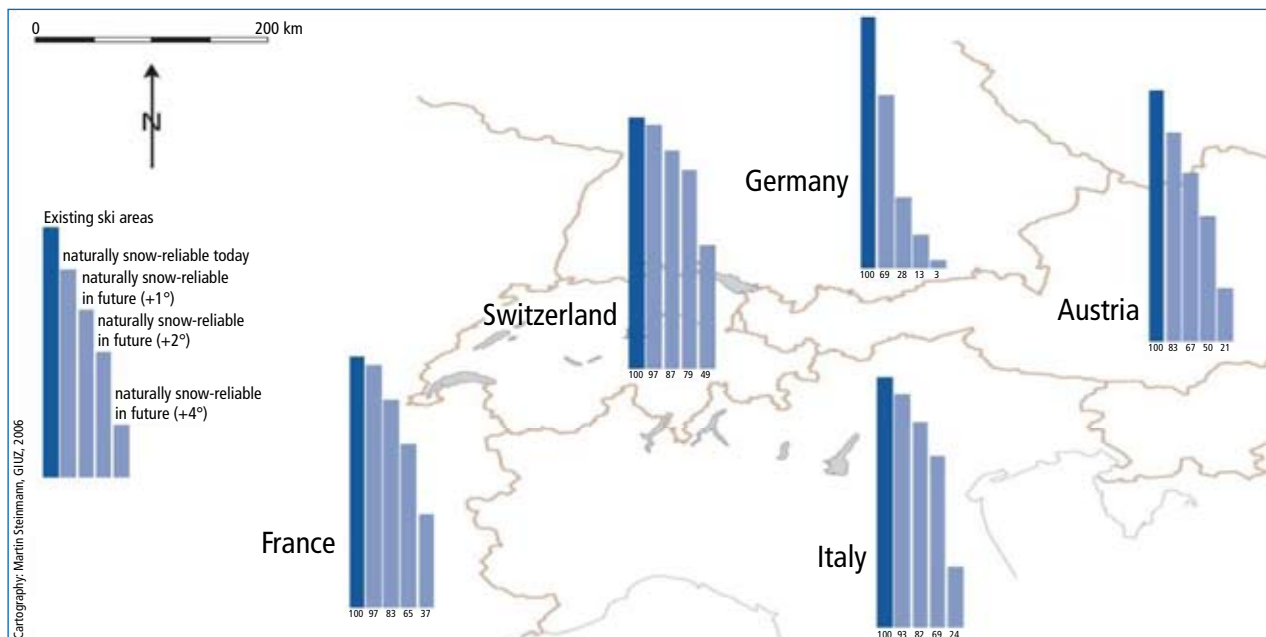
Tourism is an important cause of CO<sub>2</sub> emissions, which form the most significant greenhouse gas. At the same time Alpine tourism is one of the main victims of climate change. Tourism is therefore called upon to practise an active policy on climate. Climate change affects virtually all areas of life and of the economy. Representing a cross-section, the phenomenon of tourism is therefore affected not only by the direct, but also by the

indirect effects with regard, for example, to changes in agriculture, forestry and water management.

Alpine tourism is one of the main victims of climate change, especially because of the decreasing certainty of snow in the lower reaches of the Alps and the fact that a winter atmosphere is becoming rarer, the increasingly unpredictable extreme weather patterns and warm periods, the melting glaciers and the retreating permafrost, possible changes in the landscape and increasing natural dangers.

Climate change opens up opportunities to Alpine tourism that it can exploit in an innovative way without at the same time putting climate protection at risk. Such opportunities are provided by, amongst other things, the changing competitive relationship between the Mediterranean and the Alps, the additional sunny days in summer and a milder climate in central Europe, the new popularity of summer resorts and the concentration of

Fig. 2. Change in reliability of snow with an increase in temperature of 1, 2 and 4 degrees Celsius compared with today  
Source: Abegg, B., Agrawala S., Crick, F.: De Montfalcon, A.: Climate Change impacts and adaptation in winter tourism. In: Climate Change in the European Alps, OECD Study, Paris 2007





winter sports at higher-altitude destinations.

However, tourism must also be prepared to contribute to the reduction of climate gases, whether by means of energy-saving measures, by the promotion of climate-friendly transport, by technical innovations, by control levies on CO<sub>2</sub> emissions or by climate gas compensation schemes.

Tourism also has numerous opportunities to adapt itself continually and with foresight to climate change, starting with the development of new offers through the further development and safeguarding of snow sports, the improvement of safety by means of technological measures, the reduction of risks by means of organisational measures, clear positioning with targeted marketing through to an increasing awareness in the industry and the wider population. Tourism must base its actions worldwide on these convictions.

#### 4. Eco-management as a basic position

In this situation the call for a new management ethic has grown ever louder. The thought patterns of management on corporate ethics are extremely diverse, although managers can be very roughly divided into four types (cf. Meffert/Benkenstein/Schubert 1987, p32:

- Active managers deal with ecological questions creatively and actively gear their corporate policies towards environmental protection. Environmental protection is practised as a basic ethical position.
- Selective managers focus on ecological demands if these are of advantage to the company, in particular for the purpose of cost reduction or for gaining competitive

advantages by improving the company's image. "Ethics pay off" is the catchphrase.

- Reactive managers only change their behaviour because of new statutory and official requirements. They should be called 'eco-hardliners'.
- Unconcerned managers see neither advantages nor disadvantages in the consideration of environmental aspects. They behave in a relatively unconcerned and apathetic manner.

For traders involved in tourism the only type of behaviour that really promises any long-term success is active adaptation to ecological challenges. Eco-management with high standards in corporate ethics is the catchphrase.

By eco-management is meant the formation, management and development of companies and organisations in a way that is responsible towards the environment. Eco-management takes the interactions with the natural environment into consideration in all company functions and responsibly includes these interactions in the decision-making processes in all company activities.

The most significant dimensions of eco-management as understood here can be deduced from theoretical knowledge and practical experience. They should lead the way for responsible tourism experts who seek in their decisions to counteract the self-destructive tendencies of tourism. At the same time it can be assumed that there is constant conflict in the daily decision-making processes between economic premises and ecological demands. For this reason decision-making aids are necessary on a normative level when working out

a company's mission statement. The following are necessary:

- A credo for the protection of the environment in the top business policy principles,
- Environmental protection targets in company policy,
- Eco-strategies for all management areas.

Eco-strategies are necessary in the following management areas:

- Information/Advice: Intensify cooperation with eco-advice and information centres, set up eco-databases, introduce eco-balance sheets for all business areas
- Organisation: Appoint environmental officers, establish an environmental management system, integrate environmental responsibility into specifications
- Staff/Management: Include environmental aspects in staff selection criteria, incorporate ecological interrelations into the staff development programme
- Procurement/Purchasing: Re-evaluate suppliers on the basis of ecological criteria
- Performance/Production: Switch to environmentally-friendly performance or provide substitutes for processes which are harmful to the environment, create waste exchanges and finalise recycling arrangements
- Marketing: Cf. next chapter
- Funding/Investments: Make voluntary checks on investments for environmental sustainability, take ecological building criteria into account
- Controlling: Introduce eco-reporting or eco-controlling.

## 5. For tourism development with a future

Against the background of the changes outlined here, and with the aim of making a desirable future probable, a development path must be sought in Alpine tourism that is based on the principles of the ethics of responsibility, of cultural identity and of sustainability. What we now call sustainability is what Krippendorf (1986, p73) described as qualitative growth: "By qualitative growth we mean every increase in quality of life, that is of economic wealth and of subjective well-being, which is achieved with a lower input of non-renewable resources and a reduction in impact on the environment and on people." The way in which future generations will be able to proceed has a new look.

*Alpine tourism must become more participatory:* In tourism not only are there beneficiaries but also those who are affected by negative external effects. In order to counteract any possible defensive behaviour those affected must become involved. This requires participative planning. Tourism must also become more participatory amongst its service providers. Cooperation and not confrontation is the catch-phrase.

*Alpine tourism must become more efficient:* Although tourism has reached a high stage of development in many places its structures are often inefficient. Laborious efforts are being made to gain a name for far too many brands in order to survive the growing competition. The fact that the tourist is hardly interested in structures with a historical background is ignored. He is looking for comprehensive, well co-ordinated packages of services. Regional cooperative ventures

providing activities to cater for tourists' interests should therefore be supported. Individual towns and tourist associations need to be brought together in actual destinations as strategic business areas.

*The quality of Alpine tourism must be improved:* There has been talk of improving the quality of tourism for a long time. What is new is the demand for total quality management as much of what is offered in tourism today does not meet the expectations of the tourists. Tourists are becoming more demanding and it is particularly important to them that everything should be right throughout the entire service supply chain. But beware: Total quality management requires total management quality. The quality offensive starts with the boss.

*Alpine tourism must become more environmentally friendly:* The sources of ecological danger inherent in the development of tourism have been well-known for a long time. We can only take them seriously and try to take preventive measures in order to avoid environmental problems. The aids that have been developed in recent years, such as environmental impact assessments, environmental management systems, environmental audits and environmental officers must be used to reveal the conflicts and to seek sustainable solutions.

*Alpine tourism must be slowed down:* There is one basic conflict that tourism cannot get round: the question of mobility. Mobility is a requirement of tourism and has become the number one problem. The causes of this problem can only be solved effectively by dealing with one factor in particular: speed. So in order to work towards a slowing down

of Alpine tourism a speed limit of 30 km/h needs to be imposed in towns and strolling zones should be created.

*Alpine tourism must become more authentic:* Tourism in Alpine regions has for a long time been well-known for its pioneering achievements. The uniqueness of its natural and cultural features have been cleverly exploited. But these values that have grown over the course of time are increasingly being abandoned. Under the pressure of globalisation what is offered is becoming more uniform and the uniqueness is being levelled out. However, the potential visitor to the Alpine region in particular seeks the charm of what is local, unmistakable and authentic.

*Alpine tourism must become more human:* The pressure of profitability and competitiveness has left its mark on many. Supported by methods such as, for example, lean management, tourism experts have become tough businessmen who think strategically and act rationally. Human qualities such as emotions, empathy, geniality and visionary power have been increasingly squeezed out and barely developed at all. And this in an industry in which emotional values, human warmth and situational empathy have top priority.

But beware: "The development of tourism will only change in the desired direction if instead of simply hoping for something different, we make a positive, enthusiastic start. Each of us bears some responsibility in this. Seen in this way even the smallest step in the right direction is of value: The "small personal revolution" as the prelude to and the prerequisite for the great change." (Krippendorf 1986, p85)

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Ulrike Pröbstl

## Workshop 1: Species protection and Recreation Management in Nature Reserves

### 1. “Visionary and Realist” Method

A well-functioning marriage in which one partner mainly assumes the role of a visionary while the other takes a more admonishing and realistic approach to the joint decision-making process serves as the motif for the interaction of these two aspects.

The participants were randomly assigned to the “realistic” and “visionary” groups. Two sport/recreation and nature conservation sub-groups were created within each of these groups according to interest and prior knowledge.

The four groups in total – nature conservation realists, sport realists, nature conservation visionaries, sport visionaries – then had around an hour to discuss and formulate their views on how nature reserves should be managed. Each group was given coloured cards so that they could record their findings and share them with the other groups.

The advantage of this method is that it assigns clearly defined roles which do not necessitate the group having to reach an internal consensus on a topic. Rather, it makes it possible for desires and concepts to be tabled without all of the consequences having been worked out in advance. At the same time, giving people different roles also makes it possible to indicate the limits. The aforementioned random allocation of roles brings different people together and allows the participants to take a position at odds with that

which would be professionally or institutionally predetermined or expected of them.

In the large field of “management”, the following sub-topics were specified with the aim of facilitating easier examination and discourse:

- Stocktaking, indicators
- Evaluation, standards
- Management action
- Participation and cooperation
- Information
- Organisation
- Monitoring
- Marketing

### 2. Findings from the role-play

Below are the findings from the various groups:

*The spectrum of opinion from the “sport visionaries”*

Naturally, the visionaries and dreamers with a focus on sport believed that management planning must pursue the goal of setting the least possible restrictions on sporting activities in the first instance and of providing the necessary infrastructure for such activities. An intact nature was also one of the desired fundamentals.

The sportspeople and recreation-seekers believed participation and cooperation were not optional aspects. They were a must as summed up by the motto: “No regulations

without our agreement". With regard to information relating to the management of nature reserves, the group believed it was not enough to communicate what recreation-seekers are and are not expected and allowed to do. Rather, they felt that the reasons behind these decisions should also be explained. The organisation structure or decision-making body for the nature reserve should also include people from the field of sport and thereby be in a position to take these interests into account also. The visionaries believed that monitoring should, of course, also be aimed at improving the range of sporting and recreational activities on offer. So-called "insider marketing" would be much more desirable to local recreation-seekers and sportspeople than intensive marketing. Word-of-mouth marketing would prevent too many outsiders or holiday-makers from seeking out these nature reserves and thereby contributing to possible conflicts.

*The spectrum of opinion from the "nature conservation visionaries"*

The nature conservation visionaries believed there was far too little data or specific information in relation to stocktaking. One of their primary wishes was for an improvement in the data available. The fundamental data should be compiled by means of a coordinated process with other user groups, such as those involved in sport and recreation. It would also be desirable if all involved could agree to this data and the evaluations derived from it. They believed that management action, particularly in respect of visitor management, is particularly successful when accompanied by early participation. Ideally, this would take place in a spirit of open communication and information through a working group without anybody being depicted as the

enemy. The group presented the vision of a communication process in which the various parties would accept each other as people. To do so, it would be important to know what the other person does, what is important to him, how sport works. Inversely, it should also be conveyed why nature conservationists cannot negotiate on certain issues in respect of conservation goals. Therefore, sporting associations should have people with knowledge about nature in order to facilitate easier communication. In order to make both the decision-making process and the structural organisation easier, as many as possible of those affected should be integrated while a clear mandate should also be forthcoming so that authoritative decisions can be made and implemented. It would be better to have too many people involved rather than too few.

The most comprehensive monitoring possible should take place regularly and, when looking at sport and recreation, should naturally be co-financed by those who practice these activities (i.e. sportspeople and recreation-seekers).

With regard to marketing, the nature reserves should take inspiration from the success of zoos. Just as "Knut" has been a tremendously popular symbol for Berlin Zoo, so sea eagles could be used along the same lines as a leading species for successful marketing purposes, making the public aware in a positive way about the need for conservation.

*The spectrum of opinion from the "nature conservation realists"*

With regard to the issue of stocktaking, the group alluded to the particular importance of having reliable indicators. They also felt it was necessary to check the data con-

tained in official documents as much of this information is no longer up to date.

With regard to evaluation, the issue of acceptable standards was the focus of the realists' discussion. Spurred on by the North American concept of the limits of acceptable change (LAC), the region-specific establishment of appropriate standards was discussed. The different aggregation levels are also problematic in this context.

The classification of the preservation state of species and habitat types in Natura 2000 regions was given as an example of the evaluation problem. Classification at level B, for example, gives a lot of room for interpretation with regard to possible stresses from recreation and sport:

- Is it an already visibly affected habitat type which is approaching the poorer level C and requires action or
- are these only slightly impacted "mid-dling" habitats? With regard to the collection of data and evaluations, the problem of the frequent lack of coordination at EU, Federal Government and state levels was mentioned.

With respect to management, the realists emphasised that they believed it was necessary to take the widest possible approach to management planning as represented through the aforementioned grouping (see introduction). Examples from other European countries, such as Finland, for example, show that Germany is lacking in this regard and the term is being considered with too narrow of a focus. In the realists' view, particular attention should be paid in this regard to the management of individualists, i.e. non-organised sportspeople and recreation-seekers.

With regard to participation and cooperation, the realists pointed to the difficulties posed by Germany's federal structure. Sport structures and organisations do not always suit nature conservation. This applies in particular to new types of sporting activities which become popular for a time but often do not have representatives at state level. Difficulties are also perceived in the fact that the so-called „black sheep“ are usually not organised. The realists believe it is necessary to effect acceptance of the nature reserve and the proposed management at a local political level. With respect to monitoring, a debate on the standards to be worked towards would be desirable, as with the stocktaking. The goal should be to develop modular monitoring where corrective action would be taken if necessary and which would also check the effectiveness of the action taken.

#### *The spectrum of opinion from the "sport/recreation realists"*

At the start, the group defined what they felt was a basic rule for the management of nature reserves, i.e. that sportspeople can and should provide support. They then detailed their concept with regard to the various management sub-areas:

Sportspeople must be included in the stocktaking and evaluation. They felt there was a particular shortcoming when mapping is carried out by people who have little or no prior knowledge of the area or region. A realistic observation in this area must also assume that management measures involving commands and prohibitions are not observed and must be responded to. Management action, especially measures which place restrictions or limits on sportspeople, should be compensated for through new or separately devel-

oped alternative spaces or new sporting and recreation offers. With regard to participation and cooperation in the management process, the participants criticised the fact that sportspeople rarely have equal representation. Also, they believed there were too few learning opportunities, particularly those relating to nature reserves. With regard to organisational structures, the lack of suitable personnel was highlighted. They believed that the monitoring of sport and recreational activities has not been adequately provided for either. Joint nature conservation and recreation/sport marketing must be designed and implemented.

### 3. Summary of the discussion findings

The findings of the role-play were subsequently discussed between the "visionaries" and the critical „realists" and summarised in plenum. The results are presented in summary below:

The group as a whole was of the opinion that the understanding of management must move in Germany towards a comprehensive concept of management including aspects such as marketing (see above). With regard to management, the following important requirements were formulated:

- The stocktaking should fundamentally take place within a coordinated framework. There was also agreement that current data is needed with the involvement of sportspeople in order to be able to achieve a measured implementable management strategy. The scope, responsibilities and also the manner and extent of involvement should be provided for in the screening.
- With regard to the evaluation and definition of standards, the participants were unanimous that it is important to coordinate the data and factual levels and to establish mutually agreed standards relating to the respective region for individual cases. This would primarily be an advantage if disagreements or even legal disputes were to arise.
- The participants felt that acceptance of the proposed action should be seen as an urgent task. This is easier to achieve when the action has been agreed on in advance with those affected or when it has been possible to create a balance for restrictions. Finding solutions for the problem of individualists who are not organised was seen as an important and difficult task in connection with this.
- Participation should be developed early and transparently. It is also important that the communication take place on an equal footing. However, it is also clear that there are things which are negotiable and non-negotiable with respect to Natura 2000 in particular. There should be a partnership basis to the type and structure of communication. For this to happen, suitable and sustainable participation structures are needed, such as round table discussions or regular workshops, etc. This approach would also contribute to achieving greater acceptance amongst politicians and society.
- The participants emphasised the importance of having sufficient information and pointed out the mutual need for learning here also. The goal would also be to bring about respectful relations in this area.
- The organisation structures should include representatives from the areas of sport and recreation. Binding mandates are



needed to obtain a powerful structure.

- Modular, coordinated monitoring which incorporates sporting and recreational activities is of great importance. The monitoring results should form the basis for future management decisions.
- Joint coordinated monitoring was rated an important area. Popular figures and leading and target nature conservation

species can help to positively anchor conservation ideas in the minds of the public and users. Realistic representations of activities which are compatible with nature reserves should predominate on information media for nature conservation, sport and recreation (Internet, print media, etc.).

**Stefan Türk, Dr.**

Deputy Head of the Institute of Outdoor Sports  
and Environmental Science  
German Sports University of Cologne

Am Sportpark Müngersdorf 6  
D-50933 Cologne

<http://www.dshs-koeln-natursport.de>



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**Brief biography**

Dr. Stefan Türk, born 1965, studied forestry at the Albert-Ludwig University in Freiburg. He completed his doctorate (Dr. rer. nat.) in 1995 as part of an EU programme for ecosystem research on new kinds of damage to forests. He is married with two children. Following research work at the University of Freiburg and in the Jülich Research Centre, he moved in 1999 to the Institute of Outdoor Sports and Environmental Science at the German Sports University of Cologne where he is a scientific employee and has taken on the function of Deputy Institutional Head. His research focuses on how outdoor sporting activities use natural landscapes and the resulting planning for the sporting landscape. As part of his lecturing duties, he leads various seminars and practical courses for the additional qualification “Sport and the Environment – Management”. He is also responsible for the training of shooting sports at the German Sports University of Cologne.

Dr. Türk is a publicly appointed surveyor of the North Rhine-Westphalia Chamber of Agriculture for matters of evaluation and compensation in forest holdings in the case of ecological issues, soil and inventory valuation and hunting.

Stefan Türk

## Workshop 2: Sustainable development of sports and exercise areas

**Summary of results based on logged comments made by participants in a fish-bowl discussion.**

**How sustainable can plans for sports and exercise areas be when so many different participants and planning instruments are involved in the process?**

The experience of planning practitioners shows that plans are likely to be successfully implemented only when their objectives are clearly and precisely formulated. It must, however, also be said that meta goals can only be achieved when interim goals and feedback processes are well-thought-out and both formulated and implemented early on. While many of those involved in the planning processes are, in theory, aware of these prerequisites, a variety of problems arise in practice. The most striking issue which comes up in this context relates to the fact that a great deal of specialist knowledge is required for the goal-orientated planning strategy just described above, and that not everyone involved in the planning process possesses the requisite know-how. One possible reason for this is the fact that the responsibility for planning sports and exercise areas, particularly those which are located near residential areas, is regulated at local level, rather than being regulated uniformly at state or federal level. There are, at present, no hard and fast rules governing this arrangement. This means, of course, that there is no way to counteract the recognisable shortfall of knowledge from a centralised location. Instead, many planning

organisations must rely on specialist knowledge being brought in from outside. In particular, in many places, questions about the specific sporting activities actually engaged in by the local population remain unanswered. This knowledge is, however, a prerequisite for making decisions on, for example, the sustainability of existing sports facilities.

The experiences of the workshop participants and the results from current research into the development of green spaces show, interestingly, that the requisite knowledge is often to be found within local or municipal structures. In order to determine this, however, appropriate opportunities for discussion and internal cooperation must be in place. There is currently a wide variety of structures in use in different parts of Germany. Let's take, for example, local government X. Here, internal cooperation between planning authorities, landscape authorities and parks and sports commissions is exemplary. While members of local government Y, 50 kilometres away, have heard of the methods used by local government X, they cannot imagine being able to add yet another round table to their already overloaded remit. It therefore appears that successful cooperation in planning is, in many cases, due more to the personal interest and commitment of individuals from the type of environment just described than, for example, to official administrative structures at local, district or state level.

It is not, however, only in the interaction between sports and green space plan-

ning that organisational and representational shortcomings are apparent. Instead, it has also become very clear that potential opportunities for exchange are not being taken advantage of within sports. Those involved in informal sporting activities, for example, complain that they would sometimes like better opportunities for articulation but are unable to find them, either within informal or organised sport. It is, however, important to consider that one cannot reject the binding structures of clubs and associations and still expect to avail oneself of their organisational structures. This is, understandably, an arrangement in which sports associations cannot and will not participate.

Another topic of discussion addresses the location and equipment of sports and exercise areas: Where are suitable spaces to be found? Are they attractively designed? Do they provide enough space for a wide variety of activities or are they already chronically overfilled? What political goals can be identified in this regard? Here, both organised sport, in particular, and the planning authorities responsible see themselves facing important – and often difficult – tasks relating to sustainable design and development. All the more surprising are statements from those involved in informal sports, who are, at least to a certain extent, against overplanning and design. Instead, they want to see athletes given spaces to use freely. “Freely” in this context means nothing more than that a space should define itself as suitable for various activities by its facilities and the options these allow. For many of its advocates, this is precisely the challenge of informal sport. And without these opportunities, many exercise-related developments could not and would not have taken place.

It very soon becomes clear, too, that in this context there is a decisive difference between city parks and other green spaces in residential areas on the one hand, and rural forests and meadows on the other. Nature conservation authorities, for example, see the accelerated development of green spaces in residential areas as an important way of reducing the burden on more remote natural areas. In this way, environmental damage through both the sporting activities themselves and, for example, the journeys undertaken to pursue them can be avoided. On the other hand, however, the demands of organisations such as rural forestry commissions must also be taken into account. These organisations are either looking for ways to increase the attractiveness of their regions or, indeed, are already in the process of implementing such measures. This revitalisation of rural areas is in keeping with the major political aim of preventing what is, in many German regions, a perceptible rural exodus and migration towards major industrial and urban centres. The rural areas are open to new ideas, particularly in sport- and health-related tourism, and the development opportunities for the future are exciting. It is, however, clear that many places are still determining their potential and that the requisite political framework and public funding have yet to be set up.

Opening up to new ideas, whether in residential or remote areas, can, however, often lead to conflict of a kind previously unknown in many places. Intensifying landscape usage to create exercise arenas, such as the bike parks, Nordic active centres and hiking trails found all over Germany, conflicts with traditional, established land use. The power of money very quickly becomes evident in the political discussions surrounding these

conflicts. Nowadays, for example, certain activities in the areas under consideration are associated with fees. The most obvious of these are hunting leases and hunting taxes, which are linked to the leases, but are payable as an additional fee to the local government. In many of the municipalities located in Germany's forested low mountain ranges, which are also very attractive destinations for sporting and tourism, these hunting duties are fixed budget items. The fishing lease fees paid by anglers play a similar role. In some states, other leisure activities, such as riding, also come into contact with tax laws. Without wishing to continue the discussion on this topic here, it has quickly become clear from all the controversy within the forum that the link between money and associated claims to use the land is bound to be an area of serious conflict. Here are just a few examples of the questions which arose: "Should only those who pay to use the facilities be involved in the planning process? Don't the opinions of those who pay the highest fees for land or water usage naturally carry the most political weight?"

Even when the reality of the last few years seems to provide very definite answers to this question, one would be justified in asking whether particular user groups should be allowed exclusive rights to use sustainable sports and exercise areas in natural settings. This theory inevitably gives rise to the requirement of placing a monetary value on exercise areas. This is the point at which the variety of different opinions and practical guidelines tend to clash.

On one hand, the discussion centres around the fact that there is an increasing political requirement to place a monetary value

on the social benefits provided by such spaces. Political decision makers, in particular, require relevant figures in order to make strong and effective arguments in favour of recreation and exercise when making decisions for or against leisure and exercise landscapes. Local governments must, all too often, submit to financial dictates where such decisions are concerned. And if appropriate figures cannot be produced, innovative concepts are swiftly rejected. These types of figures are, however, currently extremely rare. While various different calculation models exist, none of them has yet achieved sufficient credibility as to be in widespread use. And although many of our major healthcare providers do everything in their power to emphasise the health benefits of physical activity in natural outdoor surroundings, the figures they produce reflect the costs incurred through accidents and injuries resulting from exercising in this type of setting instead of showing the economic benefits of creating areas for exercise and leisure.

On the other hand, we must ask ourselves whether the socio-political discussion should really reflect the fact that almost everything in our lives must now be evaluated primarily in terms of its monetary value. Isn't society itself to blame for money being elevated to an all-important status in this manner? Shouldn't it be more important today than ever before that we reject this putative necessity in favour of prioritising other values?

In this context, we must conclude that engaging in joint discussion, exchanging experiences beyond predetermined boundaries and overcoming perceived obstacles represent this type of intangible value. Despite the fact that determining a realistic monetary value for this

is impossible, it is clear to all involved that it is precisely this communication which will ultimately decide the success or failure of the future-proof, sustainable development of our sports and exercise areas. If anything can lead us to this goal, it is cooperation between the

extremely diverse parties involved. It must, however, be clear to everyone involved that not every conflict will be amicably resolved by this means. There are, at present, certain interests which are simply too far apart to be reconciled.



**Klaus Hübner**

Bavarian State Bird Conservation Alliance,  
Head of the Sustainable Development and Leisure  
department

Bavarian State Bird Conservation Alliance

[www.lbv.de](http://www.lbv.de)



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**Brief biography**

Klaus Hübner, 55 years old, married, 5 children. This grammar school teacher, trained in the subjects of sports and biology, has been working for 21 years with the Bavarian State Bird Conservation Alliance where he heads up the Education for Sustainable Development and Leisure department. As a mountain sport enthusiast himself, it is important for him to bring nature conservation and sporting associations closer together – by jointly developing conservation concepts, such as the development and implementation of the rock climbing concept in Franconian Switzerland, conservation measures can be optimised and synergies availed of. This attitude also shapes his work as a member of the Steering Committee of the Association for German Nature Conservation and CIPRA Germany.

Klaus Hübner is part of the German committee for the UN Decade of Education for Sustainable Development (2005 to 2014). A particular concern of his on this committee is to promote education for sustainable development in kindergartens and nurseries.



Klaus Hübner and Tina Jacoby

## Workshop 3: Education for sustainable development and biological diversity in sport

### Summary of the input papers and results of the “fishbowl” discussion

#### Background

Education for sustainable development has shifted into the focus of the global community in recent years, especially since the second World Summit “Rio plus 10”, which took place in Johannesburg in 2002. This increased interest is also becoming clear through the UN World Decade 2005 to 2014, which was declared by the United Nations to be the decade of “Education for Sustainable Development”.

The aim of education for sustainable development in this decade is to empower people to actively shape an ecologically compatible, economically productive and socially just environment whilst taking global aspects into consideration.

In addition a further educational principle is introduced through the concept for sustainable development. For more than 200 years the basic principles of democracy and human dignity have had a fundamental influence on the educational processes in school teaching and in out-of-school activities. However, we now know that the sustainability of the human race can only be secured if we preserve natural resources and reduce the impact on our eco-systems. The concept of education for sustainable development takes up this important insight by introducing the preservation of natural resources as the third important prin-

ciple of education. But it is not just this new principle that make education for sustainable development so important for the future development of our society. It is mainly the new approach of this concept of education.

#### Focus not on problems but on shaping competence

The concept of education for sustainable development does not focus on the problems involved, but rather on the question of how the world can be shaped to make it fit for the future. So it does not concern itself with an analysis of unwanted circumstances, but rather about how the individual can be empowered to contribute to the shaping of society under consideration of his own life situation.

This is what distinguishes education for sustainable development fundamentally from the educational efforts in the 1970s and 80s, where educational endeavours were always directed towards solving the problems of conservation and environmental protection. Education for sustainable development on the other hand wishes to empower the individual so that he can successfully shape his individual life in accordance with sustainable development on a local scale but with a global sense of responsibility.

Education for sustainable development affects all areas of the educational system: learning in child day-care facilities, schools, universities and colleges, institutes of further

education and cultural institutions or research institutions. In addition, education for sustainable development also takes place outside educational establishments and out-of-school and life-long learning are increasingly gaining in importance.

### **National action plan for Germany**

In 2005 the German national steering committee for the UN Decade “Education for sustainable development” drafted a national action plan for the Federal Republic that pursues the following strategic objectives:

1. Development and bundling of activities as well the transfer of good practice across the board
2. Networking of stakeholders in education for sustainable development
3. Improvement of the public perception of education for sustainable development
4. Strengthening of international cooperative ventures

These four strategic objectives have been put into concrete terms in a catalogue of measures. This catalogue of measures names the visions and specifies the sub-goals, describes the relevant starting situations and identifies the stages of development and the stakeholders involved.

The strategic objectives and the detailed catalogue of measures were written in cooperation with responsible persons in the Federal government, state and local authority governments, industry and commerce, the world of science and also groups of society. The action plan and the catalogue of measures will be updated regularly during the Decade.

### **Decade projects**

The activities forming part of the UN Decade of education for sustainable development should be evident throughout Germany. For this reason local activities and projects are approved as “official Decade projects” and are incorporated into the “Learning Sustainability Alliance”. In this way the diversity of the educational landscape in Germany is taken into account and local commitment is supported. To date over 500 Decade projects have been approved.

### **Example of good practice: ticket to nature**

The “ticket to nature” nature sports camps combine sport for fun out in the countryside with a reflective look at nature. In summer the sports practised are Nordic blading / cross skating, Nordic walking and mountain biking; in winter participants move around the countryside on backcountry skis or snowshoes or with alpine snow sports equipment. Activities such as role play and planning games, a house rally and the undertaking of short expeditions planned by the participants for themselves provide for the reflective look at sport in the countryside. The young people learn about animals of the natural landscape and their reactions to being disturbed by sportsmen, about the economic dimension of sports tourism and about opportunities for the sustainable practice of sport. Two youth or group leaders with training both in the specific sports involved and in outdoor education are in charge of the “ticket to nature” camp programme and lead the outdoor sports activities.

The SIS (Foundation for Skiing Safety) has received funding from the DBU (German Federal Foundation for the Environment) to assist with the implementation of the idea for this project. The project has already been approved as an official Decade Project of the UN Decade "Education for sustainable development 2005-2014". The design and organisation work for the project is being carried out at the INÖK (Institute of Outdoor Sports and Environmental Science) at the DSHS (German Sports University) Cologne and by the environmental council of the DSV (German Ski Association).

#### Opportunities, potential and limits of education for sustainable development in sport – results of the discussion

It quickly became clear in the course of the discussion about sport and education for sustainable development that a distinction must be made between opportunities with regard

to the objectives set and possible ways of implementing these objectives. In the opinion of the discussion group the most important objective of education for sustainable development is to raise awareness. Concrete steps to raise awareness are the awakening of interest in the subject of sustainability, ensuring that questions of sustainability become a matter of course, the development of a sustainable infrastructure in sport and finally sustainable behaviour on the part of every individual.

Sport was seen as having the potential in this process to provide opportunities for the clarification of the principles of sustainable development through sporting activities, whether these activities are associated with sports facilities or with the countryside. Sport is therefore used as a vehicle. The positive feelings often found among sportsmen can support learning on the subject of sustainability and should be exploited for this purpose. The infrastructure that is available both in the work done in sports clubs and in education


Alliance of all those responsible (nature conservation, sport, politics)		
Target objectives:		Implementation:
Raising awareness	<b>Potential of sport</b> <ul style="list-style-type: none"> <li>■ Sport = vehicle</li> <li>■ Positive feelings</li> <li>■ Infrastructure</li> </ul>	Generate and make available concrete proposals for solutions
In detail: <ul style="list-style-type: none"> <li>■ Awaken interest in sustainability</li> <li>■ Sustainability as a matter of course</li> <li>■ Development of a sustainable sports infrastructure</li> <li>■ Sustainable behaviour</li> </ul>		In detail: <ul style="list-style-type: none"> <li>■ Adopt EfSD into the educational structure</li> <li>■ Information on the Internet</li> <li>■ Sustainable planning of sports areas with EfSD elements</li> <li>■ Public relations work</li> </ul>

Fig. 1. Opportunities and potential of sport in education for sustainable development

provides ideal opportunities for training disseminators of ideas.

However, in the opinion of the workshop participants it is necessary to generate and make available concrete proposals for solutions in specific areas of action in order to realise the objectives set both through and in sport. This includes the adoption of elements of education for sustainable development into the training of coaches and trainers, in which they should be trained in teaching and methodology, the making available of information on the Internet (information about sport and nature conservation can be found on [www.natursportinfo.de](http://www.natursportinfo.de)), sustainable planning of sports areas with integrated, appropriate informal educational elements and increased public relations work.

The aim should be to form an alliance of all those responsible in nature conservation, sport and politics (Fig.1).

The workshop participants saw limits to the implementation process in that sportsmen do not like to accept restrictions or to be made to feel guilty. Accessibility, especially in non-organised sport, also sets considerable limits. Communication between sports and environmental associations should be expanded and intensified so that potential problems can be recognised in good time. Making knowledge and appropriate methods available in a way that is geared to target groups was also seen as a great challenge.

Looking ahead, however, it was established that it is possible – if the appropriate, suitable methods are employed – to raise awareness with regard to sustainable development and that sport can and should support this process, although the tediousness of the processes of raising awareness must not be underestimated.



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German  
Sports University  
Cologne

Am Sportpark  
Müngersdorf 6  
D-50933 Cologne

Tel +49 22 1 49 82 4240  
Fax +49 22 1 49 82 8480



[www.dshs-koeln-natursport.de](http://www.dshs-koeln-natursport.de)  
[natursport@dshs-koeln.de](mailto:natursport@dshs-koeln.de)