

## REQUIREMENTS FOR THE MANAGEMENT OF PROTECTED AREAS ACCORDING TO THE UNESCO WORLD HERITAGE CONVENTION AND IUCN CATEGORIES

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**Keywords:** Management, Management plan, UNESCO World Heritage Convention, IUCN, nature conservation, protected area management, national parks.

**Summary:** Methodological and standardized management requirements for protected areas have become a central issue in nature conservation over the last years. The article takes a closer look on the current international standards laid out by the World Heritage Convention for natural sites and by IUCN for protected areas. Both actors play a central role in the way we approach and deal with protected areas globally. Both are influenced by local developments, local management cultures and still have to have a global approach. The goal is to examine how the World Heritage community has tackled these problems and in which form it is today adapting to current developments. The first part lays out the management principles for the UNESCO Natural World Heritage properties according to the overarching goal of protecting the Outstanding Universal Value (OUV) of a site. Part two summarises the management principles of protected nature reserves following the IUCN categories. Their aim is to protect (and conserve) nature with its ecosystems, species, biodiversity etc. The conclusion reflects on management of protected nature sites in general and how the two above examined concepts interrelate.

### Introduction

Over the last decades, but already starting in the eighteenth century different methodologies have been developed in order to protect our environment. Not only the nature, but as well the flora and fauna in detail, today often summoned under the terminology of biodiversity, are in the focus. In addition cultural values of landscapes are increasingly protected. Concepts vary and in Europe we find a large variety, such as the EC habitats directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora), national parks, Biosphere Reserves (Conservation designation given by UNESCO under its Programme on Man and the Biosphere). International commitments to the development of networks and common management approaches of protected areas date from 1972 when not only the Convention concerning the Protection of the World Cultural and Natural Heritage (referred to as World Heritage Convention) was adopted by UNESCO but as well the Stockholm Declaration from the United Nations Conference on the Human Environment endorsed the protection of representative examples of all major ecosystem types. Since then, the protection of representative ecosystems and its sustainable management has become a core principle of conservation, supported by key United Nations resolutions – including the World Charter for Nature 1982, the Rio Declaration 1992, and the Johannesburg Declaration 2002.

Globally, national programs for the protection of representative ecosystems have progressed with respect to terrestrial environments, with less progress in marine and freshwater biomes. In the following article we have a closer look at two international concepts that have developed guidelines which have become the standards for

environmental protection: The UNESCO guidelines for natural protected areas (World Heritage properties), fixed in the “Operational Guidelines” (OG 2008) and IUCN-National Park, category II (IUCN 1994).

The following article will first explain the management guidelines for UNESCO World Heritage properties for nature according to the overall goal of the management of a World Heritage: Protecting the Outstanding Universal Value (OUV) of a World Heritage property (Figure 1).



*Figure 1.* World Heritage property Lake Fertő (Hungary) by H. Kruckenberg  
*1. ábra* A fertő-tavi világörökség terület (H. Kruckenberg)

Part two will summarize the management principles of protecting nature reserves under the IUCN categories. Their aim is to protect (and conserve) nature with its ecosystems, species, biodiversity etc.

In the last part, there will be some reflections about management of protected nature sites in general.

### **General overview of the requirements for the management of UNESCO natural World Heritage properties**

The UNESCO World Heritage Convention was adopted on 16th November 1972 by the General Assembly of UNESCO in Paris. The event that aroused particular international concern was the decision taken in the 1950-ties to build the Aswan High Dam in Egypt, which would have flooded the valley containing the Abu Simbel temples, a great treasure of the ancient Egyptian civilization. Some 50 countries donated money for the safeguarding of this monument. Other initiatives followed, like Venice and its Lagoon (Italy), the

archaeological ruins at Moenjodaro (Pakistan) and the Borobudur Temple Compounds in Indonesia. These examples showed the necessity of creating an international convention of protecting our heritage. In the beginning, it was very much focussed on the cultural heritage – and there is still a predominance of culture on the list.

The idea of combining conservation of cultural sites with those of nature was brought up by the United States of America. In the White House Conference in Washington, D.C., in 1965 there was a call for a ‘World Heritage Trust’ that would stimulate international cooperation to protect ‘the world’s superb natural and scenic areas and historic sites for the present and the future of the entire world citizenry’. In 1968, the International Union for Conservation of Nature (IUCN) developed similar proposals for its members. These proposals were presented to the 1972 United Nations conference on Human Environment in Stockholm. Eventually, a single text was agreed upon by all parties concerned and adopted in 1972 dealing with nature and culture. “Noting that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction, [...]” While the text of the World Heritage Convention describes the aim of the convention, the explanations and guidelines, HOW to protect and safe the World Heritage are fixed in the so called operational guidelines (OG 2008), which are regularly updated by the World Heritage Committee.

In the following the mechanisms are described, which are relevant if a World Heritage property for nature is proposed and later listed. The process of the nomination and the decisions will not be described. Therefore other publications are relevant (e.g. KRUSE 2008, KRUSE and KRUCKENBERG 2005). It has to be distinguished, if the site will be a mono-national one or a serial and/or trans-boundary one. Special recommendations are valid for these exceptions – which are becoming more and more relevant.

Article 2 of the convention defines the World Natural Heritage as follows:

“For the purposes of this Convention, the following shall be considered as “natural heritage”:

- natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;
- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.”

### **Background and basics**

RINGBECK (2008) states that there is no official form for a management plan by UNESCO. There content relates always on the special conditions of the special world heritage property. Even 30 years after the implementing of the World Heritage Convention, the requirements for a management plan or system are only at the beginning and still under discussion. RINGBECK (2008) emphasis that we can only talk about a set of tools, which

are based on the aim of the convention and which will be developed further in the near future. Several discussions and workshops are recently taken out, in order to get a closer and more valid structure for the management plan / system. In this context a workshop on the island of Vilm (north-eastern Germany) shall be mentioned: „Nominations and Management of Serial World Natural Heritage Properties - Present Situation, Challenges and Opportunities“ (November 26<sup>th</sup>–30<sup>th</sup> 2008) which has been taken out by the German Federal Agency for Nature Conservation. Among others, the special management requirements for serial sites had been discussed. During the workshop there have been discussions on the latest recommendations of IUCN. The future outline of the orientation of the World Heritage Convention was fixed. The discussion was started on the paper WHC-08/32.com/10B that was presented on the 2008 annual meeting of the World Heritage Committee in Quebec/Canada (<http://whc.unesco.org/en/sessions/32com>).

The main task of a management plan or -system for a UNESCO World Heritage property is to protect and / or optimise the Outstanding Universal Value (OUV) of this site (Figure 2). The OUV is explained and proofed among others with a comparative analysis. The site is described, within its borders and legislative implementation. The management plan (or system) is only the **tool** to conserve and protect the status and the conditions of the site itself.

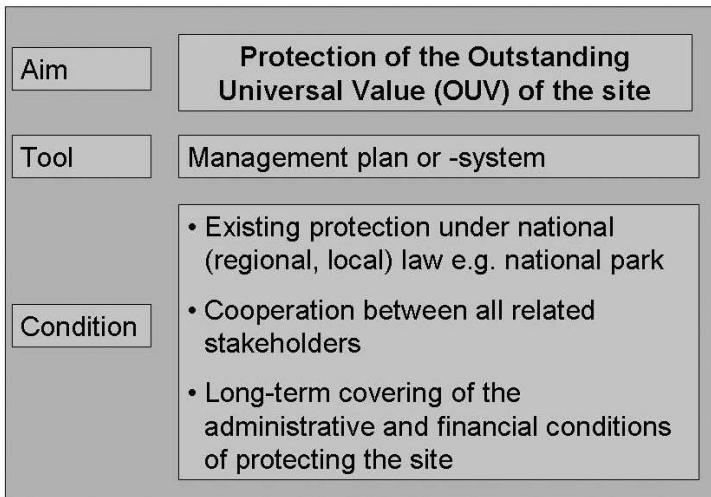


Figure 2. Aim, tool and condition of the protection of UNESCO World Heritage properties  
 2. ábra Az UNESCO világörökség területeinek céljának, eszközének és védelmének a feltételei

Although a management plan is recommended by the convention and the advisory bodies, the operational guidelines mention always additionally a management system. The reason is that there are many member states of the World Heritage Convention, which do not have the instrument of a management plan.

The need for a management plan is founded on the necessity of meeting the aims of the convention, of protecting and conserving the stated values in a sustainable way. World Heritage is always seen on a long term basis – for future generations. While the convention itself does not require a management plan for the World Heritage properties,

the praxis during the last 40 years has clearly shown the need for it. So the world heritage committee, which meets at least once per year and which is alternatingly possessed with delegates from 21 member countries has reacted with an updating of the Operational Guidelines. Since 10 years now, the management plan (or a related structure) is required. But nevertheless, there are many sites (nearly 50%, mostly of older age), which do not have one. Those properties are today, in the Periodic Reporting Cycles, invited to draft and submit a plan to the World Heritage Committee.

The need for a legal protection and the requirement of special administrative conditions have always been in place and are closely evaluated (World Heritage Convention).

Last but not least it shall be mentioned, that the structure of a management plan is described as example in the recent update of the Operational Guidelines. The nomination dossier requires a management chapter,

All these developments show, that the committee has accepted the need for an effective, coordinated and overall existing management. So the framework is given which shall realize an effective implementation of the UNESCO World Heritage Convention.

### **Overview of the requirements of UNESCO on the management of World Heritage properties**

Article 5 of the convention states

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country: [...] (d) to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; [...]

According to this open definition, some guiding principles have been set up especially during the last 10 years which form paragraphs 96-119 of the Operational Guidelines. The chosen regime of protection shall include the following parameters:

“Protection and management of World Heritage properties should ensure that the outstanding universal value, the conditions of integrity and/or authenticity at the time of inscription are maintained or enhanced in the future.” (§ 96, OG 2008)

The commitment for a sustainable protection and management regime is also fixed in § 97 OG 2008:

“All properties inscribed on the World Heritage List must have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries.”

It is not sufficient, to have an isolated, singular protection. There must be measures, taken on all corresponding administrative levels (national, regional, local). Inadequate or missing buffer zones can be a reason for a negative evaluation of a nominated site.

As principles of the management plan or systems are formulated in §§ 111–112 of the operational guidelines:

111 “In recognizing the diversity mentioned above, common elements of an effective management system could include:

- a) a thorough shared understanding of the property by all stakeholders;
- b) a cycle of planning, implementation, monitoring, evaluation and feedback;
- c) the involvement of partners and stakeholders;
- d) the allocation of necessary resources;
- e) capacity-building; and
- f) an accountable, transparent description of how the management system functions.”

112. “Effective management involves a cycle of long-term and day-to-day actions to protect, conserve and present the nominated property. “

The concrete conditions for the protection and management plan for a UNESCO World Heritage property contain the following aspects:

- Legislative, regulatory and contractual measures for protection
- Boundaries for effective protection
- Buffer zones
- Management system
- Sustainable use

These are the main aspects for the management system and single points will be explained in detail in the following lines. Management is currently chapter 5 of a nomination dossier (OG, 2008). Additional there are aspects which shall be explained in the nomination dossier as well, that also influence an effective protection and management system: Chapter 5: “State of Conservation and factors affecting the Property”. In this chapter the following aspects shall be outlined:

- Present state of conservation
- Factors affecting the property
- Development pressures (e.g. encroachment, adaptation, agriculture, mining)
- Environmental pressures (e.g. pollution, climate change, desertification)
- Natural disasters and risk preparedness (earthquakes, floods, fires, etc.)
- Visitor / tourism pressures
- Number of inhabitants within the property and the buffer zone

The management plan or -systems is in place to protect and management the property with protective measures and with the practicalities of day-to-day administration and management (§§ 106 OG, 2008). Therefore some information on the **property / ownership** has to be provided (major categories of land ownership, including state, provincial, private, community, traditional, customary and non-governmental ownership etc.).

Next point is the **protective designation**. The relevant legal, regulatory, contractual, planning (MÜSSNER and PLACHTER, 2002), institutional and / or traditional status of the property has to be listed. E.g. is the site a protected area under national law (e.g. national park) or custom legal construction? The means of implementing the protective measures shall be described: How is the protection afforded by its legal, regulatory, contractual, planning, institutional and/ or traditional status actually works. Due to this point, **existing (agreed) plans** related to municipality and region in which the property is located shall



be provided. After all the background information an appropriate management plan (or management system) shall be developed, adjusted to the recent property conditions. Assurance of the effective implementation of the management plan is also expected.

In order to conserve and protect a property it is essential to dispose on adequate **financial sources**. To secure and show the sources and the level of finance available to the property on an annual basis.

In order to assure the ongoing, sustainable and effective management, it is necessary, to **train in conservation and management techniques**. The expertise and training which are available from national authorities or other organizations to the property have to be indicated.

In praxis, the management system contains the following chapters:

- Aim of the management system,
- Status of the management system,
- Structure of the management system,
- Identifying and evaluation of the most important tasks of the management system.

Under this chapter, aims and actions are formulated.

It is important for a World Heritage property to be regularly evaluated – not only by official evaluators within the framework of the periodic reporting but also internal. This evaluation should be part of the implemented management plan/system (example on Figure 3).



Figure 3. Elements and processes of the management for protected areas (after WÖRLE et al. 2006)  
3. ábra A védett területek kezelésének elemei és folyamatai (WÖRLE et al. 2006 után)

### Excursus: Risk management

The latest experience with nominations (especially with cultural sites, e.g. Dresden, Cologne, Vienna) have shown, that there is also a need to deal with risk scenarios and risk preparedness within management plan. The committee encourages its members, to concentrate research on the following topics (Decision: 31 COM 7.1):

- To identify Natural World Heritage properties most at risk from the impacts of climate change to enable a clearer identification of priorities for overall response actions to avoid or alleviate impacts.
- To identify the most suitable monitoring and evaluation systems to enable the most effective detection of climate change and its impacts at natural properties to project how these impacts will threaten World Heritage values over time and space.

The decision defines details further on research in relation to impacts on criterion (viii) “geodiversity” and research in relation to impacts on criteria (ix) and (x) “biodiversity”. As an example one may cite the identification of “climate refugia” for biodiversity values inside and outside properties that leads us to the question of management in the buffer zones of protected areas and the integration of management systems into the larger context. In this context Research in relation to impacts on integrity (size, shape, boundaries, buffer zones, anagement, threats, etc.): To identify key direct and indirect impacts of climate change on the integrity of specific properties and how this research can best be used to guide field management responses at the site level. And further to link properties.

**Risk management** can be divided in the following components:

1. Proactive means, techniques, strategies and actions to detect the risk and to control the different stages of a risk.
2. Principles of a circle: Impact assessment, balancing of risks and consequences, monitoring, prevention, probability of a catastrophe, emergency measures, long term recovery etc (ICCROM TRAINING KIT 2008)

### **The special case of serial and / or trans-national World Heritage nominations**

Serial and trans-boundary (non-serial) World Heritage properties present a special case because they often have to combine different protection schemes. Therefore no common management plan may be established but a management structure that will oversee and control the different management instruments (Biosphere Reserve administration, National Park administration, Strict Nature Reserve administration et al.).

The Operational Guidelines lay down the requirements for a transnational nomination dossier for the inscription on the World Heritage list (§§ 134-136 OG 2008). For the management it is recommended that the States Parties concerned establish a joint management committee or similar body to oversee the management. (§ 135 OG 2008). Foremost examples in Europe are the “*Frontiers of the Roman Empire*” (WHS 430 [whc.unesco.org/en/list/430](http://whc.unesco.org/en/list/430)), the cultural landscape „Fertó-Neusiedlersee“ (WHS 772 <http://whc.unesco.org/en/list/772>) and the „Struve Geodetic Arc“ (WHS 1187 <http://whc.unesco.org/en/list/1187>). The point that may be highlighted here is the process to establish such an instrument. It is during this process that the advisory bodies, the World Heritage Centre and other actors become crucial in order to help by highlighting best practices. As serial nominations are a growing number (see fig. 4 and 5), UNESCO and the advisory bodies had to accept, that the recent operational guidelines have to many open questions or missing regulations for these kind of nominations and of sites. So it is defined as one prior-ranking working field: To clarify and concretise the OG with respect to serial nominations and especially regarding the expectations and requirements for management systems. Especially serial nominations are in most cases unable to set up one common management plan. They opt for a management system.





Figure 4. Beech forests - a European ecological speciality - are component parts of several UNESCO World Heritage properties for nature (KRUSE 2008)

4. ábra A bükkerdők – európai ökológiai specialitások – számos UNESCO természeti világörökség helyszínének alkotóelemei (KRUSE 2008)



Figure 5. The Wadden Sea, trans-boundary nomination (in the evaluation process) as World Heritage property by Germany and the Netherlands. The nomination process took a long time, but it is also a good example for a participatory approach (photo: sign of Wadden Sea Lower Saxony National Park – by H. Kruckenberg)

5. ábra A Wadden-tenger, világörökség határmenti kijelölése (elbírálás alatt) Németország és Hollandia között. A kijelölési folyamat hosszabb időt vett igénybe, de ez egy jó példa a többszereplős részvétellel történő megközelítésre (fotó: az Alsó-Szász Wadden-tenger Nemzeti Park táblája - H. Kruckenberg)

## Requirements by IUCN for the management of UNESCO World Heritage properties

IUCN, the World Commission on nature protection is the advisory body of UNESCO for all questions related to nature (in parallel ICOMOS is the advisory body for culture related questions). It is important to note that World Heritage properties are in most cases planned and managed in a way that is no different to any well managed protected areas and are, most of the times, managed accordingly. Furthermore the management of natural World Heritage properties follows the guidelines set out above. IUCN puts in addition an emphasis on the integrated management of World Heritage. Such a property is not isolated from other protection schemas. A natural World Heritage property will normally contain other values that are important at regional, national or local levels. Natural properties also normally demonstrate cultural values of at least local significance. As stated above, the Outstanding Universal Value gives a particular emphasis in the management but it is important to not manage the property only for its Outstanding Universal Value but to consider all of its values.

Because World Heritage properties are often the flagships of a nation's protected area system and a focus for international attention, it follows that there is an additional reason why their protection and management should have the highest level of commitment from the relevant State Party. The production of a comprehensive management plan demonstrates this commitment and the fulfilment of a wider responsibility to the international community. Preparing a management plan for a natural World Heritage property is in principle little different to producing one for any other protected area. Recently IUCN has published new guidelines how management is in particular applied to World Heritage properties (IUCN 2008).

No matter what the differences, there are always a series of issues which must be addressed and reflected in the core principles which underpin the plan: How the outstanding values of the property will be protected and its integrity safeguarded. No matter what the local circumstances, the production of any management plan, involves two complementary tasks; the process and its contents.

The link of World Heritage management plans to other plans and strategies is primordial. The existing national, regional and local plans and strategies which could affect a World Heritage property have to be considered and understanding the relationship between them and the relevant property is very important. National legislation and policies are a fundamental influence that should also be understood and taken into account.

According to the above cited study (IUCN 2008), the first step is to answer the question, why it is so important to have management plans at all. The answer is rather simple. In fact a management plan is necessary because it

- focuses management thinking and effort on delivering the objectives and requirements of the World Heritage Convention and its associated Operational Guidelines.
- provides a clear and concise statement of how and why the outstanding universal value and integrity of a property will be safeguarded, managed and improved.
- explains the ambitions and objectives for the property through the eyes of those responsible for maintaining its global importance and status.
- sets a framework for all the activities within the site for the next 20–30 years.

- provides consistency and continuity for the managing organisation, direction and focus for management effort, finance and the use of staff.
- encourages cooperate decision making and enables everyone to understand the reasons for the work they are doing.
- gives credibility at a local, national and international level to the World Heritage concept and the importance of each inscribed property.
- directly influences other plans and activities which might affect the World Heritage property.
- focuses attention on what information is needed to judge management progress and enables change be measured more objectively (IUCN 2008, p. 2).

The next question answered by IUCN is, who needs the management plans? Again, the answer is rather simple, too:

- Politicians with influence or interest in conservation.
- Those who allocate resources and staff.
- Those who live in or use the property.
- Those responsible for monitoring and reporting environmental change.

A management plan for a World Heritage property from the point of view of IUCN may be thought of as a ‘public contract’ between the management organisation and the stakeholders of a property. While the World Heritage Convention sets out several ‘soft laws’, IUCN gives advice on how to interpret these. On the other hand, the IUCN recommendations have often been transposed into national hard law. This is true for the World Heritage recommendations given in the different guidelines (for a comprehensive view: IUCN 2008) and in the requirements for protected areas IUCN has published. Even for World Heritage properties, these form a base and in the following will be given a closer examination.

### **Requirements by IUCN for protected areas**

IUCN has setup a catalogue of categories in order to establish guidelines for protected areas. The protection objectives of these categories allow or claim different levels of management activities which will be outlined below. The IUCN categories are today internationally approved and most of the nature areas are classified according to one of them.

In addition IUCN has published guidelines for the protected area management according to these categories. They may comfortably used via internet ([www.unep-wcmc.org/protected\\_areas/categories/index.html](http://www.unep-wcmc.org/protected_areas/categories/index.html)). Furthermore, a complete worldwide list of nature reserves and its IUCN categories may be found at [www.wdpa.org](http://www.wdpa.org).

**IUCN category Ia: Strict Nature Reserve:** Protected area managed mainly for science  
**Definition:** Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and / or environmental monitoring.

By using the kind of protection regime ecosystems, habitats or species should be kept in an extensive level of non-human intervention. Due to this, the area shall be strictly limited in public access. Only scientist may be licensed to work there especially on scientific projects supporting understanding of natural processes and/or environmental monitoring schemes.

Whilst establishing a strict nature reserve it has to be assured to protect the ecosystem completely. No human intervention is allowed. The whole variety of biodiversity should be self sustainable inside the protected site. So the management options and interventions within the protected area are very limited. In fact, most of the necessary management eventualities are to preserve the integrity of the habitats and species, safeguard structural landscape elements or rock formations and restrict public access, requiring therefore a strong area protection along the borders of the site. The main management interventions will be outside the site.

Well known examples of IUCN category Ia Strict Nature Reserves are the Swiss national park Engadin, protecting high alpine glacial areas and the Swedish Fågelmossen Nature Reserve, an untouched bog area where e.g. several threatened owl species life.

**IUCN category Ib: Wilderness Area:** Protected area managed mainly for wilderness protection.

**Definition:** Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

By using this protection category the natural characteristics of a site shall be conserved for a long period. In the Ib-protected sites natural processes have priority to keep the ecosystem, landscapes or species untouched. Therefore the public access has to be kept low. Beside an effective borderline protection management is widely unrequested. In fact, this even means a landscape may change its character dramatically by natural processes without any exigency of human engagement. Indigenous tribes may settle within the area to live in their traditional way. Due to the definition this areas must have an important ecological, geological or similar characteristic with high scientific, aesthetical or historical value. These characteristics accrued from ongoing natural processes which must not be touched by implementation of the protection area. Human influence ought to be extensively absent.

The objectives of management are mainly the same as in category Ia, but public access is less restricted and indigenous tribes may life there. The management has to ensure future generations opportunities to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time and to maintain the essential natural attributes and qualities of the environment over the long term. Management systems shall provide public access at levels and of a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for present and future generations and to enable indigenous human communities living at low density and in a sustainable lifestyle.

The Great Arctic State Nature Reserve (russ: Большой Арктический государственный природный заповедник, Bolshoi Artkicheskiy Zapovednik) on Taimyr Peninsula (Siberia) is an example for a category Ib area. With an area of 41,692 km<sup>2</sup>, it is the largest

reserve of Russia and Europe and one of the largest in the world. Many animals and plants are meant to thrive within the Reserve without human disturbance. Among the animals that are protected by this Zapovednik are important species like the Polar Bear, the Arctic Fox, the Snowy Owl, the Reindeer and the Beluga.

**IUCN category II: National Park:** Protected area managed mainly for ecosystem protection and recreation.

**Definition:** Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

**In contrast to wilderness areas the national park concept aims to conserve an ecosystem or a landscape of special value for future generations.**

This states explicitly the option of management activities within the site in order to stabilize or optimize habitats or landscapes. The main target is to protect an extraordinary form of nature, landscape or just a set of threatened species. So, for example, measures might be necessary to conserve meadows (which might change to forest without mowing), wetlands or bogs. In some areas it might be indispensable to eliminate alien species (neophyte or neozoen). On the other hand, it's often worth reintroducing extinct species following scientific programmes. Especially in relatively small reserves wildlife management could be required in order to keep populations stable. If anthropogenic influence caused changes, for example in aquatic systems, this also can be rebuilt/repopulated within a national park concept.

On the other hand all kind of economic activity has to be banned from a national park of IUCN category II. The only exception is a sustainable form of tourism in the means of visitor guidance, education and information of human (economical) activities in the site. 75% of the whole site must be under strict regulations of the protection scheme. This category of sites includes mainly attractive landscapes of national or international importance. Main target is to conserve their biotic communities and / or species as well as their genetic resources.

Entrance to visitors can be allowed as long as this does no harm to the natural or semi-natural conditions of the site. Interest of indigenous people shall be considered if they fit in the management objectives.

National parks under criteria II shall cover one or more complete ecosystems which are situated in as far as possible natural conditions.

In fact the objectives of management are quite different to category I. Management has to protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes and to perpetuate, in as natural a state as possible. The management system shall manage visitor use for inspirational, educational, cultural and recreational purposes at a level which will maintain the area in a natural or near natural state. Administrations have to eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation.

European examples for IUCN category II nature reserves are National Park Neusiedler See-Seewinkel, Austria / Hungary, a large wintering site for lots of waterfowl as well as



breeding habitat for wetlands species (see fig. 1), or Store Mosse Nationalpark, southern Sweden, a historical human used bog area (see fig. 7).



*Figure 6.* Store Mosse (Sweden), National Park, IUCN category II (by KRUCKENBERG)  
*6. ábra* Store Mosse (Svédország), Nemzeti Park, II-es IUCN kategória (KRUCKENBERG által)

**IUCN category III: Natural monument:** Protected area managed mainly for conservation of specific natural features.

**Definition:** Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance. This category of protected areas shall provide one or more features of outstanding value. Examples of such features are impressive, picturesque waterfalls, dunes or extraordinary places of fossil findings. The area should be large enough to protect the integrity of the feature and its immediately related surroundings.

The management objectives and activities are to secure and maintain the habitat conditions necessary to protect significant species, groups of species, biotic communities or physical features of the environment. Especially where these require specific human manipulation for optimum management and to facilitate scientific research and environmental monitoring as primary activities associated with sustainable resource management. Development of ecotourism in limited areas for public education and appreciation of the characteristics of the habitats concerned and of the work of wildlife management is accepted. Like in category II authorities have to eliminate and thereafter



prevent exploitation or occupation inimical to the purposes of designation and deliver such benefits to people living within the designated area as are consistent with the other objectives of management.

**IUCN category IV: Habitat/Species Management Area:** Protected area managed mainly for conservation through management intervention.

**Definition:** Area of land and / or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and / or to meet the requirements of specific species.

In contrast to the other IUCN categories, the site management objectives focuses on the species spotlighted for the particular area. The management system has to secure and maintain the habitat conditions necessary to protect significant species, groups of species, biotic communities and to facilitate scientific research and environmental monitoring as primary activities associated with sustainable resource management. Further area management may develop limited areas for public education and appreciation of the characteristics of the habitats concerned and of the work of wildlife management.

**IUCN category V: Protected Landscape/Seascape:** Protected area managed mainly for landscape/seascape conservation and recreation.

**Definition:** Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Category V integrates nature value and human culture (e.g. of land use) into the protection concept. So, the management has to maintain the harmonious interaction of nature and culture through the protection of landscape and/or seascape and the continuation of traditional land use, building practices and social and cultural manifestations, support lifestyles and economic activities which are in harmony with nature and the preservation of the social and cultural fabric of the communities concerned. The diversity of landscape and habitats for associated species and ecosystems has to be maintained. Also the management system has to combine local people requirements like recreation, (nature) tourism, benefits from forestry and fishery in sustainable forms with protection efforts.

**IUCN category VI: Managed Resource Protected Area:** Protected area managed mainly for the sustainable use of natural ecosystems

**Definition:** Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

In these areas the management system has to protect and maintain the biological diversity and other natural values of the area in the long term and to promote management practices for sustainable production purposes. The natural resource base has to be protected from being alienated for other land-use purposes that would be detrimental to the area's biological diversity and the system has to contribute to regional and national development.

## Results and discussion

There are many different concepts and requirements regarding the management of protected areas. It mainly relates on the reason *why* an area is under a protection management and according to the aim.

The World Heritage Convention requirements focus primarily on the protection of the OUV, the Outstanding Universal Value of a property, in accordance with the criteria under which the property was listed. The concept of uniqueness and of representativity limits the World Heritage properties in numbers, even if this concept today is challenged, as by definition each area in the world has unique features (UNESCO 05/2008, <http://whc.unesco.org/en/activities/494/> and <http://whc.unesco.org/en/decisions/1565/>). The second main concept that is important for World Heritage is the integrity of natural properties. The integrity has to be proved for the inscription on the list. Measures to keep or in some exceptional cases, to reconstitute integrity have to be outlined.

By contrast, the IUCN management requirements refer to biological and ecosystematic conditions and sometimes on single species. An IUCN overall goal is the best protection of natural areas and in limit as well cultural features regardless of their value against others. Therefore IUCN has a wide variety of different protection categories. The management for these IUCN protected areas may in some cases be very specific, for example where they focus on only one species. Or they may be much broader, when they focus on the protection of a whole ecosystem.

In detail and in the day to day administration advises, the two protection schemes and recommendations are not too different from each other as they both intend to protect nature areas and as IUCN is one of the advisory bodies of the World Heritage Convention: The advisory body for nature sites. In this role, IUCN influences the management guidelines established for World Heritage and the strategic discussions.

As a general conclusion it may be said, that all sites, which intend to become a World Heritage property for nature should already fulfil one of the IUCN categories and implement the recommendations found there. Even better, if the sites are already listed according to one of the IUCN categories and follow in partnership IUCN recommendations and participate actively in international co-operations. This will facilitate the inscription of a nominated property on the World Heritage list.

The World Heritage community has developed in the last decade a tool to better react to current challenges and anticipate protective measures: The periodic reporting. Each property has to report in a 6 year cycle on the changes affecting the property and on the other hand, each State Party has to report on the overall developments. One major change in the second periodic reporting cycle will be the requirement to clearly formulate the *Statement of Significance* and integrate the OUV in all management tools specific to each site. Looking through the documentation of the statutory meetings (<http://whc.unesco.org/en/statutorydoc/>) the changes of this more pro-active policy particular in terms of management are already visible in the requirements laid out in the Operational Guidelines from 2008 (OG 2008). In the coming decade the site manager will have to follow closely the changes in the recommendations by IUCN and the World Heritage community. The management of a protected area is not anymore a onetime event at the inscription of a property on the World Heritage list, but a day-to-day challenge.

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A VÉDETT TERÜLETEK KEZELÉSÉNEK ELŐÍRÁSAI AZ UNESCO VILÁGÖRÖKSÉG  
EGYEZMÉNY ÉS AZ IUCN KATEGÓRIÁKNAK MEGFELELŐEN

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**Kulcsszavak:** kezelés, kezelési terv, UNESCO Világörökség Egyezmény, IUCN, természetvédelem, védett terület kezelése, nemzeti parkok

A védett területek kezelésének módszertani és az egységesített kezelési követelményei a természetvédelem központi kérdésévé váltak az elmúlt években. A cikk a Világörökség Egyezmény természeti területeire és az IUCN védett területekre lefektetett jelenlegi nemzetközi standardjait taglalja. Mindkét szereplő központi szerepet játszik a védett területek globálisan megítélésében és hozzá való viszonyunkban. Mindkettőt befolyásolják a helyi fejlesztések, a helyi kezelési kultúra, de ettől függetlenül globális megközelítéssel kell foglalkoznunk a területekkel. Célunk annak vizsgálata, hogy a Világörökség közösség hogyan birkózik meg ezekkel a problémákkal és milyen formában alkalmazkodik a jelenlegi fejlesztésekhez. Az első rész az UNESCO természeti világörökségeinek kezelési alapelveit rögzíti a Kiemelkedő Egyetemes Értékeket hordozó területek védelmére is kiterjedő céloknak megfelelően. A második rész a védett természeti rezervátumok kezelésének alapelveit foglalja össze az IUCN kategóriák alapján. A rezervátumok célja a természet védelme (és megőrzése) az ökoszisztémákkal, fajokkal és biodiverzitással stb-vel együtt. A következtetésekben válaszolunk a védett területekkel kapcsolatos általános kérdésekre és a két különböző koncepció kapcsolódására.