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IPAM Toolbox. Tools and Pilot Actions for Management Plans. Management plans for 7 Natura 2000 Sites in Carinthia

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Abstract

The project „Management Plans for 7 Natura 2000-Sites in Carinthia (Austria)" focuses on two focal points. The theoretical part presents and illustrates methods and tools to best management plans. In part 2 these tools and methods are tested in management plans for 7 Natura 2000 sites in Carinthia.

The most important tools of part 1 - according to the main steps of the working process - are:

for data-collection, inventory and assessment:
- a form for collection of data about the habitats and species of the site including the evaluation of their conservation status
- the structure and contents of a data bank documenting these data

for planning:
- a standard map symbols key
- a list of standard measures
- a method to find out the ranking of the urgency to implement the different measures

for the report:
- a standard list of contents

Experience in implementing the tools was in general positive. They were able to raise the quality of the management plans concerning transparency and the "transmission" of legal regulations of the Habitat directive on a technical and practical level.

Keywords

Natura 2000; management plan; standards; methods; best practise; legal security; conservation status; map symbols key; data bank; tools; standard list of contents

Objectives

A key issue of managing Natura 2000-sites is the "transmission" of legal provisions of the Habitat and Bird-directive on a technical and practical level. The centre of interest of the Natura 2000 network is the "favourable conservation status" of all species and habitats listed in the annexes of the Bird and Habitat directive. All member states have to ensure the favourable conservation status of these species and habitats on their whole territory and especially in their registered Natura 2000 sites. The overall objective of this IPAM-project was to develop and test standards and tools for best practise managing Natura 2000 sites regarding to

- transparency and objectivity of the planning process
- legal security for the technical statements.

The standards should be kept as simple as possible but as complicated as needed.

Methods

As a first step the development of tools required an overview on the technical literature about standards and best practise in managing Natura 2000 sites. Secondly, the legal background especially the Bird and Habitat directive was examined to identify the minimum standards, what the management plans are about, what goals have to be achieved and how detailed they should be. The analysis of the technical and legal aspects leads to basic requirements for inventory (need for data), evaluation and planning. Finally these requirements were discussed with other experts.

Following the tools for the main steps of the working process were developed. The standards and methods were obligatory for the whole team working on the different subjects of the management plans. As a result there are first experiences in working with these tools in 7 management plans.

Results

The following chapters give a survey about the technical and practical requirements for Natura 2000 management plans as a result from the legal provisions of the EC-directives and present the most important tools according to the main steps of the working process.

The main working steps

The following figure presents the working steps of a management plan and the main contents according to each step.

Working Step	Contents
1. Inventory and evaluation	Inventory (covering the whole area) ♦ natural habitat-types and species of the Bird and Habitat directive ♦ all other areas of the site (biotops and land use types) ♦ analysis of the land-use system covering the whole site with consideration of outside influence
	Evaluation: ♦ conservation status of the habitat types and species ♦ threats, constrains and their causes
2. Draft of goals and management measures	Goals: ♦ conservation goals concerning the particular habitat types and species of the site ♦ integrated target system for the whole site
	measures: ♦ measures concerning the particular habitat types and species of the site ♦ integrated measures for the whole site
	Priorities for action: ♦ order of implementing
	costs: ♦ estimation of costs
3. Discussion of the draft*	Discussion of the draft with all stakeholders
4. Finishing the management plan	Revision of the draft considering the technical and legal integrity of the plan

* The participation of the stakeholders as an „open planning process" starts with the first working steps, but the most important discussion is about the draft of the plan

Fig. 1: Working Steps of the management plan

Objekt Nr.: ☐ EU-Code: Name of the site: Date: Name:

Category: ☐ Habitat directive ☐ Bird-directive

Source of data: ☐ mapping for Natura 2000 ☐ existing data ☐ Remote sensing

○ ***7110 Active Raised Bog***

Characteristic species

☐ Andromeda polifolia ☐ Calypogaia sphagnicola ☐ Drosera rotundifolia ☐ Drosera longifolia ☐ Carex pauciflora ☐ Sphagnum sp. ☐ Trichophorum cespitosum s.str. ☐ Vaccinium uliginosum agg. ☐ Polytrichum strictum ☐

Associations

☐ Oxycocco-Sphagnetea Br.-Bl. Et. R. Tx., ex. Westhoff et al. 1946 ☐ Scirpetum austriaci Osvald 1923 em. Steiner 1992 ☐ Rynchosporion albae Koch 1926 ☐

○ ***Other parts of the area (percentage of other habitat types/biotops/land use types)***

Code	Name	%	Code	Bezeichnung	%

Features of the Area

Relief: ☐ ☐

Exposition: ☐ N ☐ S Gradient: ☐ ☐

Landuse: ☐ Pasture ☐ Forest ☐

Damages: ☐ Hydrologial balance ☐ Nutrient intake ☐

Management: ☐ Maintenance of biotops ☐ Fishery / hunting ☐

Conservation Status

Hydrologie

☐ 1 No draining; groundwater table not below 25 cm
☐ 2 Nearly not drained; groundwater table not below 40 cm
☐ 3 Drained; hydrological balance seriously damaged and/or peat extraction; groundwater table below 40 cm
☐ X Not assessable

Damages

☐ 1 No damages
☐ 2 Moderate: small afforestation areas, soil loading caused by trails
☐ 3 Heavy damages: massive afforestation: significant soil loading caused by trails
☐ X Not assessable

Indicators for Negative Impacts

☐ 1 Nutrient indicators or species of contact-biotops <5 %
☐ 2 Nutrient indicators or species of contact-biotops <20 %
☐ 3 Nutrient indicators or species of contact-biotops >20 %
☐ X Not assessable

Fig. 2: Habitat types inventory form

Inventory, Data-collection and evaluation

- A form for data of habitats and species of the site including the evaluation of their conservation status

  The documentation should focus on the data that are really useful. From a practical point of view not only basic data should be documented but also the results of the interpretation of data essential for managing Natura 2000 sites. Especially the assessment of the current conservation status should be documented. The method to judge the conservation status of the species and habitats mentioned in the annex of the Bird and Habitat directory is based on a system of indicators developed by the Austrian Environmental Office [1]. In addition to that it is very important to document these data separated for each identified area of habitat type or habitat of species situated in the Natura 2000 sites. The next page presents the documentation form for Natura 2000 illustrated by the habitat type "active raised bog"

- The structure and contents of a data bank documenting these data

  A data bank holding the knowledge about the Natura 2000 sites should not only document data concerning the conservation status of the relevant species and habitats. Due to efficiency all required data concerning management, reports according to Art. 17 Habitat directives and monitoring should be included.

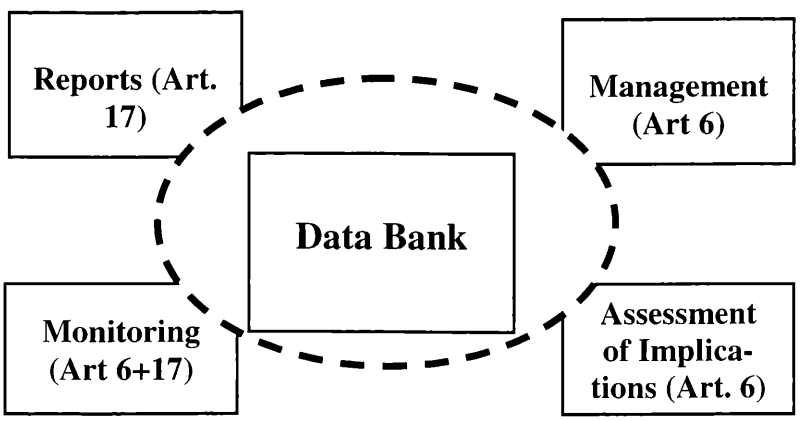

Fig. 3: Tasks of the Natura 2000-data bank

For most of the data it is important that it is connected to the area where it is situated (e.g. the exact area of a habitat type of annex I Habitat directive). The date of registration of the data is also essential. Hence the data bank should be linked to GIS and allow to compile time series (e.g. monitoring the conservation status of species in a certain period).

Before implementing the data bank it is very important to clarify which primarily data to feed into the computer and which data or necessary information can be generated by computer aided interpretation of data.

Figure 4 presents the structure and contents of the data bank and its link to GIS.

Planning

- A standard map symbols key for conservation measures

  The "heart" of the management plan is the map presenting the conservation measures. This map is of great importance for the experts but also for land owners or land users. On their land the measures will be implemented. Also non-experts should be able to understand the statements of the map easily. For that reason it is recommended to follow the structure of maps everybody is used to. The land use plan is known by most of the people. According to this plan all measures should as far as possible refer to areas of the same type of land use. The main zones are

  - agriculture
  - forest
  - other areas

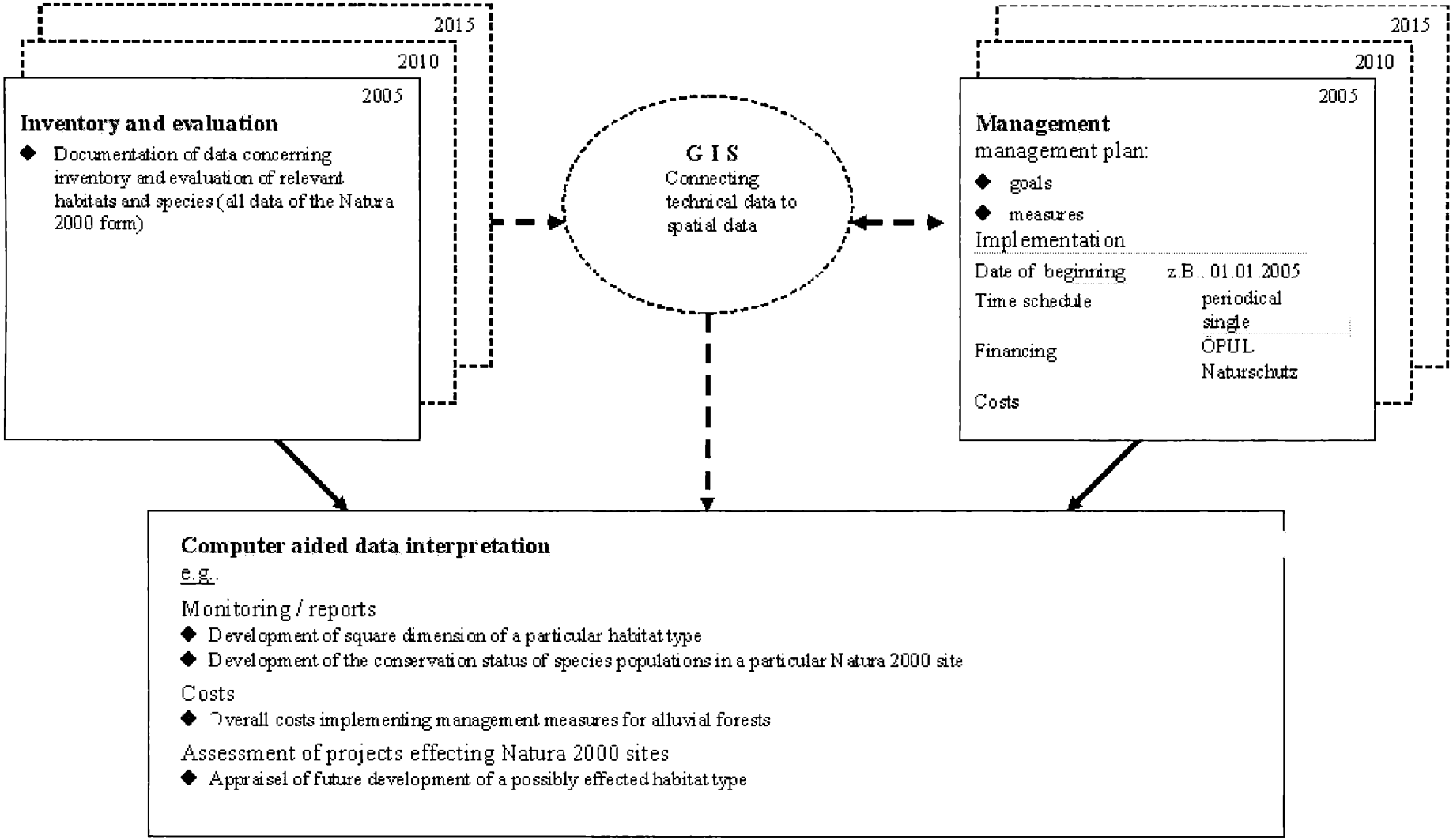

Fig 4 Concept and structure of the data bank

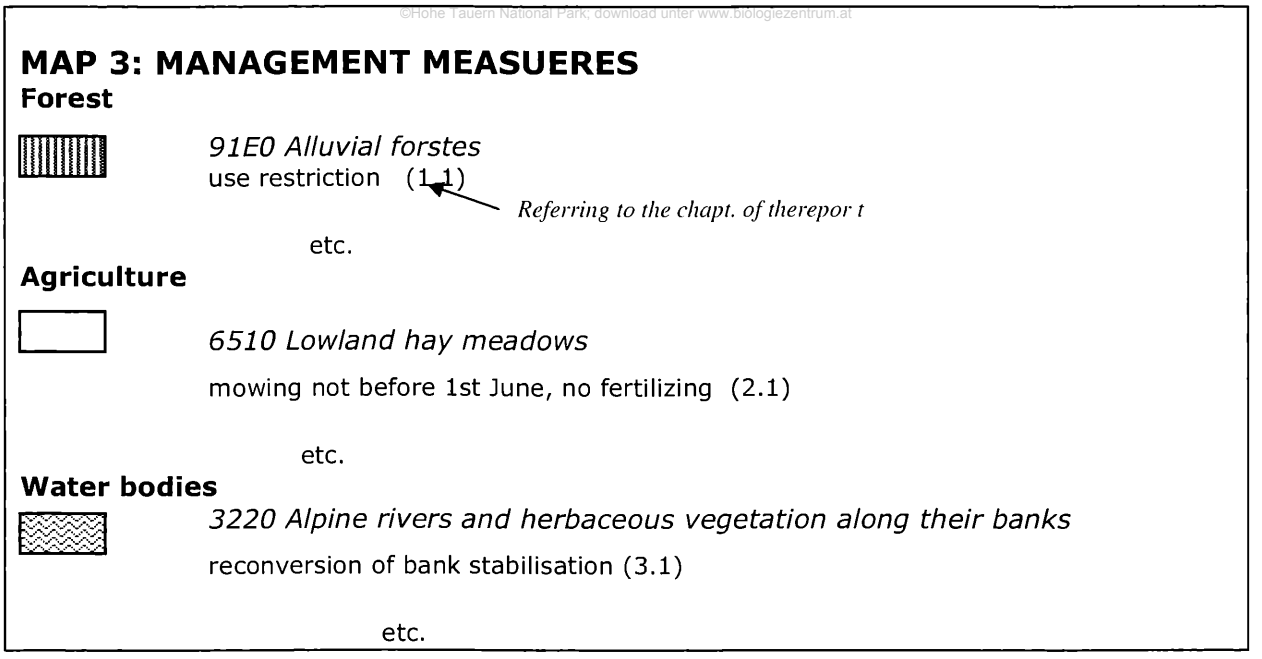

Fig. 5: Example of the standard map symbols key

Discussion

The methods, standards and tools have been tested in 7 management plans. These 7 Natura 2000 sites represent the variety of Carinthian sites of the alpine valleys and the basin of Lower-Carinthia. They do not only represent different natural habitats but also a wide variety of land-use and land property. The only thing they all have in common is that they are small areas compared to the average Natura 2000 sites. This leads to problems in applying some tools especially the standard map symbols key. It was devised for complex planning-tasks. For the small sites other practical and more simple solutions had to be found. Experience in implementing the other tools turned out to be mostly positive. It was possible with the tools to raise the quality of the management plans concerning transparency and the "transmission" of legal regulations of the habitat directive on a technical and practical level.

Managing protected areas and especially Natura 2000 sites means firstly ensuring the favourable conservation status of ecosystem and all the endangered species and habitats as provided in the legal previsions. This is the overall goal of all management plans. On a technical level a spectrum of measures has to be identified to achieve this goal. After clarifying the factual issues the real "management part" can be started. Therefore local conditions and communication with the stakeholders becomes a key issue. Synergisms should be taken advantage of. In many protected areas the traditional land use system goes together with conservation issues. That is the reason why rare species or biodiversity could sustain untill now. This should be a part of the strategy for implementing conservation measures and activities for the future. Protected area management as cross cutting issue always needs a holistic approach. The basic issues that should come together are

- legal provisions for protection
- technical know how about the needs of protection
- economic aspects especially the costs and benefits of necessary conservation measures
- communication (stakeholders, administration, politicians)

Does the flood of data, as well as the current methods and standards really help the practitioners and those who are responsible?

What results does research in Protected Areas need to achieve to be useful for Protected Area Management at the best?

The history of Science is a history of specialization. Research activities on nature conservation should always be aware that protection of nature cannot be achieved only by improving the knowledge in natural science. More data does not mean more success in conservation activities automatically. First of all nature conservation and ulimately the protection of natural resources is a question of basic rules and value and how society as a whole and every single person treats his environment. The knowledge about future consequences (especially long term effects) of new technical development or change in land use concerning environment, health and society is always behind the use of the new technologies and the new developments as a whole.

So the challenge of managing protected areas and also of managing sustainable development is to establish rules of protection beyond classical scientific proof. Classical scientific knowledge does not give advice for decision making. For example the decision how many protected areas and what measures for protection are in need primarily is a question of basic values and common sense (e.g. the precautionary principle). These values are written down as goals and rules in legal regulations like the constitution or the environmental laws. In a constitutional state the legal norms of environmental laws represent the agreements of society on how to treat and how to protect natural resources .The Nature conservation law, Water directive or Regional planning law as well as national and international conventions (e.g. Alp Convention) and programs are full of rules how to protect biodiversity or to achieve sustainable land use.

The missing link primarily is not the knowledge about the best practise from a technical point of view. There is an enormous gap between what we know is right and what every day politics decide and what everybody is doing every day. Obviously the principles of nature conservation, environmental protection and sustainable development are not embodied in people`s minds, especially when they might be in conflict with their personal interests. Primarily we do not need more data about the damage to our environment or how to protect a particular specie but we need people (scientists, politicians, public servants) who have the courage to take the environmental laws serious and bring the abstract goals and rules into action in every days decision making. For that reason scientific knowledge and the legal regulations and ethic value of conservation have to be integrated and should not be handled as two separated issues.

An important instrument for bringing scientific knowledge and abstract legal goals and rules together and operable for local action are standards, methods and tools. They try to bring abstract legal provisions and complex scientific knowledge on a practical level, transparently for everyone. So the tools connect abstract social agreements about protection (e.g. Habitat directive) with the particular local questions, problems and conflicts. The result of working with these tools and standards are detailed and specific goals and rules of conservation adapted to the particular needs of the protected area. These specific goals and rules grounded in the legal regulations and the technical data of the protected area not only ensure legal security but also improve the conditions for the communication process. They should be the legal and technical basis and frame work for all negotiation with the stakeholders about the management measures and long term perspectives of protection. Consequently used they can help to shorten discussions with the stakeholders and make them more effective and therefore fundamental needs of conservation in a protected area would not be an issue of discussion. Based on this agreement the negotiations could be focused on possible measures to achieve the practical goals.

References

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