

**IMPLEMENTING NATURA 2000
IN THE CZECH REPUBLIC**

**THEMATIC REPORT THREE:
CONSERVATION
MANAGEMENT**

December 2004

Contents

1	Introduction.....	3
1.1	Production of five thematic reports	3
1.2	Focus of this report	3
2	General conservation management experience from the selected sites	
	Error! Bookmark not defined.	
2.1	Management plans	4
2.2	Management activities	7
	<i>Rocky habitats, screes and caves.....</i>	<i>7</i>
	<i>Natural and semi-natural grasslands, moor, temperate heath and scrub.....</i>	<i>7</i>
	<i>Running water habitats.....</i>	<i>10</i>
	<i>Raised bogs, springs and mires</i>	<i>11</i>
	<i>Broadleaved woodlands, mix and coniferous forests</i>	<i>11</i>
	<i>Managing visitor pressure.....</i>	<i>14</i>
	<i>Addressing a decline in traditional land management.....</i>	<i>15</i>
2.3	Advantages and disadvantages of management activities and management plans	17
3	Political, economic and social problems through site management	Error!
	Bookmark not defined.	
4	Conclusions.....	Error! Bookmark not defined.

1 Introduction

1.1 Production of five thematic reports

Within the Phare project 'Implementation of Natura 2000 in the Czech Republic', a series of reports is being produced covering five main themes, as follows:

- mistakes and problems in Natura 2000 management;
- national sources of Natura 2000 financing;
- conservation management approaches;
- capacity building; and
- transposition and implementation of site management provisions.

The five reports focus on selected sites: the Causses du Quercy in France, the Rhön and Hainich in Germany, Alduide in Navarra Spain and the New Forest in the UK. However, the site-based analysis is placed within the broader context of regional/national experiences and approaches. An overview of the sites and relevant contexts, including national and EU-wide contexts, is given in an additional introductory report. The aim of the reports is to identify and make available, concrete, up to date and accessible information on how 'old' EU Member States have approached Natura 2000, including both good and bad practice and lessons learned in the process.

In order to produce the five thematic reports, a series of country-based reports was produced, each covering the five themes. These reports were produced by ACER (France), IDRiSi (Spain) and IEEP (Germany and UK), with input from Ecosystems LTD. Apart from being used as the basis for the five thematic reports, the country studies were used as key reference documents for the participants in three Study Tours organised as part of the project during September and October 2004.

1.2 Focus of this report

This report provides an overview of conservation management practices in the selected sites. The focus is on habitat types and related management practices that are applicable to circumstances in the Czech demonstration sites, with the aim to produce practical lessons for successful management strategies.

2 Management plans

Management plans, although not compulsory under the Habitats Directive, have proven to be a very useful tool in deciding the management priorities for all study sites and in agreeing these priorities with the authorities and stakeholders responsible for land use activities in these areas. They provide a transparent and standardised format for presenting the management issues and informing the group what Natura 2000 designation means in practice for them and as a result help to build up trust and confidence with the land users. They also help to integrate conservation concerns into other policies for the area.

The countries selected as case studies show a range of progress in the preparation of management plans. The UK's New Forest site has had a formal management plan since 2001, which has been adopted by all key authorities and stakeholder groups. Having been part of the management planning process, these authorities now have a sense of ownership for the plan which has in turn led them actively to implement its requirements on their land.

2.1 Germany

In **Germany**, management planning for the Natura 2000 sites in the Rhön varies between the three Länder between which the Rhön is divided. Management plans were made in the Bavarian part of the Hohe Rhön (before LIFE in 1982 and within the LIFE project 1998-2001). Grazing plans were used in the Thuringian part (within LIFE project 1994-1997). Within the Hessian part of the Rhön, management planning is less advanced, as in the rest of the Rhön, good groundwork has been laid through years of stakeholder dialogue and collaboration. Through this process the stakeholders were able to see what Natura 2000 designation meant in practice for them and became increasingly aware of the potential opportunities the conservation value of the area could have on their economic activities.

The management plans affecting the Rhön consisted of three main phases:

before 1994 and also parallel to the LIFE project phases (financed by national funds), involving:

- landscape protection area Hessen (with respect to Natura 2000 habitats)
- 'Hohe Rhön um Frankenheim' (Thuringia, with respect to N2000)

LIFE project 'Rhön' phase I, involving:

- preparation of monitoring plots within woods in the core zones ('Kernzonenkartierung'), Hessian part of the Rhön
- grazing management schemes (including site inventories) for calcareous grasslands in the Thuringian pSCI in the Rhön

The LIFE funding was an important incentive to speed up site selection, as sites only qualify for LIFE once they have been proposed. Inventories of little-known sites were undertaken and a GIS was set up.

LIFE project 'Rhön' phase II, involving:

- management plan and grazing scheme in the Bavarian part of the pSCI of the Rhön (in addition to existing management plan in the Bavarian 'Hohe Rhön' which is being implemented and constantly improved since 1991). In drawing up these plans, e.g. the plans for Salkenberg and Himmeldunkberg, there was wide consultation with stakeholders: farmers, but also recreational users' associations.
- establishing working groups with farmers, landowners and nature authority to improve the conditions of land-use for the farmers in order to secure long-term extensive use of Natura 2000 grassland habitats.
- in the context of preparing the management plans plots and other monitoring points were set up in the field.

Management planning in the Hohe Rhön pSCI (proposed Site of Community Importance in the Hessian part) is starting up. A number of site management plans exist for sub-areas of this pSCI which were already protected under regional law, eg nature reserves, but this information has not yet been compiled into a comprehensive management document, nor revised to reflect European priorities. Moreover, many are not available electronically. Currently, site inventories are being produced for those areas that have either never been surveyed, or not yet assessed in light of European priorities. An expert group has been set up to take forward the preparation of a comprehensive site management scheme. Some responsibilities have been handed over to other stakeholders, notably private forest owners who have been made responsible for the ecological inventory in the forests they manage.

In the Hainich, management planning was taken in hand in a comprehensive manner by the Thuringian Environment Ministry in the mid-1990s, at the start of the Natura 2000 process. As much of the Hainich had been a Soviet military training area, there were almost no data on species and habitats. Hence a LIFE project which ran from 1995 to 1999 funded seven preparatory studies plus the establishment of a GIS. The studies covered the following topics:

- I. Zoning concept, with a focus on the future core zones as well as the various 'development zones';
- II. Management and development plan;
- III. Concept for the establishment of visitor infrastructure, including a concept for pathways;
- IV. Tourism concept for the site and its surrounding area;
- V. Development concept for the villages located in the area surrounding the site;
- VI. Economical study on what could be the potential benefit of a protected national park for the region; and
- VII. Socio-economic study evaluating the advantages of a national park in comparison to conventional development concepts.

The Natura 2000 area Hainich, in its final boundaries, covers approximately 15,000 ha. Half of this is privately-owned forest, where, instead of designation under a regional legal statute, management contracts have been concluded with the owners. The other half is publicly-owned land and for it a comprehensive management plan

(Pflege- und Entwicklungsplan) was elaborated after the LIFE project, based on national German prescriptions for planning and using the results of the LIFE studies.

The GIS set up by the LIFE project was not only used to input data and help prepare the management planning, but also to prepare the monitoring of the site (ie to fulfil Article 17 of the Habitats Directive). Besides the GIS, plots and other monitoring points were set up in the field.

Experience in conservation management indicates that early commencement of planning, and involvement of stakeholders, is important to the long term success of the plan and its subsequent implementation.

2.2 France

For the **French** site ‘Valées de Rauze et du Vers et vallons tributaires’, a management plan has been approved and there is a steering committee in place. The management plan consists of a site inventory (ecological and socio-economic diagnosis); identification of issues and objectives for conservation; and management measures (specifications, cost and financing propositions) to be taken.

The implementation of this management plan will probably be taken forward by the Park of the Causses du Quercy, but it is still to be decided by the Regional Direction of Environment (a State service). An implementation structure is yet to be designed.

2.3 Spain

In **Spain**, a draft management plan has been written for the Montes de Alduide (Plan de gestion de lugar ES2200019 Alduide). The plan is based on a standard methodology produced by the Navarra authorities for all Natura 2000 sites. It not only includes the classic elements of ecological analysis and site descriptions, socio-economic analysis, impact analysis, but also place particular emphasis on cost (benefits) of implementing the plan and active dialogue with stakeholders. It includes annexes with further information such as detailed GIS maps of the area.

2.4 UK

The site management plan of the New Forest pSCI in the **UK** was completed in 2001, under the lead of English Nature. The plan is a detailed account (in four parts) of site characteristics, management concerns and prescriptions. Each land owner has contributed a detailed plan of implementation with clear objectives, targets, timeframes for the land under their management. Its preparation was made possible through LIFE funding and has been supported by broad survey work to establish baseline data.

To inform the management process, a so-called ‘Condition Assessment Monitoring Mechanism’ has also been developed. It identifies a set of indicators to be used in the long term monitoring of the New Forest pSCI, allowing for the routine evaluation of the effectiveness of management measures and of habitat quality assessments on a large-scale.

3 Management activities

The control of damaging operations is only part of the management equation. Much of Natura 2000 management is business as usual or involves minor adaptations. Equally important is the need to restore sites that have been neglected or abandoned in the past (as marginal areas) and to find ways to ensure their long term maintenance through continued compatible land use activities. The conservation science is still evolving but this is not the main obstacle. Many site managers point to the integration of the conservation management activities into existing land uses as the most complex and time consuming aspect of managing Natura 2000.

The activities summarised below relate to the key habitat types and management issues of interest for the Czech project.

3.1 *Rocky habitats, screes and caves*

In **France**, the Natural Regional Park and the department committee for climbing (of the Lot department), are establishing a charter of good practices supervising the development of rock climbing on the cliffs of the Park (nearly all the cliffs are Natura 2000 sites).

Certain caves at the two sites (Vallées de l'Ouyse et de l'Alzou and Vallées de la Rauze et du Vers et vallons tributaires) have protections in place to limit human visits during the periods when bats are present. This protection was made possible by a LIFE-Nature programme¹ 'Restoration of dry grasslands and complementary habitats of the Causses du Quercy'.

Eight caves were selected for bat protection. Agreements were signed with the owners for 10 years and grids or fences adapted for bats to pass through were installed at the caves by the Natural Regional Park of the Causses du Quercy. Information was displayed on panels to explain the reasons for closing the caves. In 2004, the Park will monitor the populations of bats in the protected caves, in cooperation with the speleology department committee.

3.2 *Natural and semi-natural grasslands, moor, temperate heath and scrub*

In **France**, a programme to protect dry grasslands is underway at the Causses du Quercy. Agreements were signed between farmers and the Natural Regional Park for five years. Farmers were given financial aid per hectare in order to carry out restoration works on the land involved in the programme. Thirty-one farmers have taken part in this programme, and around 900 hectares of dry grasslands were restored. Starting in 2004, the Park will be carrying out ecological monitoring of the restored grasslands.

Once the land is restored it can qualify for agri-environment payments through the Rural Development Programme. The LIFE project helped not only to pump-prime the long term management of the newly restored areas but also created a climate of

¹ LIFE-Nature programme – 'Restoration of dry grasslands and complementary habitats of the Causses du Quercy'. The programme started in 1999 and ends in 2004. It aimed to restore dry grasslands and bats in the Causses du Quercy.

confidence with the local farming community which encouraged the uptake of local management contracts called 'CAD' (contrat d'agriculture durable, or Sustainable agriculture contract) in France. These contracts are agri-environmental measures, financed in part by the European funds (FEOGA - European Fund for Agricultural Guarantee and Orientations) and in part by the State (FGMN - Natural Environments Management Fund). These CAD are for all farmers in France. Farmers who wish to conclude a contract and are situated on a Natura 2000 site receive a 20 per cent bonus for implementing specific measures. This is the compensatory aid/payment for being on a Natura 2000 site.

In the Rhön in **Germany**, the change in land use through unification and changing farming practices led to much land abandonment. It also led to an increase of tourism and recreation. As a result, management has focused on the restoration of abandoned and overgrown grassland habitats, securing continued extensive land management, and visitor guidance.

LIFE funding was used to restore a series of abandoned or degraded Annex I grassland habitats, as well as similar grassland habitats of species such as the *Crex crex* (Annex I, Birds Directive), to a favourable conservation status, and to ensure that ongoing management would continue. Phase I focused on the former east-German state of Thuringia. In particular, it was aimed at preventing problems in grassland protection, arising from anticipated changes in socio-economic structure and land use as a result of the 1989/90 events. Phase II built on and expanded the results of Phase I, in areas proposed for Natura 2000.

- Grassland was acquired where important Annex I habitats occurred and had to be restored. This land was then, after restoration, leased to farmers.
- Abandoned calcareous and Nardus grasslands and submontane hay meadows were cleared of scrub and farmers found who were willing to take over their use as grazing or haying land, conform to the ecological requirements of the habitat type.

Agri-environment payments such as HELP were used to provide a financial incentive for farmers to undertake conservation-oriented management on sites that had been restored. Furthermore, the Rhön Biosphere Reserve actively sought out and promoted opportunities for direct marketing of the produce from the recurring management (sheepmeat, etc). It drew on other EU funds (EAGGF, Structural Funds, LEADER) to build cool stores and a farm shop and to build up a local network of consumers (such as hotels and restaurants). The idea being that demand for such produce would give farmers real incentives to carry on the ecologically desired land use.

Grazing, mainly by sheep although cattle are also used, is encouraged to help prevent scrub encroachment particularly on nardus grasslands, calcareous grasslands and mountain hay meadows. To support this, contractual land management agreements have been drawn up with shepherds. Several shepherding schemes were established to serve land management purposes and to support the survival of the local breed of sheep - the Rhön sheep. Through these management schemes, several shepherds have found employment in the Rhön over the past decade. Using local stakeholders has led to an improved sense of identity based on the local cultural and natural heritage of the area and land stewardship. It has also helped to improve awareness of landscape protection needs amongst the public. The Biosphere Reserve actively promotes this,

not in the least through schemes like the 'From the Rhön for the Rhön' initiative, in which local restaurants carry dishes made from products from conservation-oriented land management on the menu, encouraging customers to choose the dishes, for by doing so they help preserve the landscape.

The sporadic use of fertilisers to improve the land led to a significant loss in diversity on some individual land sections, particular on mountain meadows. This has been addressed by either concluding management agreements under agri-environment or in some cases (where intensive land use pre-dated designation as Natura 2000 area) purchasing the land section and ending the intensive use.

As part of the LIFE project, new techniques to suppress lupine growth and halt its spread were tested. A workshop was organised inviting experts from across Germany to discuss the issue. The problem is that there is a management dilemma between late mowing to maintain mountain hay meadows or *Nardus* grasslands and reducing lupine by early mowing or grazing.

In **Spain**, at the Montes de Alduide, a management model for the grasslands and heath is being developed to guarantee its conservation, maximise its forage potential and maintain a head of livestock in equilibrium with the forage supply. Specific measures to achieve this model are:

- increasing knowledge of livestock in the area e.g. numbers, distribution and periods of grazing;
- establishing a grazing model in consultation with farmers to ensure conservation objectives are met. This will include recommendations to improve grazing without harming the environment, eg. removal of scrub by hand rather than burning in order to prevent erosion and to maintain a habitat mosaic and avoiding ploughing of soils.
- improving the infrastructure of livestock farming e.g. watering places, enclosures, livestock tracks and improvement of pasture.
- developing and promoting livestock farming. A sectoral working group will be created to analyse the situation and identify factors which are limiting the future of extensive livestock farming. Agreements between farmers and local authorities will be promoted in order to improve the management of grazing areas and prevent over- or under-grazing. Grants will be created through the Rural Development Plan, eg. to support use of traditional breeds which are most suited to maintaining the wildlife value of pastures. The designation of an area of organic livestock farming will be promoted.

In the **UK**, at the New Forest site, heathland in favourable condition is managed through a series of rotational maintenance operations. This includes continued de-pasturing of Commoners stock and tight control on the provision of supplementary feed. Grazing is complemented by annual cutting and burning programmes to restore a mosaic structure. Management of wet heath and the more humid forms of dry heath aims at an average 23 year treatment rotation. The size of individual burns/cuts will usually be smaller than 5 ha but exceptionally up to 20 ha. Management of the driest heath will be carried out only where necessary to encourage regeneration. Cultivations, fertilising or re-seeding of heathland is considered unfavourable.

Bracken is a major problem in the New forest. Control is undertaken on an annual basis, mainly through grazing and harvesting. Spraying with agreed herbicides is confined to areas where bracken has invaded heather or where the build up of litter is excessive and where any other management might aggravate the problem.

No new drainage schemes or maintenance of old or existing drains should be allowed, except where there is a proven requirement under health and safety or protection of dwellings or roads from flooding, or demonstrable positive impact on grazing, where the nature conservation interest will not be damaged.

Work is also carried out at New Forest with the objective of restoring heathland. In that case, additional management operations can be required, including:

- the management of grazing intensities, eg through pony premium and subsidised cull schemes, temporary fencing or supplementary feeding;
- influence on breed selection;
- the management of invasive species;
- scrub removal;
- the halting of erosion into mires and wet heath using eg infilling artificial drainage channels with heather bales and turf plugs; and
- the restoration of seasonal inundation and natural drainage of wet grassland to reinstate winter nutrient deposition and reduce scrub invasion, erosion and soil management.

Heather burning, while regarded an essential management measure, cannot always be undertaken for safety reasons. Problems notably occur in the case of private management agreements, where the land owner cannot be asked to undertake heather burning.

In relation to grazing, around 3,500 livestock – 25 per cent of which have to be cattle – are subsidised through the UK's Countryside Stewardship Scheme. This means that grazing intensity can be kept at or above a minimum level, even if market prices do not support this. Under normal circumstances, there are between 4,000 and 7,000 Commoners' stock on the New Forest at any one time.

3.3 *Running water habitats*

The management plan for the Montes de Alduide in **Spain** includes a direction to maintain the quality of the habitat of rivers, streams and springs including trophic condition, structure of the riverbank, water quality and natural flow. Specific measures include:

- monitoring dams;
- monitoring diseased alders and proposing management measures;
- re-establishing bankside vegetation in identified zones;
- identifying and dealing with effluents from livestock, hamlets etc.
- including Alduide in the water monitoring network managed by the Environmental Department;
- ensuring that there are no further impacts from a nearby fish farm; and

- identifying the springs used as a water supply and establishing a buffer around them to avoid pollution.

In the **UK**'s New Forest, an audit of the streams carried out under a LIFE project found considerable damage to the natural systems. Hydro morphological studies were carried out to understand the changes to the streams and rivers and from this to guide restoration activities. The management and restoration of the river systems is being done in a strategic and coordinated manner across the whole site through a working partnership of authorities responsible or concerned by rivers (for nature, for rivers, public access, commoners etc). It is also a good example of how Natura 2000 and Water Framework Directive can interact.

Where the objective is to restore units to favourable condition, then additional management operations may be required, including:

- the removal and/or reinstatement of artificial land forms (eg spoil banks) which prevent seasonal inundation;
- the raising of stream bed levels;
- the restoration of former braided channels and meanders, where practicable and desirable;
- the reinstatement of commoners grazing;
- the promotion of the natural regeneration of vegetation cover; and
- the restoration of eroded habitats (subject to detailed planning and evaluation).

3.4 *Raised bogs, springs and mires*

In the **Rhön**, hydraulic works were carried out to improve water levels in mires and bogs, and buffer zones were created, through the purchase of land or agri-environment contracts, to stop run-off from agricultural land entering them. The works follow the pattern characteristic of mire restoration projects, of which there are many in Germany as many mires have suffered from drainage and peat excavation. They consist of actions to block water loss and raise water levels again (dams, filling in of ditches, etc) as well as removal of tree growth where desiccation has led to accelerated natural succession. Such projects do often have to be communicated carefully to the local community, as fears that rising water levels will impact on surrounding farmland, houses or settlements, or bring other problems (e.g. mosquitoes), can lead to severe local opposition if not handled well. Examples of such problems with communication do occur among LIFE projects in Germany, just as other LIFE projects in Germany demonstrate how such problems can be avoided or solved.

3.5 *Broadleaved woodlands, mix and coniferous forests*

France has developed a conservation manual for forest habitat types. This is an extensive document which serves as the basis for explaining what can and cannot be done in Natura 2000 forest sites by private landowners. It includes both restrictions and good economic management suggestions. The Manual considerably helped the development of individual management contracts with private owners. Experience in France is that, when there is little or no information on what Natura 2000 means in practice for the people concerned, they will be very suspicious and fear the worst.

This often changes when time is taken to discuss the management issues and involve them in the decision making process through the local steering committees. The success of forestry guidelines has led the French government to start a similar initiative for wetlands.

The management plan for Montes de Alduide in **Spain** sets out a large number of objectives in relation to forests. These include:

- co-ordination of forestry activities to ensure conservation objectives are met;
- establishing limits of acceptable change regarding creation of new tracks in the woodlands;
- creating buffer strips along all gulleys and watercourses to avoid erosion;
- applying a forestry management system based on natural regeneration;
- using indigenous species;
- evaluating and drawing up management guidelines for each plantation;
- minimizing the damage caused by deer through woodland management and management of the deer population;
- planting small woodlands with indigenous species such as rowan, whitebeam, wild cherry, field maple, ash or birch;
- carrying out an inventory of ecotones and establishing a monitoring procedure;
- increasing the area of ecotones and plant with species such as rowan, whitebeam, yew, elder, wild cherry, hawthorn, and field maple;
- mapping and survey forest reserves established in the region's Forestry Management Plan;
- diversifying the structure of the beech forest in order to reduce the large areas of similar aged trees.
- managing clearings to obtain a balance between clearings and secondary woodland;
- identifying, locating, marking and protecting trees of interest; and
- maintain fallen and standing dead wood so that in mature areas there are at least 5 standing dead trees / ha of diameter > 25 cm height > 2 ms and 20 m³/ha on the ground in 10 years.

The **Hainich** is an interesting example of forest management. With its designation as a Natura 2000 area, the publicly-owned forests were simultaneously designated a national park, while the privately-owned forests were not brought under an existing regional protection status. Of the public land, 2,170 ha was set aside as core area, where there would no longer be any human intervention; natural succession would take over. The other 5,430 ha was dubbed a 'management zone' and here limited forestry, carried out by the Federal Forestry Service, would be permitted. This included conditions like no clear cutting, no new forestry roads, hunting reduced to a minimum. Even this limited forestry caused protests in the late 1990s from some of the surrounding municipalities, who were counting on the national park drawing nature tourists to the area (which had few other employment opportunities) and said that the forestry work would upset such tourists and make the site less attractive. In February 1999 a revised concept for the 5,430 ha management zone was reached under which forestry would be gradually reduced to a low level, and the emphasis would be on cutting out conifers. In this way, the forestry would actually enhance the

Hainich, as the conifers are exotic to the location – the natural forest is deciduous, with beech dominating.

The privately-owned forests, the so-called Plenterwälder, had been used in an extensive manner for a very long time, with a rotation system in which individual mature trees are taken out. This had created forest areas which, although only semi-natural, had a high ecological value. They clearly qualified for Natura 2000 but the owners were opposed to having their forests brought under a regional legal statute like a nature reserve. Therefore, taking up Article 6 and its choice of ways in which to guarantee conservation status, the Thuringian authorities concluded contracts with the owners covering 7,600 ha (which were labelled ‘forest reserves’ in the Natura 2000 area), in which the owners committed themselves to continuing their forest use as before. Latest information indicates that this is still working well – the owners get such high unit prices for the high-quality mature beech trees they harvest, that they get a good return on their land and do not need any public subsidies.

In the Rhön in **Germany**, some plots of forest had to be bought or compensated for loss of future income, in order to be able to take them out of use and leave to natural succession. Gallery woods along streams were protected from cattle grazing by similar means. In other areas, appropriate forest management has been achieved in cooperation with private landowners, by providing the right financial incentives and/or through bilateral negotiations. The Hessen public forestry service is introducing its own, more ecologically oriented forestry guidelines (Waldbaurichtlinie) and is even thinking of seeking FSC certification for the timber from its domains.

In the New Forest (**UK**), pasture and riverine woodlands are managed (riverine woodland management is discussed under running water habitats, above). For pasture woodlands in good condition, a strategy of minimum intervention is considered most appropriate. This means that management will only be carried out where intervention can be justified for the conservation of features of nature conservation or cultural heritage importance. This implies that in many areas little activity other than maintenance grazing will occur.

Where the objective is to restore units to favourable condition, additional management operations may be required in the short term, including:

- a change in the grazing regime;
- discontinuing stock feeding;
- discontinuing the use of anti-parasitic drugs on stock likely to damage non-target species;
- the removal of access scrub and bracken;
- the control of non-natives;
- pollarding;
- a cessation of tree felling, unless essential to maintaining public safety;
- the retention of standing and fallen dead wood;
- the protection of seedlings where necessary and seeding of tree seed of local provenance;
- a removal of fencing;

- targeted control of deer and grey squirrels;
- abolition of old drainage systems;
- soil management; and
- the strategic planning of car park development etc.

The re-introduction of grazing in certain woodland, using hardy Galloway cattle and New Forest ponies, has proven to be particularly effective in creating a diverse woodland structure typical of wood pasture. It also plays a large part in keeping the heathland free from trees and scrub.

3.6 Managing visitor pressure

In the **UK**, a significant amount of time and energy has been expended on management of visitor pressure. This first became a problem in the New Forest in the early 1970s. Subsequent management measures have tried to achieve greater dispersal of people, by limiting vehicle access to certain areas, providing visitor facilities in a greater number of locations, and restricting camping to selected areas. These early measures have provided the basis for subsequent management up until the present.

Today, approximately 7 million day visitors, in addition to local users and longer-term visitors, bring over £100 million per annum into the District's economy and provide around 3,000 local jobs. The visitors are managed by a variety of organisations and individuals, including private landowners, the National Trust, English Nature, the Forestry Commission and Hampshire Country Council. Also important are a range of interest groups, such as the New Forest Committee, New Forest Tourism and the Commoners Defence Association.

Following studies of recreational use and erosion, existing recreation damage was repaired, and measures have been taken to reduce the visitor pressures on vulnerable habitats on over 890 hectares of the New Forest pSCI. This was funded by the LIFE II project. The project also supported the development of a Recreation and Access Management System (RAMS), which has provided GIS records of the existing access network across the pSCI.

The existing understanding of the response of individual New Forest pSCI habitats to recreational pressures is sketchy. Aerial photography and an extensive ground survey, as well as a New Forest Visitor Survey, have helped to identify areas of damage. Twelve sites were identified as suffering from significant recreational use related damage. An Action Plan for erosion has also been developed, addressing some of the issues of visitor pressure.

In both the **Hainich** and the **Rhön**, the LIFE projects supported and funded measures to *promote* visitor use, but of course in a sustainable manner. In both sites, the conservation agencies considered that there was a potential for nature-based tourism, and that if this tourism did come off the ground and bring revenue and jobs in these rural districts (which are economically weak and have few other options), it would broaden local support for the natural heritage and its preservation. In the Rhön, the bulk of the tourism work was funded through parallel projects such as LEADER, but the LIFE projects complemented these investments by producing high-quality information brochures explaining the Natura 2000 habitat types to tourists,

information panels, nature trails, self-guiding maps and folders for nature walks etc. In the Hainich, the LIFE project laid the basis for nature-based tourism, firstly by funding studies (as part of the management plan preparation) to assess tourism potential and a visitor concept, and secondly by creating circular walkways (nine were laid out) and producing a permanent exhibition in the new visitor centre/park headquarters at Bad Langensalza, besides brochures, a promotional video, etc. Local municipalities appreciated these efforts and even protested against continuing limited forestry in the Hainich, because this lessened the ‘undisturbed nature experience’ for tourists.

3.7 Addressing a decline in traditional land management

This is certainly a problem facing the hay meadows in the Rhön. Hence an initiative started towards the end of the second LIFE project was the foundation of working groups between farmers and the project management. Traditionally cattle were kept in the valleys in stables and hay was brought to them, mowed on the uplands, from the hay meadows there, which were of considerable natural value (much of Annex I quality). However, property is very fragmented (thousands of sections averaging 0.2-0.5 ha each) so hindering mowing work; as milk and meat prices are low anyway, there is a trend to abandon cattle farming. Consequently there was less demand for hay – so that mowing upland pastures was abandoned, in spite even of agri-environment premia for such mowing. Annex I habitats were thus threatened.

Because of this threat in the long run, it was decided to help local farmers find new and effective ways of managing grassland. The Biosphere Reserve in Bavaria and the local agricultural authority worked closely together on this. Initially a series of meetings was held where farmers were informed about the idea. Because of the unexpectedly high turnout at the public meetings and farmers’ desire to participate, five working groups, each based on a farming village, were set up. Problems facing farmers (e.g. holdings are too small and fragmented) were discussed and mutually beneficial solutions (for farmers and conservation alike) were sought.

Initiatives which came out of the groups included:

- farmers market their produce to consumers directly and develop a quality label and organise on-farm slaughter - a local butcher was willing to do the slaughter and sell the meat in his shop under a separate label;
- organising equipment pools and labour pools where farmers can exchange or pool resources;
- informal temporary land swaps to give each farmer more coherent blocks without going through the usual cumbersome and expensive legal channels;
- creation of a suckler cow herd owned jointly by farmers in Fladungen village whose winter fodder includes hay from the grasslands thereby providing an incentive to continue mowing hay meadows; etc.

Another issue being addressed in the **UK** is a decline in traditional methods of land management that in turn impacts on management of natural habitats. The favourable status of heathland and woodland habitats in the New Forest pSCI is dependent on grazing by large herbivores. Loss of grazing results in a significant decline in habitat quality, reducing overall biodiversity. Exercising the Rights of Common – responsible

for most of the grazing in the New Forest – has, however, become increasingly uneconomic; to the point, that current prices for stock no longer cover the cost of their production and maintenance.

The first New Forest LIFE project was instrumental in encouraging ‘Verderers’ to introduce a New Forest Pony Premium Scheme, administered in parts through an annual competition for mares, held at the end of each winter. The scheme awards higher rate premium payments to better quality ponies which over-winter on the New Forest pSCI, thus encouraging Commoners to pay greater attention to the quality of their animals and to enhance the general status of the New Forest breed. Importantly, offspring of the hardier breeds also attract better market prices, offsetting some of the costs accrued in depasturing the stock.

A special report, commissioned by the Verderers, looked at the Marketing of New Forest Livestock. In particular, it assessed options for the development of information bases and systems to improve commercial markets for stock grazed on the Forest. This is being followed up by a number of initiatives, such as the ‘*Forest Friendly Farming Project*’.

Aside from grazing regimes, traditional forest management practices also play an important part in the management of the New Forest pSCI. Both are intricately linked with one another. The New Forest pSCI, for instance, harbours some 35,000 to 50,000 veteran trees. By virtue of their age they support an exceptionally important assemblage of faunal and floral species associated with ancient woodland, especially lichen, moss and invertebrate communities. Centuries of grazing, coppicing and pollarding had enhanced the conservation importance of these woodlands by maintaining high light levels at the forest floor and high levels of humidity which favour the growth of lichens.

Coppicing and pollarding on the Crown Lands has largely been abandoned, allowing a dense understorey of holly to encroach in woodland habitats, whereas previously, the cutting of holly to provide winter feed for New Forest Commoning stock curtailed this encroachment, as well as supplementing the winter grazing.

To investigate different management options, the Forestry Commission selected 300 hectares for the coppicing or pollarding of Holly (*Ilex aquifolium*), establishing plots of 0.1 to 1.0 hectares within each priority area to maximise opportunities for light to reach the boles of old mature trees. Depending on the age, structure and density of both the holly understorey and the mature beech and oak overstorey, the holly was either coppiced or pollarded. The tree work was carried out in stages, to facilitate the use of wood residues for feed. A proportion of felled residues was left on site to provide deadwood habitat.

4 Conclusions relevant to the Czech Republic

In **France**, management is based on voluntary participation, which is an advantage for obtaining the local support of the local community. However, the disadvantage of this approach is that management cannot be imposed on unwilling landowners. This can be a problem in practice because those who are willing to participate in Natura 2000 contracts are not always those who can (because they are not landowners). It can also be hard to achieve ambitious goals set by motivated community-members at the start of a project.

The situation in **Germany** is very diverse, as each of the 16 Länder has taken its own approach to Natura 2000 and aspects like management planning. Broadly speaking, one can say that large parts of what has been proposed for Natura 2000 has already been under conservation management prior to Natura 2000, especially in the former West Germany, often going back into the 1980s and before. So the expertise and knowledge what needs to be done are there, and practical site management of the Natura 2000 areas is very often a continuation and/or expansion of this previous work and experience. For the same reason, there are often already long-standing relationships with stakeholders. These are advantages.

A disadvantage is that Natura 2000, especially initially, created a lot of confusion, uncertainty and even misconception about what it meant in practical terms, among stakeholders (and even among conservation agents). Partly this was due to tardy or ineffective communications from the conservation authorities, which allowed other interest groups with their own agendas to set the tone of the debate and launch aggressive campaigns against Natura 2000 and conservation. High-profile cases where Article 6 led to projects for economic and infrastructural development being challenged, blocked or abandoned, further helped to create a negative climate in the wider socio-economic sphere. This is now beginning to ebb away, but it remains a legacy the Natura 2000 site managers have to deal with. Several LIFE projects for instance have been doing comprehensive and innovative work to communicate Natura 2000 to the stakeholders and the wider community.

Besides this socio-political context, another challenge is resources. Apart from the technical restoration works which are expensive but needed on many degraded habitats, there is the cost of supporting recurring management - stakeholders are often enough prepared to adjust their land use practices but do expect to be remunerated for their extra effort or recompensed for income foregone. At the moment, because of the country's economic and financial difficulties, German public budgets are being frozen or even reduced, at all levels (federal, regional, municipal), and conservation budgets in particular. As for recurring management financed through the EU's Rural Development Programme, a widespread criticism is that they impose a heavy administrative burden because of the EU's own regulations for financial management and control and the additional layers imposed by the federal and regional German authorities.

In **Spain**, it is hoped that the Aldeide Management Plan can be used to promote the sustainable socio-economic development of the area. They hope it can be used as a tool to lobby for increased financial support for extensive livestock farmers and ecotourism projects. Disadvantages of management to-date are that a previous

management plan was never accepted by locals who saw it as too restrictive. This has led to difficulties in getting the new plan accepted, and landowners etc have had to be convinced that the new plan is not restrictive and that Natura 2000 can bring opportunities. Graziers in the northern part of the site have been reticent to carry out management in conjunction with the government as they see it as a threat to their historic grazing rights.

The long-standing and traditional management and conservation history of the New Forest in the **UK**, is seen as having two key advantages:

- firstly, the management of the pSCI, and eventually SAC, can in many cases be based on significant experience amongst conservation managers and involved stakeholders; and
- secondly, the Commoning System provides an established framework in which to continue the traditional management of the land. While some support may be needed to support the viability of the activities pursued by the Commoners, the management of Common land for conservation is in general less investment and cost intensive. In particular, few land owners have to be persuaded to manage the land appropriately.