



FORESTRY AND OUR CULTURAL HERITAGE

**PROCEEDINGS OF THE SEMINAR
13-15 June, 2005, Sunne, Sweden**

Published and edited by

Ministerial Conference on the Protection of Forests in Europe
Liaison Unit Warsaw

ul. Bitwy Warszawskiej 1920 r. nr 3
00-973 Warsaw, Poland
tel. +48 22 331 70 31 tel/fax. +48 22 331 70 32
e-mail: liaison.unit@lu-warsaw.pl

www.mcpfe.org

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This publication comprises the presentations and outcome of the Seminar on Forestry and our Cultural Heritage, held on 13 – 15 June, 2005 in Sunne, Sweden. They reflect the authors opinions and do not necessarily correspond to those of the Ministerial Conference on the Protection of Forests in Europe (MCPFE). Neither the authors, the MCPFE, nor any person acting on their behalf are responsible for the use which might be made of the information contained in this publication.

Design, layout and production:
agencja@meander.net.pl

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ISBN10 83-922396-3-6
ISBN13 978-83-922396-3-5

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PREFACE

In the follow-up process to the Rio Summit (UNCED) the ecological aspects of sustainable forest management have been addressed very thoroughly. The socio-cultural aspects were initially not high on the agenda but have been recognized during the last decade as an integrated part of sustainable development and therefore of sustainable forest management (SFM). This was expressed by the Vienna Declaration and Vienna Resolutions adopted at the 4th MCPFE (Vienna, April 2003). The MCPFE commitments aim not only to promote and raise awareness on socio-cultural dimensions of SFM but also to improve knowledge and understanding of these aspects.

Facilitation of the discussion and exchange of information on social and cultural values of forests took place during the Seminar on Forest and our Cultural Heritage (Sunne, Sweden, 2005). This meeting was one of the actions undertaken towards the implementation of the Vienna Resolution 3, scheduled in the MCPFE Work Programme. The meeting was kindly hosted by the Swedish National Board of Forestry (from January, 2006 “Swedish Forest Agency”) and was organized by the Regional Forestry Board in Värmland/Örebro in co-operation with the MCPFE Liaison Unit Warsaw and the Joint FAO/ECE/ILO Experts Network.

The seminar was attended by over 40 participants representing national institutions, as well as international governmental and non-governmental organizations. A multidisciplinary context and consideration of the existing achievements on cultural heritage of forest was emphasized by inviting the representatives of the Council of Europe and UNESCO.

The seminar reviewed a variety of issues regarding forest cultural heritage, and specifically landscapes, historical sites and nature monuments as well as bio-cultural heritage and the role of forests in shaping human culture. A broad scope of presentations and various country approaches confirmed a need for future clarification and development of means and guidelines so as to stimulate mutual awareness and understanding of all socio-cultural values of forests and forestry both at the political and management levels.

The debate was the first step for identifying the challenges for and threats to cultural heritage in forests. Held in a very constructive and open atmosphere the seminar was concluded with a number of recommendations to be considered at the international and national levels. There was recognized a need to raise awareness of the cultural values, both inside and outside the forest sector. It was also well established that cultural values of forests can serve to spark interest of forest owners and encourage them to look at the wider issue of nature conservation. The seminar outcome was presented at the MCPFE Expert Level Meeting (Warsaw, October 2005) and became a significant contribution to the MCPFE actions towards the implementation of Vienna Resolution 3.


Special thanks go to Sweden as host of the seminar for all efforts with organizing the meeting and creating wonderful atmosphere during the plenary and field sessions as well as for invaluable contribution to elaborating this publication.

In many respects, we consider the results of the seminar a landmark and want to warmly thank all actors and participants involved for their indispensable input.



Piotr Borkowski

Head of the MCPFE Liaison Unit
Warsaw



Peter Blombäck

Head of the International Secretariat
Swedish Forest Agency

OPENING ADDRESS

Göran Enander

Director General of the Swedish National Board of Forestry

Welcome to Sweden, Värmland and Sunne and welcome to this “Seminar on Forestry and our Cultural Heritage”!

This international Seminar on Forestry and our Cultural Heritage is the first expert meeting to elaborate on the Vienna Resolution 3: Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe, adopted at the fourth Ministerial Conference on the Protection of Forests in Europe in Vienna (2003). The idea behind this resolution is to further promote and raise awareness of the social and cultural dimensions of sustainable forest management (SFM).

The agenda of this seminar clearly demonstrates the scope and the complex character of the Cultural Heritage which has brought us all to this seminar in Sunne. I really hope that the outcome of this meeting will bring the issue of Forestry and our Cultural Heritage a good step forward. It is only through raised awareness and understanding, based on facts and knowledge that the social and cultural dimensions of SFM can grow strong and be respected in their own rights.

When planning for this seminar, the National Board of Forestry was generously assisted by both the Liaison unit of the MCPFE in Warsaw and by the Joint FAO/ECE/ILO Experts Network for implementation of Sustainable Forest Management.

We are also grateful for all practical assistance provided by our colleagues here in this Forestry region of the two counties of Värmland and Örebro.

Many thanks to all persons involved in preparing this seminar!

Värmland – a province of rich and famous cultural heritage

This seminar is held in the heart of one of the culturally richest and most famous provinces in Sweden. Remains from mining industry, shieling (fäbodlar, in Swedish) and old settlements of Finnish farmers are mixed with ancient graves, croft settlements, and tar- and coal-mills and so on...

Värmland is also well-known for its literature, poems, music and story-tellers, much of which has been inspired by the deep and dark coniferous forests and the light and open broadleaf forest.

Some of the most famous Swedish authors and poets were born in Värmland. Selma Lagerlöf, who has given her name to this conference hotel, was rewarded the Nobel Prize in literature in 1940. Her works have been translated to many foreign languages. The poet Gustaf Fröding is considered to be one of the greatest poets of all times in Sweden. His way of using words and language was so brilliant that it has been impossible to translate most of his poems to other languages.

Concerning the cultural heritage of the forest many important initiatives have been taken by the Regional Forestry Board here in Värmland. Most important so far is the Forest & History inventory project which has developed into a broad and successful cultural project on a national level. Värmland and Sunne certainly is the right place for our seminar!

Sweden – a pronounced forest country

The Swedish forests cover an area of about 27 million hectares. That is 67% of the total land-cover and makes Sweden the forest-richest country in Europe.

Forest resources played a fundamental role in the process of making Sweden an industrialised country in the late 19th century. And the importance has been big ever since.

In 2002 the net income from forest products was 88 billion Swedish crowns, or 8.6 billion Euros.

Our forests also play an important social role in our society. Swedes are in a sense forest dwellers, which is quite natural as we have all these forests around us. Most Swedes seek their recreation in the forests and the so called Right of Common Access allows anyone to move freely in any forest. No matter private forests or public ones, everyone can go there and also pick berries or mushrooms, which is very popular, or practice a variety of sports. Camping is allowed and also to a great extent sport fishing. Swedes, like most people in Europe tend to be more and more urbanised, but we retain our tradition to seek recreation in the forests. We have 300, 000 hunters and over one million sport fishers in this country and we go skiing in the winter and hiking in the summer.

Swedish forests has a rich and diversified cultural heritage

Sweden is a long-stretched country far up in northern Europe. In the old days it was spoken of as a part of “Ultima Thule” – the utmost north.

It is at the same time both an old and young country. One billion year old bedrock is covered by geologically young soils, only 15, 000-10, 000 years old. The forest regions are even younger. The first forest to establish was a Birch-Pine-Hazel-forest in southern Sweden some 10, 000 years ago. The northern part of Sweden was not forested until 8, 000 years ago.

The nature-given conditions along the one thousand five-hundred seventy-one (1, 571) kilometres from the Nemoral region in Skåne to the tree-less mountain area in Lapland differ very much. This variation in geology, topography, climate, lakes, rivers, wetlands, forest regions and so on also creates many different types of landscape. The character and supply of natural resources are equally different and subject to various land uses. This richness and variation in natural conditions has resulted in a rich and varied cultural heritage in Swedish forests.

Modern forestry and the cultural heritage

“No hand on the timber, no foot on the soil!” This slogan from the 1970-ies reflects the paradigm shift that began in Swedish forestry at that time. Men, horses and chain-saws have successively been replaced by large forest machines – a parallel to the revolution in agriculture which took place about two decades earlier. The evolution meant dramatic changes for production and working conditions but also for the forest landscape and its cultural, natural and social values. As long as forestry was carried out with manpower, horses and small tractors, manual planting of new forest etc, only little harm was done to the cultural heritage. For thousands of years Swedish forests had mainly been preserving and even accumulating cultural remains and values. The new forestry with big machines, “no hand on the timber, no foot on the soil” has of course many obvious advantages for man, production and economy and reflects the development in the rest of the industrialised world. But for the cultural heritage in the forest it mostly meant serious threats. Most damages are done at the soil scarification and by heavy forest machines. Inventories initiated by The National

Board of Forestry and The National Heritage Board independently show large and unacceptable damage on the cultural heritage in Swedish forests. Since these negative effects of modern forestry were documented and clearly realised, a wide spectrum of measurements have been taken to meet and try to minimise the threats.

Our tasks from the Swedish Government and Parliament

In April 1999 the Swedish Parliament adopted fifteen national environmental quality objectives. The interim target 3 in environmental quality objective “Sustainable Forests” deals with cultural heritage and reads as follows:

“By 2010 forest land will be managed in such a way as to avoid damage to ancient monuments and to ensure that damage to other known valuable cultural remains is negligible.”

What have we done so far?

The constructive and consequent work with the cultural heritage in Swedish forests started rather late. It was not until 1991 that management of the cultural heritage was taken into the Forestry Act. In 1993-95 a very successful campaign regarding the cultural heritage in the forest was carried through. The introduction of the so called NOKÅS (Natural and cultural conservation actions in the forest) allocated some funding to management and also increased the landowners interest in and knowledge of the cultural heritage. In 1995 the very important inventory project “Forest & History” started here in Värmland. So far between 20 and 25% of the Swedish forests have been covered by such inventories.

The education achievements have increased rapidly. In 1993 the first 20-week academic courses on our cultural heritage were carried through at the universities in Gothenburg and Umeå. Shorter and more practical oriented courses have been carried through in most forestry districts as well as for forestry contractors. Special courses on e.g. pollarding and forest grazing have also been carried through.

The international co-operation has increased. Between 1999 and 2003 a LIFE-environmental project “Demonstration of the bio-cultural heritage in European forests” was carried out in co-operation with France. This project dealt with the bio-cultural heritage in Swedish and French forests. There is also a co-operation on a Nordic level, concerning the link between research and education.

The inventory project “Forest & History” continues. With resources from the labour-market project “Green Jobs” the activity is increasing. In order to document the results from this inventory and from other sources and to make them available, a national data-base is built up at “The National Heritage Board”.

The National Board of Forestry and the National Heritage Board are currently and jointly working on a system for adequate and continuous follow up of the situation for the cultural heritage in our forests.

In 2004 a network of people responsible for the cultural heritage was established with representatives from all County Forestry Boards. It is already obvious that this network will be an important tool in the coming work with the preservation and sustainable use of the cultural heritage.

During 2005 the National Board of Forestry will finalise the work on formulating a strategy for the bio-cultural heritage. The expression bio-cultural heritage was initiated by the NBF and it involves

biological features whose presence to-day and in the future are depending on human uses of the landscape. Beside its cultural values the bio-cultural heritage is also important for the conservation of the biological diversity in the forest.

What about the future?

As always the future means both obstacles and possibilities. Many obstacles still remain.

So in spite of considerable efforts during the last decade, the situation of the cultural heritage is still very serious and it will involve increased economic resources and many years of more efficient and hard work, to reach the ambitious objectives set by the Swedish Parliament.

One of the main obstacles in Sweden today is that we do not have a complete inventory of the cultural values in the forests. We must also realise the fact that modern forestry – like all kinds of modern land-use – poses many built-in threats against the cultural heritage. A third both serious and frustrating fact is the lack of people and money for an efficient use of the increasing information and knowledge that we are aggregating.

Still many positive things have happened in recent years. We are aware of and working with all negative impact factors and at the same time are we increasing the work with the positive factors. There has been a profound increase of political interest from the Swedish Government and Parliament for the cultural heritage. Of particular importance is that the Swedish Government and Parliament underline that besides the value of their own, the cultural values are connected to and add to the social and natural values. This is an important fact also for the landscape approach in the conservation and management of different values in the forest. The cultural values play an important role in the concept of multifunctionality. A more multifunctional use of the Swedish forests has already begun and is supposed to increase in the years to come.

"Skog till nytta för alla!"

The Government also highlights increased co-operation as a necessary mean to preserve the cultural heritage. There is an increased co-operation between authorities on a national level but also on an international level. So this seminar certainly is right in time and thought!

In closure

I wish you all a pleasant and successful seminar! As I mentioned in the beginning of my speech, Sweden has been influenced culturally by many countries in Europe during centuries. We therefore have much in common. We also share our joint task to save, enhance and use our European cultural heritage. Meeting colleagues from different countries and cultures is a valuable cultural action in itself and a pleasant and efficient way to fulfil the task we did agree on in Vienna. I therefore believe that the exchange of knowledge and experiences during this seminar will function as a platform and a motivator to a continuous and increased cooperation in the future!

So once again: Most Welcome to Sweden Värmland and Sunne!



KEY NOTES

Linking Forests and Cultural Diversity: The World Heritage Convention

Dr Mechthild Rössler

Chief, Europe & North America

UNESCO World Heritage Centre

Abstract

The paper looks at the linkages and interaction between culture and nature taking examples of forest sites and cultural landscapes under the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention).

The World Heritage Convention currently covers 788 sites in 134 countries and is with 180 States Parties the most universal international legal instrument in heritage conservation. Among the properties inscribed on the World Heritage List, 87 sites are forested areas with a total of 70, 000, 000 hectares of protected forest (about 17% of all protected forest area of the world). However, most are recognized purely for their natural values, whereas another 23 sites are mixed natural cultural properties and 50 sites are inscribed as cultural landscapes focusing on the outstanding interaction between people and their environment.

The paper explains key case studies from European World Heritage sites by themes: (a) natural sites with a clear cultural link; (b) cultural landscapes where forests play a key role in the nature-culture interaction; and (c) the broader linkages in the landscape approach, including natural and cultural properties.

The paper also refers to the results of the Forest Policy Meeting held in Nancy, France, 9 to 11 March 2005 “UNESCO and the World Heritage Convention – Contributing to Forest Conservation and Sustainable Development” and the International Symposium “Conserving Cultural and Biological Diversity: The Role of Sacred Natural Sites and Cultural Landscapes” which took place at UNU, Tokyo, Japan, from 30 May to 2 June 2005, an activity of the World Expo Aichi 2005 “Nature’s wisdom”.

Paper

Introduction

UNESCO as the United Nations specialized agency in charge of Education, Culture and Science is particularly interested in the linking of cultural and natural heritage.

UNESCO’s broad mandate resulted in many well-known and widely recognized programmes, including the International Network of Biosphere Reserves under the Man and the Biosphere Programme (MAB) by the Division of Ecological and Earth Sciences and the World Heritage Convention for which the UNESCO World Heritage Centre is the Secretariat.

Interesting for the theme of culture and forests is also the 2003 Convention on the safeguarding of the intangible cultural heritage adopted by UNESCO’s General Conference in 2003 and which most probably enters into force with 30 ratifying States Parties in 2006. This Convention deals with myths, rituals, language and other traditions related to nature and the universe. Furthermore, in addition to the Universal Declaration on Cultural Diversity (2001), a new Convention is under preparation on cultural diversity and cultural expressions expected to be adopted in 2005.

A starting point for further international collaboration among different agencies and organizations was the recent meeting on “Conserving cultural and biological diversity: natural sacred sites and cultural landscapes” (UNU, Tokyo, 30 May to 2 June 2005; see outcome in Annex I to this article).

In this paper I will look at forest and cultural heritage using the example of the World Heritage Convention, as one of the most universal legal instruments in heritage conservation and with more than 30 years of existence drawing from concrete examples and case studies.

The World Heritage Convention

The *Convention Concerning the Protection of the World Cultural and Natural Heritage* (World Heritage Convention), adopted by the General Conference of UNESCO (United Nations Educational, Scientific, and Cultural Organization) in 1972, established a unique international instrument that recognizes and protects both the cultural and natural heritage of outstanding universal value. Natural heritage encompasses outstanding physical, biological and geological formations, habitats of threatened species, areas with scientific conservation or aesthetic value, whereas cultural heritage was defined as monuments, groups of buildings or sites with historical, aesthetic, archeological, scientific, ethnological or anthropological value (Articles 1 and 2 of the Convention).

The World Heritage Convention’s definition of heritage provided an innovative opportunity for the protection of sites linking natural and cultural elements, tangible and intangible heritage and for cultural landscapes as “works of man or the combined works of nature and man”. Today the Convention covers 788 sites (154 natural, 611 cultural and 23 mixed properties) in 134 countries. Among the 788 properties, 50 sites are recognized as cultural landscapes.

The Convention not only links the protection of cultural and natural heritage, of cultural diversity and biological diversity, it also links people and protected areas and tangible and intangible heritage demonstrated by the 788 properties from all regions of the world.

Many of the cultural sites are also intrinsically linked to forests and timber production such as the Verla Groundwood and Board Mill (Finland) or Kizhi Pogost (Russian Federation). Wood is a part of our culture and has led to many forms of cultural expressions and technical achievements illustrating the diversity of human expressions and creativity.

World heritage and forests

Many forests have been inscribed since 1978 when the first sites were listed, including the first National Park – Yellowstone National Park (United States of America) – which illustrates that nature conservation and forest protection itself is a cultural concept and the history of forestry and hunting grounds are linked to cultural perceptions and practices.¹

Forests have been recognized specifically under the UNESCO World Heritage Centre Forest Programme following a meeting at Berastagi Indonesia in 1998. The world’s foremost forest management and conservation experts from a variety of government and non government organizations, multilateral agencies and research institutions met to discuss how the 1972 World Heritage Convention facilitates international efforts to strengthen and secure the conservation of the world’s biodiversity rich tropical forests. The meeting concluded that UNESCO should focus on the expansion of the network of World Heritage Forests, support and enhance forest protected area management, highlight World

¹ See also G. Miller and J. G. Lewis (1999).

Heritage Forest sites as examples of best practice for conservation objectives whilst still maintaining the livelihood needs of indigenous people in the region, gather greater support from civil society to fully achieve the Convention objectives; and, expand the capacity of the UNESCO World Heritage Centre and IUCN as technical advisor with regards to forest conservation issues.

87 sites with forest cover are recognized on the World Heritage List with a total of 70, 000, 000 ha. Since 1998, an additional 13 million hectares of protected forests have been inscribed on the World Heritage List and the World Heritage Forestry Programme was created and adopted by the World Heritage Committee. The UNESCO World Heritage Centre is currently managing projects supporting forest conservation in 21 forest sites and in additional 4 candidate sites around the globe, with a total budget of more than US \$25 million.

Interesting enough, most of the forest areas on the list are not specifically recognized for their biodiversity, but for other values, such as the Swedish High Coast for geological heritage, or the Bialowieza National Park (Belarus/Poland) for its scenic values under the criterion of natural beauty, another cultural concept. In the European region forest properties occur in the Boreal Forest (e.g. Lake Baikal and Komi Forest in the Russian Federation), temperate forests (e.g. Bialowieza in Belarus/Poland, Pirin National Park in Bulgaria, Plitvice in Croatia, Sikhote Alin in the Russian Federation), but also subtropical forests such as the laurel forests in Madeira and the Canaries.

None of the World Heritage Centre natural heritage projects focuses on cultural values or nature-culture interaction although sustainable use of forest resources in the landscapes within which forest World Heritage sites are located is encouraged. A meeting was organized from 9-11 March 2005 in Nancy, France at the National Forestry College to provide clear guidance to the on-going development of the UNESCO forestry programme over the next 5-7 years and a publication to serve as main reference document for World Heritage forestry matters is under way.

Linking cultural and biological diversity

In UNESCO's Regular Programme a joint Main Line of Action between the Science Sector and the Cultural Sector was approved to look at the linkages between cultural and biological diversity. Within this project a number of case studies were carried out, including forest sites. As a result an international symposium was organized from 30 May to 2 June 2005 in Tokyo in relation to the World Expo in Aichi 2005 under the motto Nature's wisdom: International Symposium on "Conserving Cultural and Biological Diversity: the Role of Sacred Natural Sites and Cultural Landscapes". It aimed to highlight the interrelationship between the natural and cultural diversity of our planet. Bringing culture and nature closer together in a comprehensive approach, the symposium reviewed case studies on sacred natural sites and associative cultural landscapes from all regions of the world.

Conservation and water experts, anthropologists, ecologists and government officials, representatives of indigenous and local communities exchanged information and views on how to conserve and manage sites which often have highly symbolic and cultural significance and scenic beauty, and on how to prevent adverse impacts on the traditional knowledge and lifestyles of indigenous and local communities concerned. Guidelines on the conservation and management of such sites have been discussed and will be further refined.

As the Latin origin of the word culture "colere" is to cultivate land for human needs, and to prepare it for settlement, the linkages between forests and culture are particularly interesting. The concept was enlarged to include broader aspects of human activities, traditions, rituals, and ways of life to encompass what we understand as "culture". The human experience has included forests in most

parts of the world. Forests have often been seen as the wild nature, as the darker primitive and mysterious side, the opposite of the civilized Western world. The forest is the place of magic, of trolls and elves. This can be still seen in many fairy tales and stories, paintings and poems.²

Below I will look at the nature-culture interactions concerning forest sites under the World Heritage Convention using the interdisciplinary approaches developed under the linkages project. I am not looking at the symbolism of single trees, which not only symbolize life itself, but are revered in many cultures of the world. The baobabs are the cathedrals of Africa; the thousand year old oaks in Germany, the UK and France are the still existing symbols of the spiritual and cultural life of our ancestors in Europe and are present in our mythology such as the Yggdrasil tree in the Norse mythology. In Japan trees are considered as a part of cultural heritage – expressed in the Bonsai tradition.

The landscape approach

In 1992 the World Heritage Convention became the first international legal instrument to recognize and protect cultural landscapes. This decision was based on 15 years of discussion on how to protect sites where interactions between people and the natural environment are evaluated as being of „outstanding universal value.“ The World Heritage Committee adopted three categories of cultural landscapes as qualifying for listing: clearly defined landscapes designed and created intentionally by humans; organically evolved landscapes, which can be either relict landscapes or continuing landscapes; and associative cultural landscapes.

Cultural landscapes are inscribed on the World Heritage List on the basis of the cultural heritage criteria. In many cases cultural landscapes are national parks, protected landscapes, or other categories of protected areas under national legislation. It is not primarily their natural values, which have led to their inscription, although in some cases, both the natural and cultural values have been assessed as being of outstanding universal value, such as the trans-boundary landscape of Mont Perdu (France/Spain). The category of the associative cultural landscape has been crucial in the recognition of intangible values and for the heritage of local communities and indigenous people.

In the European context the recognition of cultural landscapes as World Heritage in 1992 and the adoption of the European Landscape Convention in 2000 have been extremely important. As the Parks for Life World Commission on Protected Areas (WCPA) meeting in Rügen (Germany) in 1997 noted – landscapes are the future for European Protected Areas and recognition was sought under the World Heritage Convention because of the centuries of extraordinary interaction between people and their land.

The paper focuses in the following on key case studies by theme (a) natural sites with a clear cultural link; (b) cultural landscapes where forests play a key role in the interaction; and (c) the broader linkages in the landscape approach, including natural and cultural properties.

Case studies and examples

a. Natural heritage properties: forests and cultural heritage

Many of the natural heritage properties with forest coverage are linked to cultural values both tangible and intangible, to rituals and myths, stories and language, cultural remains and ar-

² See also Miller (2000) and Wood (1997).

cheological sites and other tangible heritage. Forests are embedded in our collective memory in Europe, illustrated for example by the fairy tales of the Grimm brothers, now recognized under UNESCO's memory of the World programme. Forests are part of our European history and illustrate eras of conflict and population expansion, technological achievements (ships, mining) and changes in cultural identity and social development.

Yellowstone National Park (USA)

At the origin of the World Heritage Convention in 1972 was also the creation of the first National Park on earth and its 100th anniversary: Yellowstone National Park (1872). The protection of natural areas is in itself a cultural activity and an implementation of a cultural perception. This was prolonged with the many cultural and social values attached to these sites, for recreational benefits and spiritual enlightenment. At Yellowstone and many other national parks on earth we can also look at the long cultural history of these areas: they are no "virgin" natural sites, but managed by indigenous people and first nations communities over centuries.

Belovezhskaya Pushcha/Białowieża Forest (Belarus/Poland)

Situated on the watershed of the Baltic Sea and the Black Sea, this immense forest range, consisting of evergreens and broad-leaved trees, is home to some remarkable animal life, including 300 European Bison, a species which has been reintroduced into the park. An area renowned for its virgin forest and its wooded scenery, Belovezhskaya Pushcha has been mentioned in literature and art over the centuries. It is connected with such renowned people as the Russian landscape painter I.I. Shishkin, French philosopher Jean Jack Russo, painter N.S. Samokish, Byelorussian poet N.A Gusovsky, and the Russian revolutionary writers A.I. Gertsen and N.P. Ogarev.

There are about 4, 000 people living within the Biosphere Reserve: 2, 500 within the transition area; and 1, 500 in the buffer zone. Their livelihood is predominantly agriculturally based, the main crops being potatoes, rye, wheat, oats, barley, rape and sugar-beet. The reserve offers few financial benefits to the local population, and therefore new approaches are taken in environmental education and awareness raising as well as training opportunities in forestry, forestry protection and other services. However, the forest has always been important to people's lives, as they depend on timber and non-timber products and traditional folklore and handicrafts is much related to the woods.

In addition to literature, art and paintings and other cultural expressions, this forest was also a place of rescue for the partisans during the Second World War fighting the national socialist occupation. Today the forest also provides cover to refugees from the east crossing the EU outside border within the park, another challenge to the trans-border management of this site.

Garajonay National Park (Spain)

This forest site was also a place of rescue when the Spanish took over this island in the Canary Islands archipelago and occupied it and suppressed the local Guanche population. Laurel forest covers some 70% of this park, situated in the middle of the island of La Gomera. The presence of springs and numerous streams assures lush vegetation resembling that of the Tertiary, which, due to climatic changes, has largely disappeared from southern Europe.

The mountain conserved relic forests in times of climate change and contains species that would not be found in any other areas. Recently some new laurel species were discovered through interviews with older inhabitants of the island recording the medicinal values of the trees. At the same time the site is linked to many rituals, music and stories of the people recording their relationship with their environment. The steep terrain is also the reason for the development of another intangible heritage unique on earth: El Silbo, a whistle language to communicate across the deep valleys. The latter was recognized by UNESCO through its cultural programmes.

b. Cultural landscapes where forests play a key role in the interaction

Pyrenees Mont Perdu (France/Spain)

This outstanding mountain landscape, which spans the contemporary national borders of France and Spain, is centered around the peak of Mount Perdu, a calcareous massif that rises to 3,352 m. The site, with a total area of 30,639 ha, includes two of Europe's largest and deepest canyons on the Spanish side and three major cirque walls on the more abrupt northern slopes with France, classic presentations of these geological landforms. The site is also a pastoral landscape reflecting an agricultural way of life that was once widespread in the upland regions of Europe but now survives only in this part of the Pyrénées. Thus it provides exceptional insights into past European society. Within the cultural landscape of transhumance and agricultural heritage there are the sacred sites within the natural forest, among them one of the most interesting accumulation of three Christian chapels high in the mountains on a small plateau³, certainly a sacred site long before Christianity came to the area. This illustrates the important links between the spiritual values and the natural features, since the beginning of humanity.

Hallstatt Dachstein Salzkammergut Cultural Landscape (Austria)

More important than at the Mont Perdu site are the forests at the cultural landscape of Hallstatt covering up to 70% of the site. The forest heritage is not recognized as part of the World Heritage value, which is only focusing on the history of the salt production starting with salt mining in the Neolithic. The cultural heritage of forests is evident in this site, as the salt processing would not be possible without the forests as source of energy, and as construction material for the technological elements, the building of the village of Hallstatt and the transportation boats. The latter are intrinsically linked to the intangible heritage of the region, such as the Christi Himmelfahrt procession by boat across the Hallstadt lake.

Curonian Spit (Lithuania/Russian Federation)

Human habitation of this sand dune peninsula, 98 km long and 0.4-4 km wide, dates back to pre-historic times. Throughout this period it has been threatened by the natural forces of wind and waves. Its survival to the present day has been made possible only as a result of ceaseless human efforts to combat the erosion of the Spit, dramatically illustrated by continuing stabilization and reforestation projects.

This site illustrates the human creativity and continuous interaction between people and the natural environment. It is also an example of the forests as places of stories, associate values and

³As requested by the local people the location is not provided in this article to respect the secrecy and to avoid large influx of tourism. Please see the UNESCO-IUCN guidelines for the management of natural sacred sites available at: <http://www.unesco.org/mab/SNS/symposium.htm>.

spaces of rituals. The struggle to survive in the area and the constant loss of villages to the moving dunes created a specific relationship to the forest, which was considered a safe heaven and protection from the natural forces. The site was later then protected as national park, which includes both the conservation of the natural values and the cultural heritage, presented together on site and with programmes for awareness raising for local children.

c. Broader linkages in the landscape approach, including natural and cultural properties

One of the world's key forests in terms of cultural value is the sacred cedars of Lebanon already mentioned in the Bible. The site was nominated as natural property but not inscribed on the World Heritage List due to major integrity issues. The government then decided to bring back the site as a cultural landscape, which gave world-wide recognition to the specific relationship between people and the sacred forest:

Ouadi Qadisha (the Holy Valley) and the Forest of the Cedars of God (Horsh Arz el-Rab)

The Qadisha valley is one of the most important early Christian monastic settlements in the world. Its monasteries stand in dramatic positions in a rugged landscape. Next to the valley there are the remains of the great forest of cedars of Lebanon, highly prized in antiquity for the construction of great religious buildings.

This site illustrates a major issue, the fragmentation in the landscape and requires a new approach to management and protection. The management should include the regional landscape context integrating the natural values of the cedar forest intrinsically linked historically to the Qadisha valley. Since the revised Operational Guidelines in 2005 require the application of the conditions of integrity to cultural properties and more specifically to cultural landscapes, this has to be applied in a revised management plan taking into account both the ecological linkages and the cultural linkages – both tangible and intangible including spiritual – to ensure an integrated approach.

Cultural and Historic Ensemble of the Solovetsky Islands (Russian Federation)

This integrated approach is unfortunately lacking for another monastic site, which records spectacular natural values. The Solovetsky archipelago comprises six islands in the western part of the White Sea, covering 300 sq. km. They have been inhabited since the 5th century B.C. and important traces of a human presence from as far back as the 5th millennium B.C. can be found there. The archipelago has been the site of fervent monastic activity since the 15th century, and there are several churches dating from the 16th to the 19th century.

The local people cherish the natural environment and import wood for their houses and constructions to save their natural environment. They make handicrafts with woods floating to the beaches of the island. They also value the non-timber products in particular with medicinal plants. Currently the site is only managed for its built monastic heritage, not for its biodiversity (both terrestrial and marine, including the key site world wide for Beluga whales). Although International and Russian NGOs worked for years to enlarge the protection to the natural heritage and to ensure world wide recognition, they failed. The nomination dossier was withdrawn by the Russian Federation in 2004.

Conclusions

The few examples from the World Heritage List and UNESCO Biosphere Reserves illustrate the complexity of the interaction between people and their environment, between culture and nature. In many cases some of the values are recognized for the World Heritage Listing process; however towards an integrated approach only first steps are being undertaken. Crucial in this development is to recognize these values on the local, regional and national level, to ensure full stakeholder consultation – in particular local communities and indigenous people. Furthermore, one has to ensure the benefits for the people living in and around the sites: to fight poverty, ensure sustainable development without threatening the values of the sites, both cultural and natural, tangible and intangible.

World Heritage sites can be key examples to demonstrate the nature-culture interaction, if recognized and if managed both with a comprehensive integrated management system and in a regional “linkages in the landscape approach”. This requires also new approaches for training of natural heritage site managers to recognize the cultural values and the benefits of managing them. Vice versa, even a purely cultural property has to be managed for its natural values, the biodiversity of the landscape heritage, the bio-cultural heritage of ancient settlements or the much cherished herb and medicinal gardens at monastery sites. Many site managers may be overwhelmed with pilgrims crossing the national parks (e.g. 2 million pilgrims at La Rocia in Donana National Park), cultural remains and archeological sites within “virgin forests” (Bialowieza) or rituals and intangible heritage related to many religious and sacred sites located all over Europe (e.g. Mont Perdu).

In order to better address these issues, the following points should be taken into account:

1. Recognition of cultural values in forest sites and landscapes

It is important to encourage natural and cultural heritage agencies at all levels to work together to ensure a coordinated approach to inventories, so that site managers are aware of the heritage to protect. This may have been started and achieved in many countries of Europe for the tangible cultural heritage, but much less for ethno-botanical research and recording intangible heritage.

2. Enhancing conservation within the broader landscape

Protected areas and cultural properties are no islands – they have to be managed in the broader landscape context, specifically integrating relevant linkages. This can be addressed by looking at the functional and spatial connectivity and buffer areas in order to ensure the long term integrity of both natural and cultural values.

historic mining site within a protected forest has to be explained with the whole historic mining process in mind, including the source of the ore, transportation, processing, energy sources and related technological buildings and production and processing sites, as well as the social history of the workers and the related mining housing. Similarly for a sacred natural site, the linkages in the landscape have to be understood without jeopardizing the secrecy aspect of the people; guidelines for the management have been prepared for such sites – and new legal instruments such as the 2003 UNESCO Convention for the Safeguarding of Intangible Cultural Heritage may assist countries with specific training programmes in the future.

3. Involving people in forest sites protection

Even more crucial is the involvement of people at both local and regional level, including information, education and awareness raising in collaboration with local schools and (regional) training centers. The involvement of all stakeholders can be quite complex with forest sites in the

broader landscape: forest owners (this can be large companies as well as private owners), farmers of surrounding agricultural lands, mining companies and tourism industry, as well as local and national governments. Many indigenous people (mainly in the north of Europe) and local communities play major roles in protecting World Heritage sites with ecological adapted activities in the buffer zones of protected areas and agriculture.

Assistance needs to be provided for the re-interpretation of existing World Heritage properties to ensure that management covers all the values and is linking cultural and biological diversity in a landscape approach. The linkages in the landscape and their interconnectivity need to be recognized and managed in a regional approach.

These aspects were recognized by two recent meetings: the World Heritage Forest Meeting (Nancy, France, March 2005) and the Tokyo Meeting mentioned above. Based on these international debate on issues such as forests and culture has to be stimulated taking into account the existing international Conventions in cultural and natural heritage field and cooperation between international institutions and organizations.

World Heritage forests have always been a shared heritage between people and nations both as cultural and natural heritage. With increasing globalization we have the obligation to raise awareness about this heritage and the intrinsic links between people and their forest environment, between their tangible and intangible heritage. We have to cherish our heritage as part of the European and of the national identities and to develop innovative tools to protect it in the future. Enhancing sustainability and strengthening regional landscape approaches will ensure that current use does not jeopardize those of future generations.

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The European Landscape Convention and Forests

Maguelonne Déjeant-Pons

Head of the Spatial Planning and
Landscape Division of the Council of Europe

Abstract

The landscape...

... has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation;

... contributes to the formation of local cultures and... is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity;

... is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas;

... is a key element of individual and social well-being and... its protection, management and planning entail rights and responsibilities for everyone

Preamble to the European Landscape Convention,
Florence, 20 October 2000

The main objectives of the Council of Europe are to promote democracy, human rights and the rule of law and to seek common solutions to the main problems facing European society today. The Organization is active in environment protection and in promoting sustainable development in line with the Recommendation Rec. (2002) 1 of the Committee of Ministers of the Council of Europe to Member States on the Guiding Principles for sustainable spatial development of the European continent, previously adopted by the European Conference of Ministers responsible for regional planning (CEMAT). The aim is to bring the economic and social requirements to be met by the territory into harmony with its ecological and cultural functions and therefore to contribute to long-term, large-scale and balanced spatial development. These seek to protect Europeans' life, quality of life and well-being taking into account landscape, natural and cultural values.

What partnership for the future must be developed with the forestry sector? It should be possible that the Council of Europe present the conclusions of this Seminar, the work carried out by the Global Partnership on Forest Landscape Restoration as well as other initiatives at one of the next meetings of the Committee for the implementation of the European Landscape Convention.

Paper

Presentation of the Convention

The member States of the Council of Europe signatory to the European Landscape Convention declared their concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. The Convention represents therefore the first international treaty devoted to sustainable development, the cultural dimension also being included.

Origins of the Convention

On the basis of an initial draft prepared by the Congress of Local and Regional Authorities of Europe, the Committee of Ministers decided in 1999 to set up a select group of experts responsible for drafting a European Landscape Convention, under the aegis of the Steering Committee of cultural heritage (CDPAT) and the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP). Ongoing the work of this group of experts, in which the principal governmental and non-governmental international organisations participated, the Committee of Ministers adopted the final text of the Convention on 19 July 2000. The Convention was opened for signature in Florence, Italy on 20 October 2000 in the context of the Council of Europe Campaign “Europe, a common heritage”.

Why a convention on landscape?

As an essential factor of individual and communal well-being and an important part of people’s quality of life, landscape contributes to human fulfilment and consolidation of the European identity. It also has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity, particularly to tourism.

Now, the advances of production techniques in agriculture, forestry, industry and mining, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and more generally the global economic changes, have in very many cases led to degradation, debasement or transformation of landscapes.

While each citizen must of course contribute to preserving the quality of landscape, it is the responsibility of the public authorities to define the general framework in which this quality can be secured. The Convention thus, lays down the general legal principles, which should guide the adoption of national and community landscape policies and the establishment of an international co-operation in this field.

The objectives and specificity of the Convention

The purpose of the Convention is to further the protection, management and planning of European landscapes, and to organise European co-operation in this field. It represents today the first international treaty entirely devoted to the protection, management and enhancement of the European landscape. “Landscape” means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.

The scope of the Convention is very extensive: it applies to the entire territory of the Parties and relates to natural, urban and peri-urban areas, whether on land, water or sea. It therefore concerns not just remarkable landscapes but also ordinary everyday landscapes and blighted areas. Landscape is thus henceforth recognised irrespective of its exceptional value, since all forms of landscape are crucial to the quality of the citizens’ environment and deserve to be considered in landscape policies. Many rural and urban fringe areas in particular are undergoing far-reaching transformations and must receive closer attention from the authorities and the public.

Given the breadth of scope, the active role of the citizens regarding perception and evaluation of landscapes is an essential point of the Convention. Awareness-raising is thus a key issue, in order

that the citizens participate in the decision-making process, which affects the landscape dimension of the territory where they reside.

Definitions

Terms used in the Convention are defined to ensure uniform interpretation:

- “Landscape” means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors;
- “Landscape policy” means an expression by the competent public authorities of general principles, strategies and guidelines that permit the taking of specific measures aimed at the protection, management and planning of landscapes;
- “Landscape quality objective” means, for a specific landscape, the formulation by the competent public authorities of the aspirations of the public with regard to the landscape features of their surroundings;
- “Landscape protection” means action to conserve and maintain the significant or characteristic features of a landscape, justified by the landscape’s heritage value derived from its natural configuration and/or human activity;
- “Landscape management” means action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, to guide and harmonise changes, which are brought about by social, economic and environmental processes;
- “Landscape planning” means strong forward-looking action to enhance, restore or create landscapes.

Undertakings of the Contracting Parties

National measures

In accepting the principles and aims of the Convention, the Contracting Parties undertake to protect, manage and/or plan their landscapes by adopting a whole series of general and specific measures at the national level, in keeping with the subsidiary principle moreover. In this context, they undertake to encourage the participation of the public and of the local and regional authorities in the decision-making processes that affect the landscape dimension of their territory.

The Contracting Parties undertake to implement four general measures at the national level:

- legal recognition of landscape as constituting an essential component of the setting for people’s lives, as reflecting the diversity of their common cultural and natural heritage and as the foundation of their identity;
- establishment and implementation of policies to protect, manage and plan landscapes;
- procedures for the participation by the general public, local and regional authorities and other parties interested in the formulation and implementation of landscape policies;
- integrating landscape into regional and town planning policies, cultural, environmental, agricultural, social and economic policies, and any other policies, which may have direct or indirect impact on the landscape.

The Contracting Parties further undertake to implement five specific measures at national level, to be applied consecutively:

- awareness-raising: improving appreciation by civil society, private organisations and public authorities regarding the value, function and transformation of landscapes;
- training and education: providing training for specialists in landscape appraisal and landscape operations, multidisciplinary training programmes on landscape policy, protection, management and planning, aimed for professionals in the private and public sector, for interested associations, and school and university courses, which, in the relevant subject areas, cover landscape-related values and questions of landscape protection, management and planning;
- identification and evaluation: mobilising those concerned in order to reach a better knowledge of landscape, guiding the work of landscape identification and evaluation through exchanges of experience and methods between the Parties at a European level;
- setting landscape quality objectives: defining quality objectives for the landscapes, which have been identified and evaluated, after consulting the public;
- implementation of landscape policies: introducing policy instruments for the protection, management and/or planning of landscapes.

International measures: European co-operation

The Contracting Parties also undertake to co-operate at an international level in catering for the landscape dimension in international policies and programmes, and to recommend as appropriate the inclusion of landscape considerations in these policies and programmes. They accordingly undertake to co-operate in respect of technical and scientific assistance and exchange of landscape specialists for training and information, and to exchange information on all questions covered by the Convention.

Trans-frontier landscapes are covered by a specific provision: the Contracting Parties undertake to encourage trans-frontier co-operation at local and regional levels and, wherever necessary, to prepare and implement joint landscape programmes.

Council of Europe Landscape Award

The Convention provides a “Council of Europe landscape award”. This constitutes an acknowledgement of the policy or measures applied by local and regional authorities or by non-governmental organisations to protect, manage and/or plan their landscape, which have proved lastingly effective and can thus serve as an example to other territorial authorities in Europe.

The award will thus help to stimulate local agencies in encouraging and acknowledging exemplary landscape management. The proposal was initiated by the Committee of experts responsible for monitoring the implementation of the Convention and adopted by the Committee of Ministers.

Implementation of the Convention

Now ratified by seventeen States, the European Landscape Convention entered into force on 1st March 2004. A Conference on the occasion of its entry into force was organised at the Palais de l’Europe in Strasbourg on 17 June 2004⁴. Moreover, participants at a Joint Meeting of the Steering

⁴ See T-FLOR (2004) 14.

Committee for Cultural Heritage (CDPAT) and the Committee for the Activities of the Council of Europe in the field of Biological and Landscape Diversity (CO-DBP), held on 18 June 2004 adopted a draft terms of reference of a Committee for the European Landscape Convention and a Working Programme for 2005⁵.

Conferences of Contracting and Signatory States of the Convention

Two Conferences of Contracting and Signatory States of the Convention were organised on 22 and 23 November 2001 and 28 and 29 November 2002 in order to bring together the Contracting and Signatory States, the States invited to sign it and observers⁶. They notably:

- urged the signature and ratification of the Convention;
- discussed the legal assistance to the Signatory States and to the member States of the Council of Europe invited to sign the Convention; and
- checked the effective implementation of the Convention after its entry into force.

A Declaration was adopted by the second Conference. A document compiling summary descriptive notes on the landscape policies pursued in the Council of Europe Member States was done⁷ and an Internet site of the Convention established.

Meetings of the Workshops on the implementation of the Convention

Two Meetings of the Workshops on the implementation of the European Landscape Convention were organised in Strasbourg on 23 and 24 May 2002 and on 27 and 28 November 2003 in order to discuss and present concrete examples and experiences⁸.

The following five themes were examined in 2002⁹:

- Landscape policies: the contribution to the well-being of European citizens and to sustainable development – social, economic, cultural and ecological approaches (Preamble of the Convention);
- Landscape identification, evaluation and quality objectives, using cultural and natural resources (article 6 of the Convention);
- Awareness-raising, training and education (article 6 of the Convention);
- Innovative tools for the protection, management and planning of landscape (article 5 of the Convention);
- Landscape Award (article 11 of the Convention).

Three new themes were examined in 2003 by the second Meeting of the Workshops:

- Integration of landscapes in international policies and programmes (article 7 of the Convention) and trans-frontier landscapes (article 9 of the Convention);
- Individual and social well-being (preamble of the Convention);
- Spatial planning and landscape (article 5, d of the Convention).

⁵ See T-FLOR (2004) 15.

⁶ See the reports of these Conferences: T-FLOR 1 (2001) 19 and T-FLOR 2 (2002) 27.

⁷ See the document: T-FLOR 2 (2002) 11.

⁸ See the document: T-FLOR 2 (2002) 18, 18 addendum and T-FLOR 3 (2002) 12.

⁹ See the documents of these Conferences: T-FLOR 2 (2002) 20, 21, 22, 23 and 24.

During the Workshops, an exhibition on “Landscape through the eyes of the children of *Armenia*” was also organised.

The Third Meeting of the Workshops on the implementation of the European Landscape Convention will be organised in Cork on 16-17 June 2005 on “*Landscapes for urban, suburban and peri-urban areas*”.

National Information Seminars

Three national information Seminars on the European Landscape Convention were also organized:

- Information Seminar on “Spatial Planning and Landscape”, Yerevan, Armenia, 23-24 October 2003;
- Information Seminar on “Spatial Planning and Landscape”, Moscow, Russian Federation, 26-27 April 2004;
- Information Seminar on “Sustainable spatial development and the European Landscape Convention”, Tulcea, Romania, 6-7 May 2004.

Contemporary lifestyles are such that people aspire more and more to rediscover an unspoiled setting and to preserve their natural as well as cultural heritage. By means of this growing social demand, landscape gains or regains prestige and begins to be perceived as a major component of sustainable development policies. It is necessary to recognise the importance and value of landscapes and reconciling the right to achieve profitability with the right to enjoy well-being, health and scenic beauty.

What partnership for the future must be developed with the forestry sector? The FAO Report “State of the World’s Forests 2005” underline how forest landscape restoration aims to regain ecological integrity and enhance human well-being in deforested or degraded forest landscapes. The process brings stakeholders together from different sectors to put in place a variety of land-use practices that will help to restore the social, environmental and economic functions of forests and trees across the landscape. Since the launch of the Global Partnership on Forest Landscape Restoration¹⁰ at the sixteenth session of the FAO Committee on Forestry (COFO) in March 2003, organisations and governments have been exploring the concept as a possible complement to the management and protection of forest resources. Forest landscape restoration is carried out under the assumption that improving the flow of forest goods and services requires a balance between livelihoods and nature protection, and that this is best achieved within dynamic, multifunctional landscapes.

The Report states that case studies and regional workshops evaluating the role of forests and trees in urban and rural landscapes consistently and clearly point to the need for:

- decentralised, participatory and multidisciplinary approaches to policy planning, management and monitoring;
- maintenance of forests and trees as integral components of the landscape;
- supportive institutional frameworks and greater inter-sectorial collaboration;

¹⁰ Network of governments, international and non-governmental organisations and communities that are working to raise the profile of forest landscape restoration as a model of how the international forest community can link policy with practice.

- integrated approaches to balance short-term needs for food and livelihoods with long-term needs for environmental services, including biodiversity conservation;
- dissemination of knowledge and technology concerning the role of forests and trees in restoring wider landscapes, through national and international networks;
- sound extension and technical support systems and demonstrations of forest landscape restoration at work;
- interventions that reflect the unique physical, cultural, social, political, environmental, economic and institutional conditions of each landscape.

It should be possible that the Council of Europe present the conclusions of the work carried out by the Global Partnership on Forest Landscape Restoration as well as other initiatives at one of the next meetings of the Committee for the implementation of the European Landscape Convention.

References

Websites of the European Landscape Convention:

<http://www.coe.int/EuropeanLandscapeConvention>

<http://www.coe.int/ConventionEuropéenneduPaysage>

See also the websites of the European Conference of Ministers responsible for Spatial Planning:

<http://www.coe.int/CEMAT>

<http://www.coe.int/CEMAT/fr>

See also the websites of the Naturopia magazine:

<http://www.coe.int/naturopa>

<http://www.coe.int/naturopa/fr>

APPENDIX

European Landscape Convention CETS No.: 176

Treaty open for signature by the member States of the Council of Europe and for accession by the European Community and the European non-member States

Opening for signature	Entry into force
Place: Florence/Date: 20/10/2000	Conditions: 10 Ratifications./Date: 1/3/2004

Status as of: 31/5/2005

Member States of the Council of Europe

States	Signature	Ratification	Entry into force	Notes	R.	D.	A.	T.	C.	O.
Albania										
Andorra										
Armenia	14/5/2003	23/3/2004	1/7/2004							
Austria										
Azerbaijan	22/10/2003									
Belgium	20/10/2000	28/10/2004	1/2/2005							
Bosnia and Herzegovina										
Bulgaria	20/10/2000	24/11/2004	1/3/2005							
Croatia	20/10/2000	15/1/2003	1/3/2004							
Cyprus	21/11/2001									
Czech Republic	28/11/2002	3/6/2004	1/10/2004							
Denmark	20/10/2000	20/3/2003	1/3/2004					●		
Estonia										
Finland	20/10/2000									
France	20/10/2000									
Georgia										
Germany										
Greece	13/12/2000									
Hungary										
Iceland										
Ireland	22/3/2002	22/3/2002	1/3/2004							
Italy	20/10/2000									
Latvia										
Liechtenstein										
Lithuania	20/10/2000	13/11/2002	1/3/2004							
Luxembourg	20/10/2000									
Malta	20/10/2000									
Moldova	20/10/2000	14/3/2002	1/3/2004							
Monaco										
Netherlands										
Norway	20/10/2000	23/10/2001	1/3/2004							
Poland	21/12/2001	27/9/2004	1/7/2005							
Portugal	20/10/2000	29/3/2005	1/7/2005							
Romania	20/10/2000	7/11/2002	1/3/2004							
Russia										
San Marino	20/10/2000	26/11/2003	1/3/2004							
Serbia and Montenegro										
Slovakia	30/5/2005									
Slovenia	7/3/2001	25/9/2003	1/3/2004							
Spain	20/10/2000									
Sweden	22/2/2001									
Switzerland	20/10/2000									
the former Yugoslav Republic of Macedonia	15/1/2003	18/11/2003	1/3/2004							
Turkey	20/10/2000	13/10/2003	1/3/2004							
Ukraine	17/6/2004									
United Kingdom										

Total number of signatures not followed by ratifications: 13

Total number of ratifications/accessions: 17

Notes:

R.: Reservations; **D.:** Declarations; **A.:** Authorities; **T.:** Territorial Application; **C.:** Communication; **O.:** Objection

Source :

Treaty Office on <http://conventions.coe.int>

Cultural and Bio-cultural Heritage in Swedish Forests

Mårten Aronsson

National Board of Forestry

Sweden

Mr Chairman, honoured guests!

My name is Mårten Aronsson and I am working at the National Board of Forestry with the culture heritage in the forest and with forest history.

The Director General of the National Board of Forestry, Göran Enander has already given a broad survey of the cultural heritage in Swedish forests; its conditions and our measures to improve its preservation.

I will give you some complementary information especially about the serious situation today and on the measures taken to preserve, enhance and use the cultural heritage of the Swedish forests.

I will also present some facts and thoughts on the future situation and role for the cultural heritage and its connection to social and natural values.

As Göran Enander mentioned the rich variation concerning the nature-given conditions in Sweden has resulted in a rich and diverse cultural heritage in the Swedish forests.

The mainly used definition of the cultural heritage in Sweden is as follows: "The cultural heritage is the traditions and values which we have consciously or unconsciously taken over from earlier generations.

It is both material and immaterial.

It includes individual ancient monuments, cultural environments, artistic works, myths and customs.

The definition of the word "forest" is a more difficult issue.

The meaning of the word "forest" has always been changing from time to time.

And in the same time the meaning differs from situation to situation.

Since late Iron Age the land of the farms and villages in Sweden have been divided into so called infields and out-fields.

The infields consist of the farm buildings, the cultivated soil and the meadows.

The word "forest" was often used as synonymous with out-field.

So the forests have always been situated in the out-field.

Today people mainly think of forests as large and dense stands of trees.

Historically the word forest has meant trees in the out-field regardless of species composition, structure and area of stand.

Within the Swedish Forest Administration we divide the culture heritage in the forest into four main groups:

- ancient monuments;
- culture remains listed in the Swedish Forestry Act;

- bio-cultural heritage;
- immaterial heritage.

Ancient monuments

The ancient monuments have an automatic protection via “The Cultural Heritage Act”. The concept of ancient monuments is treated in the 2nd chapter of the Cultural Heritage Act.

They are defined as permanent ancient monuments are the following traces of human activity in past ages, having resulted from use in previous times and having been permanently abandoned:

1. graves, funeral buildings and burial grounds, together with churchyards and other cemeteries,
2. raised stones and stones and rock bases with inscriptions, symbols, marks and pictures, as well as other carvings and paintings,
3. crosses and memorials,
4. places of assembly for the administration of justice, cult activities, trade and other common purposes,
5. remains of homes, settlements and workplaces and cultural layers resulting from the use of such homes or places, e.g. traces of working life and economic activity,
6. ruins of fortresses, castles, monasteries, church buildings and defence works, and also of other remarkable buildings and structures,
7. routes and bridges, harbour facilities, beacons, road markings, navigation marks, and similar transport arrangements, as well as boundary markings and labyrinths,
8. wrecked ships, if at least one hundred years have presumably elapsed since the ship was wrecked.

Permanent ancient monuments also include natural formations associated with ancient customs, legends or noteworthy historic events, as well as traces of ancient popular cults.

Cultural heritage in the Swedish Forestry Act

Paragraph 30 in the Swedish Forestry Act lists valuable culture environments. In these valuable environments damage shall be avoided or delimited.

The environments include e.g. abandoned crofts, overgrown pastures and meadows with trees, clearing cairns, remains of saw-mills.

The bio-cultural heritage

The term bio-cultural heritage was initiated on the National Board of Forestry. The reason was that very little money and interest was spent on the biological values which are dependant on continuous management to survive, e.g. grazed forests and pollards. Today the term and its meaning are generally accepted and booklets on bio-cultural heritage have been written both at the National Board of Forestry and at the National Heritage Board.

The immaterial cultural heritage

The physical cultural heritage, such as old barrows, cairns and so on is very obvious to all people. But to make dead stones speak we need to give them names, explain them and tell stories about them. The physical and immaterial cultural heritage therefore depend on each other and strengthen each other.

The immaterial cultural heritage includes a lot of different phenomena, names of places, knowledge on handicraft, songs, poems, tales, proverbs and much more. They all have in common that they help to explain and give life to abstract things.

The connection between cultural, social and natural values

In the forest there is no border between culture and nature. Unfortunately there has been a trend among nature preservation people to look at nature as “natural nature”. Especially concerning the forests, human impact has been very much underestimated or even neglected. The author Schama expresses the situation in the following way: ***“Nature was culture before it became nature”***.

This opinion of “natural nature” has meant a serious obstacle for the preservation of the cultural heritage in Swedish forest. The main stream in preservation work today is protection and free development.

Research publications from the very last years show that human impact on the forest landscape has been more intense than we have realised before.

They also state the important fact that knowledge on forest history is a necessary tool to make nature preservation more efficient.

Practically all Swedes have in some way a connection to the forest. In their every-day work the forest owners work in their forests.

On week-ends they and their families are hunting, fishing, picking mushrooms and so on in the same forests.

Also the Swede in general spends much time in the forests – hunting, fishing, picking mushrooms and berries, bird-watching and so on. Silence has become a more rare quality in the world of to-day, so many people visit our forests just to experience silence.

Besides an increasing number of tourists from less forest-rich countries are visiting Sweden. To most people the appreciation of the forest depends on a rich cultural heritage and a rich biologic diversity.

The situation of damages on the cultural heritage in the forest

As late as in the middle of the 20th century the work in the forest was mainly done by manpower and horse. That meant little harm to the cultural heritage.

Modern forestry mainly based on the use of big forestry machines was introduced as late as the early 1970-ies. So far it has meant unacceptable damage to the cultural heritage. Especially some types of soil scarification machines cause big damage. At the same time the consideration taken to the cultural heritage has improved slightly in some other respects.

Objectives from the Swedish Government and Parliament to the Swedish forest administration

In April 1999 the Swedish Parliament adopted fifteen national environmental quality objectives. The interim target 3 in environmental quality objective "Sustainable Forests" deals with cultural heritage and reads as follows: "By 2010 forest land will be managed in such a way as to avoid damage to ancient monuments and to ensure that damage to other known valuable cultural remains is negligible".

It is quite obvious though; these objectives cannot be reached to the year of 2010 and this fact has been made clear to the Swedish government.

Has prehistory any future? – Thoughts of the cultural heritage in the society and forests of tomorrow

The situation today of the cultural heritage in the Swedish forests is very serious. Though we are aware of what must be done to preserve and enhance the values, rather little has so far been done out in the forests.

There are many reasons for that and I am sure you will recognise many of them in your own countries. A fundamental reason is the late start of the preservation work.

First of all we have to compensate for the negative impact done before the preservation work started. The ancient monuments are still damaged by modern forestry in an unacceptable way. The bio-cultural heritage is damaged both because of too small resources for management and because of over-growing in the huge protected areas for free forest development.

In Sweden we lack knowledge of the existence of cultural heritage in most of our forests. Within the Forest & History inventory project only 20-25 percent of the forest land has been covered by inventories so far. With the resources available today it will take another 30-40 years to fulfil the inventory.

There is also lack of personnel to work efficiently with the cultural heritage. During the last fifteen years the personnel within The Swedish Forest Administration has been cut down more than 50 percent.

Among other things this means less time to meet and inform the forest owners and contact forest owners. This is especially serious since we know by experience that meeting the forest owners out in the forest is the most efficient way to inform them and make them interested in cultural issues. Also the County Boards are undermanned concerning cultural issues, which make the necessary co-operation with the Regional Forestry Boards less efficient.

Out in the forest the tempo of the forest works is still increasing. Machine work in darkness or thick snow increases the risk for damages on the cultural heritage. The need for efficient soil scarification has increased. This is partly due to the fact that the heavy down-fall of nitrogen the last decades has resulted in fast establishing of green-swards on the forest clearings.

The fact that more and more forest owners do not live on their farms often lead to less knowledge of and feeling for the cultural and natural values of their forest. Besides more and more of the work in the forest is done by contract work of persons with little or none knowledge of the actual forest. It is in this hard climate that the preservation and enhancing of the cultural values must be done. But fortunately, there are also successful measures taken and more to come.

In a world and society which tend to change more and more rapidly forestry is a pronounced long-term business. Trees planted today in Sweden will be harvested in 60-120 years. It therefore becomes more and more obvious that forestry should not “put all eggs in the same basket”.

In Sweden there is an increasing discussion of the so called multi-functionary forestry. This new concept might mean new possibilities for the preservation and use of the cultural heritage. And these thoughts coincide very well with new signals from the Swedish Government and Parliament.

In a proposition from the Swedish Government in 1998 the following objectives for the cultural heritage are presented:

Overall cultural policy objective

- to preserve and use the cultural heritage

Objectives for cultural heritage preservation

- a defended and preserved cultural heritage;
- sustainable society with good and stimulating environments and with cultural environment work as a driving force in the conversion;
- understanding from everybody, participation and responsibility concerning the cultural environment of your own;
- national and international solidarity and respect for the cultural heritage of different groups.

These objectives mean a wider view on cultural heritage and its use than before. They put special focus on co-operation, democracy issues, sustainable development and international perspectives.

A proposition from the Swedish Government “Swedish Environmental Quality Objectives – a task in common” has many statements concerning the cultural heritage. The Government underlines that there is a need for measures to increase the knowledge on and the care of the cultural values of the forest.

Among other it states that: “Increased focus must be laid on creating good conditions for administration of the values of the cultural environments and integrating cultural environment in the work with local and regional development.”

They also say that the cultural environment values of the forest as well as its social values must be considered in the evaluation of the protection values of the forest. Furthermore, the Government says that land-use history must be used in the work with protected forest areas.

Like the proposition on cultural issues cited above this proposition gives the cultural heritage a higher value than before and underlines its importance for nature protection, social values and local and regional development.

What are we doing today?

The Swedish Forest Administration is with limited resources working on reducing all known threats against the cultural heritage in the forest. We also work to preserve and enhance the cultural and social values. The best way to get motivation is no doubt through knowledge and education. The persons who participated in the first 20-week education on the cultural values of the forest have done a very good job after the education. They have led shorter courses on a regional and local level, and also taken a lot of other important initiatives.

The newly established network mentioned by Göran Enander has a potential to become a great success. It consists of skilful and enthusiastic members. The question is though, if we are given enough time and resources to make use of their skill and enthusiasm.

To get a more complete picture of the ancient monuments the inventory project Forest & History continues. Beside inventory the project has grown to be a broad cultural project. Some research is done, culture environments are restored and so on. We have organised and participated in many seminars on damages on the cultural heritage and follow the research work concerning new scarification methods with less negative impact on the cultural heritage. A very promising method has been presented last year but is still too expensive to come into common use.

Much time and effort is spent on the bio-cultural heritage. To make this work efficient a cooperation with other concerned authorities at a national and regional level is necessary. The National Board of Forestry has organised several theoretical and practical field courses on forest grazing, pollarding, and management of especially valuable trees and so on. These courses have resulted in thousands of restored pollards and more than thousand hectares of new grazing forests. We are also involved in networks and groups working with shieling and abandoned croft settlements.

An important task is the work with Article 8j in the Convention of Biodiversity and Sustainable Development. As you know this article deals with preservation and in situ use of old customs and work in local societies, e.g. within the Sami culture.

I think there are two honest ways to describe our work with the cultural heritage of the forest in the last years.

1. Our work has been broad and successful but the pace has been rather slow.
2. Secondly: The damages on the cultural heritage of the forest have increased in spite of our work.

So finally I must repeat: We know what we must do but we do not have the money to do it!

Some finishing thoughts

The countries of Europe have much of their history and cultural heritage in common. The history and values we share unite and strengthen. What is specific to each country enriches our cultural heritage and makes it more fascinating. It is my strong conviction that co-operation between our countries is the most efficient and at the same time the most pleasant way of preserving and enhancing the Social and Cultural dimensions of Sustainable Forest Management in Europe.

Thank you!



INVENTORY, PLANNING AND MAPPING

Planning and presentation of cultural values and performances by a specific “Technical Forests Management Plan”

Alfred Grieshofer (Key note)

Federal Ministry of Agriculture

Austria

Abstract

The Technical Forestry Plan (TFP)¹¹ has been laid down in the Austrian Forestry Act since the year 1975. There were some modest attempts to prepare and apply it, but holdings or authorities have not used it in a wider framework. In recent years the Ministry of Life and its pilot project partners have tried to develop a working basis for the widest possible use and the most practice-oriented application of this so far underrated planning instrument. Importance was not only attached to existing legal requirements, but also, and in particular, to current trends in forestry and environmental policy.

The development was based on two major principles: Motivation gets highest priority! Maximum possible flexibility as concerns technical priorities, volume and resources! The goal of the pilot technical forestry plans ordered on the subject of “forest culture” was to make evident and find out details about the developments outlined above at selected sites. The pilot projects were worked out on individual enterprises with a reasonably large cultural, historical and/or tourist potential.

One of this projects presents the subject for the first time in a more complex way by combining three big and well-known forest enterprises located in the area of the so-called “Steirische Eisenwurzten”; it seems therefore ideally suited to describe the “Austrian way” of planning cultural aspects of sustainable forest management – especially in mountainous areas.

Under the lead of the responsible forest managers the first activities undertaken were to carry out a basic survey of the situation, to evaluate the existing data and sites, and to sketch short-, medium- and long-term strategies for any possible utilization in the context of targeted education or, maybe, tourism. In addition to the given conditions in the enterprise (targeted choice of the site, avoiding and strict observation of identified quiet zones and potential hazard sources, financial and/or staff resources, etc.) special importance was attached to inviting potential project partners from research, (environmental) education and/or tourism where possible.

Paper

*Introduction*¹²

If we speak about the development of cultural dimensions of sustainable forest management in Austria by the (new) planning instrument “Technical forestry plan”, the following conditions should be emphasized:

- The specific topographical and geographical situation.
- The domination of private ownership and small enterprises.

¹¹ In German: „Waldfachplan“(WAF)

¹² This introduction was also used for the paper: MCPFE Country Report Austria/2005.

- High cultural potentials and an **increased awareness** of historic-cultural coherences!
- The specific legal situation which calls for voluntariness and motivation!

Forests cover almost half of Austria's federal territory. In the context of the development of cultural and social aspects of SFM, attention should be paid to the fact that Austria is a mountain-dominated country! So we have to call attention to the special problems of mountain and alpine forests and landscapes – because of their ecological and economic sensitiveness! In accordance to these natural conditions, enormous importance is attached to the protective functions of forests. Without the protection by forests, it is not possible to live and cultivate land or to secure the important traffic routes in the mountain valleys on the long run; on the other hand, the costs to produce the fuel wood in mountain-areas are extremely high and the value added per hectare has been clearly declining.

Given its historical development in the heart of Europe, small-scale ownership structures dominate in Austria. As a result, Austrian forests are mostly owned by forestry, and frequently by family farms, which pursue traditional sustainable forest management and consider forests an essential source of income – a valuable asset and an important workplace. More than 80% (!) of forest land in Austria is owned privately and is broken down into numerous small units. About 170,000 forest tenants operate on areas of less than 200 ha. Only a third of the total forest area belongs to larger forest enterprises – around 15% is national forest. The forest owners, thus, have traditionally borne a great responsibility for preserving forest ecosystems that are of seminal importance to the environment. Not least, we should point out the crucial role of farm – forestry owned by families, in providing and shaping landscapes and the large cultural heritage that is intact.

Our extraordinary high historical and cultural heritage with a strong coherence to the characteristic and beautiful landscapes, make up an essential foundation for the tourism and leisure industries, two sectors of vital importance to Austria.

Many forest enterprises are located in the most fascinating landscapes and, at the same time, historically most important regions of Austria. A number of properties (mansions, monasteries, castles, agrarian estates, etc.) can truly be considered cultural properties of the highest order! A systematic analysis of this potential, taking into account the specific overall situation of tourism in each region and any obstacles there may be, seems to be necessary in order to be able to weigh strengths against weaknesses as well as to obtain a better idea of the development potential and any risks. A substantial number of historical forest locations can be found, for historical reasons, in rural Austria, whose development is given priority by both Austria and the European Union; there are specific development programmes that focus on the systematic strengthening of authentic cultural initiatives (Leader +, etc.). There are a great variety of ways – in many cases, right on the respective property: site or objects relevant to (forest –) history, archives or libraries at castles, hammer mills, mansions, estates relevant to agrarian history, etc. – to present and disseminate forest-cultural content in a vivid fashion and appealing to all senses in a playful or intellectual manner – always with a specific target group in mind.

A few words to the legal situation: in Austria sustainable forest management is based on a well-established legal and institutional framework. As important tools of the Austrian forestry act, the instruments of the forest land use planning describe the main functions and represent an expertise, thus offering the basis for decisions on forest policy.

But it shall be noticed, that the forest authorities are not responsible for a detailed or systematic documentation or preservation of relevant sites/monuments etc. The forestry act does not provide these contents and they do not have personal or financial resources for these tasks. The responsibil-

ity (especially the systematic documentation and preservation of cultural or archaeological monuments/sites/objects etc.) of the "Austrian federal office for the care of monuments"¹³ is based on the "Federal act for the protection of monuments"¹⁴.

For the Austrian forest authorities and other forest stakeholders, preserving and enhancing social and cultural dimensions of sustainable forest management is still a new task. The development of these aspects has on the one hand to take into consideration all relevant international agreements but on the other hand it has to secure the property rights and land tenure arrangements, taking into account the difficult economic situation in mountainous areas. For many subjects a partnership-based planning approach will be particularly useful; there may even be cases where goals cannot be achieved without it. Recent years' efforts to develop cultural and social dimension of SFM have been based on the two major principles: motivation, which gets highest priority and maximum possible flexibility as concerns technical priorities, volume and resources!

Taking into account this specific situation in Austria, the following paper will describe, why the planning instrument "Technical forestry plan" seems especially suited to describe and develop cultural dimensions, potentials and measures of forest enterprises.

Legal foundations

The applicable provisions from the Austrian Forestry Act: 15

The legal basis of the technical forestry plan cannot be explained without describing at least in a few words the basic tasks of forest area planning and the other available planning instruments.

Tasks of forest area planning – Planning instruments

The description and foresighted planning of forests and their development in Austria can be called the major tasks of forest area planning. In this context, the Forestry Act provides for three planning tools:

- The Forest Development Plan (FDP)
- The Technical Forestry Plan (TFP)
- The Hazard Zone Plan (HZP)¹⁶

In this forest area plans the facts and identifiable developments which determine and influence the status of forests in the planning area have to be:

- (a) presented in cartographic and textual form (development of the plan), and
- (b) these presentations have to be adjusted to the actual development in the planning area.

The major objective is to ensure the effects of forests (economic, protective, beneficial, and regeneration effects) sustainability in the best possible way. Of course the focus is on the foresighted planning of forest conditions, but it should be pointed out that all relevant public interests are to be coordinated within the framework of forestry planning.

¹³ in German: "Bundesdenkmalamt".

¹⁴ Denkmalschutzgesetz; Federal law gazette No. 170/1999. (Keine engl. Fassung verfügbar!)

¹⁵ Quotations translated from Doralt W. (publisher) "Kodex des österreichischen Rechts/Umweltrecht", Wien 2004, "Forstrecht", pp. 451ff.

¹⁶ Note 4, p. 456, § 6, sub-sections 1+2; for additional information: Hinterleitner R., statement of 23 January 2003 on 44.120/01-IV/4/02.

What is a technical forestry plan?

In the Austrian Forestry Act the technical forestry plan is defined as follows:

- § 10 (1): “The technical forestry plan is a forestry plan drafted by the owner of the forest or by offices appropriate for this purpose, which includes representations and plans for the area of interest of the party responsible for the planning.
- § 10 (2): Qualified forest workers and civil engineers for forestry are authorised to devise the technical forestry plan.”¹⁷

One can see that the Forestry Act does not include any specific provisions concerning implementation, nor any formal requirements or other regulations for the technical forestry plan.¹⁸

According to the Forestry Act the technical forestry plan is an instrument of forest area planning which is prepared on the initiative of the forest manager (s).

It differs from the Forest Development Plan and the Hazard Zone Plan first of all by the fact that it is devised upon the application (!) of the relevant forest owner or other (authorized) body, whereas FDP and HZP have to be established right by the competent authorities and are mandatory.¹⁹

Connection technical forestry plan – Forest Development Plan

In § 9 (5) of the Austrian Forestry Act the legislator sets forth the (close) connections between a “forest development plan” and a relevant “technical forestry plan” – provided it has been submitted for approval:

- (5) The Governor of the Province shall verify the liability and appropriateness of a technical forestry plan in accordance with the provisions of this section on application and, provided that the result of the verification gives no cause for objections,
- a) include it in the partial plan²⁰ or, should such a plan not exist,
 - b) make it applicable as a partial plan to the district in question.

In a general sense, this means:

The technical forest plan in question will become an official part of the forest area planning only if the forest owner or other authorized person (for whatever reason) submits a corresponding application and the competent Governor of the Province is thus requested to integrate the plan into the applicable forest development plan.

If no such application is filed, the technical forest plan in question will continue to be an instrument under private law – something like a private expert opinion. It will then be used first and foremost to make the forest owner’s plans and strategies transparent for himself and, if so desired, also applicable in accordance with other business objectives.

A forest owner will therefore usually apply for the official approval of a TFP where this means an advantage for him as regards his planning objectives.

¹⁷ Ibid. p 458.

¹⁸ § 8 (3) refers to the general requirement of a corresponding ordinance with more detailed regulations concerning the contents, form, and design. However, for lack of experience and bases, such an ordinance has so far not been prepared.

¹⁹ For the applicable ordinances see Federal Law Gazette 1977/582, Ordinance on the Forest Development Plan, Federal Law Gazette 1976/436 regulating the Hazard Zone Plan.

²⁰ of a Forest Development Plan (FDP)

If the forest owner or other authorized body decides to file an application for approval of the TFP, the responsible Governor of the Province²¹ has to verify that this TFP complies with the contents and objectives of the relevant forest development plan; if this is the case, the TFP will go through the usual official channels (for FDPs).²²

Display for public inspection/Data protection²³

As a principle:

In the case of technical forestry plans for which no application for consent has been submitted and which are therefore not included into the FDP, third parties are not entitled to public inspection or obligatory information from the part of the person (s) devising the plan! Consent to publish a TFP or parts of it may however be granted on a voluntary basis.

A TFP which is to be incorporated into the FDP and is therefore subject to an authorization procedure **will become a public instrument** of forest area planning as part of the relevant FDP.

Technical basis

Data in general:

In a technical forestry plan the persons authorized to plan and the relevant planning partners link the information and data from the applicable Forest Development Plan and other official sources in a technically useful and transparent way with the data provided by the forest manager (s). Existing data represent the most important basis when working out a technical forestry plan.

The available data can generally be divided into data which are open to the public (official or also scientific data), private and farm-related data:

Data of the partial plan of the relevant Forest Development Plan:

The most important official data source for a TFP, directly referred to also in the provisions on technical forestry planning of the Forestry Act, is the Forest Development Plan:

- It shows the forest conditions throughout the country;
- Identifies the leading functions by a text part and a map part;
- Contributes an expertise, offering the basis for decisions of the authorities.

Together with the internal data and objectives of a holding, the relevant FDP partial plan therefore constitutes the primary basis of each TFP and provides an orientation for its contents and strategy.²⁴

An officially approved technical forestry plan will directly become part of the applicable FDP. These clear legal requirements indicate that, as a principle, the planning and strategies of the two instruments FDP and TFP must, or should, not contain any contradictions.

²¹ In official practice, this is the competent (provincial or district) forest authority.

²² After the Governor of the Province has given his/her consent, the Federal Minister approves the plan.

²³ This issue is particularly important because, as a rule, comprehensive internal data of holdings will be processed and presented in a TFP so as to achieve a high technical planning standard.

²⁴ The applicable FDP is available for public inspection in analogous/bound form at the responsible administrative district authority/district forest inspection, the competent Provincial Forest Administration and the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW), Subdivision Forest Area Planning; where the FDP exists also in digital form the data required for a TFP can principally – where technical equipment permits – be obtained also in digital form.

In the individual case this basic requirement may however be relativised a little – first and foremost as a result of different levels of accuracy.

The FDP provides a rough overview of the state and conditions of forests and their necessary development, relates to the entire political or forest district, and reflects the view of the responsible forest authority. For instance, it does not include exact data about ownership, property borders shown in maps may not be up-to-date, and measures described for the period in question do not specifically make reference to individual forest managers, their strategies or objectives. As opposed to this, the TFP is devised on a forest manager's initiative and presents his view based on one or several specific problem (s). Texts and maps will usually show a higher level of accuracy and – in order to achieve the planning objectives – will require additional data.

Should contradictions occur between FDP and TFP, which may for example be the result of different requirements concerning accuracy, they have to be explained in an objective way so as to make them transparent and understandable.²⁵

Other official or internal data

In general all existing official (or other public) and internal data represent important resources which should be used when they can contribute to a more precise formulation of the topic and so make it possible for the person authorized to plan to specify the strategic framework or to give details.

The better private and public (in particular legally binding) requirements and objectives coincide, the more realistic and less time-consuming will it be to achieve the goals of the TFP.

It will first and foremost depend on the topic which of the publicly available or internal data will be used for the individual TFP; the most important data sources of relevance include:

- Zoning Plan and Hazard Zone Plans (communities/Torrent and Avalanche Control)
- Digital Cadastral Map/Land Register (Federal Office of Metrology and Surveying, Provincial Government/Area Planning)
- Operant or other forest management plans
- Other data collections of relevance to business management
- Borders of protected areas (Provincial Government/Nature Protection Register)
- Biotope mapping (Provincial Government/Nature Conservation)
- Area planning relating to hunting/wildlife ecology (District Administrative Authority/Provincial Government/hunting associations)
- Water Register (Provincial Government, District Administrative Authority)
- Standard data forms for site identification (Provincial Government/Nature Conservation)
- Tourism master plans of communities or regions
- Up-to-date or historical vegetation maps (e.g. for representations of landscape histories)

²⁵ If it is planned to apply for approval the technical forestry plan, the applicant (see the above quotation from the law where the Governor of the Province is requested to verify the compliance with the relevant FDP) has to expect critical examination of such contradictions.

- Forest-historical data like historical types of utilisation (forest enterprises, chronicles of communities, Provincial Government, university institutes, archives of the Provinces, museums of local history and culture)
- Endangered species mapping (Provincial Government/Nature Conservation; museums of natural sciences of the Province)
- Information concerning subsidies in textual or cartographic form [forest enterprise, Provincial Forest Administration (Provincial Government, university institutes)]
- Theses about the planning area (land owner, university institutes, archives of the Province, division of nature conservation)
- Ortho-photographs, aerial photographs (representation of property borders, infrastructure (roads and building plans))
- Other scientific literature (depending on the topic), etc.

Framework draft for technical forestry planning

Based on the principle that the TFP should be as flexible as possible, its volume may range from a brief and quick technical substantiation of a financial aid application to extensive, sometimes even scientific work. For approximate orientation and so as to facilitate the preparation of a technical forestry plan, the Ministry of Life (in cooperation with the Central Association of Agricultural and Forestry Enterprises) elaborated the **"Framework draft and supplement for the technical forestry plan"**.

The system:

- serves as an orientation aid, and
- is to facilitate work, which also means
- saving time and money!

The framework draft will usually be sufficient for simple planning tasks and explains the relevant subject for forest managers as well as for the authorities or planning partners involved both in textual and cartographic form. For more complex topics, which require a detailed approach, there is the „supplement" to the framework draft; it was used for all pilot projects. The system given in the "Supplement to the framework draft" corresponds to the usual project steps; it can and is to be supplemented and/or amended depending on the subject and the intended project priorities.

It may also be useful to include existing basic data surveys, scientific studies etc. which can make an important contribution to explaining the planning objectives into the Annex, thereby completing the relevant TFP in the form of "modules". In this way data from the areas concerned can be logically compared in a planning document and it will be possible to develop a feasible solution to combining so far maybe contradictory planning issues in one technical forestry plan.

Selected subjects and pilot projects

Each Technical forestry plan, which was initiated by the Ministry of Life, describes a special problem or subject. The subject “Forest and Culture” is only one of them. The last three years there were made TFP’S as pilot projects for the following subjects:

- Protection forest (TFP as a basis for compensations in protection forests)
- Forests and water
- Forests and Nature 2000
- Farm forestry across enterprises
- Forest culture: Cultural dimensions of forests
- Forest and Game Management
- Tourism and forest enterprises
- Forests and youth (work in progress)
- The Technical Forestry Plan as a supporting planning instrument in official administrative procedures

Subject: “Forest culture – Cultural dimensions of forests”

Although the TFP must give priority to the “forest view” of the relevant subject, it can and is to be appropriate also for development questions and for issues which go in some way or other beyond the former “core tasks” of forestry. It can therefore also be regarded as a tool for identifying and making use of potentials of the enterprise or the region concerned which are of relevance to forest management, but have not yet received great attention. For many subjects a partnership-based planning approach will be particularly useful; there may even be cases where goals cannot be achieved without it.

What is new in particular in the approach is on the one hand to use suitable objects and sites in a targeted way and in close coordination with, or under the lead of, the owner concerned – an approach to communicate modern forestry concepts (adapted to the relevant target groups) – and, on the other hand, where this is possible or desired, to enhance a systematic tying with utilization options in the tourist, or economic, sector. In this way the immense diversity of services which forests have provided over centuries is to be emphasized while at the same time making possible the interlinking of the respective actors in rural and near urban areas.

Pilot projects

The goal of the pilot technical forestry plans ordered on the subject of “forest culture” was to make evident and find out details about the developments outlined above at selected sites²⁶.

Two pilot projects were worked out on two individual enterprises with a reasonably large cultural and historical potential.

²⁶ Individual enterprises: Foundation Starhemberg/Reichenstein; Monastery of Praemonstratensian Canons Geras. Across enterprises: Steirische Eisenwurzten: Monastery of Admont – Provincial Forests of Styria – Foundation Liechtenstein.

One project (and this one will be described below) presents the subject for the first time in a more complex way by combining three big Upper – Styrian forest enterprises located in the area of the so-called "Steirische Eisenwurzten".

Under the lead of the responsible forest managers the first activities undertaken were:

- to carry out a basic survey of the situation,
- to evaluate the existing data and sites, and
- to sketch short-, medium– and long-term strategies for any possible utilization in the context of targeted education or, maybe, tourism.

In addition to the given conditions in the enterprise (targeted choice of the site, avoiding and strict observation of identified quiet zones and potential hazard sources, financial and/or staff resources, etc.) special importance was attached to inviting potential project partners from research, (environmental) education and/or tourism where possible.

Technical Forestry Plan – The cultural services of three forest enterprises in the Styrian Eisenwurzten

Planning forest Enterprises:

- Monastery of Admont
- Foundation Liechtenstein
- Provincial Forests of Styria

In Partnership with:

- Federal Secondary College of Forestry at Bruck/Mur
- Montanistic University of Leoben

Introduction:

The overriding objective of the Technical Forestry Plan on forest culture, which is to be described below, is to develop for the first time a strategy on the subject of forest culture which embraces more than one forest enterprise. Three enterprises located in the region of the "Steirische Eisenwurzten" have been selected for this purpose. They can be called "model enterprises" as regards sustainable forest management, but, due to the historical development of the area, offer at the same time a broad range of interesting forest-culture sites, objects and data.

Survey of the total project – Main objectives:

The primary objective is to demonstrate for the first time, and in a systematic approach, the technical basis for the existing potential of cultural services of the participating forest enterprises. Secondly, useful measures to serve high-level technical education and tourist activities under the lead of forestry are to be laid out – where necessary also in cooperation with partners from outside the enterprises directly involved.

Working hypothesis:

- Last but not least due to a specific historical development the examined areas of the three enterprises can boast of extraordinarily rich cultural potentials which, if well coordinated and developed, may also be suited for economic use.

- At the same time the development and presentation of these potentials at selected sites may be used for high-level educational work and could thereby contribute to early conflict abatement.

The total project is made up of two essential parts:

- Collection of the available basic information and data within the framework of a diploma thesis at the HBLF Bruck/Mur (Federal Secondary College of Forestry at Bruck/Mur, Styria).
- Summary of the results and development of appropriate measures in the actual Technical Forestry Plan by the authorized planner – in close coordination with the involved enterprises.

Participating forest enterprises:

- Foundation Fürst Liechtenstein (FD. Ramskogler/Project management)
- Provincial Forests of Styria (OFR. Holzinger)
- Admont Monastery (OFM Riegler, Dr. Hasitschka/Secondary College of the Convent/advice in historical matters)

Collection of basic data/diploma thesis:

- Marcel Ertler and Thomas Puster (scientific support: Prof. DI Bettina Gailberger)²⁷
- Fundamental data on the history of mining and advice: Univ. Doz. Dr. Georg Walach, Montanistic University of Leoben.

1. *Project step/Diploma thesis:*

This thesis contains:

- Study of expert literature – state of research;
- Collection of data (Forest Development Plan (!), data from enterprises etc.);
- Brief presentation of the history of the three participating enterprises;
- Forest growing and protection areas (conservation of nature and preservation of the landscape);
- Tourism (historical/current development);
- Survey, description and mapping of selected sites (with methodical preparation and documentation; see the examples below!).

2. *Project step/Technical forestry plan:*

Based on the above data collection, which offers a first summary of selected forest-cultural assets of the region, the project leader will (in close cooperation with the participating enterprises) provide an overall assessment and work out strategic goals:

- Preparation of a catalogue of measures;
- Cost planning (where expenses can be estimated);
- Perspectives for any further development.

Subject to the available resources this might lead to increasing numbers of events and might even cause the extension of the project far beyond the participating forest enterprises. However, this requires not only further internal data processing and preparation, but also intensive cooperation with all external data sources (Montanistic University Leoben, existing forest-cultural institutions of the region, etc.).

²⁷ Because of the excellent work the diploma thesis was awarded the appreciation prize of the forest association „Verein zur Förderung des Forstwesens“.

Summary of the project:

The subject-matter Technical Forestry Plan is the first approach towards cross-enterprise or regional technical forestry planning on the topic “Cultural Services of Forest Enterprises”. The area of the so-called “Steirische Eisenwurzten” has been chosen on the one hand because of its very special historical development, on the other hand due to the fact that it was possible in a rather short time to find partners for short-term cooperation, namely three forest enterprises which are playing an important role in the region in which they are located and which are model enterprises as regards sustainable management.

The region’s forest and mining history (the term “Eisen” in the name “Eisenwurzten” means “iron”) will be the basis for a future interdisciplinary and dynamic approach to safeguard our cultivated landscape. However, whereas the forest managers concerned are “normally” not (or only rather poorly – and almost always too late!) integrated into cultural or tourism-related models, the surveys and conclusions of the present initiative are carried out directly by the responsible forest management and thus of course with particular consideration of specific conditions (forestry, forest genetics, timber harvesting, efforts to direct visitors towards certain places, security aspects, hunting zones, etc.). It goes without saying however that, for a serious discussion about landscape protection, the preservation of monuments, general spatial planning, and tourist activities, it is absolutely necessary to involve also suitable partnerships, where necessary.

Three selected examples for sites of interest concerning “forest culture”:

To explain some details of the planning area with respect to forest culture, one site of each of the three enterprises has been selected – they will be explained at the presentation:

Order:

- Foundation Liechtenstein
- Federal Forests of Styria
- Benedictine Monastery of Admont

Perspectives

The Technical Forestry Plan is to provide a technically well-founded, but at the same time pragmatic basis for forest enterprises on which the form and framework (financial or staff resources) of the broad fields of “Forest Culture” and/or “Tourism and Education” are to be utilized and further developed for particular purposes.

The results obtained have basically confirmed the expectations: They provide a first well-founded technical basis for joint implementation and, if desired, can be extended by way of modules both with respect to subject matters and to the integration of and the cooperation with other sites and enterprises.

The Technical Forestry Plan serves above all the technical and strategic orientation in the implementation phase and further development of cultural dimensions and potentials in forest enterprises. Based on the existing situation it is to enable both, the managers or owners of holdings and the competent authorities to make forecasts and should describe the steps which are necessary for the implementation.

As technical forestry planning is in a start-up phase in Austria, the results so far obtained must not be considered “final”. Rather, they lay the groundwork for wider application of the TFP and can, or should, undergo intensive development in the course of the next few years.

Abstract

The most recent, 4th Ministerial Conference (Vienna Summit, 2003) fully recognized the cultural values of forests and specified the means of preserving and enhancing the social and cultural dimensions of SFM (Resolution V3). The commitments of this Conference aim to improve knowledge and understanding as well as to further promote and rise awareness of the social and cultural aspects as significant element of SFM.

The European countries are encouraged to preserve culturally valuable sites, landscapes and customary and to assess the cultural heritage by means of policy tools, such as the MCPFE Pan-European Criteria and Indicators for SFM (C&I).

Considerable support to the identification, conservation and management of significant historical objects and sites in forests was given in the set of improved C&I endorsed at Vienna Summit that included an additional Indicator 6.11. *Cultural and spiritual values: number of sites within forest and other wooded land designated as having cultural or spiritual values*. The MCPFE Questionnaire on data availability on this Indicator was one of the actions undertaken towards the implementation of Resolution V3. The aim of this survey was to give an overview on data availability as well as on existing sources of information.

The results of the Questionnaire specified many potential forest sites for Indicator 6.11; however, additional efforts are needed to ensure that the information is objective and not simplified. Furthermore, these results contributed to the process of elaborating the MCPFE 2007 Report on SFM.

Paper

Introduction

The MCPFE in Vienna (Conference Proceedings, 2003) generated increasing interest in cultural and spiritual values of forests. The commitments of the Vienna Resolution 3: *Preserving and Enhancing the Social and Cultural Dimensions of SFM in Europe* and in the Vienna Declaration aim to improve the knowledge and understanding of the social and cultural dimensions of SFM. Furthermore, considerable encouragement was given to the identification, conservation and management of significant historical and cultural objects and sites in forests (V3, para 10 in: Vienna Declaration and Vienna Resolutions, 2003). An estimated number of such sites are supposed to serve as an indicator of the cultural and spiritual values assigned to forests by society.

Complementary support for social and cultural dimensions of SFM was given by the endorsement of “Improved Pan-European Indicators for SFM” (adopted by the MCPFE Expert Level Meeting, 7-8 October 2002, Vienna, Austria) that included the Indicator 6.11: *Cultural and spiritual values: number of sites within forest and other wooded land designated as having cultural or spiritual values*.

The contribution to the Pan-European Indicator 6.11 is one of the actions included in the MCPFE Work Programme (Pan-European Follow-up of the 4th MCPFE, adopted at the MCPFE ELM, 16-17 October, 2003, Vienna, Austria). Furthermore, this action was supported by the MCPFE ELM (14-15 October, Warsaw, Poland) that recognized a need for further discussion on existing sources of information and the most efficient ways of obtaining relevant data.

Objective

The aim of a survey conducted by the MCPFE LUW in 2005 was to give an overview on data availability on the MCPFE Indicator 6.11.

Methods

The questionnaire consisted of 4 questions relevant to data availability on the Indicator 6.11 and it was sent out to 44 MCPFE signatories. The questions considered the following issues:

- potential objects that may be designated for the Indicator 6.11;
- sources of obtainable data on cultural sites within forest and other wooded land;
- relevant institutions, centers, etc., which deal with social-cultural aspects of forestry and could contribute to the further development of a pan-European approach to the cultural sites within forest;
- a system at a national level of obtaining data relevant to the Indicator 6.11.

Results

The outcome of the questionnaire was presented at the seminar on “Forestry and our Cultural Heritage” (13 – 15 June 2005, Sunne, Sweden). The results serve to the preparation of the Report on SFM in Europe so as to develop the pan-European approach to cultural sites within forest as specified by the Indicator 6.11. The results are based on responds from 15 countries, which means that 1/3 of a total number of the MCPFE signatories have contributed.

Question 1: Potential objects for Indicator 6.11

The countries reported on the following objects that could be selected as potential sites for the Indicator 6.11. The number of objects was distinguished by using “x” for “many” and “o” for a “few” (Table 1.).

Table 1. Incidence of the potential objects for Indicator 6.11

	Austria	Cyprus	Denmark	Finland	France	Germany	Ireland	Norway	Poland	Rep. of Macedonia	Russian Federation	Slovenia	Sweden	Switzerland	United Kingdom	% of X
Archeological sites	x	x		x	•	x	x	•	x	•	x	x	x	•	x	73%
Nature monuments	x	x	•	-	x	x	•	•	x	•	x	x	x	•	x	60%
Sites of historical events	x	•	x	-	x	x	•	•	x	x	x	x	x	•	•	60%
Sites of ceremonies or customs	•	•	x	-	•	x	•	-	•	x	x	•	x	•	•	33%
Sites related to legend, literature and art events	•	x	x	x	•	x	•	-	x	x	x	•	x	•	•	53%
Individual trees (giant or unusual)	•	x	x	x	x	x	x	•	x	x	x	x	x	•	x	80%
Arboretum	•	•	•	x	x	x	•	•	•	•	•	•	•	•	•	20%
Valuable landscape sites	x	x	x	x	x	x	x	•	x	x	x	x	x	-	x	87%
World Heritage sites (registered by UNESCO)	6	7	-	5	1	8	1	-	1	2	10	1	14	-	-	

x many objects • few objects

In general, the results show relatively high numbers of the listed objects in the responding countries. Most respondents (87%) reported valuable landscape as a potential object for 6.11, followed by individual trees (80%) and archeological sites (73%). Nature monuments and sites of historical events were reported by 60% of respondents. Only 20% of the countries included arboretum into their list of many potential objects for the Indicator 6.11. Other designated sites were:

- Man and Biosphere sites – UNESCO (France);
- National parks, nature parks and reserves (Russian Federation, Finland);
- Monasteries (Cyprus);
- Architecture and settlement heritage (Slovenia, Poland);
- Graves, mounds (Denmark);
- Stone fences (Denmark);
- Old roads (Denmark);
- Cultural reserves (Sweden);
- National landscapes (Finland);
- Cultural historical environments (Finland);
- Forest formed for special historical uses (hunting, pasturing, etc.) (Germany).

Question 2: Sources of obtainable data on cultural sites within forest and other wooded land

At a national and regional level, administrations responsible for environment or/and nature protection or/and culture were indicated as sources of data for the Indicator 6.11 (Table 2.). Most often, relevant ministries were reported. Also, other national authorities and state statistics offices were accounted. Singular examples were given for NGO's, different associations and various technical institutions. Considering the number of respondents, most of the countries reported forest service agencies as a source of obtainable data.

Table 2. Sources of obtainable data for Indicator 6.11

NATIONAL & REGIONAL ADMINISTRATION	Ministries	Culture & Nature protection authorities	Other
	<ul style="list-style-type: none"> • Ministry for Environment and/or Heritage (Ireland, Finland) • Ministry of Nature Resources (Russian Federation) • Ministry of Agriculture, Nature Resource and Environment (Cyprus) • Ministry of Ecology and Sustainable Development (France) • Ministry of Culture (France, Slovenia, Poland) 	<ul style="list-style-type: none"> • Environment and Nature Protection Agency (Slovenia, Germany, Switzerland) • National Cultural Heritage Agency (Denmark) • Cultural Heritage Authorities (Norway) • Institute for Protection of Cultural Monuments (Montenegro) • Nature Protection Authorities (Poland) • National Board of Antiques (Finland) 	<ul style="list-style-type: none"> • State Statistics Office (Germany, Poland) • Local and regional authorities (Austria, Switzerland, UK) • Administration of Real Estate and Planning (Germany, Cyprus) • National Records/Register of Ancient sites, monuments and archeological survey (Ireland, Poland, Sweden, UK) • National Inventory of Archeological Heritage (Ireland) • Different National Societies (Finland)
ORGANIZATIONS AND OTHER SOURCES	Forest Service	NGOs & Associations	Other
	<ul style="list-style-type: none"> • Austria • Denmark • Finland • France • Germany • Ireland • Norway • Poland • Slovenia • Sweden • United Kingdom 	<ul style="list-style-type: none"> • Local historical associations and amateur historians (Ireland) • Local associations and societies (Denmark, Finland, Norway) • Greenpeace (Russia) 	<ul style="list-style-type: none"> • Forest National School/Research Institute (Finland, France) • Topographic maps, forest biotopes maps, (Germany, Norway, Denmark) • Museums (Norway, Sweden, Denmark, Poland) • Local and regional planning authorities (Denmark) • Local and regional chronicles (Germany) • Publications of municipalities and individuals (Germany, Austria)

Question 3: Relevant institution that deal with social and cultural aspects of forestry

Various institutions were indicated as being involved in the social and cultural aspects of forestry (Table 3.). Works of a number of Natural History Museums, Forestry Museums and Universities were recognized as relevant for a common approach to social and cultural aspects of forestry at national level. Also, other institutions, such as research and education centers were indicated by the respondents.

Table 3. Institutions involved in social and cultural aspects of forestry

	Austria	Cyprus	Denmark	Finland	France	Germany	Ireland	Norway	Poland	Rep. of Macedonia	Russian Federation	Slovenia	Sweden	Switzerland	United Kingdom
Natural History Museums	6+	-	6	1	1	V	7+	3	3	1	-	2	1	2	-
Forestry Museums	3+	-	1	12	-	V	-	1	5	-	1	1	8	1	-
Universities	4	-	6	V	1	V	3+	3	5	-	2	1	2	2	-
Other Museums			V				V	V	V				V		
Other indication															
Research Institutions	V				V			V		V	V	V			
Forest Administration	V	V							V	V		V	V		
Heritage Agency													V		V
Nature Educ. Centre									V						
NGOs											V				

V – reported as existing

Question 4: System at national level of obtaining data relevant to the Indicator 6.11

Most of the countries did not report having a system for reporting, classifying or defining the data for the Indicator 6.11. The respondents indicated other national systems, such as archeological or cultural classification that provided relevant information on the potential objects for the Indicator 6.11.

Table 4. Different systems of obtaining data relevant to the Indicator 6.11

	Reporting	Classification	Definition	Other
Austria	No at national level Local reports not comparable			
Cyprus	C&I of SFM	Archaeological & Cultural Sites Tree monuments Nature Monuments (cliffs, gorges, mountains)	Relevant to classification systems	Forestry Department is planning to initiate a process for data collection on 6.11
Denmark	Specification no needed	No needed	No needed	National System for cultural heritage
France		National classification of: picturesque, historical, legendary, artistic, scientific sites		
Finland				The National Board of Antiques, the Ministry of Environment, UNESCO, the Finnish Forest and Park Service
Germany	Maps of Forest Function, Federal Nature Conservation Act and other state regulations	Statistics and reports of administration Project group "Forest management planning"	Project group "Forest management planning"	
Ireland	Archaeological Survey	Record of Monuments and Places (RMP) Tree Register TROI		
Norway	Forestry management planning records	existing	existing	National statistic survey ongoing
Poland				
Rep. of Montenegro				
Russian Federation				
Slovenia	Existing – data extracted from the Culture Heritage Register (CHR)	existing	existing	
Sweden	Internal GIS data base of forest administration FMIS system	National Register of Classification Terms (National Heritage Board)		
Switzerland				Information collected on geological sites or erratic blocks
United Kingdom				

General conclusion

The results of the MCPFE Questionnaire on data availability on the Indicator 6.11 show that the location, type and number of cultural heritage sites are not well recognized in many countries. The number of responding countries (1/3 of signatories) indicates that many countries have not yet developed a relevant structure for dealing with data for the Indicator 6.11.

A variety of reported institutions involved in the social and cultural dimensions of forestry results most probably from a multidisciplinary context of cultural heritage. Available data differ depending on a local and national level, and collected information provides rather examples than concrete records. In most cases the data reported in the questionnaire was extracted from national programs, lists or statistics.

Nevertheless, the responding countries were able to indicate many potential objects for the Indicator 6.11, and various relevant sources of information on forest sites with cultural and spiritual values.

It seems that additional efforts are needed to ensure the consistence and similarity of the parameters of forest sites relevant to cultural and spiritual values at the pan-European level as well as to create and secure most efficient ways of obtaining data on such objects.

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Between nature and culture: cultural approaches and research perspectives in the conservation of forest landscape in Italy

Prof. Mauro Agnoletti

Department of Environmental Forestry Science and Technology

University of Florence

Italy

Extended abstract

Introduction

The role of the landscape and therefore its perception has changed in time. Today it is no longer just a “cultural” aspect, intended as an elitist phenomenon, isolated from the social-economic aspect, but emerges as an essential element in the definition of a development model, in which Italy represents one of the most interesting subjects at worldwide level. As a matter of fact, it is evident that a quality landscape, representing the expression of a positive integration between social, economic and environmental factors, end up influencing all development aspects, imposing planning choices that are not easy besides the revision of some past orientations. Even more than this, landscape resources represent today a potentially relevant element a propos sustainable and rural development, for Italy and the Mediterranean countries within the Communitarian policies.

Nevertheless, although the national legislation in planning and the conservation of cultural heritage give a very high value to the conservation of landscape resources, the policies and the actions concerning preservation of forest landscape have never had a great incisiveness, and this problem can be acknowledged in a hierarchical progression starting from Brussels, all the way to the national and regional norms. It must also be recognized that if the European Landscape Convention, which is currently being defined, represents an important step, it is also true that the policies regarding rural development and environment preservation, have the actual possibility of deeply affecting the mechanisms that preside the construction and preservation of this resource.

The role of nature conservation and rural development

The analysis of the current orientations concerning the Agricultural Policy reform concerning landscape is disappointing; in fact, there is not a clear indication in favour of an exploitation of the quality of typical products and of the territory. The situation of forestry is even more difficult, since no relationship between forest products and landscape has ever been depicted, but this is the case also for the Italian rural development strategies.

As for the general policies regarding sustainable development one can see that both the current standards for nature conservation and forest certification criteria do not directly refer to the value of the landscape assets. The way EU directives on nature conservation have been applied, especially the Habitat directive and the Natura 2000 network, have brought to a sort of paradox, where the cultural nature of the territory has been denied in favour of a naturalistic view. Actually, the lists of protected habitats included in regional laws describe abandoned pastures as association of shrubby species considered as natural habitats, or abandoned coppice woods as association of woody species growing on specific soils, and even does not include chestnut groves considering them as human artefacts, not worth conservation. In practice legislation on nature conservation shows an approach to the interpretation of forest landscape deriving from an idea of a “pristine nature” simply not applicable to the Italian situation, which is trying to delete the cultural nature of Italian territory, now reinforced by legislation in park and protected areas favouring re-naturalization.

The same dangerous situation can be found in the development of management approaches, as described by the international standards such as FSI, FSC, and PEFC. Suffice it to remind that according to these standards, one of the main role assigned to the Italian forests should be the atmospheric CO₂ absorption, but their extension, equal to about 0, 25% compared with the global forest surface (FAO), shows a very limited importance regarding this aspect. On the contrary, the historical and landscape cultural value of Italian woods is surely much higher, but this item is only considered in some contexts connected with the other forests' functions, overlooking the fact that the sustainability of the Italian territory is much more connected with the preservation of traditional landscape assets, which have a significant value for the territory quality, typical productions and the quality of citizens' lives, than with a homogenous forest cover, which has more than doubled its extensions in the last 100 years. It is therefore urgent to develop not only a set of criteria to manage cultural landscapes, but also to include the cultural and historical value of landscape inside the main criteria of the MCPFE.

The lack of important initiatives regarding the landscape is also tied to the will to defend the interests, however lawful, of economic activities which consider as a limit or a possible damage to their activity the regulations about the landscape. There is in fact the idea that the activities connected with the conservation of forest resources (as well as the good "land "in agriculture) represent "at any rate" a factor for landscape preservation, an attitude historically criticisable, but symptomatic of an opinion shared by many people. In reality it is a false problem, the agricultural sector is in fact generously financed by Brussels, it could be therefore sufficient to provide some incentives for landscape preservation rather than promote abandonment or forest plantations, by stimulating working activities or productions connected with traditional cultivations. Then, it's a matter of accepting a concept, which the farmers and foresters themselves still find hard, which is the evolution of a role that from a merely productive role gradually becomes a role for landscape preservation. Moreover, there is an underestimation of the role of landscape within the several productive sectors, as viticulture, which represents a power point for the Italian agricultural system. As shown by recent researches carried out in Tuscany, the market value of the product "wine" largely consists of immaterial factors, among which the landscape, as expression of culture, history and environment, represents the main component; therefore the producer bases much of his/her earnings on the exploitation of a resource for whose maintenance one should invest large capitals. Within this "wine landscapes" forest surely plays an important role, since woodlands cover now more than 55% of productive land and are traditionally integrated with farming. All this falls into the more general problem of a still insufficient explanation of the contribution of landscape to the economic development, even in sectors such as tourism. In some areas the landscape represents in fact one of the main development elements, and in fact its impact on the economy of the marginal areas is more important than the impact on the main areas such as cities of art and spa areas.

There is also a problem of cultural sensibility, which still has to be stimulated for a full understanding of the problem, from both administrators and public sector. It often happens to hear someone saying that the landscape is a perceptive category, which cannot be objectified, as if its values were exclusively immaterial and could not find their concrete representation in the territory structure. The limit of such conception is clearly identifiable in the analogy with urban sector, where in a not too distant past it was not a foregone conclusion that the preservation of the architectural structure of a historical centre had to come before. The recognition of the values tied to architectural assets was also the result of a cultural maturation which considers the structure of a building as a value to be preserved, not different, from a conceptual point of view, from that represented by a terracing, a wood pasture or a chestnut grove. An important difference consists in the fact that the rural landscape, with its woods, fields and so living elements, is characterised by a higher dynamism, for

whose control are necessary interventions perhaps closer but less expensive, compared with those necessary for the reconstruction of a historic building, whereas both of them can be used for economic ends.

Analysing landscape resources: from research to operationality

A first step to take more hard-hitting initiatives on the subject of preservation is surely that of elaborating some criteria for the analysis and management of landscape resources, by transferring the results to a normative level. From this point of view I will refer to two important initiatives based on a national project made for the Ministry of Environment and a regional project made for the Regional Government of Tuscany. The two projects present a different methodological approach. The first was named “Map of landscape features of Italy” included in the “Map of Nature” project of the Ministry of Environment. This project has produced a map of landscape 1: 250, 000, organizing the national territory in 2142 landscape units. It was based on the first level of Corine Land Cover, where forest land has been included into a matrix described as “landscape matrix dominated by woodlands and other semi-natural habitats”. The project has built a static picture of the landscape, with limitation linked to the scale and the approach based on identifying valuable natural environments, but has the advantage to cover all the national territory and to consider all the features of the territory, not only forests.

The other project made for the Region of Tuscany was called “Analysis, management and preservation of Tuscan rural and forest landscape”, and carried out on behalf of the Region of Tuscany in association with some international institutions. The project lasted 5 years and has a different approach. It was set out in 12 experimental areas located on the Apennine Mountains and along the hilly and coastal strip, which represents the variety of Tuscan landscape, analysed in its historic evolution from 1832 to this day. Each study area, with an average size of 1000 ha, has been analysed comparing the land survey of 1832, aerial photograph of 1954 and 2000, carrying out field work and historical research, and ending up in building a GIS database now covering almost 1% of the regional territory producing maps 1: 10, 000 or 1: 5, 000.

The results of the project have shown the nature of the processes which have gradually modified the characteristics of Tuscan landscape in almost 180 years time. On a large scale the main effect of the socio-economic processes, which took place, has been the reduction of landscape variety, which, apart from an aesthetic and biologic value, represents a fundamental element for the cultural identity of a territory. This is also the same trend coming out in local studies carried out in several Italian regions, although not systematically. In two centuries’ time the three Tuscan main landscape categories: pastures, woods and fields have reduced their inner diversity by about 75%, mostly because of the extension of forest land on abandoned farming areas, but the most significant changes took place in the period 1832-1954, compared with the period 1954-2000. The processes analysed consider the woodland as the main dynamic factor, given that its movements involve about 37% of the total amount of changes registered from the nineteenth century to this day. There was a significant reduction of pastures with trees, dominant element of the nineteenth-century landscape, but also of sweet chestnut groves which are reduced by 80%, with the passing of a huge cultural heritage. One interesting achievement is the fact that the extension of forest land can now be considered a real threat to the conservation of landscape diversity. This suggests a different evaluation of the role of forest even in planning. A continuous homogeneous forest layer can rarely be considered the best landscape, but instead a complex mosaic of different land uses where forest play its role according to the local context might be regarded as the best way to preserve both cultural and biological values.

The evaluation methods set out for the project clearly show how each part of the Tuscan territory is characterised by its own “cultural identity”, and that it’s not possible to indicate general preservation priorities, but it’s necessary to identify locally the values to be preserved.

The results and the methodology developed have been applied in a number of projects in Tuscany:

- The study for the creation of the landscape park of Moscheta (Apennine mountains);
- The environmental impact assessment of windmill farms;
- The assessment of criteria and indicators for the management of landscape resources inside the national project “SAM” (Standards for the Management of Mediterranean and Apennine Forests);
- The guideline for the conservation of landscape resources in the protected areas of Tuscany.

Paper

Introduction

The Italian forests, as well as most of European forests, have been largely influenced by human activities shaping their extension, density, structure and species composition through several millenniums of history (Agnoletti, Anderson 2000). According to this view, the conservation of cultural heritage and therefore the development of criteria and indicators to preserve cultural values, cannot be interpreted only as the need to save some particular aspects (e.g. single trees, sites, artefacts, etc.) related to forest culture, but rather as a tool suited to protect and manage a large set of values represented by the forest territory, that can be better described using the concept of “landscape”. Making a parallel with the definition given by Carl Sauer in 1926, we can actually say that at the beginning of civilization natural forests were the natural medium where human culture developed creating a landscape. Landscape represents one of the most important heritages of European culture, but its role and therefore its perception has changed in time. To-day it is no longer just a “cultural” aspect, intended as an elitist phenomenon, isolated from the social-economic aspect, but emerges as an essential element in the definition of what sustainable development means. Under this point of view, the preservation of a cultural forest landscape is not just a marginal aspect of forest management, but it is an essential tool to preserve the cultural identity of many areas today affected by a sort of “globalization” influencing also landscape structure. As a matter of fact, it is evident that a quality landscape, representing the expression of a positive integration between social, economic and environmental factors, end up influencing all development aspects, imposing planning choices that require the revision of some past orientations, especially in forestry.

Nature conservation and rural development

Concerning Italy, although the national legislation for the conservation of cultural heritage includes landscape resources, the policies and the actions concerning preservation of forest landscape have never had a great incisiveness, but this problem can be acknowledged in a hierarchical progression starting from Brussels, all the way to the national and regional norms. It must also be recognized that if the European Landscape Convention represents an important achievement, it is also true that the policies regarding rural development and environment preservation, have the actual possibility of deeply affecting the mechanisms that preside the construction and preservation of this resource.

The analysis of the current orientations of the EU Agricultural Policy concerning landscape is disappointing; in fact, there is not a clear indication in favour of exploitation of the quality of the landscape. The situation of forestry is even more difficult, since no relationship between forest management and cultural landscape has ever been depicted. As for the general policies regarding sustainable development one can see that both the current standards for nature conservation and certification criteria do not directly refer to cultural values to evaluate sustainability.

The way EU directives on nature conservation have been applied, especially the Habitat directive and the Nature 2000 network, have sometimes brought to a sort of paradox, where the cultural nature of the territory has been denied in favour of a naturalistic view, a tendency reinforced by legislations for protected areas often favouring renaturalization. This approach is often supported by the idea of a negative role plaid by the man in the biosphere, especially for what concerns biodiversity of species (Balée 1998). The same difficult situation can be found in the development of management approaches, as described by the international standards such as FSI, FSC, PEFC, where landscape values play a minor role. As other Mediterranean countries Italy has a small amount of forests, that can play a very limited role for timber production or CO₂ stocking, but they a man. The sustainability of the Italian territory is more connected with the preservation of traditional landscape assets to-day rapidly disappearing, which still represents one of the most important contributions of this country to European culture, rather than to the attempt to extend forest land²⁸ or to increase the degree of “naturalness”. It is therefore urgent to develop not only a set of criteria to manage cultural landscapes, but also to consider the cultural and historical value of landscape as one of the main criteria of certification standards.

The lack of important initiatives regarding the landscape is also tied to the will to defend the interests, however lawful, of economic activities which consider as a limit or a possible damage to their activity in forestry and agriculture the regulations about the landscape. In reality this is often a false problem, the rural sector is in fact generously financed by Brussels, it could be therefore quite appropriate to provide incentives for landscape preservation rather than promote abandonment of traditional forms of agricultural and forest practices, by stimulating economic activities connected with landscape conservation. Then, it's a matter of accepting a concept which the farmers and foresters themselves still find hard, which is the evolution of a role that gradually pays more attention to preservation of cultural landscapes, a need also recognized by the Italian Constitution (Art. IX).

There is also an underestimation of the role of landscape within the several productive sectors, as viticulture or tourism. As shown by recent researches the market value of the product “wine” largely consists of immaterial factors, among which the landscape, as expression of culture, history and environment, represents the main component, therefore the producer bases much of his/her earnings on the exploitation of a resource for whose maintenance one should invest some money. Within this “wine landscapes” forest surely plays an important role, since woodlands are traditionally integrated in farming landscapes, besides producing stakes to support vines from coppice woods. All this falls into the more general problem of a still insufficient explanation of the contribution of landscape to the economic development.

There is also a problem of cultural sensibility, which still has to be stimulated for a full understanding of the problem, from both administrators and public sector. It often happens to hear someone saying that the landscape is a perceptive category, which cannot be objectified, as if its values were exclusively immaterial and could not find their concrete representation in the territory structure.

²⁸ Italy has almost three times more forests than one century ago.

The limit of such conception is clearly identifiable in the analogy with urban sector, where in a not too distant past it was not a foregone conclusion that the preservation of the architectural structure of a historical centre had to come before. The recognition of the values tied to architectural assets was also the result of a cultural maturation which considers the structure of a historical building as a value to be preserved, not different, from a conceptual point of view, from that represented by a terrace with mixed cultivations, a wooded pasture or a chestnut grove. An important difference consists in the fact that the rural landscape, with its woods and fields is characterised by a higher dynamism, for whose control are necessary interventions perhaps closer but less expensive, compared with those necessary for the reconstruction of a historic building, whereas both of them can be used for economic ends.

Analysing landscape resources: from research to operationality

A first step to take more hard-hitting initiatives on the subject of preservation is surely that of elaborating appropriate methodologies for the analysis and management of cultural landscape, trying to transfer the results to a normative level. Any attempt to evaluate cultural landscape cannot deny considering the dynamic of landscape and the role of time in creating or deleting values. It is in fact of utmost importance to understand the trajectory followed by a landscape system in order to identify values that need to be protected. The role of forests, especially in the Mediterranean areas, cannot be assessed by the evaluation of forest units alone, but also by the evaluation of the broader landscape context in which they are included. A project made for the Tuscan Regional Government (Agnoletti 2002), created 13 study areas representing the different landscape features of the Tuscan territory, according to the indications of previous projects (Rossi 1994), and the different socioeconomic conditions. The study areas have an average extension of 1800 ha, for a total extension of approx. 25, 000 ha (1% of the territory), in each one of them a historical investigation from 1832 to 2000 was carried out. Three basic sources have been considered: the land survey of 1832, the aerial photographs of 1954, the aerial photographs of 2000, with a consideration of the role of time already adopted in other studies (Foster 1992), but applied systematically in all selected areas. For each area archival and printed documents have been collected to help a better understanding of landscape changes according to socio economic developments, but also field work have been carried out. The information collected was transferred into a GIS database, producing thematic maps with a minimum cartographic unit detected of 1500 mq. The results of the project have shown the nature of the processes which have gradually modified the characteristics of Tuscan landscape in almost 180 years time, allowing identifying the historical evolution of several landscapes, as well as their degree of integrity. On a large scale the main effect of the socio-economic processes, which took place, has been the reduction of landscape diversity, which, apart from an aesthetic and biologic value, represents a fundamental element for the cultural identity of a territory. This is also the same trend coming out in studies carried out in several Italian regions, although not systematically. In two centuries' time the landscapes in former cultivated areas categories have reduced their diversity by about 60-70%, mostly because of the extension of forest land, while considering all the areas there was a general reduction of 30%. There was a significant reduction of pastures with trees, dominant element of the nineteenth-century landscape, but also chestnut groves which are reduced by 80%, with the passing of a huge cultural heritage. The most significant changes took place in the period 1832-1954, compared with the period 1954-2000. To day the continuous expansion of forest land can be regarded as a threat to the conservation of landscape diversity, considering also the interruption of traditional management forms maintaining different forms of cultural forest types. A continuous, dense, homogeneous forest layer, can rarely be considered the best landscape, but instead a complex mosaic of different land uses where forest play its role according to the

local context might be regarded as the best way to preserve both cultural and biological values. The evaluation methods set out for the project clearly show that each part of the Tuscan territory is characterised by its own “cultural identity”, and that it’s not always possible to indicate general preservation priorities, but it’s necessary to identify locally the values to be preserved.

Possible criteria and indicators for the conservation of cultural heritage

The results and the methodology developed have been applied in several projects, some of them are:

- The study for the creation of the landscape park of Moscheta (Apennine mountains);
- The environmental impact assessment of windmill farms;
- The assessment of criteria and indicators for the management of landscape resources inside the national project “SAM” (Standards for the Management of Mediterranean and Apennine Forests);
- The guideline for the conservation of landscape resources in the protected areas of Tuscany.

The project called “SAM” reflected the structure of MCPFE certification standards, introducing a thematic area called “Maintenance of Historical, Cultural and Landscape Values” and using a set of criteria divided into three main categories: “significance”, “integrity”, “vulnerability”. In the thematic area “significance”, the indicators selected considered: 1) Uniqueness of the landscape, 2) Presence of material evidence of cultural heritage, 3) Historical persistence of landscape mosaic, 4) Historical persistence of single land uses, 5) Variation in the extension of land uses, 6) Internal features of landscape patches. The evaluation of these items allows evaluating the significance of the landscape and the sustainability of management forms in relation to the conservation of their features. In the thematic area “integrity”, the indicators considered: 1) State of conservation, 2) Conservation, research and teaching activities. The state of conservation represents an important aspect to evaluate the quality of the landscape, while the presence or the absence of conservation and scientific activities is connected with the actual possibility to preserve it. In the thematic area “vulnerability”, the indicators considered are: 1) Fragility of landscape, 2) Economic activities, 3) Forest management. The fragility concerns the capacity of a landscape to resist to changes induced by socioeconomic or environmental factors, while the evaluation of economic activities and management form take into consideration the possible threats or benefits of these activities to the conservation of a specific landscape. The application of these criteria is supported by the development of new evaluating tools as the “Historical Index”, created to study the dynamics of cultural landscape, in order to understand where the most important historical values lay (Agnoletti 2002). The application of the index to the study of a given territory produces maps showing the distribution of the historical index in the study area, very useful for planning, conservation and management. Although some may consider these research developments as suited to just some of the many regional identities of the European Union, we hope they can contribute to the development of a comprehensive approach to cultural landscapes, based on specific tools to analyse their characteristics and produce a set of criteria for protection and management of an important resource for all European citizens and a mainstream of political concern.



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FOREST MANAGEMENT AND CULTURAL HERITAGE

Forest Management and Cultural Heritage

Jari Parviainen (Key note)

Finnish Forest Research Institute

Joensuu Research Centre

Finland

Abstract

Nearly all the European forests have been influenced by human societies and therefore original forests are very rare. A few scattered relicts can be found in some mountainous remote areas in Central and Eastern Europe, far in the uppermost northern part of Europe and in the boreal zone of the European part of Russia. Deforestation in most of the European areas resulted from the energy demands (e.g. 17th century) of the iron and steel industry and salt works as well as from pasturing and wooden ship building (Middle Europe), slash and burn agriculture (Northern Europe) and litter use. This uncontrolled use and overexploitation of forests led to the establishment of regulations, forest acts, forestry education and forest management plans by the state to prevent the devastation. Organized forestry replaced the traditional, unregulated selection fellings and created the concept of sustainability. The term “sustainable” was first related to the sustainable yield of forest resources and probably first mentioned by the German Hans Carl von Carlowitz in the 18th century.

The various and changing use of forests during the past centuries is reflected e.g. in land use categories, landscapes and their fragmentation, forest stand structures, historical sites and monuments, mental relationship between people and forest, settlements in forest areas and rural development. These changes can be measured and evaluated with indicators such as naturalness, protected forest areas, areas of forests for landscape management and protective functions, lists of potential sites of cultural and spiritual values, urban forest areas for recreational purposes or use of non-wood forest products.

The knowledge about the historical development and about the relationship between people and forest is necessary to understand the present situation of forests and for adapting and modifying the forest management practices according to the society’s needs. In Europe the modern forest management concept is based on a multifunctional approach. It means that the major part of forests is being used simultaneously for economic, recreational and other purposes, integrating the maintenance of biodiversity. In addition, multifunctional forests are seen in the landscape context and provide information on the transition zones between forest patches and other land use categories. The current forest management trends apply the concepts of close to nature management, conversion, restoration and maintain in special cases also old cultural practices such as slash and burn agriculture, coppice forestry and forest pasturage.

Forest management planning is an essential tool in applying cultural and spiritual aspects in practical forestry operations. All levels of forest management planning should be taken into account: national (National Forest Programmes), regional, forest management unit and forest stand level. The principles and goals for the management of forests will be set by national or regional level for a longer period of time. When applicable – participatory planning methodologies should be preferred by goal setting and applications. Modern techniques, such as GIS and landscape ecological planning combined with culturally and spiritually valuable sites should also be used. Cultural and spiritual sites, as well as the identity, culture and rights of local and indigenous people should also be integrated in the forest certification standards. Recognizing the cultural and spiritual values shows that forest management is not only production or protection but also maintaining the relationship between people and forest.

Key words: historical forest uses, cultural and spiritual sites, forest management planning, mental relation with forest

Paper

Abstract

The knowledge about the historical development and about the relationship between people and forest is necessary to understand the present situation of forests and for adapting and modifying the forest management practices according to the society's needs. Nearly all European forests have been influenced by human societies and therefore original forests are very rare. A few scattered relicts can be found in some mountainous remote areas in Central and Eastern Europe, far in the uppermost northern part of Europe and in the boreal zone of the European part of Russia. The various use of forests during the past centuries is reflected e.g. in land use categories, landscapes and their fragmentation, forest stand structures, historical sites and monuments, mental relationship between people and forest, settlements in forest areas and rural development.

These changes can be measured and evaluated with indicators such as naturalness, protected forest areas, areas of forests for landscape management and protective functions, lists of potential sites of cultural and spiritual values, urban forest areas for recreational purposes or use of non-wood forest products. Forest management planning and the practical recommendations are the most essential tools in applying cultural and spiritual aspects in practical forestry operations. Recognizing the cultural and spiritual values shows that forest management is not only production or protection but also maintaining the relationship between people and forest.

Key words: historical forest uses, cultural and spiritual sites, forest management planning, mental relation with forest

Human impact on European forests

The knowledge about the historical development and about the relationship between people and forest is necessary to understand the present situation of forests and for adapting and modifying the forest management practices according to the society's needs. In densely populated Europe the forests have been subject to human influence for thousands of years (Laudert, 2003). Human impact on forests in Northern Europe has also been intensive, although not as intensive as in Southern and Central Europe, lasting periods of between 300– 400 years (von Berg, 1859). Industrial utilization of wood for sawn wooden products, pulp and paper began in Finland 150– 120 years ago (Tasanen, 2004).

Deforestation in the past in most of the European areas resulted from the energy demands (e.g. 17th century) of the iron and steel industry, salt works, pasturing, wooden ship building and litter use in Middle Europe (Laudert, 2003), slash and burn agriculture and tar distilling in Northern Europe (Heikinheimo, 1915, Pyne, 1996). This uncontrolled use and overexploitation of forests led to the establishment of regulations, forest acts, forestry education and forest management plans by the states to prevent the devastation. Organized forestry replaced the traditional, unregulated selection fellings and created the concept of sustainability. The term “sustainable” was first related to the sustainable yield of forest resources and probably first mentioned by the German Hans Carl von Carlowitz in the 18th century (Tasanen, 2004).

In order to evaluate the human impact on forests, the socio-cultural development and conditions must be taken into account. Socio-cultural conditions include the traditional ways of using forests and forest products, such as culture of hunting and fishing, slash and burn agriculture and grazing, tar distilling, collecting resin and using cork. They also include aspects on how arising forest indus-

try has promoted communities and created benefits for rural areas, how the development of forest ownership has influenced long term forest management and sustainability, how the conditions in forestry and wood procurement have had influence on forest work and workers, how traditional cooperation originates by forest depending communities and the relationship between inhabitants and workers to forests (e.g. bee keeping, logging camps, floating/rafting and hunting clubs).

Nearly all the European forests have been influenced by human societies and therefore original forests are very rare. A few scattered relicts can be found in some mountainous remote areas in Central and Eastern Europe, far in the uppermost northern part of Europe and in the boreal zone of the European part of Russia. The newest estimates report that the proportion of strictly protected forest area and forest left for free development without human influence, is only about 1.7% of the forest area in Europe (see Figure 1, Parviainen and Frank, 2003).

The various and changing use of forests during the past centuries is reflected e.g. in land use categories, landscapes and their fragmentation, forest stand structures (see Figure 2), historical sites and monuments, mental relationship between people and forest, settlements in forest areas and rural development.

How to measure human impact and cultural and spiritual values related to forests

The changes of human impact on forests can be measured and evaluated with indicators such as naturalness (see Figure 3), protected forest areas (see Figure 4), fragmentation of forest areas within other land-use categories, areas of forests for landscape management and protective functions (see Table 1 and Figure 5, MCPFE 2003 a and b), lists of potential sites of cultural and spiritual values (MCPFE Indicator 6.11), urban forest areas for recreational purposes or use of non-wood forest products.

There are few prevailing special information sources for cultural and spiritual factors in forestry existing. In most cases those indicators are to be compiled from various statistical sources, such as lists of Archaeological Sites and Sites of Ceremonies or Customs or through special research or surveys. Some separate indicators for measuring cultural and spiritual factors include both descriptive and quantitative aspects.

Further research, means and efforts are needed in order to develop approaches for including – when relevant – cultural and spiritual aspects in national forest policies, legislation, and in national forest programmes and to develop measurable indicators for cultural and spiritual aspects. Especially multidisciplinary research (philosophy, archaeology, research on folklore, history, architecture, jurisprudence, medicine) on forest culture and traditions is needed.

Quantitative aspects by proposed, extended indicators (MCPFE Indicator 6.11) are mainly related to the area of forest or land, number of documents, events, arrangements and lists of items.

Forest management orientation and cultural heritage

Society's needs, values and goals determine the forest management orientation in the frame of the historical development of forests. Wood production has been the main objective in Finland and the other Nordic countries until the late 1980s. Since then the main emphasis is laying mainly on biodiversity aspects (see Figure 6). The everyman's right in the Nordic countries has also guaranteed automatically the recreational use and other multipurpose values of forests. In Central Europe the various forest functions are very diverse, in densely populated areas the recreational and protective

functions are often most important. In Southern Europe the non-wood products and protective functions, especially the water related services are often dominating.

The modern forest management concept in Europe is based on a multifunctional approach with the main emphasize on biodiversity. Cultural heritage is not the driving force for forest management, although it is one of the major prerequisites for management orientation. It means that the major part of forests is being used simultaneously for economic, recreational and other purposes, integrating the maintenance of biodiversity. The preservation of cultural sites and values is included as one parallel objective into the management. In addition, multifunctional forests are seen in the landscape context and provide information on the transition zones between forest patches and other land use categories.

The management of forests applies the concepts of close to nature management (Nordic countries), conversion (Central Europe), restoration of forest stand structures or landscapes (overall in Europe) and maintain in special cases also old cultural practices such as slash and burn agriculture (Finland), coppice forestry (France, Germany) and forest pasturage (Spain, Portugal).

The aim of biodiversity-oriented management is to mimic the natural succession and some natural features of original forest (Parviainen, 2001). According to the historical forest use this objective varies among the countries and vegetation zones. Nordic countries have focused in close to nature management on fire ecology, disturbances in forest cycle and stand factors that are crucial in terms of preserving living organism. These factors include charred wood, small biotopes and the proportion of deciduous trees in stands. Tree species composition is not one of the main issues in the Nordic countries as the original forest tree species predominate.

In continental Europe the principles of biodiversity-oriented management have their origin in the change of the original forest cover due to the human influence (Parviainen and Frank, 2003). The aim of the management is to chart in a site-specific manner the likely original vegetation cover so that the altered tree species composition will resemble the original tree species composition of the site. That is why the term for the management orientation is a conversion; it means introduction of additional species and/or the gradual change of the vertical structure.

How the cultural aspects are to be implemented in practical management

A forest management recommendation should be a detailed practical guideline on preserving and maintaining culturally valuable sites. It should include information on definitions of cultural remains and monuments, on responsible authorities, on area to be protected, on allowed management measures, on restrictions to the surroundings, on marking the sites and on possibilities for financial compensations of private land.

Forest management planning is an essential tool in applying cultural and spiritual aspects in practical forestry operations. All levels of forest management planning should be taken into account: national (National Forest Programmes), regional, forest management unit and forest stand level. The principles and goals for the management of forests will be set by national or regional level for a longer period of time.

When applicable – participatory planning methodologies should be preferred by goal setting and applications. Modern techniques, such as GIS and landscape ecological planning combined with culturally and spiritually valuable sites should also be used in order to avoid possible damages. This information can be integrated with the modern IT technology in modern harvesting machines and soil preparation machines.

Classifying and mapping of forests in Finland in the context of landscape ecological planning of large tracts of lands considers typical natural and cultural values across the area. The location of key biotopes, protected natural habitats, cultural sites, game reserves and important landscapes are all carefully noted and preserved. A maintenance or upkeep plan is drawn up for each site to form an overall mosaic of forest area (see Figure 7).

Landscape ecological planning has been applied in Finland on state owned forest land for ten years. The planning is carried out in collaboration with local people, individuals and communities, environmental organizations and forest and environmental authorities, as well as with experts of cultural knowledge.

Cultural and spiritual sites, as well as the identity, culture and rights of local and indigenous people should also be integrated in the forest certification standards. The Finnish Forest Certification System (FFCS) includes special standards for preservation of cultural and ancient monuments, and also for safeguarding of Sami culture and the traditional livelihood Sami homelands in Lapland.

Conclusions

Because of their fundamental and multifunctional character, cultural and spiritual aspects create an important bridge for human beings between forestry/forests and the society's other functions and needs. In raising awareness on forestry related cultural and spiritual issues and on their inter-relationships in society, dissemination of information, communication and education are extremely important. Through interactive discussions on cultural and spiritual aspects between various interest groups, new intellectual, cultural and socio-cultural innovations based on multifunctional values of forests can be promoted. There is an evident need for further discussions, clarifications and definitions on cultural and spiritual aspects in forestry. Recognizing the cultural and spiritual values shows that forest management is not only production or protection but also maintaining the relationship between people and forest.

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Figures & tables

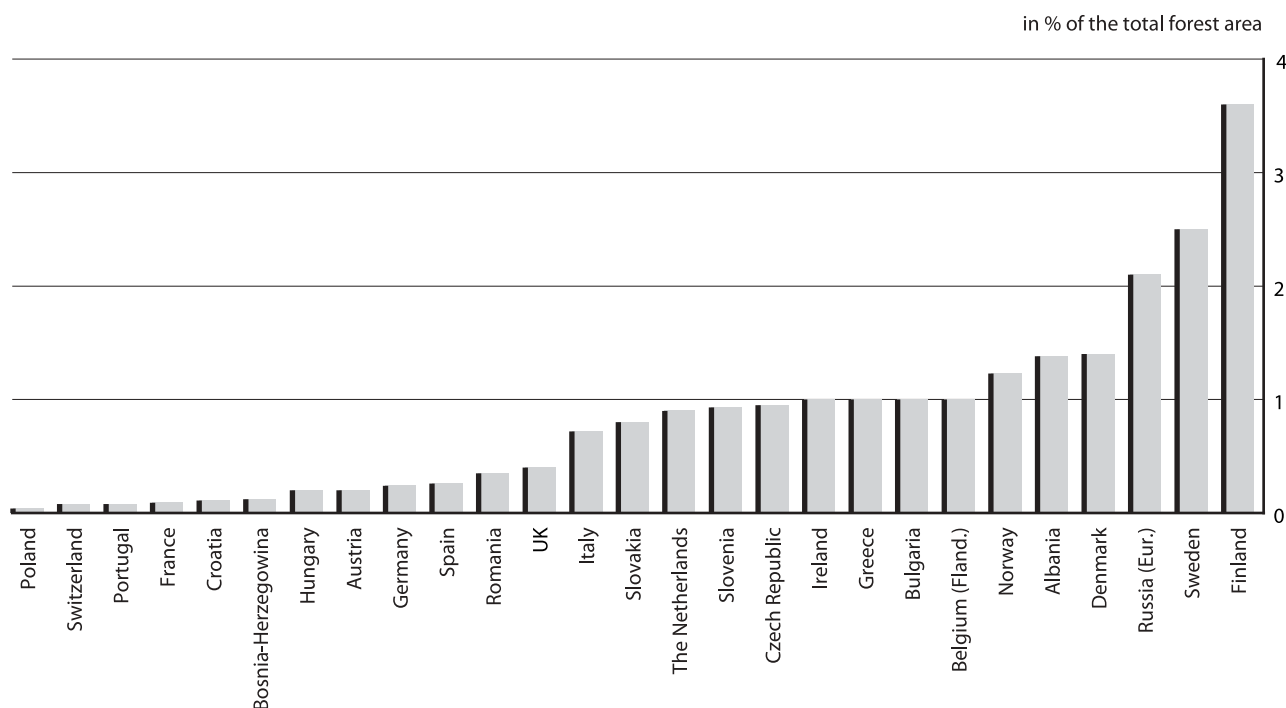


Figure 1. Strictly protected forest areas to be found in strict reserves, nature reserves, old forest protection areas, core areas of national parks, of wilderness areas or of other protected forests in 26 European countries and European part of Russia. (Source: COST E4 1996-1999)

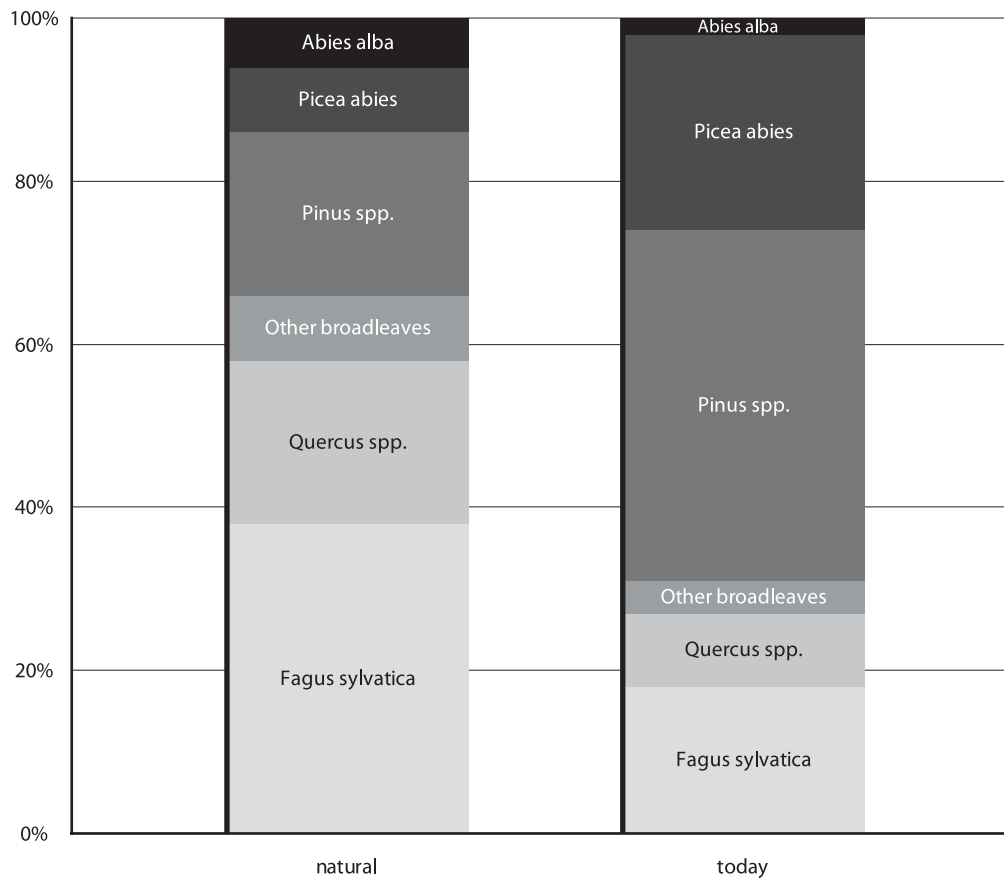


Figure 2. Change of tree species composition in Southern Germany due to the human influence.

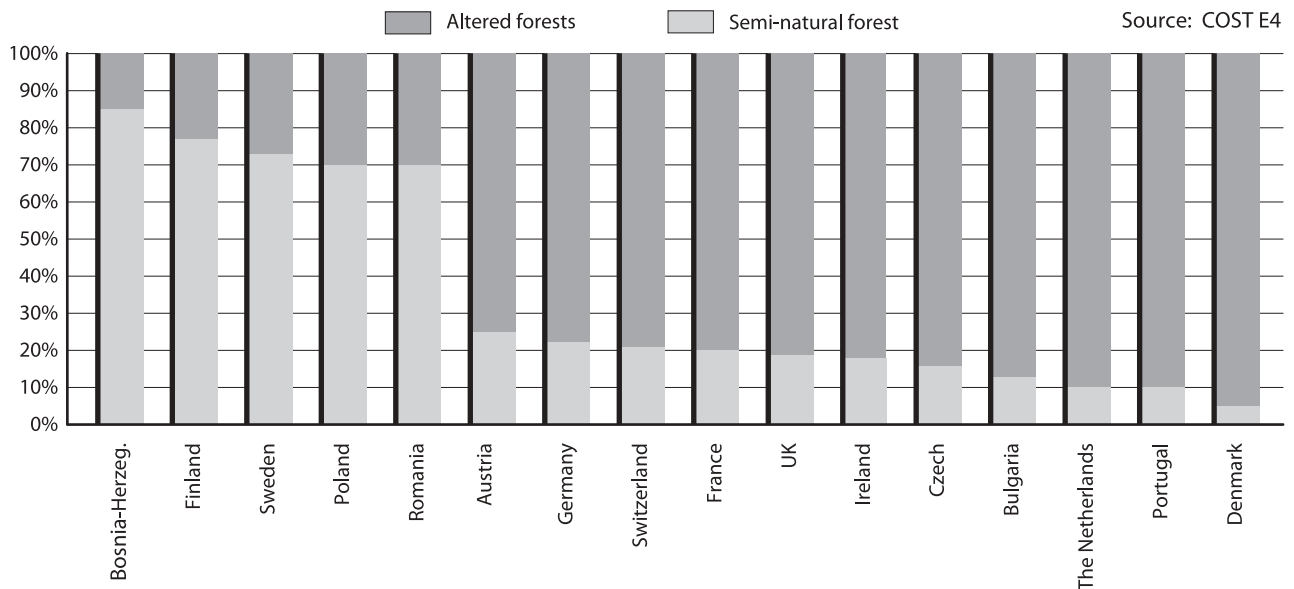


Figure 3. Semi-natural and altered forests in some European countries.
(Source: EU COST E4 Action 1996-1999)

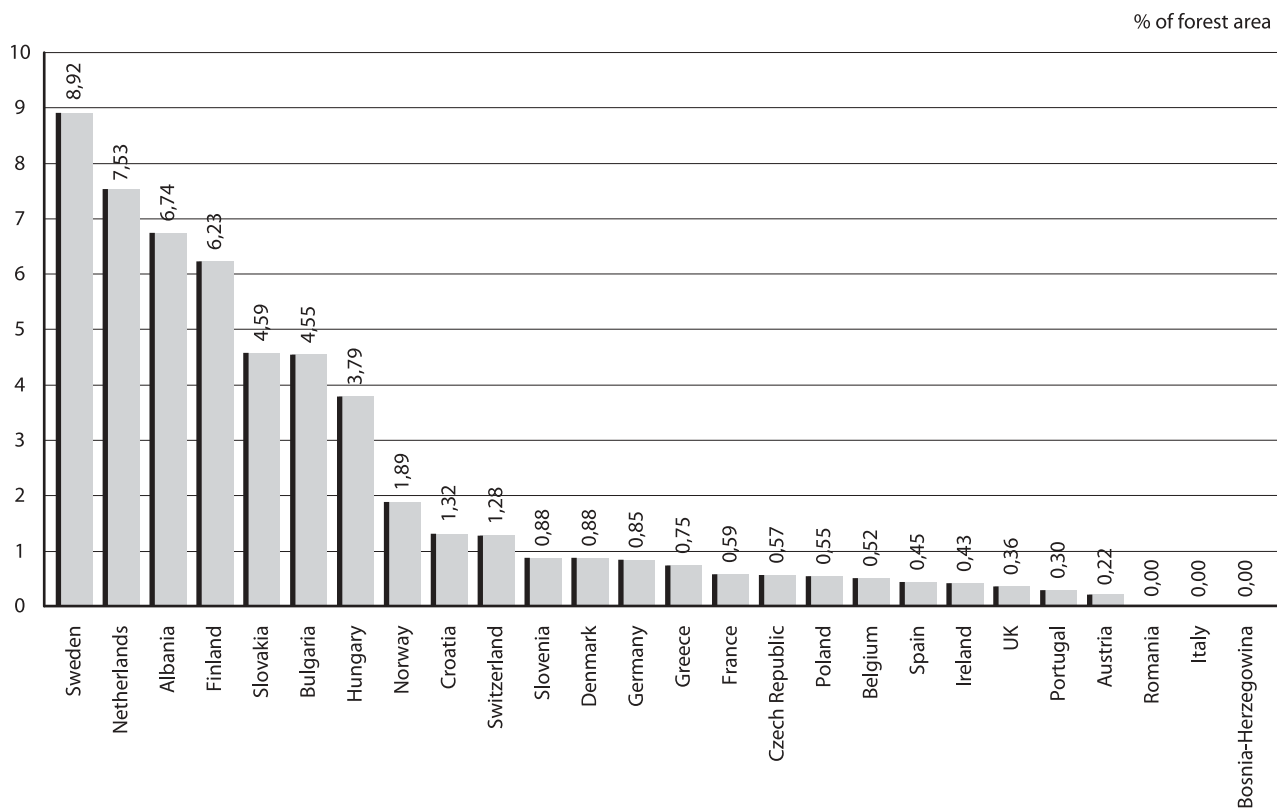


Figure 4. MCPFE classification on the protected forest areas for biodiversity.
(No active or minimum intervention, classes MCPFE 1.1. and MCPFE 1.2.)

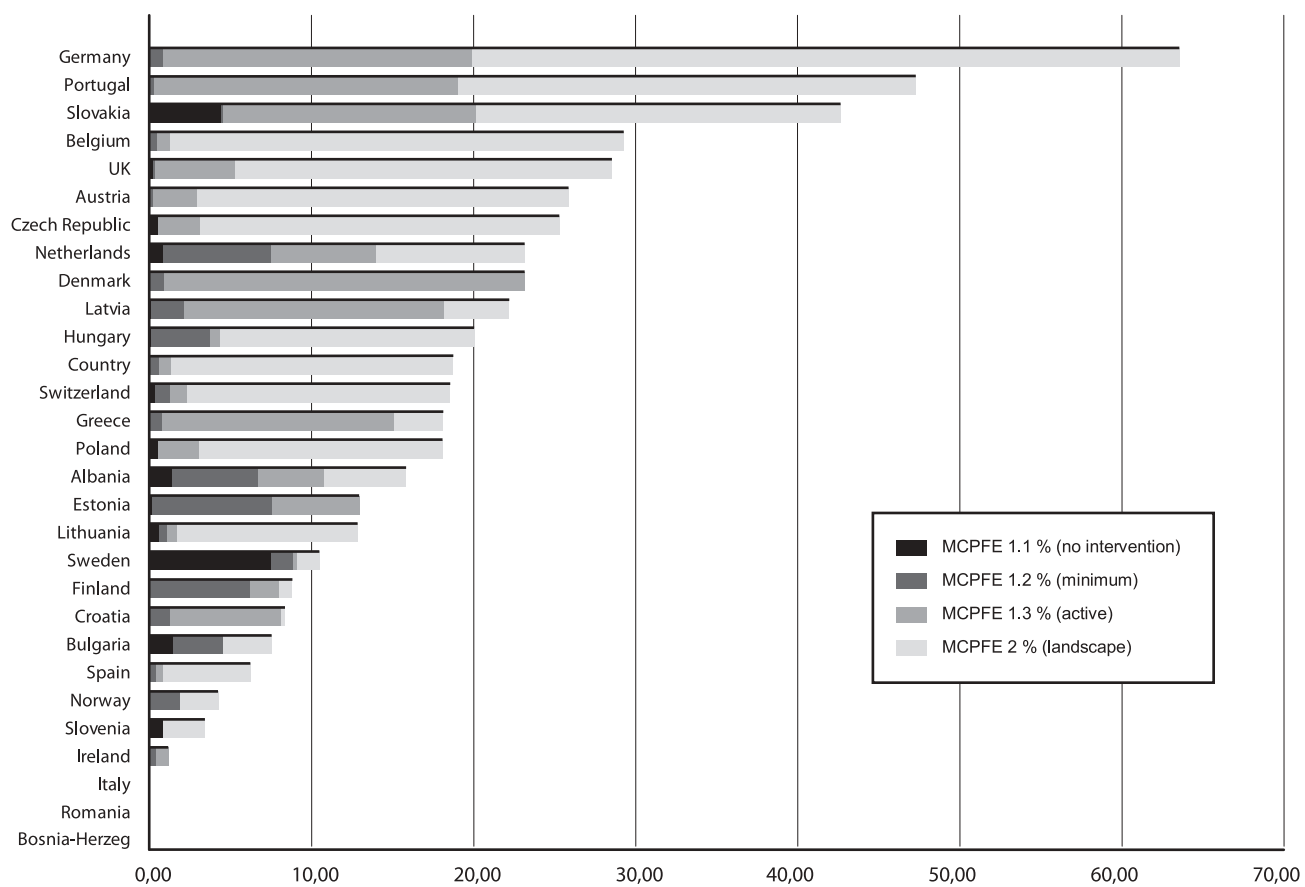


Figure 5. MCPFE classification of the protected forest areas for biodiversity and landscape.
[classes MCPFE 1.1. + 1.2. + 1.3. (biodiversity) + MCPFE 2 (landscape)]

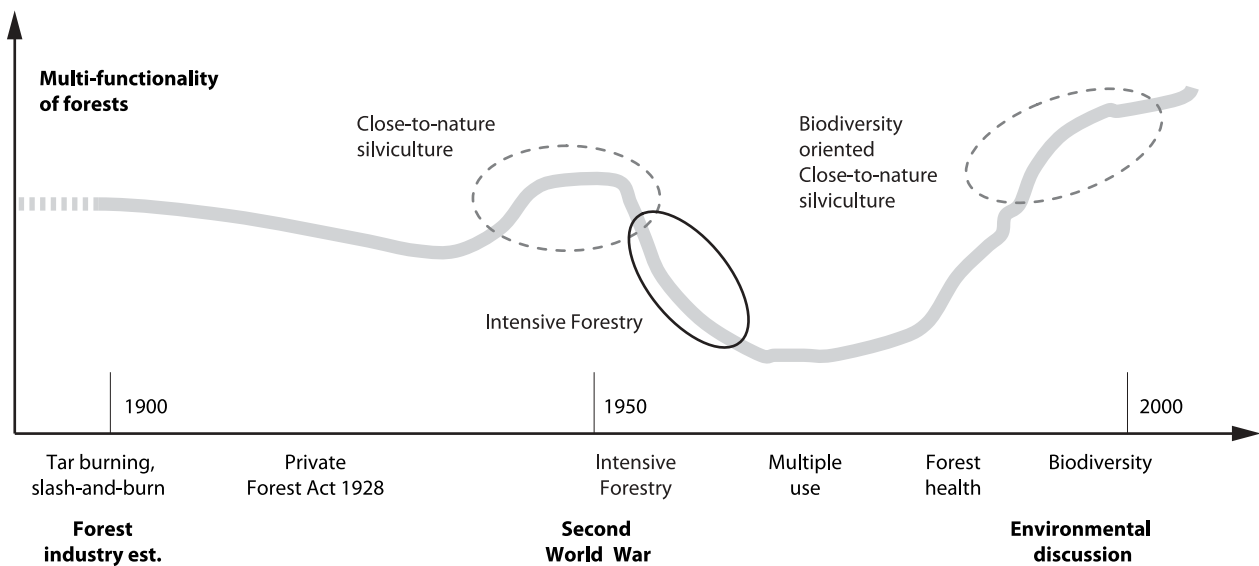


Figure 6. Driving forces for silvicultural orientation in the 20th century, Finland.



Figure 7. Typical mosaic forest landscape in the south of Finland, characterized by small patches of forest at different stages of development age.
(Photo: Erkki Oksanen)

Table 1. New classification for the assessment guidelines for protected and protective forests and other wooded land in Europe (MCPFE) 2003. Compiled in co-operation with COST E4, UN/ECE, TBFRA, IUCN, WWF and COST E27 (PROFOR).
(Source: MCPFE 2003a)

MCPFE Category		IUCN
Management objective "Biodiversity"	no active intervention	I
	minimum intervention	II (IV)
	conservation through active management	IV (V)
Management objective "Protection of landscapes and specific natural elements"		III (V, VI)
Management objective "Protective functions (soil, water, natural hazards)"		n.a.

Approaches to the conservation of the cultural heritage in woods and forests in Great Britain

Tim Yarnell (Key note)

Forestry Commission

United Kingdom

Abstract

This paper examines the way forest management in Great Britain takes account of cultural heritage issues. Defining “cultural heritage” is discussed together with the regulatory framework and the United Kingdom Forestry Standard. The impacts of changing directions in forest policy upon cultural heritage are outlined in particular the move from focusing upon establishing a timber resource to providing a wide range of social and environmental benefits (though of course these are not necessarily mutually exclusive). Differing policy changes bring different challenges. Cultural heritage issues connected with the restoration of native woodlands are focused on.

Site identification and conservation is very important. Reference will be made to projects that have tackled field survey both in existing wooded area and in places where new woodland is proposed. The changing focus on woodland expansion, from upland moors to areas around towns has brought new challenges. Methods of recording and the relevance of forest planning and the use of GIS are outlined. The importance of historic landscape characterization is identified and how it might be used in deciding where new woodland areas can be established is identified.

Although the focus of the paper will be on a heritage stretching back thousands of years reference will be made to projects that have examined more recent forest history.

Management of historic elements in Dutch forests

Mark van Benthem

Patrick Jansen

Stichting Probos

The Netherlands

Abstract

The attention for the history of Dutch forestry has come and gone in the last decades. The oldest books on Dutch forestry date from the start of the 19th century. But only after the establishment of the State Forest Organization in 1899 (Staatsbosbeheer), books on the practice of forestry were more common.

The first publication on the history of Dutch forestry appeared in the second half of the 20th century. Relatively few studies have been done on this subject in the Netherlands compared to surrounding countries, such as Great Britain, Germany and France. The first dissertation on forest history appeared in 1958 and the first sentence reads as follows: 'It is important for foresters to know the history of the forest'. Only in 1974 the second dissertation on this subject appeared. The major study on this subject was written by Jaap Buis in 1984. It is called 'Historia Forestis' and accounts an amazing 1058 pages. Since then a couple of minor studies have been done.

Almost all studies focused on socio-economic factors and only a few articles have been written on historic elements in the Dutch forests. This is amazing since that's the kind of information forest managers need for their day to day management: the historic elements are the physical part of the cultural heritage. Until today, only forest managers with a personal interest in the history of their forest and the historic forest elements in their area, pay attention to the preservation of these elements. There are a few exceptions to this rule, mainly archaeological elements such as burial chambers and Celtic fields. A lot of historic elements have therefore disappeared and even more will disappear if we do not raise the attention for these elements in our forests.

It was therefore necessary to broaden the knowledge on historic elements in Dutch forests and to communicate this information to forest managers. Almost three years of research (not full time) by myself and my colleague Mark van Benthem have been spent on finding all relevant information on the existing historic elements in the Netherlands. This has not been an easy task, since a lot of information was missing and most was very scattered. The findings have been published in a 128 pages full colour book, focusing on all major historic elements, such as: fire corridors, pools, 'sprengen', 'boombos', 'rabattenbos', embankments, anthropogenic hills and ditches, etc.

Of all elements the history is described, the way to recognize them and suggestions are given for their management. Most Dutch forests are managed in a way that all forest functions and services are integrated. This forest management system is called 'Geïntegreerd bosbeheer' or integrated forest management. It is the aim of this new book to see the cultural heritage grow as an integral part of our forests and our forest management.

Paper

In the Netherlands there is an increasing interest in our cultural heritage. It is widely recognized that not only urban areas but also landscapes with a historical entity are highly appreciated by their inhabitants and visitors. Rural tourism is an increasing economic driving factor for the Netherlands. Therefore, several initiatives for increasing awareness of the cultural heritage have been

started, but this attention has so far focused mainly on elements outside the forests and natural areas. This is surprising since Dutch forests are rich in historical elements and are an integral part of our history.

Attention for the history of the Dutch forests and forestry has come and gone in the last decades. The oldest books on this subject date from the start of the 19th century. But only after the establishment of the State Forest Organization in 1899 (Staatsbosbeheer), books on the practice of forestry became more common. The first publication on the history of Dutch forestry appeared in the second half of the 20th century. Relatively few studies have been carried out on this subject in the Netherlands compared to surrounding countries, as Great Britain, Germany and France. The first dissertation on forest history appeared in 1958. Only in 1974 the second dissertation on this subject appeared. The major study on this subject was written by Jaap Buis in 1984. It is called 'Historia Forestis' and accounts an amazing 1058 pages. Since then only a few minor studies have been carried out. Almost all studies focused on socio-economic factors and only a few articles have been written on historic elements in the Dutch forests. This is surprising since this is the kind of information forest managers need for their day to day forest management. Up to today only forest managers with a personal interest in the history of their forest and the historic elements it contains, pay attention to the preservation of these elements. There are a few exceptions to this rule, mainly archaeological elements like barrows and Celtic fields can count on some attention, and the rest stays hidden and hopefully conserved. However, this is often not the case. A lot of historic elements have therefore disappeared and even more will disappear if we do not raise the attention for these elements in our forests.



Lack of knowledge forms a serious threat to the conservation of the historic elements, left alone without restoration. Probo, the Dutch Institute for Forestry and Forest Products, gave itself the task to broaden the knowledge on historical elements in Dutch forests and, even more important, to communicate this information to forest managers foremost, but also to policy makers and other interested parties. It was not an easy task to find all relevant information on the existing historical elements in the Netherlands, since a lot of information is missing and most was very scattered. The findings have been published in a 128 pages full colour book called 'Historische boselementen, geschiedenis, herkenning en beheer', focusing on all major historic elements, such as: mounds, embankments, pools, fire corridors, relicts of hunting activities, pits, historical roads, etc. Of all these elements the history, how to recognise them in the field and their current ecological and (social) cultural meaning are described. Besides, suggestions for management are given and folk tales are presented. Stone (buildings) constructions were not within the focus of the book.

This paper gives a brief introduction to the various elements, but to get an idea of the cultural heritage in the Dutch forests it is necessary to know a bit about the forest history of the Netherlands: with the retreat of the ice, people came to the area now known as the Netherlands. They were hunters and collectors who did not put much pressure on the forests which developed here since the last ice age. From the Iron Age on, the population grew fast and the people, who had started agricultural activities, could no longer perform only slash and burn activities. Celtic fields came into place and were later, when the Romans brought better machinery, replaced by larger scale agriculture. Forests were cleared to make way for fields and especially for pastures. Sheep grazed on these pastures during the day and were brought home in time, so the sheep dung could be collected and used to keep the productivity of the fields at the required level. In the forests which were not cleared domestic

animals grazed and with the growing of the animal stock, the forest could no longer restore itself. As a result heath lands and even worse drifting sands came into being. From that time on Holland was losing its forest at high speed, and by 1800 the Netherlands had only about 100, 000 ha left, mainly coppice woodlands. As a consequence it is important to realise that the majority of historic elements now in the forests, came into being outside the forest.

Due to overgrazing drift sands occurred and threatened villages and fields in the Netherlands



With the invention of artificial fertilizers, which made the sheep dung redundant, and the rise of the coal mining industry, afforestation began around 1850. It lasted until about 1935 and very labour intensive techniques were used. These techniques caused a lot of damage to archaeological elements which were conserved fairly well in the heath lands. But the afforestation techniques also brought a lot of new elements which we call historical nowadays.

Because afforestation mainly took place on poor soils, sometimes caused by centuries of overcropping the soils were exhausted and pine (*Pinus sylvestris*) was one of the few species which was able to grow under these circumstances. Pine also creaks before it breaks, which comes in handy in the mining industry. Up to today, second or third generation of, pine is still the most common species in the Dutch forest.

Turning the soil before afforestation with pine



Next an overview of the different elements to be found in the Dutch forests is presented. As said before, in the book this is completed with: how to recognise them, their current ecological and (social) cultural meaning and suggestions for management. Celtic fields, barrows and (pre-) historical roads are among the oldest elements in the Dutch forests. Barrows are well known in the Netherlands and receive a lot of attention, also in the forest management. The book mainly focuses on relatively unknown elements. Therefore burrows are only briefly described in it.

For centuries coppice woodlands were very popular and only a limited area of high forests existed. These were either communal forests or forests belonging to an estate. Later from at least the 15th century, it became fashionable to introduce exotic plants, which flower abundantly before the trees have their leaves. There are still forests with a high proportion of these so-called 'stinzen' plants. A good example of bio-cultural heritage in the forest.

In general, mounds date from the time when the Netherlands hardly had any forests left. If you desire something to catch the eye in the Dutch flat landscape, you have to establish a hill. Mounds

were erected for all kinds of purposes, e.g. to put gallows on, to mark property boundaries and for recreational purposes.

For over centuries, some dating back before the Christian era, mining activities left their traces in the Dutch landscape and are currently mainly visible in the forest and heath lands. Pits were dug for the extraction of loam, sand and gravel. In the early Medieval Age from the seventh until the ninth century, the Netherlands was one of the most important producers of iron in North-Western Europe. The iron industry left its traces, not only in the shape of pits, but also furnaces can be found. The rise of this industry also led to a clear-cut of the forest and an increase of the coppice woodlands area, since the iron industry needed a huge amount of firewood. Other examples of pits are sawpits, border pits and pits dug for not having to bend whilst e.g. debarking oak twigs for the tanning industry.

Embankments are a very common historic element in the Dutch forests. They have been erected for several purposes, like: for defence, to prevent game from entering the fields, to prevent cattle damaging crops and forests, to mark borders, to stop drifting sands, to protect beehives from the wind, to prevent wagons from leaving the road, etc. Many hundreds of miles can still be found in Dutch forests today.

As said before the afforestation activities which started around 1850 damaged a lot of our cultural heritage, but they also gave us new elements, like fire corridors and relics of special afforestation techniques. Because large scale monocultures were established, there was also a need for extra nutrients for the game animals, since hunting was very important. So called 'leaf fields', mainly coppices of oak, were established and can still be found.

Sometimes you walk in the forest and come across a 'striking tree', a tree which differs through species, size or form. There were hundreds of reasons for planting trees, especially outside the forest. Since the majority of our forests are new, there can be many reasons which can explain why that specimen differs from its neighbours. For striking trees in the Dutch forest, the most common reasons are: former habitation place (often lime trees (*Tilia spec.*); boundary mark and trees planted in the memory of e.g. an important forester or a person from the Royal family.



This sheep pen no longer exists,
but the beech trees still mark its place in the forest

Of course throughout time different types of roads came and went and of which traces can still be found. Other elements described in the book are Celtic fields, pools, avenues with trees within forested areas, unnatural springs (to produce energy for different industries by watermills) and so called 'pest woodlands' which arose on sites where cattle which died of infectious diseases were buried.

Most Dutch forests are managed in a way that all forest functions and services are integrated. This forest management system is called 'Integrated forest management'. The Probos foundation will keep working on focusing attention to the necessity to protect important historical elements in our

forests. The policy of the Dutch government is at the moment in favour of the protection of our cultural heritage, but unfortunately this attention mainly focuses on the integration of historical elements into landscape development and not so much on the management of present elements. The management of historical elements in our forests have not received any attention so far.

It is the aim of this new book to see the cultural heritage grow as an integral part of our forests and our forest management. Let us finally also not forget that today's activities are tomorrow's cultural heritage.

Cultural Remains of the Forests – a resource in rural development

Anna Marntell

Caroline Wågberg

Regional Forestry Board of Mellannorrland

Sweden

Abstract

The cultural heritage may stimulate local entrepreneurs to promote the home area and develop new products, for example in the tourist industry. But in order to achieve this, people must know what traces of human activities there are to be found in the landscape nearby.

Sweden is a country dominated by forest land. 52% of the land area is productive forest land to compare with 8% of agricultural land and cities less than 1%. The forest land is a unique and rich historical archive where ancient monuments and other cultural remains are protected by law. At the same time, cultural remains should present no obstacle to modern forestry. In order to avoid damage on cultural remains, these must be located and described and the information spread to forest owners, forest companies and authorities.

Forest and History is a documentation project aiming at improving the knowledge about the cultural heritage of the forest. The project is carried out in co-operation between organizations of cultural environments and forestry. Local people educated and aided by trained archaeologists conduct the survey.

In the County Västernorrland in Mid-Sweden, Forest and History surveys have been ongoing since fall 2002 and surveys are completed in three parishes. A total of 1, 800 objects have been found, described and stored in a data base connected to the forestry GIS at The National Board of Forestry. The material will be inspected by archaeologists but due to lack of funding, the inspection work is slow.

Meanwhile the County Board of Forestry wanted to see the information available and in use, and therefore applied for funding to the information project *Cultural Remains of the Forest – a resource in rural development*. The project was approved within the EU Programme Development Force and Knowledge-driven Growth, Measure 3.6: Rural Development.

The project time is Aug. 2004 – Dec. 2006, and the total budget is SEK 1, 417, 000 (€ 154, 000) of which the EU contribution is SEK 570, 000 (€ 62, 000).

The main objectives are:

- to increase the knowledge about ancient monuments and other cultural remains in the forest
- to demonstrate measures to protect and maintain cultural environments in the forest
- increase knowledge and consideration to cultural remains in forestry and other land use sectors
- to focus on cultural remains as a resource in rural development, for instance in the tourist sector and strengthened feeling for the home area and one's roots.

The target groups for the project are: local people, schools and the public, tourist entrepreneurs (*Live on a Farm* and others), non-profit organizations/associations, forest owners, forest companies and the forestry branch.

And finally what to do; guided tours to learn about the cultural heritage in the forest, seminars, demonstration areas (at least one partly adapted to disabled) and information (folders and the Internet)

Paper

Introduction

Sweden is a country with 9 million inhabitants and the land is dominated by forest. 52% of the land area is productive forest land to compare with 8% of agricultural land and cities less than 1% (figure 1.). Approximately 23.5 million hectares of productive forest land adds up to about 2.9 billion m³ standing volume. The forest land in Sweden is primarily owned by private individuals (50%) and companies (37%) and about 5% of the world's consumption of sawn conifer products, pulp, paper and cardboard is produced in Sweden (National Board of Forestry, 1999). The forestry sector is the branch that contributes the most to the country's net export, 86 billion SEK in 2003 (National Board of Forestry, 2004).

During the last 50 years the development of technology in forestry has been rapid: from manual work and transportation by horse and river rafting to mechanized harvesting systems with computers and GPS navigation systems more and more used for bucking, planning and navigation. Mechanized logging is a threat to our cultural heritage but new technology is also a possibility. If the position of cultural remains is known and the data can be stored in the machines' computer/GPS system the operator will be notified when getting close to the objects and then the cultural remains can be taken into consideration. (Hellström, 1997 and Eriksson & Holmgren, 1997).

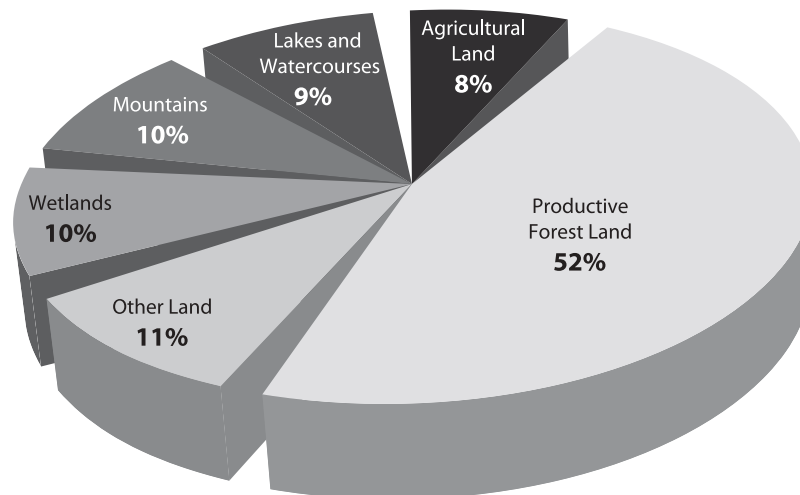


Figure 1. Land area distribution in Sweden. (National Board of Forestry, 1999: 26)

Need of knowledge

The forest land is a unique and rich historical archive where ancient monuments and other cultural remains are protected by law. At the same time, cultural remains should present no obstacle to modern forestry. In order to avoid damage to cultural remains, these must be located and described and the information spread to forest owners, forest companies and authorities. Prior to final felling the Regional Forestry Board must be notified if the site is larger than 0.5 hectare and the landowner is responsible for consideration to the environment and cultural remains in the forest (SFS 1978: 432, The Forestry Act). Ancient monuments are protected by the Heritage Conservation Act (SFS 1988: 950). If the forest officer who administers the notification of logging finds any cultural remains on the site in the GIS at the Regional Forestry Board advise/counselling is offered to the land owner and/or the logging contractor.

Known ancient monuments are described by the National Heritage Board, marked on maps and soon (in the end of this year?) the information will be available as a geographical database for the entire country.

Forest and History is a documentation project aiming at improving the knowledge about the cultural heritage of the forest. The project is carried out in co-operation between organizations of cultural environments and forestry. Local people educated and aided by trained archaeologists conduct the survey and the Labour Market Board is the main financier.

In the County Västernorrland in Mid-Sweden, Forest and History surveys have been ongoing since fall 2002 and surveys are completed in three parishes. In these, a total of 1, 800 objects have been found, described and stored in a data base connected to the forestry GIS at the National Board of Forestry (Figure 2.). The material will be inspected by archaeologists but due to lack of funding, the inspection work is slow.

EU-funded information project for rural development

Meanwhile the Regional Board of Forestry wanted to see the information available and in use, and therefore applied for funding to the information project Cultural Remains of the Forest – a resource in rural development. The project was approved within the EU-programme for northern Sweden (the southern forest counties region) Development Force and Knowledge-driven Growth, Priority 3: Development of agriculture and forestry, rural development and development of the fishery industry. Measure 3.6: Rural Development (Article 33), see www.z.st/eu/index.htm and choose Short introduction in English of the intentions of the programme.

The project time is Aug. 2004 – Dec. 2006, and the total budget is SEK 1, 417, 000 (€ 154, 000) of which the EU contribution is SEK 570, 000 (€ 62, 000).

The main objectives are:

- to increase the knowledge about ancient monuments and other cultural remains in the forest;
- to demonstrate measures to protect and maintain cultural environments in the forest;
- increase knowledge and consideration to cultural remains in forestry and other land use sectors;
- to focus on cultural remains as a resource in rural development, for instance in the tourist sector and strengthened feeling for the home area and one's roots.

The target groups for the project are: local people, schools and the public, tourist entrepreneurs (*Live on a Farm*, www.bopalandtgard.y-lan.org/indexeng.htm and others), non-profit organizations/associations, forest owners, forest companies and logging entrepreneurs and the whole local forestry branch.

And finally what to do; guided tours to learn about the cultural heritage in the forest, seminars, demonstration areas (at least one partly adapted to disabled) and written information (folders and the Internet).

Achievements so far

Late fall 2004 an archaeologist was employed and inventory data was processed and evaluated for the three inventoried parishes Njurunda, Sättna and Ljustorp in the province of Medelpad in Mid-Sweden. Each of these parishes is about 20 x 25 kilometers.

A total of 1800 “Forest and History-finds” are described in these parishes and distributed as shown in Figure 2.

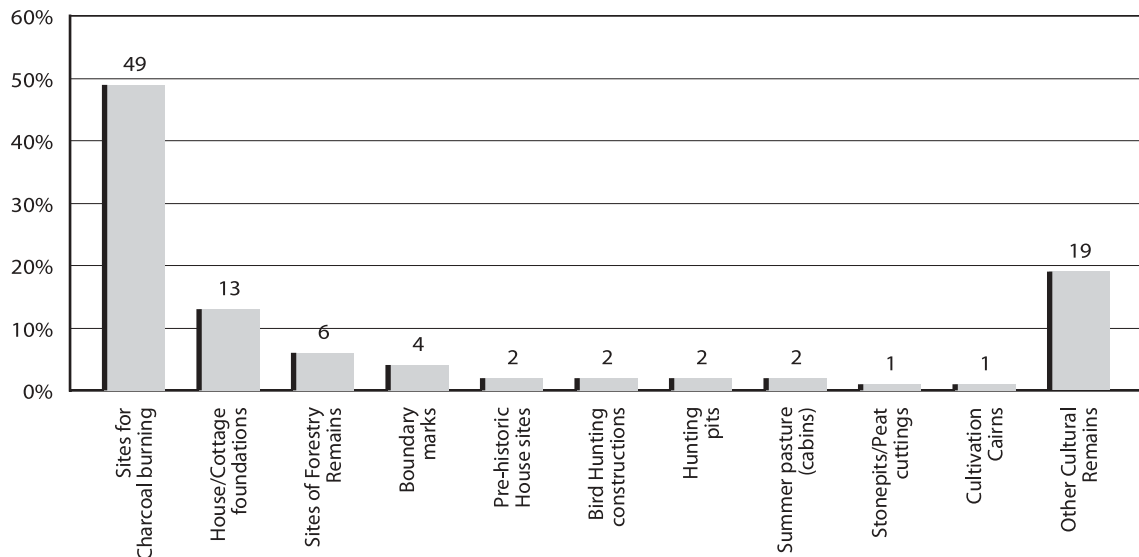


Figure 2: The most common cultural remains of the forest in Njurunda, Sättna and Ljustorp presented as percentage of the total (1,800) Forest and History-finds in Njurunda, Sättna and Ljustorp parishes in Medelpad, Mid-Sweden, 2005.

Almost half of the sites, or close to 900, are remains of sites for charcoal burning. For hundreds of years this area has been one of the centers for forest industry in Northern Sweden. In the mid nineteenth century the forestry industry was booming. From tar production, poles, timber, sawn lumber and charcoal to today's modern production of sawn goods, pulp and paper. As late as the 1940s five percentage of the wood consumption in Sweden was used for charcoal burning for iron works and fuel for gas-driven cars during World War II (Kardell, 2003 and 2004). In order to obtain new dense forests soil scarification is a necessity prior to tree planting or reforestation by seed trees on most soils in Sweden. If the planner knows where the cultural remains are located, damages can easily be avoided. Recent studies indicate that about half of the cultural remains in the forest are damaged by logging and/or reforestation operations (Backman et al., 2003 & National Heritage Board, 2001).

Resource in rural development

The cultural heritage may stimulate local entrepreneurs to promote the home area and develop new products, for example in the tourist industry. But in order to achieve this, people must know what traces of human activities there are to be found in the landscape nearby.

Some examples of possible tourist activities are: to walk along old roads and be told by a guide, or read, why the road is there, how and why it was built and how long it was used. Why not bring a picnic-basket and stop at an old watermill or remains of an old cabin in the forest? Or why not get a hint where to go to find moose hunting pits and find as many as possible, wouldn't that be an

interesting activity for a family? And why not examine an old earth cellar and find out what people ate a long time ago and how the food was stored? It might also be possible to go and eat “old-time food” or cook it yourself somewhere nearby.

More information

In Swedish, information about the project will be available at www.minskog.nu. In December 2006 a summary of the project report, in English, will be available at the same place. If any information is needed meanwhile, please do not hesitate to contact the project leader Caroline Wågberg or District chief Anna Marntell at the Regional Forestry Board of Mellannorrland, District Y South, Sweden.

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Ancestors' legacy: the forests of the Austrian Alps as a cultural heritage

Jesús García Latorre

Federal Ministry of Agriculture, Forestry, Environment and Water Management
Austria

Abstract

The mountains of the Alps adjoin two broad biogeographical regions (the Mediterranean and the Central European ones) and constitute by themselves the Alpine biome. This ecotonal situation together with a high environmental heterogeneity (wide altitude gradients, diversified exposition, geological and climatic features) and a complex palaeohistory (glaciations, refugia, etc.) have contributed to create the original and biodiverse ecosystems of these mountain ranges. Nevertheless, the Alps landscapes are not only the result of natural processes. At least 4000 years ago these ecosystems began to be shaped by humans belonging to different cultures and acting in different epochs.

In the case of the forests no less than 33 tree species appear in the Austrian Alps, together with numerous scrubs and herbs. Since prehistory anthropogenic activities (raising of livestock, fuel wood and logs extraction, mining, charcoal and salt production, hunting) have affected the forest composition and structure leading in many cases to their complete transformation into quite different ecosystems (like for example pastures). The economic exploitation of the Alps has besides reinforced the relationships between the mountains and the adjacent territories, since many of the obtained products were delivered to the North and South; additionally the passes of these mountains have been important communication routes since immemorial times. The Alps are therefore an old scenario for human affairs and provide a unique opportunity for studying the relationships between societies and nature in mountainous regions.

After a brief approach to the human colonization of the region, this paper shows firstly examples of the diverse cultural and historical backgrounds in some forests. Secondly, an overview of the institutional and instrumental framework in order to preserve and manage the cultural heritage of these forests is presented.

One of the amazing characteristics of the Alps forests is the high diversity of histories which they exhibit. Many of them were transformed in pastures. In other cases deep changes in the structure and tree composition occurred, like for example from a Norway spruce (*Picea abies*) forest into a wood-pasture with larches (*Larix decidua*). After the abandonment of human activities trees have expanded in many regions creating "new forests" showing a different composition of the original ones. Many of the ancient woodlands of the famous forests of Vienna (*Wienerwald*) have been coppiced. Trees appear too forming hedgerows in the meadows and fields or pollarded in the surroundings of farms. Pollarded trees contribute to the stability of fields on steep slopes. Historical research has demonstrated too the relict character of many stands like mixed forest on southern expositions resembling the forests of the Atlanticum, pine forests growing on stony soils since late-glacial times or the presence of larches at low altitudes. Finally, the mountainous character of the region has indeed allowed the preservation of true old-growth forests.

In the case of Austria the institutional input for the preservation and management of the historical and cultural background of forests comes from the Fourth Ministerial Conference on the Protection of Forests in Europe (MCPFE, Vienna Resolution 3) and the Alpine Convention (Working Group Population and Culture). Meetings and discussions are currently happening in the frame of the implementation of MCPFE (*Austrian Forest Dialog*) as well as in the negotiations of the Alpine Conven-

tion and many efforts are being done in order to provide the cultural aspects of forests with a prior position in the implementations. Motivation of forest owners, voluntariness and the anchorage of the issue with tourism are some of the planned ways. Additionally, the possibility of subsidies will be discussed soon. Some pilot projects have already been carried out for testing the application of the technical forest plan (*Waldfachplan*) as an instrument for the integration of the cultural aspects in the activities of forest firms, being the results promising.

Paper

Our perception of nature changed radically during the second half of the last century. In human eyes, ecosystems ceased to be the balanced entities that we had imagined them to be, and disturbances and unpredictability became part of their intrinsic characteristics (White et al., 1985). In addition, the development of disciplines such as *landscape ecology* contributed enormously to situating human societies in the natural context (Pickett et al., 1995). Society and nature had been two interacting elements, separate from one another in the minds of ecologists since the nineteenth century (Blumler, 1996). This new paradigm of society in nature facilitates a broad appreciation of ecosystems' cultural content. We see our ancestors no longer as the perverse peasants who destroyed pristine nature. Instead we see them as the integrating actors of dynamic systems. Ecological science has now come to recommend that we take the human components of forests and their historical development into account when dealing with forest management and conservation (Lindenmayer et al., 2002).

In my opinion, the new perspective is reflected in international commitments like the Vienna Resolution of the *Ministerial Conference on the Protection of Forests in Europe*. Environmental and forest administrations have begun to include the cultural component of woodlands among their concerns. The *Seminar on Forestry and our Cultural Heritage* offers further proof of this changed perspective.

This paper deals with the cultural features of the forests in the Austrian Alps. Among the factors contributing to the creation of the Alps' original and biodiverse ecosystems are the ecotonal position of these mountain ranges between the Central European and Mediterranean regions, together with their high environmental heterogeneity (wide altitude gradients, diversified exposition, geological and climatic features) and their complex palaeohistory of glaciations and refugia. Nevertheless, Alpine landscapes are not the result of solely natural processes. For at least 5000 years these ecosystems have been shaped by humans, too.

A complex institutional framework for the implementation of policies that consider forest ecosystems' cultural components is currently emerging in Austria, and it is this framework which is described here. Although the framework has only begun taking shape, it promises to provide a solid and integrative basis for further developments. Before dealing with future developments, however, this paper will engage in a brief overview of the historical relationships between humans and forests in the Austrian Alps as well as of the cultural components of these ecosystems. I believe that an adequate understanding of the subject in the field enormously facilitates institutional processes. As Donald Worster (1988) wrote: "It is time we bought a good set of walking shoes, and we cannot avoid getting some mud on them."

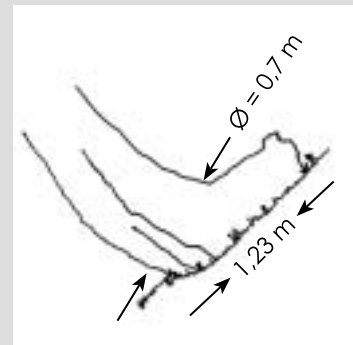
Colonizing the Alpine environments

Though modest in its geographical extension, the beginning of anthropogenic long-lasting change in the Alps dates from the initial Neolithic period (6000-5000 BC). The first "Tyrolean" peasants already grew cereal in the valleys during this time. In summer their livestock grazed the high moun-

tain meadows, thus changing the composition of the flora (Bortenschlager, 2000). These pastures were enlarged by setting fire to the forest limit – for instance, in the surroundings of the swamps: *Gurgler Alm* at 2240 m above sea level (asl) and *Zirbenwald auf der Kaser* at 2085 m asl (Bortenschlager, 2000). Deciduous trees (*Ulmus*, *Fraxinus*, *Tilia*) in the valleys (e.g., *Giering*) were managed to obtain leaf fodder. The leaf-hay thus gathered allowed a reduced number of beasts to survive over winter, leaving the rest to be slaughtered (Bortenschlager, 1976). In other mountains it was a particular sort of wood that the first settlers might have looked for (see Box 1).

Box 1: Remarkable forests

Prehistoric forests would appear quite peculiar to us. During the Neolithic period, lime trees (*Tilia* sp., now an uncommon species) were very frequent in the deciduous forests of the *Wienerwald* (Vienna Woods) (Kral, 1992). The woodlands of the *Eisenerzer Alpen* presented an unusual picture, too. The biggest yew (*Taxus baccata*) population in the Northeastern Alps grew in that region (Drescher-Schneider, 2003). In medieval times the wood of this tree was much appreciated for the construction of bows (Schubert, 1986). Wessely (1853) reports that yew foliage was used as fodder for cows, sheep and goats in the Alps. As makers of yew bows and many other wooden implements, Neolithic people had good knowledge of the different physical properties of their native woods (Oeggel et al., 2000). The first peasants who temporarily settled the *Eisenerzer Alpen* (3840-3490 BC) may have been looking for yew as a raw material (Drescher-Schneider, 2003). Doing field work in this area, the author found an old yew tree on a slope. As a consequence of the slope's steepness and the snow's weight, the stem had developed parallel to the ground before turning abruptly upwards. Konrad Rubner (1934), the well-known Bavarian forester, appealed to the yew's cultural value as a reason for its preservation.



With the discovery of metals, new long-term socio-economic processes were initiated. The shore settlements in the lakes of the *Salzkammergut* may have played an important role in first copper mining efforts (Urban, 2003). Lake dwellers were the first peasants to colonize the area (third millennium BC, Chalcolithic Age, Offenberger, 1981). Trees close to the settlements were used for the construction of the pile dwellings without consideration for the durability of their wood (examples include ash *Fraxinus excelsior*, Norway spruce *Picea abies*, alder *Alnus* sp., birch *Betula* sp., etc.). Hardwood species such as beech (*Fagus sylvatica*) and oak (*Quercus* sp.) were avoided. The surface occupied by the settlements varies from 1, 200 to 13, 000 m²; in some settlements at least 12, 000 piles were used. Elk, aurochs, wisent, brown bear and wild cat are some examples of the quite exotic fauna that roamed the region at the time, and accordingly, hunting complemented the agro-pastoral activities that took place in the settlements' surroundings (Offenberger, 1981). At the end of the Chalcolithic period (4000-2000 BC) most of the big valleys had already been settled (Urban, 2003).

The general population growth increment that was deduced to have existed in Central Europe during the second millennium BC probably caused the demand for metals to rise (Shennan, 2001). Copper mining favoured a cultural and economic upsurge in the Northern Alps; by the late Bronze Age human population increased in the area and new places were colonized (Urban, 2003). Charac-

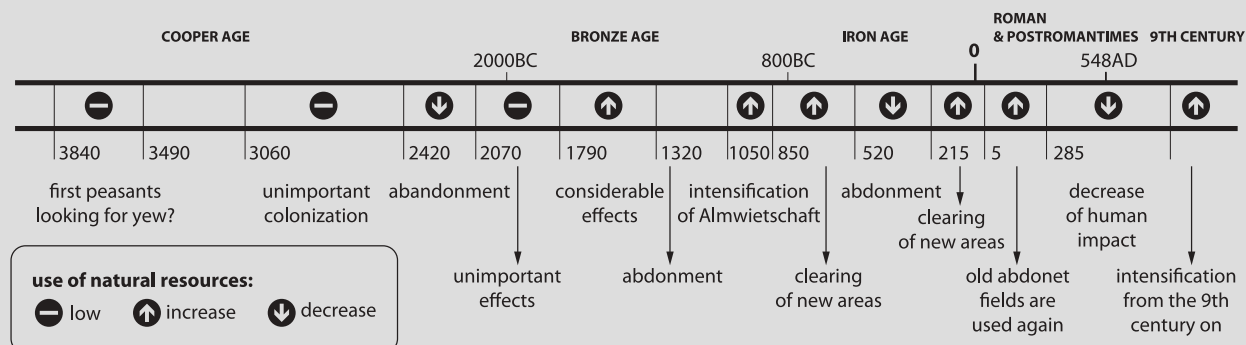
teristic for these prehistoric populations were fluctuations as well as instability of the settlements (Shennan, 2001). So, for instance, some areas in the Alps that had been settled from 2000 BC on were deserted by 1500-1400 BC (Urban, 2003). The intensity of natural resources use fluctuated as well (Box 2).

In prehistoric times, not only ore but also pasture was an important mountain resource. In the *Dachstein* range (Mandl, 2002) and in the *Eisenerzer Alpen* (Drescher-Schneider, 2003) animal husbandry reached a zenith by the late Bronze Age. Nevertheless, the maintenance of animals was limited by the availability of fodder during the winter. Only with the introduction of the scythe did hay harvesting become possible, probably by the late Iron Age (Gleirscher, 1985; Urban, 2003). The so-called *Almwirtschaft* might have been initiated at this time.

Livestock spent the summer in the high mountain meadows while hay was being produced in the valleys below. To a certain extent the introduction of the scythe and the development of the *Almwirtschaft* can be considered to constitute a revolution (Gleirscher, 1985).

The exploitation of mineral resources (esp. Ferrum Noricum, an iron of extremely high quality) aroused Roman interest in the region; an authentic Roman emporium emerged in the surroundings of the *Magdalensberg* (Carinthia) (Urban, 2003). Livestock farming was also an important economic activity during Roman times, as proved by the many bells found in the remains of cabins at high altitudes (Gleirscher, 1985, Gassner et al., 2003).

Box 2: Fluctuating populations and changing environments



On a regional scale prehistoric settlements and populations were more labile than commonly assumed (Shennan, 2001). In periods of non-colonization, vegetation reoccupied the abandoned fields until a new human group came to settle the area again. Such alternating patterns are reflected by pollen-deposits in lakes (Jürgen, 1989). In the case of the *Eisenerzer Alpen* (Styria) copper mining dates back to no later than the Middle Bronze Age. Previously the area had been only marginally settled upon at least three occasions. It was not until between 1729 and 1345 BC that the combined effects of farming, grazing and the smelting of ores caused the first important reduction of forest cover (Drescher-Schneider, 2003). Toward 1300 BC a drastic decline occurred in human population and the abandoned fields came to be covered by birches, pines and junipers. Beech woodlands recovered part of their original area, but fir and yew did not. Additional colonization and abandonment events can be traced back to the 8th century (the diagram above does not show intensification patterns from the 9th century onwards; see Drescher-Schneider, 2003).

Prehistoric human populations undoubtedly exerted considerable influence on Alpine environments. Nevertheless, intensively affected areas were restricted to the proximity of settlements and mining centres (Urban, 2003), so that broad expanses of pristine landscape still existed in the Alps in the early Medieval Age (Kral, 1994, Wolfram, 2003). Since the end of the 6th century the colonization of new zones had been initiated; Germanic tribes advanced from the North and West and Slavs from the East. On that occasion they occupied territories already settled by other groups but during many centuries ancient peasants had to face the hard work of clearing natural forests; this was the case for the Slavs of the *Möll* valley (Carinthia) as late as by 1200 AD (Johann, 2003).

From the 12th to the 13th centuries perennial high altitude settlements (*Schwaighöfe*) emerged in the mountains (Kral, 1974). Representing a more intensive form of *Almwirtschaft* than before (Bätzing, 1984), *Schwaighöfe* were systematically established by landlords, for instance in all the valleys of the *Tauern* ranges (Johann, 2003). In the *Dachstein* range animal husbandry again reached a zenith by the late Middle Ages (14th-15th centuries); peasants have managed the meadows of the eastern *Dachstein* border for 800 years; remains of 1800 huts were found in a 280 km² area of this region (Mandl, 1994). According to Kral (1974) it was common practice to set fire to the forest at the timberline; by around the 14th century the timberline reached its current altitude in the *Dachstein* range, about 1585 m asl (Kral, 1971).

During modern times (15th-19th centuries) anthropogenic activities exerted an enormous influence on Alpine ecosystems. The long-lasting demographic gradient between the Alps and the surrounding areas (higher population densities in the flat neighbouring countries than in the mountains) intensified from the 15th to the 19th centuries. This gradient can explain certain socio-economic relationships between the Alpine and surrounding areas (Mathieu, 2001). From the beginning of modern times, natural resources in the Alps were intensively exploited and the right-hand tributaries of the Danube played an important role in long-distance trade. Around AD 1560, for instance, some 250, 000 to 350, 000 logs were rafted yearly down the *Lech River* (*Stanzach*, Tyrol; Pickl, 1992).

Controlled and organized by landlords, salt production had a profound effect on forests, too. *Haselgebirge* (Lias marl) contains salt and gypsum. The separation of salt from the mixture was carried out by the addition of water. Evaporating the water to obtain the salt required enormous amounts of wood (Koller, 1970). For many centuries, natural resource use across considerable territories (e.g., *Salzkammergut*) was subordinated to the preservation of forest stands for the salt industry (*Salinenindustrie*). As wood became scarce in the surroundings of the production centres, new areas were prospected in the search for the necessary raw materials. From the 16th century to the beginning of the 17th century, virgin (or almost natural) forests still grew in remote areas of the mountains (Koller, 1970). Indeed, according to Wessely (1853), an impressive beast, the aurochs, had survived until the end of the 16th century in a distant valley south of Salzburg. Many of these forests were then made accessible, however, and an impressive infrastructure (*Holzriesen*, *Klausen*, etc.) was developed for transporting wood from the mountain forests to the “factories” (*Sudhäuser* and *Pfannenhausstätte*). Small streams were even modified (dammed) to allowing rafting. Nowadays the remains of this infrastructure constitute an important aspect of mountain forests’ cultural composition. To fund these costly devices and to provide the *Salinenindustrie* with enough timber, woodlands were clear-cut. For technical reasons the wood of the Norway spruce and of the fir (*Abies alba*) was preferred. For centuries, forests were managed in order to avoid the expansion of other tree species (particularly the beech) after the clearings had taken place (Koller, 1970).

Other economic activities (e.g., iron smelting) required charcoal. Charcoal kilns were established directly in the forests. On the area of 6.4 km² in the *Eisenerzer Raumsau* (Styria) ten of the eleven charcoal kilns date back to modern times and one to the Middle Ages (Klemm, 2003).

Peasants carried out a different form of “forest management” and extracted individual trees for specific purposes (*Plenterbetrieb*). Leaf-racking was carried out for livestock bedding in the forests, and trees (particularly Norway spruces) were shredded (Wessely, 1854). The extraction of nutrients from the soils may have had profound effects on the functioning of forest ecosystems (Glatzel, 1989).

Surprisingly, by as late as the beginning of the 18th century tracts of the *Wienerwald* still remained almost intact and contained relicts from the late glacial age (larch) and the Atlantic period (fir). Nevertheless, at that time these last remnants were cleared, too, in order to provide the imperial city with timber (Kral, 1992).

By the 19th century ancestors’ activities over the millennia had modified the structure and composition of Alpine forest ecosystems, adding cultural values to the forests’ biotic and abiotic components.

Cultural and historical aspects of Alpine forest

The role played by anthropogenic activities in shaping Austrian mountain forests have been highlighted by historical and palaeoecological research. Some examples are shown in Table 1.

The clearing of the woodlands which once grew in the surroundings of the swamps *Gurgler Alm* and *Zirbenwald auf der Kaser* (both within the potential forest zone but nowadays unforested) dates back to the Neolithic. In some cases a “natural” succession process reinitiated after human activity had ceased, and forests with a modified tree composition developed. In general terms the proportion of Norway spruces has increased considerably while firs have declined dramatically or indeed disappeared (Kral, 1994). In these “new forests” trees can reach a respectable age of 200 to 350 years.

The larch, like the Norway spruce, has also become more common, and groups of larches or individual trees are very frequent in the cultural landscapes of the Alps (Wessely, 1853). As for example in Tyrol, wooded pastures with larches (*Lärchenwiesen*) are widespread in some areas (Mayer, 1974). The larch is a mountain tree which requires much light and colonizes disturbed places. Peasants favoured the spread of this species by sticking two or three poles into the ground around the young saplings growing in the meadows, in order to protect them from grazing animals. The light larch canopies did not affect pasture growth, and the trees tolerated shredding. Larch wood was much

Table 1. Some examples of forests and their histories in the Austrian Alps

Area/Forest	Interactions with humans
Gurgler Alm (2240 m asl, Tyrol)	Although this site lies below the potential timberline, it is currently unforested. Around 7490-7290 B.C. an Arolla pine forest (<i>Pinus cembra</i>) with scattered Norway spruce grew in this area. Prehistoric peasants set fire to the forests around 4360-4230 B.C. and 1430-1220 B.C. The final forest clearance at this site took place by 340-60 B.C. (Bortenschlager, 2000).
Rauriser Fichtenblockwald (1700 m)	During the Middle Ages a forest of Norway spruce and fir grew here. Grazing transformed the woodland into a pasture with larches (<i>Lärchenwiese</i>). After the area was abandoned forest succession proceeded without human influence for about 300 years. The current Norway spruce forest (with scattered Arolla pines and larches) exhibits some characteristics of the old growths (Kral, 1988).
Oberhauser Zirbenwald (1770-2250 m, Eastern Tyrol)	This Arolla pine forest (with scattered Norway spruces and larches) covers an area of approximately 380 ha and contains trees reaching an age of about 300 years. This forest developed from the isolated stands left by clear-cuts carried out at the end of the 18 th century (Kral, 1988).
Wiegenwald (1600-1800 m, Hohe Tauern)	During Middle Ages a Norway spruce forest with firs and scattered Arolla pines and larches grew in this area. The clear-cuts of the 16 th and 17 th centuries caused an important reduction of the woodlands. Currently the area is covered by a Norway spruce-Arolla pine forest with larches (but without firs). Some trees reach an age of 220 years (Kral, 1988).
Slopes in the Gasteiner Naßfeld (1600-1800 m)	Norway spruce and fir forests at the bottom of the valley recovered after Iron Age populations abandoned the area. These lower zones were cleared again during the Middle Ages. The slopes were cleared for the first time in the 15 th and 16 th centuries. At the end of the eighties (20 th century) only scattered tree patches grew on these slopes (Kral, 1988).

appreciated, and turpentine and resin were extracted from it, too (Wessely, 1853). According to Kral (1974) *Lärchenwiesen* originated relatively recently (between the 15th and 18th centuries) as a consequence of the clear cuttings of Norway spruce and fir forests. Wessely (1853) emphasizes the notable age which can be reached by larches and reports on a healthy 600-year-old example.

Another long-living species is the black pine (*Pinus nigra austriaca*). Wessely (1853) and Tschermak (1950) refer to 500– and 600-year-old trees. Growing well on southern sites and extremely stony soils (Wessely, 1853), the black pine is a Mediterranean mountain species which grows in “warm islands” of Austria in the southern province of Carinthia and in the Eastern Alps south of Vienna (Tschermak, 1950). By the middle of the 19th century some 1150 hectares of rocky slopes had been afforested with this species (Wessely, 1853). As a resistant tree, the black pine provided peasants in severe habitats with quite a diversity of products. Stand management began with the thinnings applied at age 17–18. Bedding for livestock was obtained from the forest ground and by shredding the pines up to a height of between 2 and 2.6 m. Pine tapping for resin began at age 40 (90–120 in bigger forests) and stands were cut at age 50–60. The quality of firewood provided by tapped trees was excellent. Timber trees were not tapped (Wessely, 1853). Many tapped trees can still be found in the forests. Ancient trees with the characteristic expanded crown stand on former property borders and have an own name (Tschermak, 1950).

Alpine environments have also been shaped by the use of fire, because peasants enlarged their fields during prehistoric and historic times by setting fire to the forest. Fritz Paul (1934) reports in detail about an agro-sylvo-pastoral system driven by fire (*Brandwirtschaft*) that was practiced in the *Fischbacher Alpen* (Styria) until the second half of the twentieth century. The *Brandwirtschaft* was carried out in Norway spruce stands, with a rotational time of 100 years, as well as in birch (15–25 years) and alder (6–10 years) coppices. In all cases the clear-cut surface was burnt. Afterwards it was cultivated with rye, potatoes, buckwheat, etc. Areas covered originally by Norway spruces were afforested again with the same tree species after the crop was harvested. The roots and stools of birches and alders survived the fire and regenerated, producing new shoots. After the crop these surfaces were grazed as long as the dimensions of the shoots did not interfere with the grazing animals. Many place names refer to these activities and nowadays it is possible to find coppiced birch and alder in these mountains.

Apart from their effects on the forest structure, human activities have left numerous constructions, objects, etc., in the interior of the woodlands. The *Eisenerzer Alpen* (Styria) has been an important mining region since the Middle Bronze Age if not earlier. On the area of 6.4 km² covered with Norway spruce, archaeologists have found two settlements, twenty-two sites with copper/iron slag, thirteen mining sites and 11 charcoal kilns. Close to some of these sites stretches of old paths can still be identified (Klemm, 2003).

In remote forest areas peasants obtained potash from thick stems in workshops called *Glashütten*. A mixture of quartz and potash was smelted in a furnace to produce glassware, a process which required large amounts of wood. This was an industry which bequeathed us many place names. Roth (1976) localized the exact place where one of these *Glashütten* – dating back to the end of the 17th century – had been established.

Without doubt one of the activities that resulted in the most constructions in or close to forests has been the transport of wood. As described previously, the *Salinenindustrie* consumed large amounts of wood, and so-called *Holzriesen* were constructed to transport the timber from the mountain forests to the valleys. *Riesen* are very long half-pipes made of six logs. Once cut, timber was allowed to slide down the *Riesen*, which were built on a downward slope. In some cases a dam conducted

water into a *Riese* to facilitate the logs' sliding transport (especially when temperatures were low enough for the water to freeze). Small streams and even gullies were adapted and used as *Riesen*. In the ravines enormous amounts of water were retained behind logging dams (*Klausen*) and logs were collected downstream below the dam, so that the rush of water resulting from the lifting of the dam's gates carried the logs with it. The remains of such *Holzriesen* and logging dams can be found in many places in the Austrian Alps even today.

Other remains found in or near forests are those of sawmills, lumberjacks' cabins, etc. Indeed, the actual trees themselves can be considered archaeological objects. The form exhibited by pollarded and coppiced sycamore maples (*Acer pseudoplatanus*), oak, ash, etc. is an expression of peasants' traditional woodland management activities. These trees can be very old and confirm the ancient character of the stands in which they grow.

Thus, the forests in the Alps are evidently deserving respect in terms of their cultural content. Nevertheless, it is the concurrence of natural and anthropogenic features that enhances the manifold appearance of these ecosystems: in spite of the old and long-term influence of human activities, these woodlands still contain very ancient elements, biological legacies. I refer here to relict tree populations which reached certain areas (slopes, ravines, etc.) millennia ago. An example is the mixed stands with Norway spruces and common oaks (*Quercus robur*) on sunny slopes in the upper Möll valley (Carinthia); these are possible remains of Atlantic mixed woodlands (Hartl, 1968). In the surroundings of the *Fernpaß* (Tyrol) the Scot's pine (*Pinus sylvestris*) was widespread during the Preboreal and Boreal. The pines that still grow on the stony slopes of the *Fernpaß* are the direct descendents of the postglacial pine populations. These trees were relegated to rocky habitats by the spreading silver firs and Norway spruces during the Atlantic (Kral, 1989). Not far away from the city of Vienna, the *Wienerwald's* beech and oak woodlands contain larches and silver firs whose presence in the area dates back to postglacial and Atlantic times respectively (Kral, 1992).

The amazing diversity of origins of the alpine forests is completed by woodlands that do not exhibit a history of interactions with humans – i.e., old growths. Wessely (1853) wrote that only in the very high ranges is it possible to find stands that have escaped the axe of the timber-man. Mayer (1967) surveyed one of these forests in the *Turracher Höhe* (at the border between Styria and Carinthia) on a steep slope at 1780-1920 m above sea level. Norway spruces, larches and Arolla pines (*Pinus cembra*) of almost 30 metres height emerge among piles of fallen trees. Nevertheless, much care should be taken when assessing the "natural" character of these remote stands. Werner Rachoy (1976) investigated the structure of an old-growth Arolla pine forest in the *Seetaler Alpen* at 1950 m above sea level (Styria). The diameter of the thickest pines is only 40 cm although some trees reach a respectable age (360 years). Soil surveys revealed that these slopes were burnt 380-430 years ago in order to favour the development of grasslands. The stand evolved "naturally" after the area was abandoned. In spite of the possible recent origin of many of these forests, the scene they present with large trees and lots of deadwood and clearings makes an impressive appearance. Joseph Wessely knew of the existence of two true virgin forests in the Austrian Alps: the *Rothwald* and the *Neuwald*, both in Lower Austria. Pollen analyses have demonstrated their natural origin (Kral et al., 1968). Anyone who has visited these areas would subscribe to the words that an impressed Joseph Wessely wrote down more than 150 years ago (Wessely, 1853).

Apart from the latter examples, the majority of Alpine forests possess a cultural character. Since 2003, an institutional framework has been evolving for taking the anthropic component into account when dealing with forest ecosystems.

The institutional framework

An important re-orientation in our understanding of forest ecosystems can be perceived to be occurring. Forests are no longer seen exclusively as the result of ecological processes but also as the result of the interaction between nature and society; they are seen to possess not only biotic and abiotic elements but also cultural elements. In the case of Austria many different actors and stakeholders are actively involved in this change of perspective. The following briefly reports on the institutional framework in which work on the cultural aspects of forests is being done. Ultimately, this framework should lead to the application of silvicultural and forest management practices that take into account the cultural-historical aspects of these ecosystems (see the overview in Figure 1). The new perspective is enlarging the operational area of forestry and promoting its linkage with other fields such as environmental protection and tourism. Two important international treaties are acting as impulses for the integration of the cultural and historical aspects of woodlands in the Austrian forest programme: the third Vienna resolution of the Ministerial Conference on the Protection of Forests in Europe and the Alpine Convention.

Coordinated by the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW), an open and plural discussion process (Walddialog) is taking place, its aim being to implement the decisions taken by the Ministerial Conference. The results of the Walddialog's activities are the package of measures and objectives that comprise the Forstprogramm. The consideration of the cultural and historical aspects of forests is being solidly anchored in the Walddialog by the Forest Section of the Austrian Ministry.

An important additional impulse will be provided soon by the Alpine Convention (Galle, 2002). Its implementing resolutions (so-called protocols) are legally binding in Austria. One of these protocols refers to the mountain forests (Bergwaldprotokoll). The working group Population and Culture deals specifically with the cultural issues within this framework convention and receives among others input from the Network Mountain Forest (NMF) and the Network Forest Culture in Austria. These contributions should be reflected in a new Treaty expected by the end of 2006.

The Network Mountain Forest is a transnational network of central Alpine countries that strives for a long-term exchange of information and the development of a common strategy for mountain forest policies. For the first time an extensive overview of transnational information regarding the Alpine forests is being made available. The Network Forest Culture in Austria is an initiative of the Austrian Forest Association and the Forest Section of the Ministry. This network constitutes an essential node for information exchange contributing to the integration of relevant actors. Both international treaties benefit from the valuable involvement of these two networks.

The elaborated contribution of all these institutions and partners is passed through a filter of premises in order to achieve a practical and effective implementation. Elements of this filter are: collaboration in the implementation through voluntariness and motivation, integration of the topic in already existing operational structures, coordination between official and private purposes, networking with other forest-specific fields (including tourism, etc.), and optimal use of resources. Subsidies for this issue will be discussed too. This strategic perspective is broadening the action of forestry enlacing its operational activities with the objectives of other economic and social sectors.

Finally, all these efforts should be reflected in the way we address forest management practices. The effectiveness of the so-called Waldfachplan (Technical Forest Plan) as a planning management instrument has been proved by several research projects recently carried out by the BMLFUW (BMLFUW, 2005). The Waldfachplan clearly describes the initiative and guidelines of the acting

forester and facilitates the implementation of a broad spectrum of activities in the forest enterprise. It is especially appropriate to the complex exposition of interrelations that go beyond the limit of the individual business. Two pilot schemes have shown the applicability of the Walddialogplan in integrating the cultural and historical aspects of woodlands in the business activities of forest enterprises.

Final comment

Ancestors' handling of ecosystems through the millennia has provided us with a valuable legacy. The development of the Alpine forests has proceeded not solely through the pace of nature; these forests have been shaped by the hand of humans, too. The resulting product is an amazing diversity of forest structures that contain notable cultural elements. In facing this eco-cultural variability, the curiosity of the enthusiastic naturalist cannot be satiated. It is our responsibility to ensure the preservation of this cultural heritage now for coming generations. Until a short time ago *history* and *culture*, as background of forest ecosystems, did not officially exist in most European countries. The avid participation of numerous stakeholders, associations and different administrations in the discussions surrounding the cultural aspects of woodlands in Austria evidences the change in perspective that is occurring. The road to achieving the complete and effective integration of the new view in our understanding of forests is still long. Nevertheless, the institutional framework described above is establishing an appropriate basis upon which we can continue our efforts.

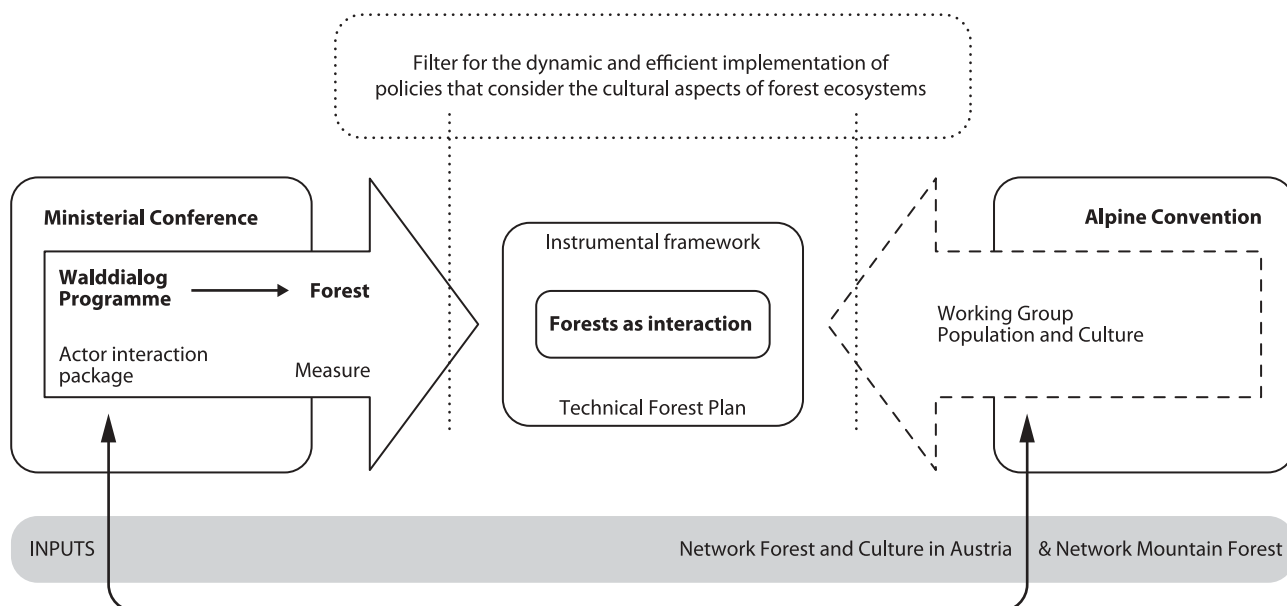


Figure 1. Overview of the institutional framework for implementing the cultural-historical aspects of forests in Austria. While the implementation of the Vienna Resolution (Ministerial Conference) has already begun (in the framework of the Walddialog discussions), a new Treaty of the Alpine Convention regarding cultural issues is expected by the end of 2006. The important and multifaceted role of mountain forests is being emphasized within the different working groups of both conventions by the Network Mountain Forest and the Network Forest and Culture in Austria. See the text for more details.

Acknowledgement

This modest contribution is dedicated to the memory of Michaela Schlosser and Manfred Schneider, who both passed away on December 26, 2004 in Thailand. Manfred Schneider led Division V/9 of the Austrian Ministry for the Environment in an exemplary manner and enthusiastically devoted the last 10 years of his life to working for the environment in the framework of international environmental policies. He appreciated and loved the culture and nature of his country. His colleagues will never forget him.

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RESEARCH

Network Forest-Culture Austria – a new way to develop and encourage social and cultural dimensions of sustainable forest management

Elisabeth Johann (Key note)

Austrian Forest Association

Austria

Abstract

Comparable to other European countries Austrian's forests are the most characteristic element of the cultivated landscape. Within a share of 47% also today the forest area renders a number of extremely important economic, ecological and social services. Thus the sustainable management of forest has been objectives of forest policy for generations. People depended heavily on the products of the forest both in their personal lives and in the general economy. There is no question that without its forests Austria would have had a decidedly different history and would be a different place than it is today. A high amount of traces of this traditional forest utilization practices are still visible in the Austrian's landscape of the present day. They give evidence of the efforts towards sustainable forest management as well as of industrial growth. In Austria there is a substantial public and private interest in collecting and maintaining the traditional monuments and historical elements of traditional forest utilization practices and to make these historical information accessible to the public for educational as well as for public-relation reasons.

For this purpose the working party Forest History of the Austrian Forest Association has started to build up a network including institutions and stakeholders being involved in forest culture in Austria (i.e. forest enterprises, museums, forest education and forest history research institutions, tourism). For two years the network has been permanently improved by various forest-culture-related educational and research activities such as workshops, papers, publications and excursions. The long-term-goal of this network is to establish corporations in the field of forest culture – tourism – forestry. Thereby also new sources for additional income could be acquired by private owners as well as new jobs for the rural population.

In Austria however one of the most important aim is the voluntary involvement of the landowners. Forest enterprises and farmers being interested in touristic activities are invited to cooperate within this network but nobody should be forced to do it by local authorities or public interest. Legal protection of forest culture-related monuments are neither achieved by the government nor by the Austrian Forest Association in order to avoid conflicts between the rural (protecting) and the urban (demanding) society.

Keywords: traditional monuments, forest-culture, tourism, sustainable management

Paper

Introduction

Austrian's forests are the most characteristic element of the cultural landscape. Within a share of 47% also today the forest area renders a number of extremely important economic, ecological and social services. From the first settlements onwards until the middle of the 19th century wood was the absolute dominating source of energy, especially for the mining industry, as well as the most important raw material for domestic and industrial needs. It was the precondition for the increasing welfare of human beings. In the 16th century at the latest a remarkable shortage of wood particularly fuelwood and charcoal gave raise to worry about the maintenance of the woodland and its yield. This was the reason to think about the sustainable management and use of the forests taking

into account the multiple interests (nutrition and energy). By this means the change from forest destruction to a sustainable management of the resources including the care for the rejuvenation was already introduced at the end of the Medieval Ages. A high amount of traces of this traditional forest utilization practices is still visible in the Austrian's landscape of the present day. They give evidence of the efforts towards sustainable forest management as well as of industrial growth. Already at the beginning of the 18th century foresters pointed out the non-economic obligation of forests while putting attention on the equivalence of its beauty and utility. In Austria the epoch of forest aesthetics (ethical values of forests) was introduced in forestry and society by Guttenberg and Dimitz in the second half of the 19th century. It was not only a scientific theory. It also included defined proposals to put the ideas into practice. For this reason foresters developed silvicultural methods following the concept of nature. Thereby foresters wanted to meet the economic interest of forest owners as well as the demand of society. Simultaneously the idea of nature protection was forced by nature-enthusiasts. The protection of natural landscapes and the maintenance of artefacts and monuments of cultural heritage were only one part of societal demands. The most important ecological goal was the protection, maintenance, promotion and securing of nature just for itself.

Implementation and strengthening of the cultural performance and potentials of Austrian's forestry

European commitments

The "Vienna Living Forest Summit Declaration: European Forests – Common Benefits, Shared Responsibilities" (Fourth Ministerial Conference on the Protection of Forests in Europe (28 – 30 April 2003, Vienna, Austria) emphasises that coordination and partnership leading to shared responsibilities are crucial for the provision of common benefits from forests in the future (MCPFE, 2003). Among the five additional resolutions which were adopted in Vienna 2003, Resolution 3 emphasises the preserving and enhancing the social and cultural dimensions of sustainable forest management.

Social and cultural aspects of forests are also addressed in chapter 3 (Environment and Society) of the Austrian Forest Dialog (Österreichischer Walddialog) which is discussed and going to be developed at present. It is considered to be the precondition and starting point of the National Forest Program which will be established afterwards. During this process the results of forest and landscape planning concerning the effects of forest ecosystem will be compared with the new perceptions and anticipations of human society. Concerning international and global forest policy developments cultural and social aspects of sustainable forest management should increasingly be addressed and innovations should be introduced.

Development of Austrian's forestry

The present economic situation of forest enterprises is difficult and will become even more difficult in the future. Farms are abandoned, farmers are migrating to the neighboring agglomeration centers, and the still existing rural infrastructure is increasingly vanishing. This development can particularly be noticed in the mountainous area, where the recreation value is considered to be very high and which is contributing to the protection of nature by its scenic beauty and high biodiversity (Nature 2000). As a result the sustainable management of the mountain forests and the maintenance of the cultural landscape are increasingly endangered. This is also due to the fact, that 85% of the forest land is in private ownership; about 70% of it is small scale farming. The dogma – taught at forestry schools almost up to date times – that the profit margin earned by the selling of timber is sufficient enough to offer the multiple benefits of forests to everybody free of charge has to be

abandoned. This is why forestry has to work towards an improved understanding and to improve or establish partnerships within civil society in order to enhance public awareness and understanding of the multiple benefits of forest for society and its significantly contribution to the overall well-being of society in rural as well as in urban areas.

However, the promotion and rising of awareness of the social and cultural dimension of sustainable forest management as an important asset to the education, recreation, environment, rural development and economy of society can be considered as a chance to enhance new partnerships. It is of increasing importance to achieve a social consensus concerning financial subsidies for the offer of infrastructural benefits resulting from sustainable woodland management for the benefits of society (i.e. protection of water quality, nature protection agreements, maintenance of the cultural landscape including precious artefacts). By an increasing social appreciation of qualified benefit-based forest management forest enterprises might be able to achieve other sources of income besides timber.

Network Forest-Culture Austria

Based on the frame conditions mentioned above the working party Forest History of the Austrian Forest Association and the Ministry of Agriculture, Forest, Environment and Water Management have jointly started to establish an Austrian-wide network “Forest-Culture Austria”. The network ties together institutions and stakeholders being involved in forest culture in Austria (see Figure 1).

Co-operation has been established with universities and other institutions referring to the field of forestry and forest history within the country and abroad, in particular on the European level and with the Research Unit Forest History of IUFRO and the European Society of Environmental History. The long-term goal of the activities is to stir initiatives concerning the carrying out of additional sources of income to the rural population apart from wood and timber by creating markets for the multiple services forest can offer in harmony with regional concepts of development. Principally the network considers itself as a platform for the dialogue between the various stakeholders aiming at the characterization of the term “Forest-Culture” (“Forst-Kultur”) in an Austrian-relevant way. That way the theme forest culture will become more public and appreciated. The network is seen as a connecting link between commitments on the European level and the shift into praxis.

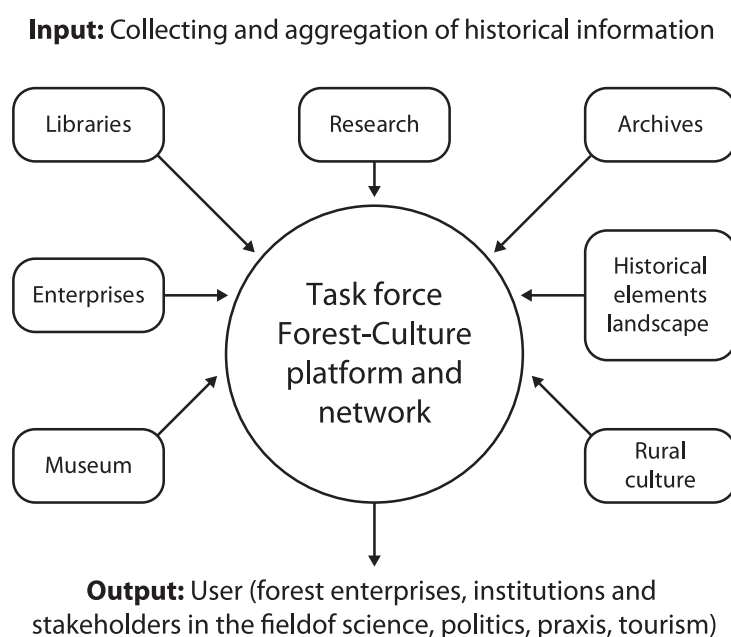


Figure 1. Task force Forest-Culture Austria platform and network

Since 2002 when this working program was established workshops and excursions have been organized and papers have been published to promote awareness on this important topic at both political scientific and practical management levels. An important goal of this network is the non-bureaucratic exchange and improvement of forest history-related knowledge particularly concerning the preparation of exhibitions and the mutual offer of peculiar activities.

The achieved output of the network is summarized in Table 1. The overall goal of these activities is to contribute to the ongoing discussion dealing with social spiritual and cultural values of forests and to provide basic information related to these values. An important part of the working program is the setup of a databank collecting and documenting forest-history relevant relicts, artefacts and monuments of cultural and historical value on a voluntary basis that means with the agreement of the forest owner. Before this collection starts a workshop will be organized by the network in autumn 2005 in order to clarify the sights which should be protected for the benefit of the society.

Table 1. Output of the Network Forest-Culture Austria

→ Output
→ Collection and aggregation of data referring to forest history
→ Collection of information about institutions dealing with Forest-Culture
→ Setup of a Forest-Culture related databank
→ Introduction of the term Forest-Culture in Austria and to take part in the discussion on the European level (realization)
→ Strengthening the co-operation of forest enterprises – tourism
Information about historical methods of utilization and management of landscapes
→ Promotion of studies and research dealing with woodland history
→ Consulting with regard to working out of management plans based on historical development and tendencies in the fields of <ul style="list-style-type: none"> • Sustainable development • Forestry and agriculture • Development of the cultural landscape • Implementation of Forest-Culture-relevant initiatives (museums, charcoal burning, rafting, historical trails) into praxis

Discussion

In Austria however one of the most important goals aimed by the network is the voluntary involvement of the landowners. This is due to the fact that Austrians forests – covering almost half of the country – are predominant ancient forests and as a result are full of an abundance of interesting sites of more or less high cultural value. The investigation of historical interesting objects and sites referring to forest utilization in the past and the allowance of public access to these sites can only be realized reasonable with the agreement of the owner of the land (farmer or forest enterprise) and therefore voluntarily. Small scale forestry which is mostly practised in Austrians forests hardly endangers these sites. However forest enterprises and farmers being interested in tourist activities are invited to co-operate within this network but nobody should be forced to do it by local authorities or public interest. Legal protection of forest culture-related monuments apart from the convention concerning the World Heritage are neither achieved by the government nor by the Austrian Forest Association in order to avoid conflicts between the rural (protecting) and the urban (demanding) society. However Forest-Culture should become a trading mark of high quality with regard to sustainable management of the forest as well as to the protection of the cultural heritage.



Conclusions

The experiences of activities which have been practised so far have proved some important aspects:

- It is important to analyze the suitability of the location with regard to the planned activity;
- It is necessary to offer something special (no competition with neighboring activities but to look for a niche);
- The initiative should come from the region;
- You have to look for appropriate partners;
- In developing forest-culture related activities new jobs can be created in the region;
- In raising awareness of the public it is important that the land use is in line with sustainable forest management;
- Forest-culture related activities should also be seen from the view of the guest; a routing of visitors is possible.

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Cultural Heritage of the forest and cultural heritage in the forest

Eva Svensson

Department of Archaeology and Ancient History
Lund University
Sweden

Abstract

The forest is a constantly changing landscape, due to both 'natural' processes and human manipulations partly visible in numerous cultural remains. Broadly speaking, two different attitudes of relevance for heritage management and sustainable development are noticeable. First, using the forest as a resource in a wide sense (cultural heritage of the forest). Examples of such activities are hunting, bloomery iron production, tar production, forest grazing, logging; leaving remains as pitfalls, bloomery iron production sites and charcoal pits, shielings and logging huts. Second, replacing the forest with something else. The forest has been cleared to give way to what people have wanted to create. Examples of such activities are expanding and establishing new settlement, cereal cultivation; leaving remains of houses and fields. When located in today's forest, these remains just happened to be overgrown with trees (cultural heritage in the forest).

Cultural remains originating from human activities related to both attitudes are to be found in today's forest in Sweden, and the forest has been changed irreversibly by human activities of both kinds. From a short sighted heritage management perspective it is maybe not interesting to make such a distinction, as remains of both kinds are threatened by the modern forestry. But in a long term heritage management perspective, and above all in a sustainable development perspective, the distinction is vital. The different human relationships to the forest in the past call for different and reflected strategies of how we manage the cultural heritage of the forest for the future.

Paper

There are numerous ancient monuments (protected by the law) and other cultural historical remains or sites (not protected by the law) in the forests all over the world. These have sometimes been well documented, sometimes to some extent and sometimes not at all. In Sweden the ancient monuments in the forest are relatively well documented due to different surveys of ancient monuments and other cultural historical remains. However, forested areas have in general been surveyed less intensively than the open, traditional agricultural areas that are more considered as cultural landscapes. Forests have normally been considered, if at all, second rate cultural landscapes.

The new interest in cultural heritage in the forest displayed by different environmental management actors is therefore an important step towards an improved situation. At the same time I find it worrying that so few archaeologists, the academic discipline of archaeology being the very embodiment of cultural heritage, are being heard or are interested in participating in this new discourse.

'Nature' versus 'culture'?

The way of thinking in terms of a dichotomy of nature versus culture has long and strong traditions. Although, I think that today there are only very few persons that would acknowledge the dichotomy to be relevant, it still lingers both as a manifest institutionalised in the academic world of different departments and faculties as well as in the sectorised management institutions and as an (mostly) unreflected everyday practise of the foot-soldiers responsible for implementation. We constantly act as if there really were two sides of the (same) landscapes, a 'nature' side and a 'culture' side.

And, crudely put, the 'culture' side of the landscape is in most cases considered a 'luxury' that could be omitted if there are more pressing needs or a faltering economy.

There are some signals from 'the top' that integration of nature management and cultural heritage management is desired. In Sweden the government has strongly stated that the 'nature' and the 'culture' aspects are only two sides of the same coin (En samlad naturvårdspolitik). The notion of a need for both perspectives is also present in the selection and description of the 15 Environmental objectives (Sveriges miljömål), the main operative document for environmental policy in Sweden. But in this document, the practical descriptions clearly show not integration of 'nature' and 'culture', but 'nature' and 'culture' positioned beside one another. Or rather, 'nature' positioned a bit above 'culture'. Maybe the situation will change somewhat when (or if?) the 16th Environmental objective, Biological diversity, becomes reality. Biological diversity being the very product of integrated natural and cultural processes, and as such is valuable and important to promote.

In a European, or rather a European Union, perspective Sweden still lays way ahead. In the Sixth Environment Action Programme of the European Community aspects of the 'culture' side of the environment is hardly present at all (Environment 2010). This document is rather breathing of the idea that there should be a 'balanced' environment and that environment should be 'restored', thus exposing the notion that once upon a time environment by its own capacity was 'balanced'. In the second goal, "Nature and Bio-diversity protecting a unique resource", there are a few words in the direction of observing the existence of a cultural heritage: "Preserving nature and biodiversity does not necessarily mean the absence of human activities. Much of today's valuable landscape and semi-natural habitats are a result of our farming heritage. However, the ecological stability of such modern landscapes with diverse species of flora and fauna are also threatened as land is abandoned or marginalised. Maintaining valuable landscapes such as these requires appropriate land management activities" (Environment 2010: 31). But these few and, I am afraid that I have to use a strong expression, ignorant words are the end of the story. The Environment 2010 programme actually appears as a written manifest for preservation of the dichotomy 'nature' versus 'culture' ideology, where 'culture' belongs to the farming land and in this kind of environment it is the human impact that should be protected by prohibit desertion and thus maybe reforestation. The possibility of the forest being a cultural landscape in its own right has apparently not entered the minds of the authors of the document.

Forest versus 'culture'?

In the European forest-protection sector, expressed in the Vienna declaration and resolutions (MCPFE Work Programme), the cultural heritage perspective is present. But only just. And strangely enough only in the socio-cultural sector, not in the (presumably more important) ecological and economic sectors. Why the cultural heritage is not, also, made part of the second and the forth resolution on economic viability and forest biological diversity I leave an open question to somebody else to answer. In my opinion the cultural heritage is of importance in both aspects.

But the notion of the forest as a cultural landscape is also quite foreign to cultural heritage management and to archaeologists in general. The main interest of cultural heritage management and archaeologists is directed towards the open landscapes and urban areas. Such landscapes are more easily recognised as cultural landscapes, and it is also in those landscapes that the more monumental (and thus more interesting) heritage monuments are located. The forest, as a cultural landscape, has been considered marginal or peripheral, and decisively less interesting.

A serious approach to the cultural heritage of the forest therefore demands critical relationships both to the traditional 'green' management and research and to the traditional cultural heritage

management and research within its related academic disciplines such as archaeology. It calls for a new integrated standpoint, and new visions on landscapes and landscape management. Such a standpoint is also vital in the perspective of sustainable development, directed towards a good future for people and landscapes.

The lingering ideology of the ‘nature’ versus ‘culture’ dichotomy is part of the modern project of which structuralistic theory can be considered an essence (Thomas 2004). In fact the ‘nature’ versus ‘culture’ dichotomy is based on an urbanocentric and Eurocentric view. Through such a theoretical conception the division open, agricultural landscapes equal cultural landscapes versus forest equals untouched wilderness was strongly implemented in all aspects of society. And, though theoretically completely outdated, this ideology is one of the greatest threats to the cultural heritage of the forest. It prohibits the understanding of today’s forests, it obstructs interdisciplinary research and management, and it is socially and politically aggravating to people living in forested areas. For if the forest is considered wilderness, it has serious bearings on the identity of the inhabitants of forested areas.

Cultural heritage of the forest and in the forest

Time has come to explain the title of this paper, “Cultural heritage *of* the forest and *in* the forest”; a distinction that may appear naïve at first glance, but is of importance in a serious consideration of sustainable development and management of forested areas. The extent of forest has changed over history. This means that there are cultural remains (*of* the forest) in today’s forests that were associated with the forest in the time of use, and there are remains (*in* the forest) that simply have been overgrown with trees. Meaning that the cultural remains of the first category would not have been created at all if there had been no forest.

The cultural heritage *of* the forest should be considered a conscious and reflected human agency as a dialogue with the forest. It includes activities such as resource extraction, manipulation of the natural conditions – but still preserving the forest, and the inclusion of the forest into the domain of human everyday life and strategies for the future and a better life by the creation of visible monuments. To human beings in the past the forest was never wilderness, only another sort of land to use in a way different from the infields. In Scandinavia this sort of land, the forest, was turned into the specific land use category ‘outland’ (Sw. *utmark*) sometime around AD 0, when the farming practise of stable settlement sites and infields, with winter stalling of cattle and manuring of the fields was introduced (e.g. Svensson 1998). But also before the appearance of the outland as a fixed category the forest was used in many ways.

The cultural heritage *in* the forest could be everything that is associated with the open landscape, but has been reforested after desertion. In most cases there was once a clearance of the forest in order to establish the actual human practice, and the former forest was thus transformed into another kind of land. After desertion the sites were reforested either by a growing forest or by plantation. And deserted fields and settlement sites normally make good conditions for trees to grow in.

Examples of ancient monuments and cultural remains of the forest are pitfalls for catching big game, bloomery furnace sites, blast furnace sites, shielings and tar production sites etc. Examples of ancient monuments and cultural remains in the forest are settlement sites and fossiled fields (see Kulturmiljövård i skogen 1994 for descriptions, function, datings and pictures). A most important feature is that, although basically functional, the ancient monuments of the forest are ‘unnecessary’ monumental. There were in many cases ways of achieving the same products without creating visible monuments, and thus also avoiding a lot of extra work and investments required. The apparent

choice of putting in the effort of creating intentional and visible monuments in the forest must therefore have been of importance. Also, many of the activities related to the cultural heritage of the forest were actually production of goods for sale on an external market (e.g. Svensson 1998); a fact indicating that the forests, and the people using them, were important parts of the general societies in older times.

Heritage monuments of the forest respectively in the forest were created for different reasons and with different purposes. Remains of both kinds changed the landscape irreversibly, and both are manifest and clearly visible for generations after their use. But the original intentions and outcomes were different, and should be respected. The heritage today in the forest is a testimony of another land use, something different from the forest – and of failure leading to desertion. The heritage of the forest was created intentionally, in history, both for functional reasons in its time of use, and to become monuments for the future to relate to. From a long term management perspective, and especially from a sustainable development perspective, it is important to remember that this future is still going on.

Sustainable development?

Sustainable development must include people, and the importance of their past and their future. What is the value of a 'restored nature in balance' with neither history nor future? It will be just another kind of museum or reserve. Besides, it would be a museum or a reserve without justification if the human impact is not acknowledged. The forest is, and will always be, a product of both natural and cultural processes. The human impact on the forests has been there since the dawn of mankind, resulting in both monuments and new or changed environment.

This aspect is not so hard to grasp, that forests have history, are products of history and that some of the history of the human impact can be seen in the ancient monuments and cultural remains in the forest. But that is only the beginning of the story. For the monuments themselves, products of the human impact, are active and continuously part in the changes of the environment. They attract or repel various vegetation, insects, etc., and are therefore important factors from a biological diversity perspective. On a more complex level the monuments have always meant something, but different things, to the people using the forest for various reasons. Monuments are like books, with authors and many readers making different interpretations. The different readings of the monuments have always been included in every strategy towards the landscape and the forest, although very often in an almost unconscious way. The readings of the monuments, the outcomes of the readings, as well as the monuments as physical items, must be included in a sustainable development strategy, but in a reflected way.

A final point on the importance of the cultural heritage of the forest relate to the future of the people living in forested areas. If the forest is comprehended as wilderness and not as a cultural landscape, it renders the people living there a low status as cultural beings. Rather, they are considered as savages without a history or as strange hillbillies. They become people living in an eternal periphery being completely alien to our cultural, urban, conception. The cultural landscapes of the forest tell different stories. Very often they are stories of the use of the forest resources for trade, and an achievement of wealth in the forested local societies. In older times these local societies were far from being the marginalised entities we consider them today. An acknowledged history, and an upgrading of the importance of the cultural heritage of the forest, would be an act of contributing to a regional sustainable development. We shall not forget that the cultural heritage of the forest was created to be a part of shaping the future of the forested areas. Something that we should respect.

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The Forest Center in Gołuchów: the presentation of 25 years of activity

Benedykt Rozmiarek

Leszek Chojnacki

The Forest Center in Gołuchów

Poland

Paper

The Forest Culture Center in Gołuchów is a separate, specialized and trans-regional organization unit of the State Forests. It was appointed with the aim of keeping the tradition of Polish forestry and wide popularization of the knowledge about a forest and its connection with life of a human being.

It was appointed thanks to the Polish Forest Committee, a scientific, social and occupational organization of Polish foresters.

Over 25 year old tradition and substantial activity allows saying that this unit is needed by the society in order to spread the knowledge about a forest and forestry, environment and nature protection. The increasing number of tourists visiting the Forest Culture Center every year justifies this statement. Our unit is located in nineteenth century aristocratic residence constructed by Czartoryski family. It consists of many buildings surrounded by dendrological park.

The Forest Culture Center in Gołuchów is situated in the center of Poland, in the northern part of Kalisz's upland, on the left border of Prosna River valley, about 15 kilometers north from Kalisz. The structure of administrative division of the country locates Gołuchów in Wielkopolska voivodeship, far from the voivodeship city of Poznań (about 100 kilometers).

The idea of creating the Forestry Museum was conceived during the first meeting of Galician Forest Committee (its further name was Polish Forest Committee) at the end of the 19th century.

The need for establishing this kind of museum was expressed in a form of an appeal in 1894 during General Country Exhibition in Lvov which presented the achievements of Polish foresters. The appeal was referred to several times during various conferences, conventions and other exhibitions. In 1937 during the 15th Convention of Polish Medicine Doctors and Naturalists in Lvov a resolution was adopted which stressed the necessity of creating the Forestry Museum because of the role played by forest in economy, nature and protection of the country. Shortly before the Second World War General Director of the State Forests appointed the Forestry Museum attached to the Forest Research Institute in Warsaw, but the outbreak of the war prevented its creation.

The reality after the war and difficult political and economic situation of the country did not create favourable conditions for realizing the idea. For over 20 consecutive years the forestry was presented as an integral part of periodic multi-subject exhibitions. Only in the 1960s the idea of creating the museum of forestry was conceived once again. Repeated interventions of Commission of Forestry History succeeded on 1st June 1968 in taking a decision by the Minister of Forestry and Wood Industry Roman Gesing concerning the creation of the Forestry Museum temporarily located in Cracow-Przegorzały.

Associate Professor, Dr. Eng. S. Fiołek was appointed the plenipotentiary minister in charge of the museum organization.

At the beginning of 1970s district authorities of Pleszew suggested organizing the Forestry Museum in Gołuchów on the grounds of the 19th century property of Jan Działyński and his

wife princess Izabela Działyńska nee Czartoryska who in 1893 entailed the Gołuchów property by issuing Electoral Law of Princesses Czartoryski. After 1945 an inheritance in Gołuchów was taken over by the State Treasury. The post-war period was unfavourable for the monuments, which were deteriorating, as well as for the park where precious nature objects were dying year by year. Only handing over the whole property to one user who could give professional care to the park and historic buildings could have changed this worsening situation. In 1951 the whole area in Gołuchów was made over to High School of Agriculture in Poznań which organized scientific establishment and protected precious arboretum from devastating.

On 1st of January 1974 the park in Gołuchów with historic buildings was taken by District Board of the State Forests in Poznań (except the castle which was taken by the National Museum in 1952). As a result of this “The Forestry Museum Creation Task Force” was appointed.

In 1975 an on-site visit was made in Gołuchów, the result of which was a definitive decision by the Minister of Forestry concerning the establishment of the Forestry Museum in Gołuchów with a place called “Oficina” as the main building.

In the same year 350 pieces of the museum collection devoted to forestry were brought from Cracow; mostly technical equipment, and over 2 thousand books, magazines and archive records. In 1976 the Forest Culture Center in Gołuchów was established, which was included into structural organization of the Forest District Taczanów – belonging to Regional Directorate of the State Forests in Poznań.

In 1977 the Scientific Council of Museum of Forestry made up of 18 members was appointed as a consultative and advisory body with its plenipotentiary Professor Bohdan Kielczewski.

Next years were spent on renovation and preparing the programme of permanent exhibitions. On 29th of June 1983 the first permanent exhibition called “Forest Technique” was opened in the old stable historically called “Dybul”. Its purpose is to show the society the complexity and diversity of problems connected with contemporary silviculture. It is a presentation of economic function of the forest. Tools, machines and equipment which are exhibited in a logical order illustrate separate stages of the whole forest cultivation process. Seed production, nursery, stock-raising, farming in separate age classes, the use of timber cutting in order to get wood of high, middle and low dimensions – all these are stages presented in the Museum by means of a widely understood forestry technique. The whole exhibition is vividly illustrated by practical application of various tools which are shown at work.

The exhibition also presents an old wood industry illustrated by miniature models of “industrial plants” which were functioning already in old times. Today civilization development and technical progress eliminate the need of using this kind of equipment which used to be extremely necessary for human beings. Now these devices illustrate historical development of forestry in Poland and abroad.

In the neighbourhood of the museum building there is an outdoor exposition of bigger machines, tools and equipment used in transport, cultivation and other minor or major works connected with forest exploitation.

In the next building belonging to the museum in palace there are two permanent exhibitions which were opened to tourists in 1986. The first one is called “Cultural relationship between man and forest”; the second one is called “History of forest farming” and is now being modernized and rebuilt.

These two permanent exhibitions are gradually and substantially enriched by seasonal temporary exhibitions, which are thematically related to the scope of the Forestry Museum.

The third building of the Forestry Museum is a renovated building called "Powozownia". In autumn 2002 a new permanent exhibition "Natural basics of forestry" was opened in this building. For the purpose of the exhibition a space of the area of 570 square meters situated on the first floor was assigned. In Powozownia music concerts as part of the series "Forest climates" take place.

The building was furnished with audiovisual equipment, which is used during conferences, assemblies and seminars.

The exhibition "Natural basics of forestry" serves the development and improvement of knowledge about the forest as:

- nature and geographical phenomenon in Poland, Europe and in the whole world;
- botanical phenomenon which is characterized by great diversity among natural environments in Poland;
- ecological, social and economic importance of our country;
- the environment which is exposed to damage caused by different factors: abiotic, biotic, and anthropogenic;
- subject of nature and the natural environment protection in our country.

The visitors of the exhibition may extend their knowledge and get wider insight into nature, its beauty, diversity, indispensability, and in some way its defencelessness which needs care of a human being.

The exhibition shows and tells what types of forests are created by nature, what primeval forests and forests constitute our natural heritage and what kind of flora exists today in Poland. At the exhibition an attention is also drawn to phytosociological diversity of our forests, their functions and forest species, which require to be protected from extinction.

These problems are illustrated by colourful photographs, maps, pictures, models, natural specimens of fauna and flora, natural soil profiles and descriptions. Proper understanding of presented material is facilitated by professional commentary of museum workers.

The Forest Culture Center organizes the "Country-wide Review of Amateur Creative Activity of Foresters" (OPTAL) the purpose of which is to present artistic heritage of foresters in the field of painting, sculpture, photography and literature. It is a kind of patronage of the State Forests over amateur artistic movement. The review ends with temporary exhibitions of the works sent to the review.

The museum with its small staff carries out permanent and basic tasks which are a duty of this type of institution that is conducting gathering, storage, scientific description of exhibits and renders them accessible to the public. The Forestry Museum in accordance with its status tries to bring to the society's attention forestry issues connected with the protection of the environment and the nature as well as in the light of growing ecological conscience of the society, show multifunctionality of forests and basic criteria of permanently sustainable forest economy.

Historic buildings are an integral part of the dendrological park that is a unique object on account of the fact that it has been listed in the register of monuments. The building and the park constitute as a whole a park and castle complex of an area of approximately 164 hectares.

Managing, renovation and protection of the park is based on the records and historical documents as well as modern documents devoted to the restoration of historical dendrological park.

In recent years, apart from economic and protective tasks, we have developed educational activities for school and university youth. Here numerous working meetings, councils, seminars, devoted to the problems of forest and nature are organized that treat the park and the museum as complementary whole.

An integral part of the park is historic nursery-garden with old vineyard. The role of the nursery-garden is to grow crop and exchange high quality seeding material for the needs of restoration works in dendrological park.

Outside the park there is Model Animal Enclosure which is situated on the area of 20 hectares. This pen is an integral part of the Forest Culture Center. It was established in 1977 as an important element of European bison restoration to the natural environment.

Nowadays in Model Animal Enclosure there are 7 European bisons, 3 Polish ponies and as curiosity from the world of nature there are two species of game – a wild boar and a fallow deer.

The first species, European bison, constitutes an ontogenetic reserve for herds living in freedom, other species are an attraction for visitors who come to the Forest Culture Center.

Both temporary and permanent museum exhibitions, the park and the nursery-garden as well as the model animal pen create a unique park and castle complex.

For many years, taking advantage of the museum and natural environment basis as well as personnel with factual knowledge (foresters, biologists, historians), informal educational activities concerning nature and forestry are led.

All mentioned above facilities constitute the base of the State Forests Forest Culture Center for conducting educational and information activities. In a state document entitled “The National Policy on Forests” accepted by the Government in 1997 subsequent from Act of Forests (1991) it is the responsibility of Forest Culture Center in Gołuchów to conduct informal forestry education of the society.

The activities have an interdisciplinary character – they extend the knowledge on the forest, environment and their protection.

The nearest future of the Forestry Museum is oriented on further improvement of the museum management both in respect of quality and substance.

Main tasks of the Forest Culture Center as regards ecological education consist in dissemination of the idea of environment protection as well as rising consciousness of the society and its mobilization to act in relation – a human being and the nature.

Basing on museum’s collection and expositions, taking advantage of historic Park-Arboretum, the nursery-garden and Model Animal Enclosure a wide educational offer was elaborated divided into the following theme groups:

1. Several hours activities, such as:

- history of garden creating based on the example of the Park in Gołuchów;
- the 19th century residential architecture on Polish land;
- deciduous and conifer trees and bushes;
- nature monuments and protected species;
- role of forest in culture creation;
- the development of forest farming;
- functions and the importance of the forest.

2. Ecological camps (several days stays for students studying ecology). Program of every visit refers to the school curriculum. Proposals of activities:

- art competitions;
- crosswords;
- presenting films about nature and forest;
- ecological actions.

The Forestry Culture Center offers its own interdisciplinary curriculum, which is a supplement and an extension of primary schools, gymnasium, high school and universities curriculum in the field of environment protection education. We always conduct a methodological courses for foresters who will lead informal education of Polish society.

The subjects of activities are as follows:

- inspirational influence of forest on the socio-cultural activity;
- history of the forest and forestry on Polish land;
- forms of nature protection in Poland;
- dendrological treasure;
- lessons in the forest.

Thematic programs determine the length of lessons in assigned places and they include helpful didactic materials and methodological instructions.

As regards nature and forest education the offer is constantly becoming richer and it concerns such topics as history of the forest on the Polish territory, forest habitats, forest biocenoses, the forest in art, landscape protection and shaping, and many other topics connected with nature and environment protection.

This report constitutes a brief information on the past and the future of the Forest Culture Center in Gołuchów.

A vertical bar graphic consisting of a thin black line on the left and a wider light gray rectangle on the right.

NATIONAL REPORTS

The Current Situation of Forest Management and Cultural Heritage in China

Chuo Ma

Chinese Academy of Forestry

China

Abstract

Ancient China was one of the most famous civilizations in the world. Although much of the cultural heritage has been lost, and much more is in danger, we can still say that the heritage is rich, and some of that heritage is still being discovered. At present there are more than 400, 000 cultural sites protected or about to be protected in the future by the law. Almost all of them are owned by the state.

The Chinese Government has a clear policy to conserve and protect its rich cultural heritage, including its archaeological sites and natural resources. In support of this policy, it has enacted a series of laws and promulgated supporting decrees, Law on Forest Protection and Law on Cultural Heritage Protection. It has also signed a number of key international agreements relating to cultural protection. Since 2006, all proposals for new tree planting have involved consultation with cultural heritage and archaeological authorities, and in areas where the national forest program is planned, State Forest Administration will work with the archaeological partners to determine whether important heritage sites are likely to be affected.

However, there remains a gap between national policy and practice. Lack of public awareness, inadequate training of officials and enforcement authorities and weaknesses in the judicial system have resulted in the continuing loss of cultural heritage. In addition, at the local level lack of understanding, financial constraints and a priority on economic benefits results in natural and cultural heritage protection goal generally receiving only lip service.

Abstract

In the Austrian national forest policy, the cultural aspects of sustainable forest management are being afforded. All activities are based on two major principles: motivation and voluntariness!

As a country with a practice of sustainable and multi-functional forestry optimised over centuries, as well as a very long forestry and cultural tradition, Austria expressly welcomes increased attention on these efforts. With forests making up about 47% of the national territory and forest stands rich in supplies, Austria has the advantage of regionally differentiated and characteristic experience with sustainable forest management on the one hand, and with interesting interdependencies between the status of forests and the different socio-political, cultural developments on the other hand.

By selectively integrating into all relevant policies (Austrian Forest Dialog, National Forest Programme, etc.), public relations and awareness-raising campaigns for forests recognised works and future-oriented projects in visual and performing arts, a larger number of people can be educated about forestry, its historical and cultural background, rousing and increasing their interest in forests. The forestry expertise of past generations is not only an immensely valuable treasure that needs to be preserved and passed on, but it can also help us today to avoid repeating past mistakes. It is, therefore, an important basis for future development in sustainable forest management and the protection of habitats in general and of forest ecosystems in particular.

Sustainable Management of mountain forests requires specific expertise – so the development of cultural aspects of SFM in alpine areas requires a strong network between all relevant policies and activities. In the case of Austria important inputs for the preservation and management of the historical and cultural background of forests comes from the Fourth Ministerial Conference on the Protection of Forests in Europe (Vienna Resolution 3) the Alpine Convention (Working Group Population and Culture) and the Network Mountain Forest (NMF).

The “Network Forest-Culture Austria” will select specific promising projects, prepare strategies, establish permanent links between enterprises and authorities, supply corresponding proposals for user-based research and last but not least to get a better overview about the number of relevant objects, sites, etc. Many forest enterprises are located in the most fascinating landscapes and, at the same time, historically most important regions of Austria. A number of properties (mansions, monasteries, castles, agrarian estates, etc.) can truly be considered cultural properties of the highest order! They are ideal for selective use in connection with the dissemination of forest-cultural knowledge and, as economically sustainable enterprises with a long tradition in forest history, they are living proof of the usefulness of intensive forest management. A more systematic analysis of this potential, taking into account the specific overall situation of tourism in each region and any obstacles there may be, seems to be necessary in order to be able to weigh strengths against weaknesses as well as to obtain a better idea of the development potential and any risks.

Starting in 2002 already, several pilot projects for working out in a targeted way the cultural aspects of Austrian forest enterprises were initiated at selected business locations in Austria. The technical contents were set out in “technical forestry plans”, which will be set up as user-based forest-management plans over the next few years, and prepared for systematic implementation. In addition,

the selective initiation of multidisciplinary and user-based research work is seen as essential to analyse systematically, and to develop at the most suitable locations, the existing potential of forest-cultural contents. All these initiatives will be continued over the next few years, and successful projects will be published. Permanent and close co-operation between countries and disciplines seems to be the best guarantee for being able to learn and profit from each other in the development and use of forest-cultural aspects.

Paper

Introduction: Specific Austrian background²⁹

If we speak about the development of cultural dimensions of sustainable forest management in Austria, the following conditions should be emphasised:

- The specific topographical and geographical situation.
- The domination of private ownership and small enterprises.
- High cultural potentials and an increased awareness of historic-cultural coherences!
- The specific legal situation which calls for voluntariness and motivation!

Forests cover almost half of Austria's federal territory. In the context of the development of cultural and social aspects of SFM, attention should be paid to the fact that Austria is a mountain-dominated country! So we have to call attention to the special problems of mountain and alpine forests and landscapes – because of their ecological and economic sensitiveness! In accordance to these natural conditions, enormous importance is attached to the protective functions of forests. Without the protection by forests, it's not possible to live and cultivate land or to secure the important traffic routes in the mountain valleys on the long run; on the other hand, the costs to produce the fuel wood in mountain areas are extremely high and the value added per hectare has been clearly declining.

Given its historical development in the heart of Europe, small-scale ownership structures dominate in Austria. As a result, Austrian forests are mostly owned by forestry, and frequently by family farms, which pursue traditional sustainable forest management and consider forests an essential source of income – a valuable asset and an important workplace. More than 80% (!) of forest land in Austria is owned privately and is broken down into numerous small units. About 170,000 forest tenants operate on areas of less than 200 ha. Only a third of the total forest area belongs to larger forest enterprises – around 15% is national forest. The forest owners, thus, have traditionally borne a great responsibility for preserving forest ecosystems that are of seminal importance to the environment. Not least, we should point out the crucial role of farm – forestry owned by families, in providing and shaping landscapes and the large cultural heritage that is intact.

Our extraordinary high historical and cultural heritage with a strong coherence to the characteristic and beautiful landscapes, make up an essential foundation for the tourism and leisure industries, two sectors of vital importance to Austria.

Many forest enterprises are located in the most fascinating landscapes and, at the same time, historically most important regions of Austria. A number of properties (mansions, monasteries, castles, agrarian estates, etc.) can truly be considered cultural properties of the highest order! A systematic analysis of this potential, taking into account the specific overall situation of tourism in each region and any obstacles there may be, seems to be necessary in order to be able to weigh strengths against

²⁹ For a better understanding, this "introduction" will be also used for the MCPFE – paper: "Forestry technical plan"

weaknesses as well as to obtain a better idea of the development potential and any risks. A substantial number of historical forest locations can be found, for historical reasons, in rural Austria, whose development is given priority by both Austria and the European Union; there are specific development programmes that focus on the systematic strengthening of authentic cultural initiatives (Leader +, etc.). There is a great variety of ways – in many cases, right on the respective property: site or objects relevant to (forest –) history, archives or libraries at castles, hammer mills, mansions, estates relevant to agrarian history, etc. – to present and disseminate forest-cultural content in a vivid fashion and appealing to all senses in a playful or intellectual manner – always with a specific target group in mind.

A few words to the legal situation: in Austria sustainable forest management is based on a well-established legal and institutional framework. As important tools of the Austrian forestry act, the instruments of the forest land use planning describe the main functions and represent an expertise, thus offering the basis for decisions on forest policy. The “Forestry technical plan” **is especially suited to** a foresighted planning of cultural aspects.³⁰

But it shall be noticed, that the forest authorities are not responsible for a detailed or systematic documentation or preservation of relevant sites/monuments, etc. The forestry act does not provide these contents and they don’t have personal or financial resources for these tasks.

The responsibility (especially the systematic documentation and preservation of cultural or archaeological monuments/sites/objects, etc.) of the “Austrian federal office for the care of monuments”³¹ is based on the “Federal act for the protection of monuments”.³²

For the Austrian forest authorities and other forest stakeholders, preserving and enhancing social and cultural dimensions of sustainable forest management is still a new task. The development of these aspects has on the one hand to take into consideration all relevant international agreements but on the other hand it has to secure the property rights and land tenure arrangements, taking into account the difficult economic situation in mountainous areas. For many subjects a partnership-based planning approach will be particularly useful; there may even be cases where goals cannot be achieved without it. Recent years’ efforts to develop cultural and social dimension of SFM have been based on the two major principles: motivation, which gets highest priority and maximum possible flexibility as concerns technical priorities, volume and resources!

Taking into account the specific situation in Austria, the following report will describe the present status, relevant policy statements, gaps and measures and last but not least possible planning and management instruments.

Definition:

In Austria, at present there is no exact – or even binding – definition concerning the development of cultural and social aspects of SFM available. The following definitions/proposals should be considered:

1. “Cultural and spiritual³³ factors in sustainable forest management mean the relationship between humans and forests expressed by artistic and spiritual means, attitude towards forestry, socio-cultural services, traditional knowledge and practices and aspects on how the rights³⁴ of indigenous/local people, information flow and public participation have been taken into account and organised by the society.”

³⁰ For more Details: P. 5. Management of the cult. Heritage.

³¹ In german: “Bundesdenkmalamt”.

³² Denkmalschutzgesetz; Federal law gazette Nr. 170/1999. (Keine engl. Fassung verfügbar!)

³³ Vienna Res 3.: “... social ...”

³⁴ For Central Europe it would be necessary to use the word “potentials”

(Draft of the Finnish Forest Research Institute for the preparation of the Vienna Res. 3: “Cultural and spiritual factors as a part of SFM– European approach”, 2002).³⁵

2. The Definition of “Cultural and Natural Heritage” of the “World Heritage Convention” Art. 1 (“Cultural Heritage”) and 2 (“Natural Heritage”) – Annex 3 describes “Cultural landscapes”.³⁶

Special note to Vienna Resolution 3: “.....related to....”

Quotation of Indicator 6.11.: “Cultural and spiritual values: number of sites within forest and other wooded land designated as having cultural or spiritual values”

It should be noticed, that the Vienna Resolution 3, in contrast and as a result of the expert level meetings, contains also practices, activities, sites, objects, measures, etc.

“... related to forests...” (Res. 3: point 1, p.1 and point 10/p.2)

For all further discussion about a “Definition” or Classification of our “field of work”, it seems to be useful to pay attention to these two unimpressive words. After reading this paper, it should be clear, that in the case of Austria, a systematic development of soc. and cult. Dimensions will be only possible by strengthening the awareness of all interdependences.

Policy statement

By MCPFE Resolution 3 (Art. 5) the undersigning states commit themselves to:

“... address the social and cultural dimensions of sustainable forest management in national forest programmes and other relevant policies.”

Although systematic development of cultural and social aspects is really a new task for the Austrian forest authorities, the “cultural and social dimensions of SFM” are/or will be addressed in the following relevant policies:

- The “Forest dialog”/Austrian forest programme
- The Alpine Convention and “Network Mountain Forest” (NMF)
- The programme of rural development

“Forest Dialog”/Austrian forest programme:

The Austria-wide “Forest Dialog” is:

- dynamic, broad, interdisciplinary and inter sectorial dialog between all forest-relevant sectors and stakeholder,
- provides the framework for concrete forest – political strategies and measures, and
- prepares the most important basics for the **“Austrian forest programme”**.

Cultural themes and aspects were broadly discussed by the experts and also presented in specific papers and presentations (“Forest – Culture” as “best practice”, etc.).

³⁵ Finnish Forest Research Institute/Parviainen J., Pitkanen M., “Cultural and spiritual factors as a part of SFM European approach”, Draft/2002. The authors compiled relevant conventions, agreements and processes.³⁶ In german: “Bundesdenkmalamt”.

³⁶ UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention, Feb. 2005. p 25 f.

At the present status of the working process, cultural/social dimensions of SFM are addressed in the “Austrian Forest Dialog” at all levels:

- Principle/Field of action: Social and politico-economic aspects of the Austrian forests;
- Field of measures: “Forest-Culture”;
- Measures: Establishment and strengthening of cultural and social services and potentials of the Austrian forestry.

Examples of the full description of concrete measures:

- Systematic Strengthening of the “Network Forest Culture Austria”, safeguarding
 - traditional knowledge, cooperation with relevant institutions and owners, promotion of planning and management instruments, including them in education and rural development programmes, etc.
- Indicators and Nominal values (actually under discussion).

Important note:

“Forest Culture” is a classical interdisciplinary and cross-sectional matter of the “Forest Dialog”, which is and will be linked to tourism, education, research, communication, etc.

The results of the “Forest Dialog” will be used for the “Austrian Forest Programme”!

Alpine Convention/Network Mountain Forest (NMF):

In the context of cultural and social aspects of SFM we have to call attention to the special problems of mountain and alpine forests and landscapes, their ecological and economical sensitiveness, the importance of the protective functions of forests, the historical and cultural development, the adverse conditions to produce the raw material wood, etc.!

The **Alpine Convention**³⁷ as the most important international agreement for the alpine dominated states, with eight protocols on special subject matters (e.g. mountain forest protocol, tourism protocol), aims at achieving a balance between economic, cultural and environment aspects in order to realise a sustainable development in the whole alpine region.

As a result of **the initiative of** a few countries³⁸, for the next years there will be called also high attention to cultural and social aspects:

- specific working group “population and culture” was established to work out objectives and measures for a “political **recommendation**”;
- the integrated Austrian (forest –) experts will use all relevant results of the MCPFE process to adapt this objectives and measures;
- “protocol population and culture” is actually in discussion.

In the case of Austria other important institutional and technical inputs for the preservation and management of the historical and cultural background of alpine forests comes from the **Network Mountain Forest (NMF)**.³⁹

³⁷ Expected by the Austrian Parliament in 2002.

³⁸ E.g. Italy, Austria.

The Network Mountain Forest is a trans-national network of central Alpine countries that strives for a long-term exchange of information and the development of a common strategy for mountain forest policies. For the first time an extensive overview of trans-national information regarding the Alpine forests is being made available. The results and discussions of the MCPFE and the relevant protocols of the “Alpine Convention” (Mountain Forest Protocol) will be implemented into the working processes of the network, in order to provide the cultural aspects of forests, to give motivation of forest owners and all institutions responsible for the prevention of potential hazards and last but not least, to ensure the anchorage of the issue with research and tourism.

The programme of rural development

Cultural and social dimensions represent an important asset to the rural development and offer broad chances for diversification. A substantial number of historical forest locations, sites, monuments, etc. can be found, for historical reasons, in rural Austria, whose development is given priority by Austria and the European Union; there are specific development programmes that focus on the systematic strengthening of authentic cultural initiatives (Leader +, etc.). A systematic development and strengthening will also need financial support by intensifying the cooperation between forest and cultural stakeholder (e.g. museums, project initiators), with the tourism and recreation industries. In Austria we are interested to address and integrate cultural and social dimensions of SFM in the “Programme for rural development (2007 – 2013)”. The details are currently intensively discussed.

Present status, gaps and measures regarding knowledge and preservation of cultural heritage

Austria is a very small country in the centre of Europe but affords an extra ordinary comprehensive historical and cultural heritage. It's not possible to give here only a rough overview about the historical development, the number of archaeological sites, monuments, objects, the literature, potentials, etc.

Knowledge:

A **condition precedent** for any sustainable management of cultural aspects is a **professional** knowledge.

Knowledge of forest history and culture has been handed down in many different ways, orally and in written form; some of it has been compiled scientifically, and about 500 (!) institutions in Austria (museums, associations, enterprises, initiatives by dedicated private individuals) are currently disseminating this knowledge in diverse and exciting ways. These institutions constitute, at the moment, the most important – and, after all, the most cost-efficient – basis for distributing forest-cultural content:

- Forestry museums;
- Natural and agrarian history museums;
- Museums and explorers of the local history⁴⁰;
- Modern Education – Projects outside of museums.

³⁹ For all details: J. Garcia-Latorre: MCPFE Sem., paper and presentation, 2005.

To a large extent, their efforts, however, would not be as effective if it were not for the indefatigable and frequently unremunerated (!) commitment of individuals.

Important **research facilities** are: ⁴¹

- University of Natural Resources and Applied Life Sciences, Vienna:
Institutes and experts for forest and agrarian history, etc.
- Universities of Vienna, Salzburg, Graz, Linz:
Institutes for History, History of Art, Archaeology, Architecture, etc.

A new way linking the parties: The “Network Forest-Culture Austria”⁴²

The “Network” presents a new way to develop and encourage social and cultural dimensions of sustainable forest management: In order to improve the intended public-relations effect and to attain or maintain high technical standards, it will be crucial to dedicate more resources to the co-ordination and targeted support of these institutions.

By way of a first approach, the “Austrian Forest Association” is to conduct surveys and interviews with these specific institutions on an ongoing basis. The aim is to acquire more accurate fundamental data and to make a rapid exchange of information efficient among the players involved. In future, the “Network” will select specific promising projects, prepare strategies, establish permanent links between enterprises and authorities, and supply corresponding proposals for user-based research.

Preservation:

As said above there is no direct responsibility by the forest authorities for detailed documentation or preservation of relevant sites or monuments. Actually they do not have **adequate** personal or financial resources for these tasks.

The responsibility (especially the systematic documentation and preservation of cultural or archaeological monuments/sites/objects, etc.) of the “Austrian Federal Office for the Care of Monuments”⁴³ is based on the Federal Act of the preservation of monuments. ⁴⁴

The registration of archaeological sites (as one example) by the “Federal Office” takes place according to:

- **a strictly standardised system**, which is oriented according to the administrative units of the Republic of Austria.
- The **data** acquired this way **are administered in a database for all sites/monuments etc. and recorded in a cartographic form.**
- This requires, however, **geodetic surveying and an exact delimitation of the area** under protection.

For the Austrian forest authorities and other forest stakeholder, preserving and enhancing social and cultural dimensions of sustainable forest management has on the one hand to take into con-

⁴⁰ q. v.: MCPFE – Questionnaire/BMLFUW; 2005.

⁴¹ Detto.

⁴² q. v.: MCPFE paper: E. Johann, “Network Forest-Culture Austria”/2005

⁴³ in German: “Bundesdenkmalamt”.

⁴⁴ Denkmalschutzgesetz/BGBL Nr. 170/1999. (Keine autorisierte engl. Fassung verfügbar!)

sideration all relevant international agreements (like MCPFE) but on the other hand it has to secure the property rights and land tenure arrangements, taking into account the difficult economic situation in mountainous areas. For many subjects a partnership-based planning approach will be particularly useful; there may even be cases where goals cannot be achieved without it.

Knowledge, engagement and awareness of the owner as important contribution for the protection of sites and monuments:

In the context of the extraordinary large heritage and potentials, it should be stressed once again (→ Introduction!) that a practicable and cost-efficient (!) management and preservation of sites, monuments, etc. on the long run, is only possible by awareness and engagement of the owner/s.

Without their knowledge and their high awareness to our cultural and historical heritage it would not be possible for the public authorities, to preserve or manage all important sites or monuments; so Austria tries hard to support all activities and instruments, which sustain and motivate to partnership-based management.⁴⁵

Recent years' efforts to develop cultural and social dimension of SFM have been based on two major principles: Motivation gets highest priority! Maximum possible flexibility as concerns technical priorities, volume and resources!

A few important gaps and measures:

As described above, the development of cult and social dimension of SFM is a new task for the forest authorities in Austria and despite of the increased attention there exist a lot of gaps; it seems to be useful to outline them in conjunction with the appropriate measures:

- Gap: actually there exists no systematic analysis of possible player and/or potentials
Measures: – selective initiation of planning instruments (for example Forestry technical plans)
– multidisciplinary and user-based (!) research.
- Gap: there are not enough links between (official) institutions or dedicated stake-holder and no rapid or systematic exchange of information among the players
Measures: – “Network Forest – Culture Austria”: data exchange, workshops
– Austrian Forest Dialog → Forest programme with proposed measures
- Gap: there are not enough forest Experts connecting or communicating the specific cultural or historical knowledge
Measure: development of a specific vocational training programme for forest experts (possible Certification: “Culture Forester”)
- Gap: there exists no goal oriented consideration of cultural aspects in actual subsidisation programmes:
Measure: systematic integration of cult aspects into the “Rural development programme 2007 – 2013” (Details actually discussed)

⁴⁵ q.v.: MCPFE – Papers: “Network Forest Culture Austria” and “Forestry Technical Plan”/2005.

Management of the cultural heritage

If we want to describe the present situation concerning the management of the cultural heritage related to SFM in Austria, we have to distinguish:

- Important institutions and instruments with official responsibility
- Institutions/actors/persons/enterprises, etc. dedicated to the management⁴⁶

Important institutions/instruments with official responsibility:

*The “Austrian Federal Office for the Care of Monuments”*⁴⁷

One of the most important institutions, with a broad and specific responsibility and knowledge for the management (in particular: documentation and preservation) of the cultural heritage in Austria is the “Austrian Federal Office for the Care of Monuments”.

It is organised as one central office in Vienna (the office at the “Hofburg” – complex in the city of Vienna is part of the world heritage!) and one office for each Austrian province; in this offices there are specialist departments and experts for all relevant areas of expertise:

- archaeologists,
- art – historians,
- architects,
- specialists for mapping and statistics,
- garden and cultural landscapes (!), etc.

The “Austrian Office for the Care of Monuments” **publishes regularly** in the relevant magazines and their “Annual report”.⁴⁸ There is also a strong connection between the work of the “Office” and the relevant activities of UNESCO/ICOMOS. As one example “The Operation Guidelines for the Implementation of the World Heritage Convention” are periodically revised and reflect the decisions of the World Heritage Committee.⁴⁹

It should be noticed, that the Austrian forest authorities and other stakeholder presently don’t **play a decisive role** in the context of the management of cultural landscapes by the UNESCO/ICOMOS.⁵⁰

*Federal Ministry/Forest Land Use Planning: “The forestry technical plan”*⁵¹

An important contribution for the management of cultural dimensions by forest enterprises could be realised by the instruments of the forest land use planning.

As basic guideline the “Forest Development Plan” presents and describes the whole of Austria’s forest and is an important tool for assessing forest functions of public interest. It gives a rough overview about forestry in each Austrian district and describes the basic principles for the other planning instruments.

The Technical Forestry Plan (TFP) is in contrast more detailed and shall be used for more specific and future oriented themes; the management of cultural aspects of SFM by enterprises are one of

⁴⁶ q. v.: MCPFE – Questionnaire on data availability on the indicator 6.1.1.; BMLFUW/2005.

⁴⁷ Bundesdenkmalamt; for details see also: 4.b. Preservation.

⁴⁸ The most important are: “Österr. Zeitschrift für Kunst und Denkmalpflege”: Austrian magazine for art and preservation of monuments (published since the seventies of the 19th century (!); “Dehio” (describes each important site/monument, village/city, etc.; “Jahresbericht Denkmalpflege”: Annual report of the Austrian Office for the Care of Monuments; “Fundbericht”: Report of findings (concerning especially all archaeological findings).

⁴⁹ <http://whc.unesco.org/en/guidelines> (English)

⁵⁰ See also the point: Gaps.

⁵¹ For details: A. Grieshofer, Paper and presentation: Forestry Technical Plan/2005

this themes. In recent years the Ministry of Life and its pilot project partners have tried to develop a working basis for the widest possible use and the most practice-oriented application of this so far underrated planning instrument. The goal of the pilot technical forestry plans ordered on the subject of “forest culture” was to make evident and find out details about the developments outlined above at selected sites. The pilot projects were worked out on individual enterprises with a reasonably large cultural, historical and/or tourist potential.

Under the lead of the responsible forest managers the first activities undertaken were to carry out a basic survey of the situation, to evaluate the existing data and sites, and to sketch short-, medium- and long-term strategies for any possible utilisation in the context of targeted education or, maybe, tourism. In addition to the given conditions in the enterprise (targeted choice of the site, avoiding and strict observation of identified quiet zones and potential hazard sources, financial and/or staff resources, etc.) special importance was attached to inviting potential project partners from research, (environmental) education and/or tourism where possible.

Institutions/persons/enterprises etc. dedicated to the management of cult aspects of sustainable forest management⁵²

Strong inputs for the development and practicable management of cultural dimension of SFM in Austria come from institutions and stakeholder which deal with social-cultural aspects, although they are not direct involved in “classical” forest management: About 500 (!) institutions in Austria (museums, associations, enterprises, initiatives, etc.) are currently disseminating this knowledge in diverse and exciting ways. These institutions constitute, at the moment, an important – and, after all, the most cost-efficient – basis for distributing forest-cultural content:

- Forestry museums
- Natural and agrarian history museums
- Museums and explorer of the local history⁵³
- Modern education – projects outside of museums

To a large extent, their efforts, however, would not be as effective if it were not for the indefatigable and frequently unremunerated (!) commitment of individuals. Each systematic development should use and support this benefits in a future oriented way.

Summary

In Austria the cultural and social dimensions of sustainable forest management are being afforded. They will be selectively integrated in the relevant policies (Austrian Forest Dialog, National Forest Programme, etc.), public relations and awareness-raising campaigns for forests recognised works and future-oriented projects in visual and performing arts.

By a systematic development of cultural dimensions a larger number of people can be educated about forestry, its historical and cultural background, rousing and increasing their interest in forests. So the activities are based on two principles: ***Motivation and voluntariness!***

⁵² q.v.: MCPFE – Questionnaire on data availability on the indicator 6.11.; BMLFUW/2005.

⁵³ q.v.: MCPFE – Questionnaire/BMLFUW; 2005.

A more systematic analysis of this potential, taking into account the specific overall situation of tourism in each region and any obstacles there may be, seems to be necessary in order to be able to weigh strengths against weaknesses as well as to obtain a better idea of the development potential and any risks. The initiative will be continued over the next few years, and successful projects will be published.

Permanent and close co-operation between countries and disciplines seems to be the best guarantee for being able to learn and profit from each other in the development and use of forest-cultural aspects.

Albanian report: Forestry and Cultural Heritage

Zhaneta Prifti

Directorate of Human Resources and International Affairs

Directorate General of Forests & Pastures

Tirana, Albania

Paper

Country profile

Albania is located in Southeast Europe, West part of the Balkan peninsula, within the geographical coordinates: 39°38' and 42°39' north, 19°16' east.

The overall area of Albania is 28,748 km². The borderline is about 1,094 km, of which, 657 km terrestrial border, 416 km coastal border, 48 km river border and 73 km lake border. The last population registration calculated 3.3 million inhabitants.

Albania is bordering with several Balkan countries as Montenegro (northwest), Kosovo (north-northeast), Macedonia (southeast), and Greece (south-southeast).

Albania has a strategic position with a wide opening to the sea (Adriatic and Ionian) and in the crossroad of important corridors passing from Europe to Asia.

Albania is mountainous area with average altitude 708 m above sea level. It is divided in four natural geographical regions: (i) Albanian Alps, (ii) Central Mountain Region, (iii) Southern Mountain Region, (iv) Coastal Flat Region. The highest peaks are located in Alps and Eastern Part of Albania (Korabi 2,751 m).

The forests in Albania cover about 36% of the territory, pastures 16%, agriculture land 24%, other lands 24%. The protected areas represents 10% of forest cover and 5.8% of the total area of Albania.

The Forest Fund of Albania is about 1,030,300 ha, playing an important role in biodiversity and environment protection at local and regional levels.

The inclination of slopes and valleys strongly influences forest distribution and development, especially in areas of high slope and elevation. Under optimal ecological conditions, forest trees are found on all slopes, whereas at higher elevations, to southern and western slopes.

Generally, forests are located in three different climatic zones:

1. the Hilly-Mediterranean Zone;
2. the sub mountain – Mediterranean Zone; and
3. the Mountain-Mediterranean Zone.

Ecological, landscape, recreation and economic values are especially high in mixed stands of conifers and broadleaves.

A variety of habitats and vegetations types are found within the country, including mountain ecosystems, alpine and sub alpine meadows and pastures, forests, streams and rivers, lakes and reservoirs, coastal lagoons and marshes, and rocky coastal. In this rich context, forest biodiversity represents a very precious and important part of the country's overall biodiversity.

Policy measures taken for development

In the frame of promotion of Sustainable Forest Management, in cooperation with World Bank Project and FAO Technical Assistance, some measures are taken as follows:

- Formulated and approved by Parliament the New Strategy and Institutional Reform for development of forestry sector, approved by government on April 2004. The strategy determines the main directions of the activities in the 25 next years. It makes up a national program on Forests and Pastures Management, a number of actions which will be carried out in the next 10 years in collaboration with partners;
- Approved by Parliament New Law on Forests and Forests Service, at the beginning of 2005. This law promotes the strengthening of the measures of reducing illegal harvesting, overcoming uncertainties of the private sector, protection and improvement of biological and landscape diversity, promotion of sustainable development of forests for present and future generations, continuation of transferring process of state forest and pasture to local governments, decentralization of organization management system;
- Measures taken for the promotion of the protection and improvement of biological and landscape biodiversity;
- Considering of very important promotion of awareness raising and stakeholders' participation;
- Promoting the steps in the transition of the forestry to a market economy, separating commercial from regulatory functions and establishing mechanisms for self financing of the commercial activities;
- Promoting the conservation of natural forests ecosystems.

Management of cultural heritage

In the frame of Management of Cultural Heritage the following issues are considered to be very important:

- The development of policies through establishment of system of protected areas as necessity, for long term preservation of natural biological resources;
- Legislation improvement and new regulations for management of cultural heritage;
- Efforts on the Protection, Preservation of Natural Areas, where plants and wildlife continue their development and evolution processes;
- Studies (ecological surveys) on protected areas, and values identification (ecological, scientific, cultural, historical, religious, educational, tourist, recreational);
- Participation and co-operation with other responsible institutions and local government for values considering;
- Education and raising awareness of local population for the protection and preservation of natural biological historical resources.

The "in situ" nature preservation in Albania started some 50 years ago. Nevertheless, it took a stronger development after 1990. The information regarding the status of protected areas, risks and

challenges for their management, is collected either by direct field surveys or by existing studies conducted recently by national and international experts.

The “in situ” nature protection policies through the establishment of a system of protected areas are being further developed as a necessity for long-term preservation of natural biological resources, including nature monuments.

Considering the situation, experts of nature protection worldwide, focused their efforts on the protection, preservation, and management of those natural areas where plant and animal species can normally continue their development and evolution processes.

The approval of the recommendations given in the Ecological Survey of High Forests in Albania improved the system of protected areas in the country. The new network of protected areas is shown in the Table 1.

Table 1. New network of protected areas according to IUCN (1994)	
Gurgler Alm (2240 m asl, Tyrol)	14, 500 ha
Rauriser Fichtenblockwald (1700 m)	56, 440 ha
Oberhauser Zirbenwald (1770-2250 m, Eastern Tyrol)	4, 780 ha
Wiegenwald (1600-1800 m, Hohe Tauern)	42, 898 ha
Protected Landscape	29, 873 ha
Protected Areas of Multiple Use	18, 200 ha
Total	166, 691 ha

The protection, preservation and sustainable development of natural biological resources are the everyday concern of human society since the results of past mistakes against nature are becoming more and more evident.

Biodiversity, conservation and management within virgin areas is crucial to enhancing Albania's biodiversity, so they are included in the national network protected areas, representing scientific, geological, hydrologic, biologic, cultural, and ecological and tourist values.

In the long term, they might become islands of virgin wild nature to be conserved as an end in it for generations to come.



SEMINAR REPORT

Introduction

The Seminar on “Forestry and our Cultural Heritage” was held in Sunne, Sweden, from 13 to 15 June 2006, under the auspices of the Joint FAO/ECE/ILO Experts Network to implement Sustainable Forest Management and the Ministerial Conference on the Protection of Forests in Europe (MCPFE). Host for the seminar was the Swedish National Board of Forestry in cooperation with the Regional Forestry Board in Värmland/Örebro.

The purpose of the seminar was to elaborate on the Vienna resolution V 3: “Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe”.

Participants from the following 13 countries attended: Albania, Austria, China, Estonia, Finland, Ireland, Italy, the Netherlands, Norway, Poland, Spain, Sweden and United Kingdom. In addition the following organizations were represented: Council of Europe (CoE), UN/ECE and UNESCO.

Opening of the Seminar

The seminar was opened by Mr. Göran Enander, the Director General of the Swedish National Board of Forestry, who welcomed the participants to Sweden, Värmland and Sunne, which he described as the ideal venue for the conference concerning forestry and our cultural heritage. Sweden’s inventory project Forest & History as well as the initial work with the bio-cultural heritage, has boosted work on conservation and the use of the cultural heritage in Sweden. Beside the value of their own, the cultural aspects also represent important social and natural values. The exchange of knowledge and experiences during this seminar would hopefully function as a platform and catalyst for a continuous and increased cooperation in the future.

The participants were also welcomed by Mr. Piotr Borkowski on behalf of the MCPFE Liaison Unit Warsaw. The focus of this seminar is to clarify the cultural significance in sustainable forest management. Cultural, spiritual and social values are much related and the forest has an important role in overall sustainable management. There is therefore a need to preserve the attractiveness of the landscape, as well as the cultural values of the world.

Mr. Kit Prins welcomed the participants on behalf of the UN/ECE and the Joint Experts Network. Following a long history of human influence, nearly all European forests and woodlands, forests are indeed a cultural heritage and have cultural, spiritual and social dimensions. But at the same time forestry could also pose a threat on the cultural heritage and this threat has too long been neglected. Mr. Prins saw a need to acquire a better understanding on the topic. To what extent should we accept the changes concerning the cultural heritage of the forest and what is the role of forest owners? He welcomed this first intergovernmental seminar dealing with forestry and our cultural heritage; as so far the cultural dimensions haven’t been taken seriously into consideration.

Adoption of the agenda

Chaired by Mr. Gunnar Nordanstig, the provisional agenda was adopted.

Election of officers

After a proposal by the Chairman, the following discussion leaders were appointed:

Theme 1 Mr. Piotr Borkowski

Theme 2 Mr. Kit Prins

Theme 3 Ms. Elisabeth Johann

Key note presentations

Following introductory key note presentations were presented:

- | | |
|------------------------------------|---|
| Mrs. Mechtild Rössler (UNESCO) | Linking forests and cultural diversity:
“The World Heritage Convention”; |
| Mrs. Maguelonne Déjeant-Pons (CoE) | The European Landscape Convention and forests; |
| Mr. Mårten Aronsson (Sweden) | Cultural and Bio-cultural Heritage in Swedish Forests. |

Mrs. Mechtild Rössler provided the background and introduction to the World Heritage Convention which has been under constant development since it was adopted by UNESCO in 1972. She further presented some of the 87 forest areas under the Convention. Sites could be included on the World Heritage List for either their outstanding cultural or natural value to humanity. Since 1992 a site could also be included as a “cultural landscape”, defined as outstanding interaction between people and the environment. The World Heritage Convention aims at linking culture and nature through recognition of the interaction between people and nature and the connection between biological and cultural diversity – these linkages need a better recognition. The intangible heritage, as manifested in e.g. sacred forests, is another important aspect of the cultural heritage in need of increased awareness. Integrated management through international collaboration among site managers and stimulation of international debate are important factors for the preservation of the cultural heritage.

Mrs. Maguelonne Déjeant-Pons presented the European Landscape Convention, the latest of the Council of Europe’s “Heritage Conventions” that came into force in March 2004. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public’s wish to enjoy high quality landscapes. In distinction to the World Heritage Convention, the European Landscape Convention concerns not only unique areas, but also ordinary or degraded landscapes. Similarities with the World Heritage Convention are among others, the encouragement of trans-boundary cooperation. The Council of Europe expects present the conclusions of the work carried out by the Global Partnership on Forest Landscape Restoration as well as other initiatives at one of the next meetings of the Committee for the implementation of the European Landscape Convention.

Mr. Mårten Aronsson presented the development in the Swedish forests, which still have a rich and diverse cultural heritage. Ancient monuments such as graves, the cultural heritage defined in the Swedish Forestry Act, e.g. crofts, the bio-cultural heritage such as pollards and the immaterial cultural heritage e.g. names of places and features, exist together. The introduction of modern forestry based on machines has destroyed a big part of the cultural heritage and is still the main threat. In recent years the recognition of the cultural heritage in the forests has risen. Propositions from the Swedish government underline the need for measures to increase the knowledge of and the preservation of the cultural values of the forest. The connection between cultural, natural and social values is emphasized. The Swedish Forest Administration is, with limited resources, working to reduce all known threats to the cultural heritage. The main tools are inventories, education and information. The situation is that we know what we should do but we have too little money and personnel to work efficiently enough.

Inventory, planning and mapping (Theme 1)

Moderator: Mr. Piotr Borkowski

The following papers were presented under this theme:

Mr. Alfred Grieshofer (Austria)	Planning and presentation of cultural values and performances by a specific “Technical Forestry Plan”;
Ms. Marta Gaworska (MCPFE Liaison Unit Warsaw)	Forest sites with cultural and spiritual values – review of national data on Indicator 6.11;
Mr. Jonas Enström (Sweden)	Forest & History – how it all began;
Mr. Mauro Agnoletti (Italy)	Between nature and culture: cultural approaches and research perspectives in the conservation of forest landscape in Italy;
Mr. Kit Prins (UN/ECE Timber committee)	How to measure success in achieving cultural objectives in SFM – Indicator 6.11 of MCPFE.

In his keynote-presentation, Mr. Alfred Grieshofer introduced the specific Austrian background; a mountain dominated country that consists of almost 50% woodlands dominated by private land and family farming. He then gave an informative presentation of the Technical Forestry Plan, which is a practical plan for cultural values. The Technical Forestry Plan should be prepared by the landowner or forest manager, but is at present free of charge. The Technical Forestry Plan contains all existing official data, including digital maps, other photographs, borders of protected areas, historical data and maps, etc. On the subject “Forest and Culture”, three pilot projects have been realised, of which “The cultural services of three forest enterprises in the Styrian Eisenwurzen” was focusing on collecting available information and developing a strategy on the subject for further development.

Ms. Marta Gaworska provided the background of the Vienna declaration and for Improved Pan-European Indicators for SFM. The number of archaeological sites, giant unusual trees, sites of historical events or special ceremonies or customs, particularly beautiful landscapes, etc. that are officially designated, is a rough indicator of the cultural and spiritual values assigned to its forest by society. The review of national data Indicator 6.11, based on a survey conducted in the MCPFE countries, contributed to the list of potential objects. A total number of 14 countries (30%) responded to the questionnaire that among others showed a lack of coherent systems for collecting data. Another conclusion was that monitoring of sites designated as having cultural or spiritual values needs to be digitalized, which is time consuming.

Mr. Jonas Enström informed about the inventory project Forest & History, which begun close to the venue of the meeting. It started with only 8 persons, but since 1995 a number of 5, 000 formerly unemployed people worked for at least 6 months with inventories only in the region of Värmland-Örebro; a proof of the possibilities to get political support. The initial skepticism among landowners changed to a widespread interest of traces after their ancestors. Taking care of cultural remains doesn't normally imply high costs, but will need some planning. The collected data of cultural remains and ancient monuments is implemented in a functional GIS-system that will be available to the forestry sector in a near future.

Mr. Mauro Agnoletti presented Italian perspectives on conservation of landscapes influenced by man. A project in the Region of Tuscany involved 12 study areas, with the objectives to build a GIS-database where maps of landscape dynamics and calculations of land-use changes could be produced. The extension of forest land in the period 1832-2004 has led to a massive loss of landscape diversity in the region, where different land uses is the best way to preserve its high biological and cultural values. To avoid further impoverishment of the landscape, one has to protect the complex structures – i.e. mosaics – of the landscape which depends on human interaction. The landscape resources represent means to develop sustainability and there is a need for a thematic area in the conservation policies involving significance, integrity and vulnerability.

Mr. Kit Prins presented the characteristics of good indicators and the background of the MCPFE indicators of sustainable forest management. Some new indicators have been introduced to ensure comprehensive coverage and to stimulate research and gathering of data. There have been conceptual and practical difficulties from the start of Indicator 6.11; the number of sites within forest and other wooded land designated as having cultural and spiritual values. The main challenge of the indicator is to know whether we are doing our job concerning the cultural heritage or not and the questions arising concern the definitions and collection of data. Do more sites lead to better management of cultural and spiritual values? The Swedish presentation indicated this, whereas the Italian presentation did not.

Summary of discussions – Following the presentations under this theme the moderator, Mr. Piotr Borkowski summarized the session with following conclusions:

Cultural dimensions of forestry were given high attention at the international and national levels. A political attention was expressed by the MCPFE in Vienna Resolution 3 as well as by including Indicator 6.11 (*Cultural and spiritual values: number of sites within forest and other wooded land designated as having cultural or spiritual values*).

As it was highlighted in the presentations, there was a need for common definition of cultural heritage sites and a pan-European assessment of data availability. A try for making such assessment was the MCPFE survey on data availability for Indicator 6.11 performed by the Liaison Unit Warsaw.

The results of the MCPFE Questionnaire showed that the location, type and number of cultural heritage sites are not well recognized in many countries. The number of responding countries (1/3 of signatories) indicated that many countries have not yet developed a relevant structure for dealing with data for the Indicator 6.11.

Although, as it was indicated by speakers that some projects had been developed successfully, there was still a need for more information on cultural sites for policy makers, as well as for enhancement of data collection. Presented cases reflected a diversity of situations followed by diversity of approaches across Europe.

The latter would be a challenge for institutions dealing with monitoring, assessment and reporting on forest resources at international and national levels.

Education and cross-sectorial co-operation were pointed out as key factors of success.

More interdisciplinary approach was needed in this regard.

Forest management and the cultural heritage (Theme 2)

Moderator: Mr. Kit Prins

The following papers were presented under this theme:

Mr. Jari Parviainen (Finland)	Forest Management and Cultural Heritage;
Mr. Tim Yarnell (United Kingdom)	Approaches to the conservation of the cultural heritage in woods and forests in Great Britain;
Mr. Mark van Benthem (the Netherlands)	Management of historic elements in Dutch forests;
Ms. Anna Marntell (Sweden)	Cultural remains of the forests – a resource in rural development;
Mr. Jesus Garcia Latorre (Austria)	The cultural heritage for the future: Forestry in the Austrian Alps;
Mr. Chuo Ma (PR China)	The current situation on forest management and cultural heritage in China;
Ms. Ana Noriega (Spain)	Spanish cultural heritage;
Mr. Alfred Grieshofer (Austria)	National report Austria;
Mr. Zhaneta Prifti (Albania)	Albanian report: Forestry and Cultural Heritage.

In his keynote-presentation, Prof. Jari Parviainen gave an introduction to the human impact on forests in Europe and examples of various forest uses during the history. Our society is urbanized and globalized which has led to that we have lost our contact with the forests. We now need guidebooks and guidelines for management of the forest. The cultural and spiritual aspects are taken into account in the Finnish Forest Certification System, e.g. preservation of ancient monuments and the safeguarding of the Sámi culture. There is a need to define and develop more indicators for cultural and spiritual aspects of sustainable forest management; only one indicator might be a too narrow approach and a multi-disciplinary research is needed.

His keynote-presentation, Mr. Tim Yarnell opened with the question: Is there a place for the past in the woodlands of tomorrow? The presentation gave the answer by showing the rich heritage of the historic environment in UK, and its potential for tourism and other economic uses. The cultural dimensions of sustainable forest management in Europe include archaeology “in” and “of” woods, veteran trees and trees of cultural interest. Ancient monuments are often the only evidence about past societies and an important part of a national identity; while the woodlands were places where past people lived and worked, and therefore contain historical records. One of our tasks is to open up the forest so that one can appreciate the remains of the landscape. It is also most important to place the site in a landscape context.

Mr. Mark van Benthem presented the history of Dutch forests and the current situation of management of the historic elements. In Holland almost no cultural remains are directly related to, or situated in the forest; which depends upon the fact that there hardly were any forests left in the end of the 19th century. The forests were used for shipbuilding as well as for charcoal and iron production, and a lot of land was needed for grazing. Historical elements can be important from a biodiversity point of view, which was clearly shown by the presentations of trees affected by man. Culture remains are now being destroyed because of lack of knowledge. He expressed a wish to ex-

change knowledge on a European level and ended with the statement that the activities of today are the cultural heritage of tomorrow. He presented a new book addressed to the Dutch forest sector, written by himself and his colleague Patrick Jansen.

Ms. Anna Marntell presented the local pilot-project “Cultural Remains of the Forest – a resource in rural development”. The EU-funded project runs between 2004-2006 with the objective to increase the knowledge about ancient monuments and other cultural remains in the forest. The project also aims at demonstrating measures to protect and maintain cultural environment and addresses the question whether they can be a resource for rural development. The project is about spreading information and putting the collected data in good use. Main project activities include: guided tours, seminars, establishment of demonstration areas, and cooperation with local entrepreneurs.

Mr. Jesus Garcia Latorre started to state that the most important tool for developing a practical use of cultural aspects of the forest is a pair of boots. The presentation gave proof of the statement by showing many examples of the ancestors’ and nature’s legacy in the Alps, visited by himself. The instrumental frame for cultural and biological values in Austria is the Technical Forest Plan, which is a result of the implementation of policies that consider the cultural aspects of forest ecosystem, such as MCPFE and the Alpine Convention. To get input networking is important encompassing the widest possible spectrum of stakeholders. Some years back, the issue of the cultural heritage wasn’t even on the agenda, and there is still a lot of work to be done.

Mr. Chuo Ma presented the current situation in China, which is in its initial stages in preserving the cultural heritage. Ancient monuments are still being discovered and reported to the local museums. The protection of the cultural structures are slipping behind because of failure of the legal system; out of 400, 000 sites that need protection, so far only 60, 000 sites have been taken care of. The attitude among the local public is negative because of the fear for development obstructions; people are however in general interested in the potential of the cultural heritage for tourism income. The work to put the protection of natural and cultural heritage together has begun with new items in the Forest Laws and educational development as well as cooperation between local governments and NGO’s.

Ms. Ana Noriega presented the work with cultural heritage in the Spanish forests and gave examples from different National Parks. The database contains 15, 000 records, but it is not updated and most sites don’t have any coordinates. Different tools to locate the ancient remains do though exist through GPS and GIS-systems. A draft project with the objective of creating a new database with different layers has been discussed. The importance of traditional use around cultural heritage is another characteristic challenge for the conservation of the cultural values.

Mr. Alfred Grieshofer presented the Austrian situation, which is in the beginning of a working process where cultural and social dimensions of sustainable forest management are being integrated in the relevant policies, e.g. the Austrian Forest Programme, the Alpine Convention and the programme of rural development. There is a need to link these dimensions to tourism, education and rural development by a planning based on partnership. Of highest priority is to build this development upon motivation and voluntariness; knowledge and awareness of landowners is important for the preservation of the cultural values. The “Network Forest-Culture Austria” offers a new way to develop and encourage change by establishing links between enterprises and authorities.

Mrs. Zhaneta Prifti presented the case in Albania; a mountainous country with a forest area cover of 36%. Management of the cultural heritage includes improvement of legislation and new regulations.

Protected areas will be studied and different values will be identified; from historical to ecological and recreational values. Through education and awareness raising among the local community, protection and preservation of these values is going to be enhanced.

Summary of discussions – Following the presentations under this theme the moderator, Mr. Kit Prins, led the discussion on the following topics:

- a) People and forest
- b) Values change over time
- c) Raising awareness
- d) Money
- e) Bio-cultural heritage

Research (Theme 3)

Moderator: Ms. Elisabeth Johann

The following papers were presented under this item:

Ms. Elisabeth Johann (Austria)	Network Forest-Culture Austria – a new way to develop and encourage social and cultural dimensions of sustainable forest management;
Ms. Eva Svensson (Sweden)	Cultural heritage of the forest and cultural heritage in the forest;
Mr. Gert Magnusson (Sweden)	Heritage and forests – land history and the forest landscape;
Mr. Leszek Chojnacki & Mr. Benedykt Rozmiarek (Poland)	The Forest Culture Centre in Gołuchów: the presentation of 25 years of activity;
Mr. Fredrik Olsson-Hector (EU)	Human Resources and Mobility – Madam Curie Actions.

In her keynote-presentation, Ms. Elisabeth Johann presented the network “Forest-Culture Austria” which deals with the relations between forests, forest management and the society. The intention is that it should become a trademark representing high quality with regard to Sustainable Forest Management and the protection of the cultural heritage. The output of the network is, among others, to collect forest history related data, spreading information about historical methods of utilization and management of the landscape and strengthening the cooperation between forest enterprises and tourism. Forest enterprises should have the competence of maintaining and developing cultural interesting sites so that the rural population will be able to get higher revenue and that new jobs can be created.

Ms. Eva Svensson discussed the ideology of nature versus culture; an outdated dichotomy that obstruct interdisciplinary research and management. The forest is a product of both cultural and natural processes and is under continuous change. Human impact resulted in both monuments and a new environment. Cultural heritage can either be manifested as human agency of the forest or be situated in the forest. Extraction of different forestry related resources created a heritage of

the forest, such as pitfalls and slag heaps. Forests that were transformed to different land use have led to a cultural heritage in the forest. For sustainable development one has to acknowledge history and adopt a regional approach.

Mr. Gert Magnusson presented the heritage of forests in the iron ore region and the development of a Swedish governance of ancient monuments. The use of the forest resources has changed over time, which in turn has affected the natural and social environment. For example resulted the iron production in mid Sweden, in exploited forests and new communities. The mines have since medieval times been a production unit and a local society, both men and women were occupied in the hard and dangerous work down in the mines. During the 16th century the idea to protect the national heritage started to develop; today almost all known ancient monuments are located in a national database and can be used by the forestry sector.

Mr. Leszek Chojnacki and Mr Benedykt Rozmiarek showed a computer presentation of the Forest Culture Centre in Gołuchów, situated in west Poland. The centre is established to collect and study the Polish forest heritage and to on a large scale popularize the knowledge of forests and forestry within the society. The renovated buildings offer different kinds of exhibitions and museums, while visitors in the park surrounding the residence can see many unique nature monuments and historical objects. The Forest Culture Center also has good educational facilities and publishes a wide range of books and extension materials.

Mr. Fredrik Olsson-Hector presented the Marie Curie Actions which are open to researchers in all fields of research – including forestry and the cultural heritage. The Sixth Framework Programme on Human Resources and Mobility has a budget of €1, 732 million and is largely based on the financing of training and mobility activities for researchers. These activities are aimed at training and transfer of knowledge, promotion of excellence in European research and career development. It has no thematic priorities, but reward multidisciplinary research and female participation.

An evaluation of the seminar following the UN/ECE format was performed. See Annex II.



Participants of the Seminar on Forestry and our Cultural Heritage during the field trip.
(Photo M. Gaworska)



CONCLUSIONS AND RECOMMENDATIONS

The seminar approved the following conclusions and recommendations

Conclusions

Nearly all Europe's forests are shaped by the activities of human generations over centuries and millennia. Social and environmental factors have come together to create the forests of today. They are part of Europe's identity and our generation's cultural heritage: we owe it to past and future generations to develop our forests in harmonious relation with the landscape.

The cultural heritage is first and foremost vested in the local owners and users of the forest. In addition many other actors may have a role to play. Rural depopulation and the retreat of agriculture, along with other economic and social pressures are changing the composition of forest cultural landscapes. In some areas, this has led to loss of pastures and the biodiversity developed over millennia, and other open spaces in increasingly forest dominated landscapes. The implications of these changes are often difficult to assess and integrate into forest management decisions.

Threats to forest cultural heritage include:

- the weakening of the transmission of the knowledge of the forest cultural heritage between generations;
- damage to cultural sites in forests by inappropriate use of modern mechanized silvicultural and harvesting methods.

The cultural heritage includes the bio-cultural heritage, which is the biological manifestation of human activity in the landscape, e.g. traditional farming and forestry practices. These have contributed in most cases both to harmonious cultural landscapes and to enriched biodiversity. Currently, only a few countries have started to investigate the complex processes underlying the forest bio-cultural heritage and to propose conservation methods and principles.

Vienna Resolution V3 lays down the broad lines of action for the cultural and spiritual heritage, but these general principles need to be translated into more specific and action oriented guidance. There is also a need to raise awareness of these issues, inside and outside the sector, including among policy makers, so that the actions taken have broad support from a wide range of stakeholders. Whereas some issues, such as the need to protect tangible signs of the cultural heritage in forest areas (e.g. archaeological sites), are relatively well understood in many countries, others, such as the intangible elements, are not well understood, and therefore receive insufficient attention. MCPFE Indicator 6.11 on cultural and spiritual values will provide objective but simplified information on one aspect of these issues (protection of cultural sites), but does not cover the whole domain.

In many cases, actions concerning the forest cultural heritage would make an important contribution to sustainable rural development.

Site specific strategies, based on multi disciplinary consultation, and mobilizing resources and political support from a wide range of stakeholders, can promote the sustainable development of rural landscapes. Such strategies could be based on rural tourism and the rediscovery of rural lifestyles and crafts, but must be socially, ecologically and economically viable.

Cultural and spiritual issues related to forests should be approached in a cross-sectorial perspective. In addition to the forest sector, many other actors can contribute, including local authorities, heritage authorities, rural development, tourism and biodiversity conservation agencies, environmental, cultural and social NGOs and the scientific community.

In many countries, the location, type and number of cultural heritage sites are not well known: a necessary precondition to action is a good knowledge of the size of the issue. Concepts and definitions are also not clear.

Recommendations

For the international and pan-European level

The MCPFE Expert Level Meeting in September 2005 should set up an advisory group to prepare proposals for guidance to countries on implementing Resolution V3.

Other agencies, notably UNESCO and Council of Europe (CoE) and IUFRO should be invited to take part in future international activities on cultural and spiritual dimensions of sustainable forest management; care should be taken to avoid duplication of activities and learn from the experience of these organizations.

For the national and regional/local level

Forest agencies and authorities should strengthen their capacity to define and achieve goals in the cultural and spiritual fields, including the commitments of Resolution V3, notably by assessing their strategies and priorities in this area and by engaging relevant specialists.

The full and active support of all stakeholders, notably the forest owners, should be obtained at the initial stages of preparing national, regional or local strategies.

There is a need for awareness raising, education and research in several areas, including the bio-cultural heritage and conservation of the intangible cultural heritage (oral traditions, traditional forest related knowledge, etc.). Targeted communication strategies may be necessary.

Forest authorities and agencies should clearly define their research and development needs in the field of cultural and spiritual dimensions of sustainable forest management.

Cooperation and dialogue between forestry and heritage authorities should be strengthened and put on a regular basis.

All actors concerned should work towards a better understanding of the linkages between cultural and biodiversity conservation issues.

Conservation and sustainable use of the bio-cultural heritage should be included in forest and landscape management strategies. More countries should investigate the complex processes underlying the forest bio-cultural heritage and propose methods and principles.

Countries should take measures to enable them to provide information for the MCPFE Indicator 6.11 by 2006. In this context, those responsible for providing the information to the MCPFE should consult widely in their countries.

Governments should carry out an inventory or gather information in another way on their forest related cultural sites, in a practical and usable form (GIS, GPS, databases) which can help machine operators avoid cultural monuments in forest areas.

Adoption of the report

The seminar adopted the conclusions and recommendations prepared by the secretariat with a number of modifications.



ANNEXES

Day 1: the Nordmarksberg mining environment

Seminar participants visited the Nordmarksberg mining environment in the westernmost pits in Sweden's central iron ore region. A sudden appearance of a bull elk was obviously much appreciated by participants. Information was provided on the history of the mine and discussions were held around the topics of the bio-cultural heritage and strategies for preservation. In particular strategies concerning the management of the trees were discussed on the site. Should the objectives be to maximize the aesthetical, biological and/or historical values; and to what extent should practical issues be taken under consideration?



Nordmarksberg mining environment 2005

The mine owners supplied iron ore to the iron industry in western Värmland, from the 15th century until year 1962. Some silver, asbestos, and limestone have also been mined in the area. The land and extraction rights were owned by the state, which allotted mining rights to the various mine owners. When the mines were closed, the deepest mine was 360 meters. Today the Värmland Industrial Heritage Foundation owns the area surrounding the mines and the appurtenant buildings.

In earlier periods the mines were worked in opened pits and it was first during the 16th century when the mines became deeper and sub terrain working technique were developed. The miners were in old days both men and women. They lived in small huts in the neighbourhood of the mines. The mine was since medieval times both a production unit as well as a social unit and a local society.

Day 2: the abandoned shieling Sågtorp

The study tour was organized to the abandoned shieling Sågtorp north of Sunne. Shielings were used primarily for grazing, but also for hay-making and cultivation. This practise, to let the cattle during the summer graze on a site more or less distant from the farmstead, was established already during the Iron Age.

Seminar participants also visited a bloomery furnace of a later type. This relative big furnace, built above ground, can tentatively be dated to medieval times or later. Furnaces of this kind are unusual in Värmland. The bloomery iron-production reached its peak during late Viking Age and early medieval period, and the core area for this production is situated north of the visited area.

Skog & Historia (Forest & History) is an inventory project where unemployed laymen, together with antiquarians, search and documents ancient monuments and other cultural remains. The project is a cooperation between National Board of Antiquities and the Swedish forest administration. The project has its background in the threat modern forestry constitutes against the cultural heritage.



Two girls on an unknown shieling 1906.



Sågtorp shieling 2005

The participants were also shown example of the intangible cultural heritage related to shielings. Two strong female voices were heard over the old grazing pastures; a tradition known as *kulning* (herding-calls). Kulning has been used since at least the Middle Age, and functions primarily as a means of communication between the shepherdess and the animals.

Mr. Armas Jäppinen, from the Swedish Ministry of Industry, Employment and Communications, discussed the development and situation of modern forestry.

Annex 2: Evaluation of the seminar

1. Overall evaluation

Number corresponds to the number of seminar participants evaluating items at this level

	Poor faible			Excellent			Average
Level	0	1	2	3	4	5	
Format & organization of meeting	0	0	0	0	4	10	4, 7
Did the meeting meet your objectives?	0	0	0	0	4	10	4, 7
Quality of presentations	0	0	0	2	7	5	4, 2
Quality of discussions	0	0	0	1	6	6	4, 4
Working group effectiveness	0	0	0	1	5	5	4, 4
Field excursions	0	0	0	0	5	9	4, 6
Overall meeting quality	0	0	0	0	2	10	4, 8

2. What aspects of the meeting did you like best?

- Presentations, discussions
- Statements of national positions
- Broad range of topics, esp. issues related to inventory of forest cultural heritage sites
- The excursion, meeting people

3. What improvements would you suggest?

- More time for conclusions and recommendations, group discussions and exchange of views
- Statements from countries that didn't present or attend
- Less/shorter presentations per day

4. What percentage of the information presented was new to you?

Average: 61% (range from 30 – 95%)

5. What percentage of the information will you be able to use?

Average: 76% (range from 30 – 100%)

6. What follow-up do you suggest should be given to this meeting?

- MCPFE Expert meeting, other meetings on this topic
- Set up a Team of Specialists
- Exchange of experience and information
- statement of changes made to national strategies since this or any succeeding seminars
- Proceedings
- As indicated in conclusions and recommendations

Annex 3. List of participants

Last name	First name	Institution	Country	e-mail
Agnoletti	Mauro	Università Firenze	Italy	mauro.agnoletti@unifi.it
Aronsson	Mårten	National Board of Forestry	Sweden	marten.aronsson@svo.se
Barreiro Mouriz	Oscar	Union of Foresters of Southern Europe	Spain	usse@usse.es
Bergquist	Astrid	Ministry of Industry...	Sweden	astridbergquist@swipnet.se
Blombäck	Peter	National Board of Forestry	Sweden	peter.blomback.@svo.se
Borkowski	Piotr	MCPFE Liaison Unit	Poland	p.borkowski@lu-warsaw.pl
Byrnes	Emmet	Forest service	Ireland	emmet.byrnes@agriculture.gov.ie
Chojnacki	Leszek	Polish State Forests	Poland	okl@sisco.pl
de Pater	Cathrien	Radboud University Nijmegen	Netherlands	info@centerforce.nl
Déjeant-Pons	Maguelonne	Council of Europe	Int. Org	maguelonne.dejeant-Pons@coe.int
Enander	Göran	National Board of Forestry	Sweden	goran.enander@svo.se
Enström	Jonas	Regional Forestry Board ST	Sweden	jonas.enstrom@svsst.svo.se
Follum	Jørn-R.	Forestry Extension Institute	Norway	jrf@skogkurs.no
Gaworska	Marta	MCPFE Liaison Unit	Poland	m.gaworska@lu-warsaw.pl
Grieshofer	Alfred	Federal Ministry of Agriculture, Forestry ...	Austria	Alfred.grieshofer@lebensministerium.at
Hallman	Erkki	Metsähallitus	Finland	erkki.hallman@metsa.fi
Jansen	Patrick	Stichting Probos	Netherlands	Patrick.jansen@probos.net
Jäppinen	Armas	Ministry of Industry, Employment and Communications	Sweden	armas.jappinen@industry.ministry.se
Johann	Elisabeth	Austrian Forest Association and IUFRO	Austria	elis.johann@utanet.at
Jonegård	Simon	National Board of Forestry	Sweden	simon.jonegard@svo.se
Kornatowska	Bożena	MCPFE Liaison Unit	Poland	b.kornatowska@lu-warsaw.pl
Latorre	Jesus Garcia	Federal Ministry of Agriculture, Forestry	Austria	jesus.garcia-latorre@lebensministerium.at

Lind	Hans	Regional Forestry Board ST	Sweden	hans.lind@svsst.svo.se
Ma	Chuo	The Chinese Academy of Forestry	PR China	chuoma@yahoo.com.cn
Magnusson	Gert	The National Heritage Board	Sweden	gert.magnusson@raa.se
Marntell	Anna	The Regional Forestry Board MN	Sweden	anna.marntell@svsmn.svo.se
Nordanstig	Gunnar	National Board of Forestry	Sweden	gunnar.nordanstig@svo.se
Noriega	Ana	Ministerio de Medio Ambiente	Spain	ANoriega@mma.es APOFINT01@mma.es
Ohlsson	Stig	Swedish Environmental Protection Agency	Sweden	stig.ohlsson@naturvardsverket.se
Olsson-Hector	Fredrik	European Commission	EU	Fredrik.Olsson-Hector@cec.eu.int
Parviainen	Jari	Finnish Forest Research Institute	Finland	jari.parviainen@metla.fi
Prifti	Zhaneta	Directorate General of Forestry and Pastures	Albania	zhprifti@abissnet.com.al
Prins	Kit	ECE Timber Committee	Int.org	Christopher.Prins@unece.org
Reuthammar	Ingrid	National Board of Forestry	Sweden	Ingrid.reuthammar@svvo.se
Rossler	Mechtild	UNESCO	Int.Org	c.delsol@yahoo
Rozmiarek	Benedykt	Polish Forest Culture Center	Poland	okl@sisco.pl
Sandström	Jan	The National Federation of Forest Owners	Sweden	jan.sandstrom@skogagarna.lrf.se
Svensson	Eva	University of Lund	Sweden	eva.svensson@ark.lu.se
van Benthem	Mark	PROBOS	Netherlands	mark.vanbenthem@probos.net
Wågberg	Caroline	Regional Forestry Board MN	Sweden	caroline.wagberg@svsmn.svo.se
Yarnell	Tim	Forestry Commission	UK	tim.yarnell@forestry.gsi.gov.uk