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Finland's Protected Areas

A Technical Assessment

Harold K. Eidsvik and Hans B. Bibelriether

Finnish Forest and Park Service
Nature Protection

Harold K. Eidsvik
Protected Area Consulting Services
Paris
FRANCE

Hans B. Bibelriether
Consultant
Grafenau
GERMANY

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Cover: Location of the Finnish national parks (squares) and strict nature reserves (circles).

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<p>Abstract</p> <p>The publication concerns an assessment by two foreign experts, Harold K. Eidsvik (Canada) and Hans B. Bibelriether (Germany) on the state of Finland's protected areas, together with a Finnish translation of the summary. The assessment is based on written material sent to the assessors and on visits, mainly to national parks, on 20.6.–2.7.1994. The aim of the assessment was to obtain the experts' opinions on the management of Finland's protected areas. An evaluation of the representativeness of Finland's protected area network would have called for more extensive preparation and far more field work.</p> <p>Finland's protected areas as a whole were ranked as "Good". Protected area staff are motivated but there is understaffing. The legislation and declared nature conservation objectives provide a sound basis for managing the areas, but attaining the goals does not always succeed in practice. The two experts are particularly disturbed by use causing changes to ecosystems in northern protected areas, while at the same time noting that the problem of the rights of indigenous peoples is difficult to resolve even in the protected areas of other northern countries. Whether reindeer herding in its present form takes place on an ecologically sustainable basis is a matter requiring study. No form of mining, including mechanical gold mining, is suitable for national parks.</p> <p>The experts stress that as regards the areas they cover, many of our national parks do not form ecologically sustainable entities and that there is lack of systematism from the protection perspective in facilities for the public, particularly respecting the location of visitor centres. They recommend that, in place of substantial investments in construction, a study be made of alternative ways of achieving the same result with a smaller financial input by distributing information on nature conservation.</p> <p>The assessors feel that the division of labour between the Finnish Forest and Park Service and the Finnish Forest Research Institute, which manage the protected areas, is irrational and propose that the Forest and Park Service manage all the national parks, while the Forest Research Institute would concentrate on managing areas, like strict nature reserves, established for research purposes.</p>		
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Julkaisun nimi Suomen luonnonsuojelualueiden tilan tekninen arviointi		
Julkaisun osat		
<p>Tiivistelmä Julkaisu sisältää kahden ulkopuolisen asiantuntijan, Harold K. Eidsvikin (Kanada) ja Hans B. Bibelrietherin (Saksa) arvioinnin Suomen luonnonsuojelualueiden tilasta sekä yhteenvedon suomenkielisen käännöksen. Arviointi perustuu asiantuntijoille lähetettyyn kirjalliseen aineistoon sekä tutustumiskäynteihin lähinnä kansallispuistoissa 20.6.–2.7.1994. Arvioinnin tavoitteena oli saada asiantuntijoiden näkemys Suomen suojelualueiden hoidon tilasta. Suojelualueverkon edustavuuden arviointi olisi vaatinut laajemmat ennakovalmistelut ja olennaisesti enemmän maastotyötä.</p> <p>Suomen luonnonsuojelualueet saavat yleisarvosanan "hyvä". Suojelualueiden henkilöstö on motivoitunutta mutta selvästi liian vähälukuinen. Lainsäädäntö ja ilmaistut luonnonsuojelupoliittiset tavoitteet antavat perustaa alueiden hoidolle, mutta tavoitteiden saavuttaminen ei käytännössä aina onnistu. Asiantuntijat ovat erityisen huolestuneita pohjoisten suojelualueiden luontoa muuttavasta käytöstä, vaikka toteavat, että alkuperäiskansojen oikeudet ovat vaikeasti ratkaistava ongelma muidenkin pohjoisten maiden suojelualueilla. Tulisi selvittää, onko porotalous nykymuodossaan ekologisesti kestävällä pohjalla. Mikään kaivostoiminta, mukaanluettuna koneellinen kulankaivuu, ei ole kansallispuistoihin sopivaa.</p> <p>Asiantuntijat korostavat, että monien suojelualueittemme rajaukset eivät muodosta ekologisesti kestäviä kokonaisuuksia ja että yleisöpalveluiden, erityisesti opastuskeskusten sijoittelulta puuttuu suojelunäkökohdista lähtevä systemaattisuus. Kalliiden rakennusinvestointien sijaan suositellaan selvitettäväksi, millä muilla keinoin voidaan pienemmällä panostuksella saavuttaa sama tulos luonnonsuojelutietoa levitettäessä.</p> <p>Arvioijat toteavat, että työnjako suojelualueita hoitavien Metsähallituksen ja Metsäntutkimuslaitoksen kesken ei ole johdonmukainen, ja ehdottavat, että Metsähallituksen tulisi hoitaa kaikki kansallispuistot ja että Metsäntutkimuslaitoksen tulisi keskittyä tutkimusta varten perustettujen alueiden kuten luonnonpuistojen hoitamiseen.</p>		
Avainsanat luonnonsuojelualueet, luonnonsuojelualueiden tila, luonnonsuojelualueiden hoito, kansainvälinen arviointi		
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<p>Referat</p> <p>Publikationen innehåller två utomstående sakkunnigas, Harold K. Eidsviks (Canada) och Hans B. Bibelriethers (Tyskland), utvärdering av Finlands naturskyddsområdens tillstånd. En översättning till finska av rapportens sammandrag ingår också i publikationen. Utvärderingen baserar sig på skriftligt material som sänts till de sakkunniga och deras besök i främst nationalparker under tiden 20.6.–2.7.1994. Målsättningen med utvärderingen var att erhålla de sakkunnigas uppfattning om skötseln av Finlands naturskyddsområden. En utvärdering av skyddsområdesnätets representativitet hade krävt mera omfattande förberedelser och avsevärt mera fältarbete.</p> <p>Finlands naturskyddsområden får det allmänna vitsordet "bra". Skyddsområdenas personal är välmotiverad men klart alltför fåtalig. Lagstiftningen och de naturvårdspolitiska målsättningarna erbjuder en god grund för skötseln av skyddsområdena, men målsättningarna uppnås inte alltid i praktiken. De sakkunniga är särskilt oroade över den naturomvandlande användningen av de nordliga skyddsområdena, även om de konstaterar att ursprungsbefolkningens rättigheter är ett svårlöst problem också i andra nordliga länder. Man borde utreda om renskötseln i dess nuvarande form befinner sig på en ekologiskt hållbar grund. Ingen form av gruvdrift, inklusive maskinellt guldgrävande, är lämplig i nationalparkerna.</p> <p>De sakkunniga understryker att många av skyddsområdenas avgränsningar inte bildar ekologiskt hållbara helheter. Placeringen av den information som erbjuds allmänheten är inte systematiskt ordnad utgående från naturskyddets behov. Detta gäller särskilt större naturum (informationscentra). I stället för dyra byggnadsinvesteringar borde man utreda hur man på annat sätt med mindre insatser kunde uppnå samma resultat vid spridningen av naturskyddskunskap.</p> <p>Utvärderarna konstaterar att arbetsfördelningen mellan de organisationer som sköter skyddsområdena, Forststyrelsen och Skogsforskningsinstitutet, inte är logisk. De föreslår därför att Forststyrelsen skulle sköta alla nationalparker och att Skogsforskningsinstitutet skulle koncentrera sig på skötseln av områden som inrättats för forskningens behov, s.s. naturparker.</p>		
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LETTER OF TRANSMISSION

20 August 1994

To : The Ministry of Environment
The Finnish Forest and Park Service

From : Harold Eidsvik
Hans Bibelreither

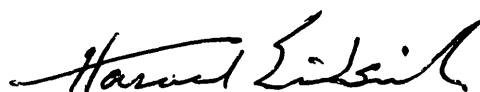
Subject: Technical Assessment of Finnish Protected Areas -
Consultancy Contracts (H. Eidsvik,
H. Bibelreither)

Subsequent to our oral presentation of 1 July 1994, the enclosed report incorporates our views on the review of the substantial written material received prior to the field mission, data received during the field mission and a synthesis of our views following the field mission. It is submitted in fulfilment of our contract.

We would like to emphasize that the field mission which involved Mr Eidsvik from 19 June to 2 July and Dr Bibelreither from 25 June to 2 July, was exceptionally well organized and utilized the maximum daylight hours of Finland during the days preceeding and following "Midsummer Day". Following the mission Dr Bibelreither visited four additional parks: Isojarvi, Koli, Kolovesi and Patvinsvo. This informal mission confirmed the findings of the formal mission.

We would like to express our deepest appreciation to the Ministry of Environment and the Finnish Forest and Park Service for making this review possible. We would particularly like to thank the field staff of the Forest and Park Service, those in the National Parks as well as those in the Strict Nature Reserves. More specifically, special thanks to Matti Helminen who organized the field visits and accompanied our small team.

Our access to material and individuals was open, our only restriction was time and our own limitations with the Finnish and Sami languages.



Harold K. Eidsvik



Hans B. Bibelreither

Elokuun 20. päivänä 1994

Ympäristöministeriölle
Metsähallitukselle

Harold Eidsvik
Hans Bibelriether

Asia: Suomen suojelualueiden tilan tekninen arviointi konsulttisopimusten pohjalta (H. Eidsvik, H. Bibelriether)

Heinäkuun 1. päivänä antamamme suullisen arvion¹ täydennyksenä raporttimme sisältää näkemyksemme, joka perustuu ennen kenttätöitä saamaamme merkittävään kirjalliseen aineistoon, kenttätöiden aikana keräämäämme tietoon sekä kenttätöiden jälkeiseen synteisiin. Raportti luovutetaan konsulttisopimusten edellyttämässä muodossa.

Korostamme, että tutustumismatka, johon H. Eidsvik osallistui 19.6.–2.7. ja tri H. Bibelriether 25.6.–2.7., oli poikkeuksellisen hyvin järjestetty, ja työhön käytettiin Suomen vuorokauden valoisat tunnit niiden ollessa runsaimmillaan juhannusta edeltävinä ja sen jälkeisinä päivinä. Varsinaisen matkaohjelman jälkeen H. Bibelriether kävi lisäksi neljässä kansallispuistossa: Isojärvi, Koli, Kolovesi ja Patvinsuo. Tämän epävirallisen matkan havainnot vahvistivat virallisen ohjelman yhteydessä syntyneen käsityksen.

Kiitämme sydämellisesti ympäristöministeriötä ja Metsähallitusta tämän arvioinnin suorittamismahdollisuudesta. Erityisesti kiitämme Metsähallituksen kansallis- ja luonnonpuistoissa toimivaa henkilöstöä. Matti Helmistä kiitämme erityisesti tutustumismatkan järjestämisestä ja pienen ryhmämme opastamisesta.

Aineisto ja henkilöstö oli vapaasti käytettävissämme. Ainoat rajoitukset aiheutti ajan sekä suomen- ja saamenkielen taidon puute.

Harold K. Eidsvik

Hans B. Bibelriether

¹ Arvio esitettiin luonnonsuojeluvalvoja Antti Haapaselle (YM) ja luonnonsuojelujohtaja Matti Helmille (MH).

1 INTRODUCTION

"National Parks exist in order that we may stock our minds – with the new material of intelligent optimum, great thoughts, noble ideas; that we may be made better, happier, healthier."

J.B. Harkin
Commissioner of the National Parks
Canada, 1911-1936

The anthropocentric views of Mr. Harkin led to a Canadian system of parks which protect nature and serve humankind. The underlying philosophy of most international parks are caught in the dichotomy of serving both nature and humanity. As a review of Finnish legislation is currently being carried out, it would be worth incorporating a statement that "nature must be conserved for its own values as well as those of an anthropocentric perspective".

The World Conservation Union (IUCN) in "Caring for the World", emphasizes the need to plan all land-use from strict nature reserves at one end of the spectrum to urban development at the other. Protected areas form an essential component of this planning process.

The "Building Act of Finland" states that, "plans shall be drawn up for land, or its use otherwise planned, in a manner contributing to sustainable development of natural resources and the environment". Protected areas are an essential element of sustainable development.

Since the Nature Conservation Act of 1923, the Government of Finland has officially been in the protected area business. This period as in many countries, was preceded by a long history of traditional conservation practices in Lapland as well as in the south.

The tempo of change in the field of nature protection has increased with specific government action in 1976, 1977, 1982, 1987, 1991, 1993 and 1994.

The objective of this review was to examine the management of protected areas which fall under the authority of the Finnish Forest and Park Service and the Finnish Forest Research Institute and to advise on legislation, policy, planning and protection objectives, their management and use with particular reference to national and international conservation practices.

The search for synergy between sometimes conflicting objectives was carried out with a limited knowledge of but a great respect for the Finnish written and unwritten constitution relating to traditional land-use and respect for the individual.

2 PROTECTED AREA SYSTEMS

"We must make every effort to preserve, conserve and manage biodiversity. Protected areas, from large wilderness reserves to small sites for particular species, and reserves for controlled uses, will all be part of this process. Such systems of protected areas must be managed to take account of a range of ecological and human-induced changes. This is no small task;....."

Peter Bridgewater
Director, National Parks & Wildlife
Service, Australia

Finland has a vast array of protected areas, whether this constitutes a protected area system or is an accident of history is a moot point. Like many countries, there is a need to be opportunistic, to protect what is available and to seize political opportunity. With more than 415 protected areas, the initiative for protection has been seized. This has resulted in a vast number of small sites with no direct on-site management and limited real ability to retain ecosystem values over the long-term. Actual nature protection may be more image than reality.

The contrast between south and the north with large national parks and "wilderness" areas is marked and provides some opportunity for the comprehensive coverage of vegetation zones and geomorphological systems. There is, however, little evidence of a concerted, systematic planning effort. Coverage of protected areas in the coastal zone remains minimal as does the coverage of marine areas and fresh water lakes, this should be a cause for alarm. As well there is a need for a more focused approach with respect to cultural landscapes.

2.1 Legislation, policy and management

2.1.1 Legislation

The Nature Conservation Act of 1923 provides a sound basis for the implementation of a system of protected areas. This has been supplemented by the Outdoor Recreation Act of 1973, the Protection of Rapids, 1987, and the Act on Wilderness Reserves of 1991, as well, other planning and wildlife legislations may be applied.

Section two of the Nature Conservation Act lists prohibitions and Sections four and eight provide exceptions to these prohibitions, particularly for local populations and "nomadic Lapps". The intensive grazing witnessed throughout northern Finland should be a cause for concern. Secondly, gold mining in

Lemmenjoki raises a concern that Sections four and eight are more powerful than Section two, which is the primary purpose of the legislation. The on-site reality is a contradiction to the statement in the National Parks Handbook; "Today the area still supports a handful of ardent 'old-timers' panning in the traditional way".

2.1.2 Policy

Policies for Finland's protected areas have undergone significant changes during the past three years. At the same time, forest management has also begun a process of change from clear-cutting to selective cutting. The latter has a considerable influence on landscapes and protected area buffer zones.

With the exception of three areas, National Parks are managed by the Forest and Park Service which is funded through the Ministry of the Environment. This funding approach is an unusual management structure. It may, however, prove effective in implementing further conservation measures in a country heavily dominated by traditionally minded foresters. No change is recommended in this funding structure. However, changes in area management responsibilities will be addressed later in this report.

The protected area system is divided into seven administrative regions. This also appears to be logical.

Stated policy for protected areas on page seven of "Principles of Protected Area Management (Nature Protection Publications of the Finnish Forest and Park Service, Series B, No.10)" is clear; however, any approach to systematic coverage of abiotic, biotic and cultural elements is unclear. Furthermore, the exclusion of areas not based on nature conservation legislation (second last paragraph, page eight), appears restrictive and unnecessary. The test should be whether an area has clear conservation objectives, adequate legislation and the administrative means to ensure long-term conservation. Each of these areas, particularly for example the 92 Virgin Forest protection area should be seen as making a contribution to the national system of protected areas.

2.1.3 Research

Several research projects were reviewed, the Saimaa seal project and the white-backed woodpecker project at Linnansaari; the prescribed burning at Liesjärvi and peatland restoration at Seitsemien. In addition, the Oulanka Research Centre was visited.

It appears that cooperation with the FFRI and universities is well established and we have little to add except to commend them for adding a sound scientific foundation to the conservation process.

2.1.4 Management

The policy directive traces early management structures back to the National Board of Forestry, the Finnish Forest Research Institute and the Finnish Forest and Park Service. The policy is silent on the major role of the Ministry of the Environment in approving programmes and budget. Future versions should be revised to take note of this critical role.

During the field visits and in discussions with staff it was difficult to discern the differences in the role of Strict Nature Reserves and National Parks. Similar questions arose with respect to the role of the FFRI and the FFPS. The dichotomy between protection and public use permeates both organizations and leads to some confusion in objectives of specific areas (e.g. Kevo, Pyhätunturi).

Consideration should be given to emphasizing the role of Strict Nature Reserves as scientific reserves with a primary research function (Policy Section 3.3) and a secondary educative function. Some large strict nature reserves (Kevo, Sompio, Maltio, Värriö) should be reviewed for a change in status to National Parks with appropriate zoning to protect specific habitats as scientific reserves. They should be managed by the FFPS. The balance of the strict reserves under FFPS management (unless they form a zone within a National Park) should be transferred to the FFRI whose primary function is research and not park management.

The three National Parks managed by the FFRI should be transferred to the FFPS (Pallas-Ounastunturi, Pyhätunturi and Koli). There should be one jurisdiction for the management of National Parks and it should present all national parks to the public in an exemplary fashion.

The proposed transfer of administration is not a reflection on the current management of these areas by either the FFPS or the FFRI. Essentially, the objective is to clarify the basic role of each organization, i.e. the FFPS is not a research organization and the FFRI is not a park management organization. Clarity of functions should lead to more focused management and increased public understanding.

There remains as well a need to focus the management objectives of the Recreation Service, and Regional governments on the role of other protected areas such as rivers, mires, old growth forests, scenic roadsides and scenic recreation areas such as Aulanko, Punkaharju and Vehoniemi. Whether these areas should be managed by the FFPS or the FFRI is a moot point. In all three situations it would appear that these are principally areas of provincial or regional concern.

Two other factors should loom large in future planning, the existence of large blocks of state forest lands and the absolute necessity to rationalize the existing boundaries of many protected areas for which, because of their small size, long-term ecological sustainability will not be possible. With respect to all of these areas, buffer zones controlling development activities in surrounding areas are essential. The intensive tourism development proposal surrounding Pyhätunturi is excessive and will lead to the destruction of its conservation values if remedial action is not taken. State forest lands which have been logged will in time recover many of their natural characteristics. They are potential additions to some protected areas.

Again, we would like to make it clear that this is not a reflection on the existing organization. We recognize that there are historical reasons for the current boundaries. However, the long-term viability of many small areas is in doubt and there should be sufficient reason to inspire a review. Secondly, this should not be perceived as an attempt to reduce the scope of authority of the forest sector. It is a suggestion that in view of current wood surpluses a reassessment of forest allocation should be considered. Koli is one park which should be extended. Another example is Seitsemien National Park: this could become a major European conservation area in the contact zone of the southern and central boreal forest zones. Similar revision and consolidation should be encouraged with respect to Linnansaari and Kolovesi National Parks which could anchor the park system in south east Finland and Torrnsuo in the southwest. The foregoing are only examples, and readers should appreciate that time was not available to test the full feasibility of these proposals.

2.1.5 Staffing

It was not possible during our visit to explore in depth the workload and staffing needs of each protected area and visitor centre. However, it was clear that the staff was extraordinarily dedicated and committed. Without question we consider all of the protected areas visited to be understaffed and underfunded. With 130–140 full time employees, Finland does not measure up against other countries either in its staffing of visitor centres or in field personnel.

In order to anchor the National Parks in public opinion as the country's most valuable heritage areas it is essential to have sufficient staff to enable frequent public contact both at the interpretive centres and in the field. How many this should be is again a moot point.

Permanent professional staff can be reinforced by seasonal staff during peak periods. This, however, does not replace permanent professional employees who are essential in providing the long-term continuity in relation to effective management.

There are no "standards" for comparing the budget of one Park system with another. Responsibilities such as capital construction and maintenance are highly variable. The following figures give some general indications of parks' budgets in Europe. As a word of caution, a larger budget does not necessarily mean better protection, e.g. Calabria, which is fraught with problems whereas both the Swiss and Bayerischer Wald Parks are exemplary operations.

e.g.	Swiss National Park	16 000 ha	annual budget \$ 700 000
	Calabria (Italy)	15 892 ha	annual budget \$ 2 000 000
	Bayerischer Wald	13 100 ha	annual budget \$ 6 000 000

In general: France, Germany, Italy and the UK average \$ 2–6 Million per park per year.

3 INTERNATIONAL CATEGORIES

3.1 Categories

Finland's policy publication "Principles of protected area management (Nature Protection Publications of the Finnish Forest and Park Service, Series B, No. 10)" was produced during a period (1984–1994) when IUCN's categories were undergoing a comprehensive review. The results of that review are known and will be published in 1994/1995.

Essentially, the data in Section three (p. 8) of the Finnish policy document, with the addition of Wilderness Areas, reflects IUCN's current position with respect to "GROUP A" in the Finnish Report.

That is:

Category I: scientific reserves / strict nature reserves / wilderness areas

Category II: national parks and equivalent reserves exceeding 1 000 ha and meeting rigid standards of no resource extraction except for the support of indigenous peoples

Category III: natural monuments / landmarks specific features protected for unique qualities but not necessarily protecting ecosystems

Category IV: nature conservation reserves / managed nature reserves / wildlife sanctuaries: management is the key element in these areas which each require clear objectives, to protect species, to maximize habitat, to provide hunting opportunities.

Category V: protected landscapes: in essence this category describes the "National Parks" of the United Kingdom. Land ownership is a mixture of

public and private lands, however planning controls are both extensive and intensive. Tourism and sheep herding are prevalent and accepted.

Essentially, Categories I to V were what IUCN considered to be protected areas. There is, however, an on-going debate with regard to the "GROUP B" areas mentioned on page eleven of the Finnish report (Series B, No.10). The "Group B Categories" (VI: Resource Reserves; VII: Anthropological Reserves and VIII: Multiple Use Management Areas) were all eliminated from IUCN's new categories. However, a **revised** Category VI to cover resource management and utilization areas was created and could be considered for some "protected areas" in Finland.

Finally, with respect to Group B (p. eleven, Series B, No 10) areas belonging to International Conventions are not considered by IUCN to be categories. Most of these areas already appeared in one of the other categories from I to V, thus they are no longer included as distinct in IUCN's categories. Their importance, however, is not diminished, rather each of the conventions should be managed with due respect for the international obligations engaged in by the State Party. They form an important segment of the international protected areas network and countries are encouraged to support them (eg RAMSAR, CITES, World Heritage, Bonn, Biosphere Reserves). Internationally designated sites continue to be listed in IUCN's directories.

3.2 Northern Wilderness Areas

One of the more difficult tasks in this review was how to classify or categorize the northern wilderness areas. Under IUCN's categories, a Category I Wilderness Area is the most highly protected category. The Finnish wilderness areas were not designed to meet the requirements of this Category and they clearly do not.

The word "wilderness" implies in the southern mind an area of wild and undisturbed land. However, in Finland these homelands or "wilderness areas" are not undisturbed, they are a part of life and a part of a culture. The Finnish word *erämaa* describing ancient seasonal hunting and fishing grounds without permanent human settlement is applicable.

The Finnish wilderness is magnificent and it should be advertized on those terms. It comprises exceptional natural values, the lakes, the sky, the fens, the forests. The need for contemporary equipment to manage and to survive in a wild landscape in social and economic terms is essential and should be made known to potential visitors. Those who wish to visit must be made aware that the wilderness of Finland is a living wilderness, forming an essential part of the northern Finnish life style.

On the other hand, those who manage these areas be they Sami or Finnish, must be aware of the responsibility to sustain the wilderness and all of its life forms. The aggressive gold mining activities in Lemmenjoki go far beyond the rules of non-mechanized sustainability. In a similar context, the sustainability of reindeer herding is also a marginal practice.

The Wilderness Act of 1991 is the most ambivalent of Finland's nature protection legislations. It attempts to create a co-existence between "wild" and "developed". The compromise is calling an area wilderness and permitting continued forest cutting, mining, grazing and hunting does not work if North American or international standards are applied. Finland is, of course, free to call its protected area anything its wishes. However, from an international perspective "wilderness" such as Hammastunturi does not exist.

In the 1993 UN Directory of National Parks and Protected Areas, Finland's "wilderness" is listed in Category IV "Managed Nature Reserve / Wildlife Sanctuary. This is a permissive category in which "controlled harvesting of some resources" can be permitted. Ultimately, the Government may wish to examine IUCN's new Category VI "Managed Resources Protected Area": protected areas managed mainly for the sustainable use of natural resources.

As mentioned earlier, the North American model wilderness does not fit the situation existing in northern Finland. The Australian approach comes closer:

"...an area where little or no persistent evidence of modern technological society is permitted so that natural processes will take place largely unaffected by modern technology."

Because of the low population density, the vast open space and the clarity of the northern sky, Finland's north conveys the sense of wilderness that many people seek. Conflict arises if people anticipate only limited use and find extremely intense use in some areas. The following actions are proposed:

- 1) within the existing wilderness areas, create a core zone which meets the "Australian" definition;
- 2) surround the core zone with a new zone to be called "indigenous landscape" (erämaa) noting that indigenous areas include all plants, animals and people native to the area;
- 3) establish precise objectives and provide accurate information so that visitors to the area will have a clear idea of what to expect;
- 4) incorporate in IUCN's Category IV or VI;
- 5) use the name "indigenous wilderness reserves" to encompass the core area plus the "indigenous landscape": this should

differentiate the Finnish wilderness from North American wilderness and help to distinguish between the values involved.

This is in keeping with Section I of the Act on Wilderness Reserves, "to safeguard Lapp culture and indigenous livelihoods".

4 LOCAL INVOLVEMENT AND PUBLIC EDUCATION

4.1 Local involvement

Protected areas as a part of an international network can gain international support for their protection. However, in the long run, local support is the most critical factor. Without local support politicians will fail to provide adequate financing and in due course the protected areas will fail. Support for conservation must involve the local people.

The informal meeting of the Advisory Board at Urho Kerkonen provided a useful insight into how useful management information can be collected and disinformation can be set aside by clear management statements.

4.2 Public education

The Government commitment to public involvement and education has been substantial. We have, however, no measures to judge the success of this investment. During our field review we had the opportunity to visit centres with minimal investment (Njurgulahti) to centres of major investment (Järviluonnonkeskus, the Lakeland Centre).

We visited centres that were focused on specific areas (Oulanka) and centres that had broad educational functions (Lakeland Centre).

In brief, our view would be first to compliment the Government on these excellent facilities, and secondly to advise management agencies to integrate as far as possible these facilities in school programmes and as information centres with a broader community. Also, due to the extreme seasonality of public visitation, the integration of some of these centres as Regional or Park Headquarters should be considered.

One anomaly in the system appears to be the newly renovated railway station information centre at Punkaharju. It simply cannot compete with the nearby Lusto Forest Museum, which is subsidized by the Government but managed by a private foundation. The public will not visit both centres and the comparison of the Lusto Forest Museum with the protected areas centre will inevitably leave

visitors with an image that "industrial forestry is important and nature protection is a minor factor in Finnish resource management".

It is recommended that the old railway station be converted into a residence to facilitate student access to the Lusto Museum. The information function of the "railway station" should be incorporated into the activities of the Lusto Museum.

As limited use facilities with a narrow objective, the centres are a marginal investment. As integrated conservation-education centres they could make an outstanding contribution to school programmes as well as to conservation education in general.

5 CULTURAL RESOURCES

Landscapes, buildings and sacred sites which have an association with history may have value as national historic sites or they may be of local or regional value. When associated with a protected area, these resources should be considered in the overall planning, management and interpretation of the area.

The management of cultural landscapes requires clear objectives and investments of staff time or financial resources must be carefully assessed against the principle objectives for which a particular area was established.

Cultural areas in national parks should be zoned as such in management plans, and clear information about the objectives of these areas should be included in all literature and park interpretive programmes, e.g. Swiden agriculture in Linnansaani, and the Kovero farm in Seitsemien.

Several areas designated as nature protection areas might better be classified as cultural landscapes, e.g. Punkaharju with its State Hotel, Vehoniemi with its tower and vistas and Aulanko with its history.

6 CONCLUSION

The overall commitment of the Government of Finland to protected areas is impressive.

Challenges remain; reducing non-compatible uses, imperfect boundaries and inadequate staffing. Long-term improvement in these sectors is essential, if the protected area system is to attain its full potential.

Within the protected area system substantial effort is required in coastal marine and freshwater conservation. For a nation so graced with coastal areas and lakes, the current situation is unsatisfactory.

With its outstanding nature centres the FFPS should ensure the integration of conservation programmes with school curricula.

With its dedicated staff and abundant natural resources, a continuing commitment by the Government will result in a protected area system meeting the highest of international standards.

7 EXECUTIVE SUMMARY

A comprehensive review of Finland's protected areas was carried out from 20 June 1994 to 2 July 1994. The review was brief but intensive. It included areas as diverse as Lemmenjoki, Urho Kekkonen, Oulanka, Linnansaari, Seitsemien National Parks.

In brief, Finland's protected areas form an outstanding network which can be viewed with considerable pride. This report focuses, however, on specific concerns where some corrective measures are required. The major concerns are:

7.1 Legislation and policy

Both of these areas provide a satisfactory foundation for action. However, the adherence to or implementation of policies does not always reflect the existing guidelines, this is a particular concern with respect to placer gold mining in Lemmenjoki and reindeer herding throughout the northern park and wilderness areas. More effective management and adherence to guidelines is necessary.

7.2 Systems and planning

While there is an extensive network of protected areas other than for national parks, there appears to be no systematic or "systems planning" approach. Growth in the park system and in visitor centres appears to be more politically motivated than systematic. This can be wasteful of scarce resources, as well it can lead to an inequitable distribution of public opportunities. A comprehensive review of the existing protected areas is recommended along with the development of a "systems plan". Such a plan can be a positive administrative and political tool.

A concerted effort should be made to establish through consolidation two or three major national parks in southern Finland, e.g. Seitsemien, Linnansaari and Torronsuo.

7.3 Management planning

Several management plans were reviewed and on the whole, they provide sound guidelines. However, the zoning concepts applied lacked clarity. For example, in Seitsemien zoning included "remote parts", "restricted access" as well as "management of sub-areas and facilities". A map or plan integrating all of these zones is essential for better understanding. The five class zoning system used by Parks Canada (Annex 1) is recommended. It would be useful if two senior officers could visit Parks Canada and review in detail their system and management planning approaches for future application.

7.4 Development pressures and tourism

On the whole, the protected area facilities were models of sound park development. Facilities, though limited in scope were of high quality and in general sensitive to the environment. Excessive visitation was not evident and thus does not appear to be a major issue to concern management. (Perhaps a reflection of the time of the year?) A few sites with excessive trampling and gullying were evident but these can be rehabilitated.

Of significant concern were the boundaries of several areas; (e.g. Seitsemien, Helvetinjärvi and Pyhätunturi). In the first two consolidation will be essential to protect their ecological integrity. Excessive subdivision and tourism development proposed at Pyhätunturi is a major threat to its integrity. Action to review these development plans and establish a buffer zone surrounding the park is essential. Buffer zones should be considered as essential for all of the protected areas.

7.5 Natural resource management

Internationally, most large northern protected areas recognize the right of indigenous and local people to some degree of on-going use of natural resources on a traditional basis.

This is clearly a sensitive issue for many individuals. The present system has evolved as a result of lengthy negotiations with governments and any movement for change in current policy will be viewed with suspicion.

Closely related to indigenous use are questions of the ecological integrity and the sustainability of the activities carried out. These must be considered in consort with the individuals, the companies and the organizations involved. A review of several specific sectors is required.

7.6 Reindeer herding

It is questionable whether the current level of reindeer herding is sustainable. Experimental plots at the Oulanka Research Station demonstrates that outside of the enclosures excessive grazing pressure occurs on many of the protected areas.

Clearly, we are not suggesting that reindeer herding should be stopped. We are, however, recommending a comprehensive study of the sustainability of present practices.

7.7 Mining

For many people, the old prospector with a pick and shovel panning for gold presents a romantic picture of a past era. Opportunities for "tourists" and legitimate prospectors should continue but not in NATIONAL PARKS.

Existing regulations prohibiting the use of large power excavators are not being applied in Lemmenjoki National Park. River siltation is occurring and this may include excessive loads of mercury. Oil drums and other industrial waste litter the landscape and should be removed by the responsible operators. The mining should be stopped as soon as possible. Further prospecting or mining permits should not be issued in the National Parks.

7.8 Management and staffing

There is a lack of clarity and focus in the FFRI and FFPS with respect to the role of Strict Nature Reserves and National Parks. Actions are proposed for significant changes in responsibility of the two organizations. As far as we were able to observe, the staff was extraordinarily motivated and committed to fulfilling their responsibilities.

It was, however, abundantly clear that neither organization has adequate staff for the effective management of the protected areas for which they are responsible.

7.9 Local involvement and public education

The roles of education, information and tourism are closely linked and play an important role in protected area management.

Several centres of high quality were visited. With approximately a two-month visitor season, the impact of these excellent centres is unfortunately

questionable. The management issue, however, is: "could the invested funds have been used more effectively to achieve the same purpose?"

Their effectiveness could be enhanced by linking them to school programmes such as the programme at the Lakeland Centre. In other cases, they may serve an enhanced role by closer linkage to park administration and management in general. In brief, they are fine facilities but they are not being utilized to their optimum.

8 SUOMEN LUONNONSUOJELUALUEIDEN TILAN TEKNINEN ARVIOINTI

Hallintoa palveleva yhteenveto. Käännös kappaleesta 7 (Executive summary): Matti Helminen

Suomen luonnonsuojelualueiden laaja tarkastelu suoritettiin 20.6.–2.7.1994. Tarkastusaika oli lyhyt, mutta se käytettiin tehokkaasti. Käyntejä tehtiin niinkin erilaisille alueille kuin Lemmenjoen, Urho Kekkosen, Oulangan, Linnansaaren ja Seitsemisen kansallispuistoihin.

Lyhyesti sanottuna Suomen luonnonsuojelualueet muodostavat erinomaisen verkon, josta on syytä olla ylpeä. Tämä kertomus keskittyy kuitenkin niihin erityisongelmiin, jotka mielestämme vaativat toimenpiteitä. Tärkeimmät ongelmat ovat seuraavat:

8.1 Lainsäädäntö ja suojelualuepolitiikka

Antavat kumpikin tyydyttävän toimintaperustan. Suojelutavoitteita ei aina saavuteta, mikä aivan erityisesti koskee koneellista kullankaivua Lemmenjoella ja porojen laidunnusta kaikilla pohjoisilla suojelu- ja erämaa-alueilla. Tehokkaampi alueiden hoito ja tiukempi pitäytyminen tavoitteissa ovat välttämättömiä.

8.2 Järjestelmä ja suunnittelu

Huomioonottaen sen, että kansallispuistojen lisäksi on olemassa laaja muiden suojelualueiden verkko, koko järjestelmän systemaattinen suunnittelu näyttää puuttuvan. Suojelualueiston ja opastuskeskusten määrän kasvu on pikemminkin ollut (alue)poliittisesti määrätynyt kuin systemaattista. Tämä voi johtaa niukkojen resurssien tuhlaukseen sekä yleisöpalveluiden epäoikeudenmukaiseen jakautumiseen. Suositamme perusteellista olemassaolevan suojelualuejärjestelmän tarkastelua tavoitteena järjestelmällinen kokonaissuunnitelma, joka voisi olla hyödyllinen sekä hallinnolliselle että poliittiselle päätöksenteolle. Tavoitteeksi tulisi asettaa toiminnan keskittäminen Etelä-Suomessa kahteen tai kolmeen merkittävimpään kansallispuistoon, joita voisivat olla esimerkiksi Seitsemisen, Linnansaari ja Torrnsuo.

8.3 Hoidon suunnittelu

Tutustuimme useisiin runkosuunnitelmiin, jotka antavat hyvän perustan puiston hoidolle. Osa-aluejako kaipaa silti selvennystä. Esimerkiksi Seitsemisen

runkosuunnitelmaan kuuluu "syrjäosia", "rajoitusosia" ja erilaisia hoidon osa-alueita ja kohteita. Erilaiset osa-alueet yhdistävä kartta olisi tarpeen asian ymmärtämistä helpottamaan. Suosittelemme Parks Canadian käyttämää jakoa viiteen osa-alueiluokkaan (ks. liite 1). Olisi hyödyllistä lähettää kaksi kokenutta henkilöstön edustajaa tutustumaan Parks Canadian käyttämään kokonaissuunnitteluun ja yksittäisten alueiden hoidon suunnitteluun.

8.4 Ulkopuoliset kehittämispaineet ja matkailu

Yleisesti ottaen nähdyt palvelurakenteet olivat mallikelpoisia. Palveluvarustus oli hyvin tehtyä ja ympäristön vaatimukset huomioon ottavaa, joskin niukkaa. Merkkejä liiallisesta käytöstä ei ollut havaittavissa, joten kävijämäärät eivät liene merkittävä hoito-ongelma. (Käyntiemme vuodenaika saattoi vaikuttaa havaitsemaamme?) Muutamissa paikoissa totesimme pahaa kulumista ja maaston syöpmistä, mutta paikat on mahdollista korjata.

Usean puiston rajaukset ovat huolestumista herättäviä (esimerkiksi Seitsemisen, Helvetinjärvi ja Pyhätunturi). Kahden ensinmainitun puiston rajaukset tulisi yksinkertaistaa ekologisesti kestävä kokonaisuuden varmistamiseksi. Laaja alueen luovutus suojelualueesta ja ehdotettu matkailurakentaminen merkitsevät vakavaa uhkaa Pyhätunturin kansallispuiston koskemattomuudelle. Suunnitelmien perusteellinen tarkastelu ja puskurivyöhykkeen luominen puiston ympärille ovat olennaisen tärkeitä. Puskurivyöhykkeet olisivat tärkeitä myös muiden suojelualueiden ympärillä.

8.5 Luonnonarvojen säilyttäminen

Kansainvälisestikin useimmilla suurilla pohjoisilla suojelualueilla tunnustetaan alkuperäiskansojen ja muun paikallisen väestön oikeudet perinteiseen ja edelleen käytössä olevaan luonnonvarojen hyödyntämiseen. Monille tämä oikeus on hyvin arka asia. Nykyiset järjestelyt on aikaansaatu ehkä pitkien neuvottelujen tuloksena, ja mikä tahansa aloite omaksutun politiikan muuttamiseksi herättää epäluuloja.

Alkuperäiskansojen luonnonkäyttöön liittyy läheisesti käyttötapojen ekologisen kestävyuden ongelma, jota on tarkasteltava yhteisymmärryksessä niiden ihmisten, yritysten ja järjestöjen kanssa, joita ongelma koskee. Useat erityisongelmat vaativat tarkastelua.

8.6 Porotalous

On kyseenalaista, onko nykyinen porojen aiheuttama laidunnuspaine ekologisesti kestävä. Näytealat Oulangan biologisella asemalla osoittavat, että

monilla suojelualueilla laidunnuspaine ylittää ekologisen kestävyys-
 Korostamme, ettemme ehdota porotalouden lopettamista. Sen sijaan
 suositamme nykyisen laidunnuskäytännön ekologisen kestävyys-
 perusteellista tutkimista.

8.7 Kaivostoiminta

Monille meistä perinteinen kullankaivaja, joka hakkuineen ja lapioineen
 huuhtoo kultaa, merkitsee menneen ajan romanttista muistikuvaa. Luvallisille
 kaivajille ja "turisteille" on varattava mahdollisuus toimia – muttei
 kansallispuistoissa!

Suojelumääräysten edellyttämää isojen kaivinkoneiden käyttökieltoa ei sovelleta
 Lemmenjoen kansallispuistossa. Jokien liettymistä tapahtuu, mikä saattaa
 merkitä myös elohopeapitoisuuden kasvua. Öljytynnyrit ja muut toiminnan
 tuottamat jätteet pilaavat maisemaa, ja vastuunalaisten kaivajien tulisi kuljettaa
 ne pois. Kaivutyö tulisi lopettaa mahdollisimman pian. Uusia kaivu- tai
 malminetsintälupia ei kansallispuistoihin tulisi myöntää.

8.8 Hallinta ja henkilöstö

Metsähallituksen ja Metsäntutkimuslaitoksen keskeinen työnjako luonnon- ja
 kansallispuistojen hoitajina kaipaa selvennystä. Näiden kahden laitoksen
 vastuualueiden muuttamista onkin ehdotettu. Sikäli kuin havaitsimme,
 kummankin laitoksen henkilöstö on tehtäviinsä erittäin motivoitunutta ja
 vastuuntuntoista. Silti useaan otteeseen ilmeni, ettei kummallakaan laitoksella
 ole hallinnassaan olevien suojelualueiden tehokkaan hoidon vaatimaa riittävää
 henkilöstöä.

8.9 Osallistuva toiminta ja ympäristökasvatus

Kasvatus, opastus ja matkailu ovat kiinteässä yhteydessä toisiinsa, ja niillä on
 tärkeä merkitys järjestettäessä suojelualueiden hoitoa. Kävimme useissa
 korkealuokkaisissa opastuskeskuksissa. Lyhyestä vuotuisesta käyttökaudesta
 johtuen näiden erinomaisten keskusten merkitys on valitettavasti kyseenalainen.
 "Olisivatko opastuskeskuksiin sijoitetut varat muulla tavoin käytettyinä
 tuottaneet paremman tuloksen" onkin keskeinen suojelualueiden hoito-ongelma.
 Opastuskeskusten tehokkuutta voitaisiin lisätä kytkemällä niiden toiminta
 kouluopetukseen, kuten Järviluonnonkeskuksessa on tehty. Eräissä toisissa
 tapauksissa kiinteämpi yhteys puiston hallintoon ja hoitoon lisäisi
 opastuskeskuksen tehoa. Keskusten tarjoamia hienoja mahdollisuuksia ei vielä
 käytetä optimaalisesti hyväksi.

PARKS CANADA ZONING

In the following, the zoning principles in the Canadian national parks are presented. Source: Parks Canada Guiding Principles and Operational Policies. Minister of Supply and Services Canada. 1994. 125 p. ISBN 0-662-21559-1.

2.1 Management Plans

2.1.1

Parks Canada will prepare management plans for the Minister's approval and tabling in Parliament:

- I) within five years after the proclamation of a park under any Act of Parliament;
- or,
- II) within five years of the transfer of administration and control to Parks Canada of lands proposed for establishment as national parks.

Management plans will be reviewed every five years for re-tabling with any amendments.

2.1.2

In the preparation of a management plan, the maintenance of ecological integrity through the protection of natural resources and processes will be the first priority when considering zoning and visitor use. The protection of cultural resources will receive a high level of consideration subject to this legislated requirement.

2.1.3

Each management plan will contain a statement of park purpose and objectives that will reflect the role of the park in the system of national parks, and in the natural region in which it is located.

2.1.4

Park management plans provide the framework for further detailed sub-plans concerning:

- I) ecosystem management (park conservation plan); and
- II) interpretation, visitor services and visitor risk management (park service plan).

2.1.5

Parks Canada will inform and involve a broad spectrum of the Canadian public in the preparation, review and amendment of park management plans.

2.1.6

The implementation and effectiveness of each park management plan will be monitored continuously.

2.1.7

Parks Canada will cooperate with other levels of government, private organizations and individuals responsible for the planning of areas adjacent to national parks to maintain ecological integrity and to ensure that services and facilities are integrated in a positive manner with surrounding regions.

2.1.8

Management plans for national parks which have additional international or national designations such as World Heritage Site, Biosphere Reserve, Ramsar Site, Canadian Heritage River, or National Historic Site, will include strategies for protection and promotion of the values that resulted in the additional designations.

2.2 Zoning

The national parks zoning system is an integrated approach by which land and water areas are classified according to ecosystem and cultural resource protection requirements, and their capability and suitability to provide opportunities for visitor experiences. It is one part of an array of management strategies used by Parks Canada to assist in maintaining ecological integrity through providing a framework for the area-specific application of policy directions, such as for resource management, appropriate activities, and research. As such, zoning provides direction for the activities of park managers and park visitors alike. The application of zoning requires a sound information base related to both ecosystem structure, function and sensitivity, as well as the opportunities and impacts of existing and potential visitor experiences.

The zoning system provides a means to reflect principles of ecological integrity by protecting park lands and resources and ensuring a minimum of human-induced change. In certain national parks not all zones will be represented. Where zones which permit a concentration of visitor activities and supporting services and facilities are required (i.e., Zones IV and V), they will occupy no more than a small proportion of a national park.

In some cases, environmentally or culturally sensitive areas or sites may warrant special management but do not fit the zoning designations below. Park management plans will include the guidelines necessary for the protection and use of such areas or sites. Their designation complements the zoning system and is important to the protection of the full range of valued resources in certain national parks. Likewise, a temporal zoning designation may be considered for certain areas as part of the management planning program. Ecosystem management requirements will be paramount in consideration of any temporal zones.

2.2.1

The national parks zoning system will apply to all land and water areas of national parks, and to other natural areas within the Parks Canada system as appropriate. It does not preclude resource harvesting activities which are permitted by virtue of national park reserve status, land claim settlements and/or by new park establishment agreements.

2.2.2

Any change to a park's zoning constitutes a major amendment to the park management plan and may only be made following an environmental assessment, public notice and public participation in the decision.

2.2.3

The national park zoning system comprises the following five zones. (While the broad zoning framework is presented here, implementation depends upon more detailed guidance found in the zoning chapter of the directive on the National Parks Management Planning Process.)

2.2.3.1 *Zone I – Special Preservation*

Specific areas or features which deserve special preservation because they contain or support unique, threatened or endangered natural or cultural features, or are among the best examples of the features that represent a natural region. Preservation is the key consideration. Motorized access and circulation will not be permitted. In cases where the fragility of the area precludes any public access, every effort will be made to provide park visitors with appropriate off-site programs and exhibits interpreting the special characteristics of the zone.

2.2.3.2 Zone II – Wilderness

Extensive areas which are good representations of a natural region and which will be conserved in a wilderness state. The perpetuation of ecosystems with minimal human interference is the key consideration. Zones I and II will together constitute the majority of the area of all but the smallest national parks, and will make the greatest contribution towards the conservation of ecosystem integrity.

Zone II areas offer opportunities for visitors to experience, first hand, a park's natural and cultural heritage values through outdoor recreation activities which are dependent upon and within the capacity of the park's ecosystems, and which require few, if any, rudimentary services and facilities. Where the area is large enough, visitors will also have the opportunity to experience remoteness and solitude. Opportunities for outdoor recreation activities will be encouraged only when they do not conflict with maintaining the wilderness itself. For this reason, motorized access and circulation will not be permitted, with the possible exception of strictly controlled air access in remote northern parks, as specified in 4.4.3.

Parks Canada will use a variety of other direct and indirect strategies for managing public use, and will evaluate the effectiveness of these strategies on a regular basis.

2.2.3.3 Zone III – Natural Environment

Areas which are managed as natural environments, and which provide opportunities for visitors to experience a park's natural and cultural heritage values through outdoor recreation activities requiring minimal services and facilities of a rustic nature. While motorized access may be allowed, it will be controlled. Public transit that facilitates heritage appreciation will be preferred. Park management plans may define provisions for terminating or limiting private motorized access.

2.2.3.4 Zone IV – Outdoor Recreation

Limited areas which are capable of accommodating a broad range of opportunities for understanding, appreciation and enjoyment of the park's heritage values and related essential services and facilities, in ways that impact the ecological integrity of the park to the smallest extent possible, and whose defining feature is direct access by motorized vehicles. Park management plans may define provisions for limiting private motorized access and circulation.

2.2.3.5 Zone V – Park Services

Communities in existing national parks which contain a concentration of visitor services and support facilities. Specific activities, services and facilities in this zone will be defined and directed by the community planning process. Major park operation and administrative functions may also be accommodated in this zone. Wherever possible, Parks Canada will locate these functions to maintain regional ecological integrity.

2.3 Designated Wilderness Areas

The 1988 amendments to the *National Parks Act* provide for the designation, by regulation, of wilderness areas within a park. It is intended that the designated wilderness area boundaries will be consistent with Zone II boundaries, although the requirement to produce a legal boundary survey may cause some slight variations. In addition, where Zone I areas are included in or are adjacent to Zone II areas, or are large enough to be considered on their own, they may also be included in designated wilderness areas, but will be managed to conform to their special requirements for protection.

While the criteria for defining designated wilderness areas mirror that for Zone II Wilderness, an Order in Council designation places a legislative constraint on development. Once the Order is in place, provisions of the *National Parks Act* come into effect which prohibit authorization of any activity in a designated wilderness area that is likely to impair its wilderness character. Only those activities would be allowed which are required for: park administration; public safety; the provision of basic user facilities including trails and rudimentary campsites; the carrying on of traditional renewable resource harvesting activities where authorized; and, in exceptional circumstances, access by air to remote parts of such areas.

As with all other crucial stages of management planning, the boundaries and appropriate uses of proposed designated wilderness areas will be determined with public input during the preparation or review of a management plan. Changes to the boundary of a designated wilderness area would have to be preceded by public consultation and approved through an Order in Council.

3 PROTECTING AND MANAGING PARK ECOSYSTEMS

Management for park purposes differs markedly from that of other lands, where effort may be directed toward modifying or controlling nature, producing crops or extracting natural resources. Within national parks, effort is directed at maintaining ecosystems in as natural a state as possible. This goal has far-reaching implications in that many concepts and practices that are relevant or essential to successful resource management on other lands are inappropriate in national parks.

Sustaining the integrity of park ecosystems will be a major challenge in the coming years. Parks seldom contain complete or unaltered ecosystems. This, combined with increasing and cumulative stress from sources such as adjacent land use, downstream effects of air and water pollution, invasion by exotic species, visitor use and climate change can result in irreversible degradation of park ecosystems, the loss of biodiversity and impoverishment of gene pools. In recognizing the challenge, Parks Canada has produced the *Strategic Framework to Sustain the Integrity of Ecosystems*, which contains principles to which this Policy conforms and which are reflected in the following statements.

Ecosystem management provides a conceptual and strategic basis for the protection of park ecosystems. It involves taking a more holistic view of the natural environment and ensuring that land use decisions take into consideration the complex interactions and dynamic nature of park ecosystems and their finite capacity to withstand and recover from stress induced by human activities. The shared nature of ecosystems also implies that park management will have effects on surrounding lands and their management.

To be effective, ecosystem management must be far-reaching and have a broad base of support. In particular it requires understanding and collaboration among all those whose activities influence the ecological integrity of the park. Parks Canada must demonstrate leadership by working closely with other land management agencies to develop a better understanding of the relationship between existing land use practices and their effects on the natural environment. National parks are becoming increasingly important in national and international efforts to maintain biodiversity and genetic resources. Consequently, Parks Canada negotiates specific agreements with provincial and territorial planning and conservation agencies and also supports involvement in the UNESCO Man and the Biosphere Program as a means of integrating regional planning around parks.

Ecosystem management must be credible and therefore solidly based in science. Thus, the concept of partnerships is particularly important since universities, conservation organizations and the private sector have much to contribute towards research and environmental monitoring initiatives within national parks.

When research confirms that the structure and function of park ecosystems have been seriously altered by human activities, and that reliance on natural processes alone cannot achieve restoration objectives, intervention may be warranted.

Since management action to restore ecosystems will have far-reaching and long-lasting effects, caution must be exercised. Management must be guided by the establishment of clear, practical and measurable objectives that are consistent with the park management plan and by the rigorous application of science in the collection and interpretation of research and monitoring data.

FIELD PROGRAMME

Agenda

Evaluation of the Management of Finnish Protected Areas
Finnish Forest and Park Service (FPS)

Itinerary and Programme

- | | |
|--------------|--|
| 19 June 1994 | Paris–Helsinki–Hyvinkää
Meeting with Matti Helminen |
| 20 June 1994 | Hyvinkää–Helsinki–Ivalo
Meeting with Matti Helminen and Antti Haapanen
Meeting with Pertti Veijola, Matti Mela
Flight over Lemmenjoki National Park
Hammastunturi Wilderness Area
TV interview
Visit to Nanguniemi Marina, Lake Inari
Overnight Riutula Youth Centre |
| 21 June 1994 | Riutula (Youth Centre) Wilderness briefing:
presentation by Tapio Tynys
Riutula–Njurgulahti Visitor Centre
Meeting with local people, press, radio
Lemmenjoki River–Ravadas Visitor Area
Overnight Kiilopää Warden station, Urho Kekkonen National Park
Meeting with Jouni Kähkönen–Tourism Industry, Saariselkä winter sports centre
Kerttu Härkönen (FPS)
Anna-Liisa Sippola (Finnish Association for Nature Conservation / Lapland district, non-governmental organization) |
| 22 June 1994 | Visit to Kiilopää Hiking Centre (Suomen Latu, non-governmental organization)
Visit to Visitor Information Centre (Tankavaara/Urho Kekkonen National Park)
TV interview
Visit to Porokylä Village and meeting with advisory group
Pekka Aikio (Same People)
Hannu Magga (Chief, Reindeer Herder)
Arja Vasama (Superintendent, Urho Kekkonen National Park) |

- Pertti Itkonen (Forest Inventory)
Reijo Lähteenmaki (Teacher, Village Council)
- Car to Sodankylä and Pyhätunturi National Park
Meeting with Ranger Tapani Vartiainen
- 23 June 1994 Visit to Pyhätunturi National Park with Tapani Vartiainen and Timo Penttilä (Finnish Forest Research Institute)
- Car to Hautajärvi Visitor Centre and Oulanka National Park
- Meeting with Timo Hentilä (FPS)
Visit to Oulanka Visitor Centre
Visit to Oulanka Biological Station
- 24 June 1994 Meeting with Dr. Juha Viramo (Station Director) and visit to reindeer corrals at Oulanka Biological Station
Site visits in Oulanka National Park (potential World Heritage site) twinned with Russia's Paanajärvi National Park
- Meeting with Timo Hentilä
Visit to concession-managed camp ground
Visit to EMEP Air Quality Monitoring Station and reforestation areas with "enclosures"
Overnight at Rukatunturi winter sports centre
Midsummer Eve
- 25 June 1994 Air: Kuusamo–Helsinki
Meeting with Dr. Bibelriether – debriefing
Overnight in Hyvinkää
- 26 June 1994 Hyvinkää–Helsinki–FPS offices
Air: Helsinki–Savonlinna
Meeting with Kari Pelkonen (FPS, Eastern Finland Park Area)
Hotel Hospiz
- 27 June 1994 Visit to Lakeland Centre (Rantasalmi)
Meeting with Tapani Pirinen (Head of the Lakeland Centre)
Meeting with Pekka Hynninen (Head, Lakeland Centre School Programme)
By boat to Linnansaari National Park (potential

- World Heritage site)
Meeting with Karl Pelkonen and Seppo Manninen, Tuula Kurikka, Antti Marjokorpi (White-backed Wood Pecker) and Tero Sipilä (Ringed Seal)
Return to Hotel Hospiz (Savonlinna)
- 28 June 1994
- Car to Punkaharju Nature Conservation Area (Finnish Forest Research Institute)
Visit to Lusto, the Finnish Forest Museum
Visit to converted Railway Station Information Centre
Visit to concession State Hotel (Czarist era)
Visit to Siikalahti Marsh (former WWF Bird Sanctuary, proposed RAMSAR site) in Parikkala
By train Parikkala–Parkano (500 km)
Car to Seitsemäinen National Park
Overnight at Seitsemäisenportti Inn
- 29 June 1994
- Visit to Seitsemäinen National Park with Matti Helminen, Jorma Koivurinne (Director, Western Finland Park Area) and Maarit Kyösti (Senior Officer, Western Finland Park Area)
Visit to Visitor Centre and interpretative programmes
Visit to the traditional farm Kovero
Visit to drained peatlands restoration project
Visit to the old growth forest Multiharju
Visit sport fishing area Kirkas-Soljanen
Overnight at park forest camp Pitkäjärvi
- 30 June 1994
- Visitor Centre, Seitsemäinen National Park
Nature Trail, Seitsemäinen National Park
Press interviews, Seitsemäinen National Park
Car to Vehoniemi (roadside) protected area
Scenic selective cutting operation (Raimo Itkonen)
Visit to Aulanko Park Forest (Finnish Forest Research Institute)
Hotel Aulanko and privately developed Aulanko Park Forest
Meeting with Antti Haapanen (evening)
- 01 July 1994
- Meeting with Antti Haapanen
Car to Liesjärvi National Park, meeting with Hannu Ormio (Senior Officer, South Coast Park Area)
Visit to a prescribed burning site

Visit to Torrnsuo National Park, peatland area
Evening in Helsinki

02 July 1994

Visit to Laajalahti Bird Sanctuary (FPS) and the
municipal environment education centre Villa
Elfvik (town of Espoo)
4.45 p.m. Departure for Paris

Finnish national parks and strict nature reserves

Nature protection areas visited by the authors are marked with the name underlined.

