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Transfrontier National Parks and Biosphere Reserves in Europe
Argumenta: Koli Border Forum -Seminar 23–24 October 2003
Koli National Park

Euroopan rajaseutujen kansallispuistot ja biosfäärialueet
Argumenta: Koli Border Forum -seminaari 23.–24.10.2003
Kolin kansallispuisto



Edited by
Jari Parviainen, Lasse Lovén
and Mari Pitkänen

JOENSUUN TUTKIMUSKESKUS
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Euroopan rajaseutujen kansallispuistot ja biosfäärialueet. Argumenta: Koli Border Forum -Seminaari 23.-24.10. 2003. Järjestäjänä Metsäntutkimuslaitos, Joensuun tutkimuskeskus yhteistyössä Pohjois-Karjalan ympäristökeskuksen kanssa, tukijoina Suomen Kulttuurirahasto, Joensuun yliopisto ja EUROPARC Nordic-Baltic Section. Metsäntutkimuslaitoksen tiedonantoja 932, 160 s. ISBN 951-40-1941-5, ISSN 0358-4283.

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Abstract

Seminar "Transfrontier National Parks and Biosphere Reserves in Europe" was one of the five events of Argumenta: Koli Border Forum series funded by the Finnish Cultural Foundation. Presentations given at the seminar are gathered in this publication. The aim of this seminar was to promote discussion on nature conservation on borders and border districts and to bring scientific facts and views into the discussion. The economic, social and cultural values of the local communities were of special interest in the seminar. The seminar gave a broad overview on the management, users, tourism and problems in the maintenance of national parks and other protected areas in Europe, especially in Eastern part of Europe. The seminar also gathered experiences and opinions on establishing, managing and developing national parks and protected areas in border districts by examining practical examples.

Editors

Jari Parviainen, Lasse Lovén and Mari Pitkänen
Finnish Forest Research Institute

Tiivistelmä

Seminaari "Euroopan rajaseutujen kansallispuistot ja biosfäärialueet" oli yksi viidestä Suomen Kulttuurirahaston tukemasta Argumenta: Koli Border Forum -sarjan tapahtumasta. Seminaarisarjan tavoitteena on lisätä valtioiden rajojen ja raja-alueiden ympärillä käytävää keskustelua ja tuoda siihen erityisesti tieteellisesti perusteltuja näkökulmia. Rajaseutujen kansallispuistot ja biosfäärialueet -seminaari kohdistui luonnonsuojelukysymysten ohella paikallisyhteisöjen taloudellisten, sosiaalisten ja kulttuuristen arvojen huomioonottamiseen. Samalla seminaarissa oli tavoitteena luoda yleiskuva Euroopan, ennen muuta Itä-Euroopan kansallispuistojen ja muiden luonnonsuojelualueiden hoidosta, käyttäjistä, matkailusta ja ajankohtaisessa keskustelussa olevista ongelmakysymyksistä. Yleisesitysten lisäksi seminaari kokosi käytännön esimerkkien avulla kokemuksia ja näkemyksiä raja-alueille sijoittuvien suojelualueiden perustamisesta, hoidosta ja kehittämisestä.

Tähän julkaisuun on koottu seminaarissa pidetyt esitelmät. Suurin osa esitelmistä on englanniksi, mutta niistä on laadittu suomenkieliset tiivistelmät.

Jari Parviainen, Lasse Lovén ja Mari Pitkänen
Metsäntutkimuslaitos

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Euroopan rajaseutujen kansallispuistot ja biosfäärialueet

ARGUMENTA: KOLI BORDER FORUM –SEMINAARI 23.-24.10. 2003

Euroopan rajaseutujen kansallispuistot ja biosfäärialueet (Transfrontier National Parks and Biosphere Reserves in Europe), Metsäntutkimuslaitos, Kolin kansallispuisto

Järjestäjänä Metsäntutkimuslaitos, Joensuun tutkimuskeskus yhteistyössä Pohjois-Karjalan ympäristökeskuksen kanssa, tukijoina Suomen Kulttuurirahasto, Joensuun yliopisto ja EUROPARC Nordic-Baltic Section

Tausta

Seminaari oli yksi viidestä Suomen Kulttuurirahaston tukemasta Argumenta: Koli Border Forum -sarjan tapahtumasta. Seminaarisarjan tavoitteena on lisätä valtioiden rajojen ja raja-alueiden ympärillä käytävää keskustelua ja tuoda siihen erityisesti tieteellisesti perusteltuja näkökulmia. Rajaseutujen kansallispuistot ja biosfäärialueet -seminaari kohdistui luonnonsuojelukysymysten ohella paikallisyhteisöjen taloudellisten, sosiaalisten ja kulttuuristen arvojen huomioonottamiseen. Samalla seminaarissa oli tavoitteena luoda yleiskuva Euroopan, ennen muuta Itä-Euroopan kansallispuistojen ja muiden luonnonsuojelualueiden hoidosta, käyttäjistä, matkailusta ja ajankohtaisessa keskustelussa olevista ongelmakysymyksistä.

Yleisesitysten lisäksi seminaari kokosi käytännön esimerkkien avulla kokemuksia ja näkemyksiä raja-alueille sijoittuvien suojelualueiden perustamisesta, hoidosta ja kehittämisestä. Vertailupareina olivat Suomi/Venäjä, Liettua/Venäjä, Saksa/Tsekin tasavalta ja Tsekin tasavalta/Puola. Seminaarikieli oli englanti, mutta kaikki esitykset käännettiin simultaanisesti suomeksi.

Sisällölliset pääkysymykset olivat:

- ymmärtää ne yhteiskunnalliset olosuhteet ja kehitys, joiden vuoksi suojelualueiden rajaus, kehitys ja ylläpito poikkeavat rajojen läheisyydessä toisistaan
- kuinka voidaan saada tukea naapurimailta suojelualueiden eliölajiston säilyttämiseen, toimintojen ylläpitoon, matkailuun ja yhteistyöverkostoihin
- etsiä keinoja, joilla voidaan lieventää rajojen muodostamia esteitä (kuten kielierot, kulttuurierot, hallinto, lainsäädäntö, ihmisten ja lajien liikkuminen)

Seminaariin osallistui n. 60 osanottajaa 10 Euroopan valtiosta. Esitelmiä ja pyydettyjä puheenvuoroja oli kaikkiaan 15. Ensimmäisen seminaaripäivän iltana järjestettiin Kolilla ohjelmallinen illanvietto, johon osallistuivat seminaarin osanottajien lisäksi Kolin kylän paikalliset asukkaat ja yhteisöt.

Keskeiset johtopäätökset

Metsien suojelualueet Euroopassa

Kansallispuistot on perustettu yleisiksi luonnon nähtävyyksiksi ja toisaalta säilyttämään jonkin alueen tyypillisiä luonnonpiirteitä. Kansallispuistojen käyttömuodoksi on määritelty ensi sijassa luonnon suojeleminen sekä sen turvaamisen rajoissa tutkimus-, opetus- ja virkistyskäyttö. Kansallispuistojen suojeluaste ja hoidon ja ylläpidon käsite vaihtelevat kuitenkin paljon riippuen paikallisista olosuhteista.

Biosfäärialueella on yhdistetty suojelu ja talous. Biosfäärialueiden ydinalueita ovat useimmiten kansallispuistot. Ydinalueiden lisäksi biosfäärialueella on ns. yhteistoiminta-alue, jolla taloustoiminnat ovat sallittuja. Biosfäärialuetoiminta ei ole lakiin perustuvaa viranomaistoimintaa vaan paikallisten asukkaiden ja muiden toimijoiden toimeliaisuuteen perustuvaa kehitystyötä.

Kansallispuistojen ja biosfäärialueiden erona on näkökulma: kansallispuistoissa katsellaan paikallisyhteisöä puiston suunnasta, kun biosfäärialueella paikallisyhteisö katsoo kansallispuistoa osana toimintaympäristöä. Kansallispuistojen etuna on laaja ja myönteinen tunnettuus, biosfäärialueet ovat toistaiseksi huonosti tunnettuja. Toimintatavat lähestyvät toisiaan, mutta yhteistä molemmille on se, että toimintatapa sovitetaan kunkin alueen ominaisuuksien mukaan.

Kansallispuistojen ohella Euroopassa on lukemattomia muita eriasteisesti suojeltuja metsäalueita. Koska Euroopassa ei ole enää tuntemattomia koskemattomia yhtenäisiä luonnontilaisia metsäalueita, uusia tiukasti suojeltuja metsien suojelukohteita on vaikea perustaa. Euroopan metsien suojelualueet muodostavatkin hyvin laajan ja monimuotoisen, erityyppisistä alueista koostuvan verkoston. Valtioiden raja-alueille sijoittuvia suojelualueita on Euroopassa kaikkiaan noin 300.

Eniten metsien suojelualueita perustettiin Eurooppaan 1980-1990-luvuilla. Euroopan ympäristökeskuksen (EEA) tilastojen mukaan yksittäisiä suojelualueita on Euroopassa kaikkiaan 60 – 70 000, joihin sisältyy yli 650 erilaista suojelukategoriaa.

Viimeisen 10 vuoden aikana uusia metsänsuojelualueita on perustettu vähän, eniten niitä on muodostettu Itä-Euroopan valtioihin. Luonnonsuojelulain, -asetuksen tai muun säädöksen mukaan perustettuja metsien suojelualueita on kaikkiaan Euroopassa ilman Venäjän alueita 11,8 milj. hehtaaria, eli 6,1 % metsäalasta. Tiukimmin suojeltuja metsäalueita, joissa ihmisen toimenpiteet on kielletty tai rajoitettu mahdollisimman vähiin on noin 3 milj. ha eli 1,6 % metsäalasta. Suurimmat yhtenäiset suojelualueet sijoittuvat Pohjoismaihin ja Keski- ja Itä-Euroopan vuoristoalueille, joissa ihmisten vaikutus ja liikkuminen metsissä on ollut eniten rajoittunutta.

Tällä hetkellä uusien suojelualueiden perustamisen sijasta paino on olemassa olevan verkoston täydentämisessä, sen edustavuuden parantamisessa sekä suojelumetsien rakenteen ja laadun kohottamisessa. Mitään kansainvälisesti hyväksyttyä yhtä prosenttitavoitetta (esim. 5 % tai 10 % suojeltua metsää) ei Euroopassa ole, sillä eliölajien säilyminen ratkaistaan talousmetsien hoidossa. Euroopassa 80-90 % metsistä on monikäytön piirissä, jolloin luonnonläheisyys on tärkeä mittari eliölajien säilymiselle. Suojelukeskustelussa korostetaan ns. täsmäsuojelua eli pienten avainbiotooppien suojelua metsänhoidon yhteydessä.

Rajaseutujen suojelualueiden pääkysymykset

Seminaarin keskeistä antia olivat esitykset ja keskustelut kansallispuistojen ja biosfäärialueiden merkityksestä ja toiminnasta paikallisyhteisöjen kanssa, erityisesti rajaalueilla. Raja-alueet ovat erityisasemassa maantieteessä, luonnossa ja kulttuurissa: kulttuurit voivat rajalla olla jo valmiiksi sekoittuneita tai tiukasti eristyneitä rajan eri puolille. Raja-alueet ovat usein harvaan asuttuja, kaukana taloudellisista keskuksista ja luonto on alkuperäisempää kuin keskusten lähellä. Kulttuurien ja luonnon erikoiset yhdistelmät sekä rauhan ja demokratian vaatimukset ovat nostaneet raja-alueet ja niiden suojelualueet erityishuomion kohteeksi.

Sekä UNESCO että Euroopassa toimiva kansallispuistoliitto EUROPARC Federation pyrkivät aktiivisesti edistämään rajat ylittävien suojelualueiden luomista ja toimintojen koordinointia. UNESCO on juuri julkaissut teoksen rajan ylittävistä biosfäärialueista ja EUROPARC on laatinut kriteeristön parhaista käytännöistä valtioiden rajan ylittävillä suojelualueilla. Rajapuistojen yhteistyöstä Euroopassa on hyviä esimerkkejä erityisesti EUROPARC -kriteeristön valmisteluvaiheessa toteutetuissa esimerkkikohteissa Alppien ja Karpaattien alueilla vuoristojen jakamista puistoista.

Suojelualueiden yhteistoiminta tarjoaa mahdollisuuden lisätä erilaisten kulttuurien ja toimintatapojen ymmärrystä rajaseuduilla ja lisätä samalla luonnon ja paikallisten kulttuurien säilymistä. Käytännön toimissa ongelmina ovat usein puutteellinen kielitaito ja kulttuurin tuntemus, mutta kokemukset sekä biosfäärialueilta että kansallispuistoista todistavat, että arkipäiväinen, todellinen yhteistyö kokoussalien ulkopuolella auttaa usein voittamaan vaikeudet. Kun ihmiset voivat toimia yhdessä arjen ongelmien voittamiseksi, myös luonnonsuojelua voidaan edistää. Rajoja ylittävän yhteistoiminnan edellytys on kuitenkin aina poliittisen tason yhteistyösopimus.

Koska rajat ovat monimuotoisia historiallisia, ekologisia, maantieteellisiä ja kulttuurisia alueita, ne mahdollistavat myös monipuolisen kehittämismahdollisuuden esim. tutkimuksessa, ympäristökasvatuksessa ja matkailussa. Muun muassa hirsirakentamisen tietotaitoa on siirretty luontomatkailun kehittämishankkeissa Suomen ja Venäjän rajalla.

Yhteistyötä on mahdollista ja tarpeen kehittää myös kauemmas valtakunnan rajojen tuntumasta ns. sisarpuistoverkoston avulla

Suomen ja Venäjän rajalla kokemusta yhteistoiminnasta on kertynyt jo yli kymmenen vuoden ajalta yhteishankkeista ja luonnonsuojeluyhteistyöstä. Ystävyyden puiston kehittyminen Kuhmon ja Kostamuksen välille on klassinen esimerkki, nyt vastaavaa puistoparia rakennetaan pohjoisemmaksi Kalevala-puistot -hankkeessa. Koko Suomen ja Venäjän yli tuhannen kilometrin pituiselle raja-alueelle on rakentumassa ns. Fennoskandian Vihreä Vyöhyke (Green Belt of Fennoscandia), joka pyrkii yhdistämään suojelualueiden ja biosfäärialueiden toiminnan. Keskeisiä toiminnan ytimiä tällä raja-alueella ovat kansallispuistojen ja muiden suojelualueiden rajan yli muodostamat ns. puistoparit.

Keskieurooppalaiset esimerkit kansallispuistojen kehittämisessä kertoivat sekä yhteisistä toimista luonnon hoidossa että yhteisistä luontomatkailun kehittämishankkeista. Saksan ja Tsekin tasavallan rajapuisto Bayerischen Wald (Saksa) – Sumava (Tsekki) on Keski-Euroopan suurin yhtenäinen luonnonläheisten metsien alue. Kokemukset alueen puistoyhteistyöstä ovat olleet pitkälti samankaltaisia kuin Suomen ja Venäjän välillä. Sumavan alue on myös maailmalla tunnettu biosfäärialue.

Eliölajien liikkuminen rajojen yli nousi tärkeäksi aiheeksi. Esimerkein tarkasteltiin suurnisäkkäiden liikkumista Suomen ja Venäjän rajalla. Suomen susikanta on vahvistunut rajan yli tulleen täydennyksen ansiosta ja vaikka sudet aiheuttavatkin haittaa karjaa tappamalla, voisi niistä myös hyötyä esimerkiksi elämysmatkailussa. Rajan yli Suomen puolelle vaeltaa myös karhuja ja metsäpeuroja.

Rajapuistoja, sisarpuistoja ja myös biosfäärialueita yhdistävänä tekijänä nähtiin myös paikallisyhteisöjen ja puistojen yhteinen tuotekehitys. Puistojen ja biosfäärialueiden roolia on mahdollista vahvistaa uudentyyppisenä rajaseudun kehittämiskeskuksina. Niiden tueksi voidaan kehittää puistoon tai biosfäärialueeseen liittyen laatumerkki, joka kertoo käsityötuotteen, maataloustuotteen tai palvelun alkuperästä. Kansallispuistotuotteiden esimerkkeinä seminaari tutustui mm. puolalaiseen kansallispuistojuustoon ja norjalaiseen jäätikköpuistosta tulevaan juomaveteen. Kolin kansallispuistotuotteena esiteltiin kaskiruislimppu.

Foreword

Tarja Cronberg, representative of the Koli Border Forum,
Member of Parliament, Finland

Borders are not what they used to be. The meaning of borders is changing. Rather than lines of separation, they become zones of co-operation, places where neighbours meet. Some borders open totally for passage. This applies particularly to EU internal borders. Former external borders of the European Union become internal borders as the Union expands eastward. New external borders redefine who "we" are and who are those outside.

Koli Border Forum is an arena for scientific discussions and debates about borders. In a series of seminars dealing with Russian Borders, Rebordering Europe, Work and Education in Border areas and New Orders and Borders border-related possibilities and problems are debated in a social science context. How do border areas combine the perspective of cohesion and bridge-building with control of threats? How are new networks created across borders, particularly across those borders, which have been locations of conflicts and war?

This seminar, Transfrontier National Parks and Biosphere Reserves in Europe, is the Koli Border Forum contribution to a more natural science oriented approach. The nature of border areas has often untouched. Sometimes same natural conditions have been touched in different ways by man on each side of the border. Cross-border parks and reserves provide therefore a unique opportunity to learn about nature and to understand differences in norms and standards: what forests should be preserved? How to understand biodiversity?

The discussions at the seminar were extremely interesting and the various case-studies illustrated the cross-border problems clearly providing also new ways of looking at them and new models for future planning. On behalf of Koli Border Forum I want to thank all of you for your remarkable contributions and hope that the future readers will find these just as interesting as we, who were present, did.

Thank you.

Transboundary Protected Areas development in Europe – European and regional political context for transboundary cooperation in protected areas

Zbigniew Niewiadomski, EUROPARC Working Group on Transboundary Protected Areas, Bieszczady National Park, Poland

Abstract

Europe is characterised by many borders cutting across ecosystems and areas of high natural and cultural value. Although political borders may divide an ecoregion, ecological systems develop beyond these virtual boundaries. Transboundary cooperation between protected areas has been recently raised to a position of particular prominence, nevertheless transboundary protected areas face the lack of political support resulting in inadequate or often even no funding available for joint management, conservation and research activities.

International conventions proved to be the most efficient tool to raise interest of governments in transboundary and international cooperation of protected areas, facilitating regional protected area networks establishment. By working together as a network, protected areas gain lobbying strength to represent their interests towards national, European and international authorities and organisations and promote the idea of nature protection as well as of transboundary cooperation. A good example of such network is the Alpine Network of Protected Areas (ANPA) created in 1995 as an implementation tool for the Protocol on "Nature conservation and landscape planning" of the Alpine Convention. The ANPA brings together some 350 protected areas throughout the Alps in 8 countries. Similar Carpathian Network (CNPA), including numerous transboundary protected areas is currently prepared under the Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention) signed on 22 May 2003in Kiev.

The EUROPARC Federation working since 1973 is a pan-European, politically independent, non-governmental umbrella organisation for Europe's protected areas. EUROPARC has gained significant expertise in the field of transboundary cooperation over the last 15 years. Working within the framework of "Parks for Life: Action for Protected Areas in Europe", EUROPARC has commissioned transboundary studies, established and supported transboundary partnerships between protected areas and organised workshops, an annual conference and 2 pan-European expert working groups on this topic.

Most recently, EUROPARC has focused its efforts on meeting the demand for guidance on the promotion of best practice in transboundary cooperation in Europe. In this respect, the Federation has developed an innovative and unique 'system of Basic Standards' that aim to promote best practice in transboundary cooperation between European Protected Areas.

Consisting of nine 'Criteria' and five 'Fields of Work' - the 14 standards make up a

series of practical and measurable actions that, if achieved, will secure long-term quality transboundary cooperation between protected areas. Focusing very much on the practical aspects of transboundary protected area work the standards are relevant to all IUCN protected area categories and to the variety of combinations of category that may occur within a transboundary area.

Together the Basic Standards, the evaluation and certification process provides a unique support system for European transboundary protected areas. The system sets the standard to which all transboundary protected areas should aspire. It also provides a unique opportunity for cooperating partners to carry out a detailed analysis and evaluation of their cooperation in a way that clearly defines the necessary actions required, in their own particular situation, to secure good quality, successful transboundary cooperation in the long term. Finally, if after undertaking the evaluation, the cooperation is proven to be of a high standard, then the protected areas excellence in the field of transboundary cooperation will be acknowledged by EUROPARC with the presentation of an award. Today, the system is available to Europe's transboundary protected areas through the newly named and launched EUROPARC "Transboundary Parks - following nature's design" initiative.

Rajojen välisten suojelualueiden kehitys Euroopassa

Zbigniew Niewiadomski, Itä-Karpaattien biosfäärialue, Puola

Tiivistelmä

Euroopalle on tyypillistä, että valtioiden rajat katkovat yhtenäisiä luonnon ekosysteemejä ja kulttuurialueita. Vaikka rajat jakavatkin näitä yhtenäisiä alueita, luonnon ekosysteemit kehittyvät omaan tahtiinsa rajoista huolimatta. Rajaseutujen suojeluyhteistyö on saanut viime aikoina erityishuomiota, sillä raja-alueiden suojelukysymykset eivät ole saaneet riittävästi poliittista tukea, ja siksi rahoitus on puuttunut yhteistyön toteuttamiseksi.

Kansainväliset sopimukset ovat osoittautuneet tehokkaimmaksi keinoksi saada valtioiden hallitusten huomiota rajaseutujen suojelualueiden kysymyksiin ja yhteistyöhön. Samalla ne ovat johtaneet alueellisten suojelualueverkostojen perustamiseen. Toinen keino edistää rajaseutujen suojelualueita on verkostojen muodostaminen. Niiden avulla voidaan vaikuttaa sekä kansallisiin, Euroopan laajuisiin että kansainvälisiin viranomaisiin ja järjestöihin ja edistää yhteistyötä ja ideoiden vaihtoa. Hyvä esimerkki tällaisesta verkostosta on Alppialueen suojelualueet (ANPA) verkko, joka muodostettiin 1985 perustuen Alppialueiden luonnonsuojelua ja maisemasuunnittelua koskevan sopimuksen toimeenpanoon. Tähän ANPA-verkostoon kuuluu noin 350 suojelualuetta kaikkiaan 8:ssa Alppialueen valtiossa. Vastaavanlainen Karpaattien vuoristoalueen (CNPA) suojelualueiden verkosto on valmisteilla perustuen Karpaattien alueen suojelun ja kestävän käytön sopimukseen (Karpaattien Konventti, allekirjoitettu Kievissä, Ukrainassa 22.5.2003).

Vuonna 1973 perustettu EUROPARC-järjestö on poliittisesti riippumaton, ei-hallitusten välinen kattojärjestö Euroopan suojelualueille. EUROPARC on hankkinut runsaasti asiantuntemusta viimeisten 15 vuoden aikana rajaseutujen kansallispuistoista. Tavoiteohjelman "Parks for Life: Action for Protected Areas in Europe" sisällä EUROPARC on voinut saattaa liikkeelle rajaseutujen suojelualueita koskevia selvityksiä, tukea yhteistyön syntymistä, järjestää työryhmäkokouksia, yhden vuosikokouksen sekä 2 asiantuntijatason kokousta.

Viime aikoina EUROPARC on keskittänyt tavoitteensa ns. "parhaan käytännön" sääntöjen laatimiseen maiden rajat ylittävässä suojeluyhteistyössä. Tämä uusi ja innovatiivinen järjestelmä ns. "Perusstandardit" koostuu yhdeksästä kriteeristä ja viidestä toiminta-alueesta. Yhteensä 14 standardia noudattamalla rajojen välisen suojeluyhteistyön voidaan varmistaa saavuttavan riittävän ja pitkäaikaisen korkean laatutason. Koska standardit ovat hyvin käytännönläheisiä, ne toimivat kaikissa IUCN luokituksen suojelualueilla ja mahdollistavat samalla soveltamisen rajojen molemmin puolin myös erilaisten suojeluluokkien alueille.

Yhdessä perusstandardien kanssa arviointi- ja sertifiointimenettelyt tarjoavat ainutkertaisen tien raja-alueiden suojelukohteille Euroopassa. Kaikki raja-alueiden suojelukohteet voivat käyttää näitä standardeja. Siten niiden avulla kaikissa olosuhteissa on mahdollisuus tehdä analyysejä ja arviointeja esim. siitä, millaisia toimenpiteitä tarvitaan,

jotta riittävän hyvä taso suojelualueiden hoidossa ja yhteistyössä voidaan saavuttaa ja varmistaa. Kaikkiaan, jos arviointi osoittaa, että yhteistyö toimii standardien edellyttämällä tasolla, raja-alueen suojelukohteille ja yhteistyölle voidaan anoa ja saada EUROPARCin palkinto. Tällä hetkellä tämä järjestelmä on saatavissa käyttöön Euroopan raja-alueiden puistoille äskettäin nimetyn ja aloitetun EUROPARC "Transboundary Parks- following nature's design" aloitteen välityksellä.
(Käännös: Jari Parviainen)

Transboundary protected areas development in Europe – European and regional political context for transboundary cooperation in protected areas

Europe is characterised by its numerous small countries and many borders that cut across ecosystems and areas of high natural and cultural value. State borders usually divide our continent using natural barriers like mountains and rivers. Border areas may be perceived simultaneously as less-favoured and most favoured regions of Europe. Border regions are often located peripherally, far from country capitol or big industrial centres and underdeveloped compared to central regions due to political factors banning development in the past and natural factors such as topography, and - especially in the mountains - low productivity soils, short vegetation period etc. Therefore they are often perceived as less favoured regions from the "market economy point of view". However border areas are often most favoured in biodiversity and cultural heritage terms due to well preserved nature and landscape, traditional way of life and land-use forms, non-intensive agriculture and limited influence of industry. Although political borders may divide an ecoregion, ecological systems develop beyond these virtual boundaries. Therefore a transboundary approach towards ecological concerns is necessary.

Many European protected areas have been designated adjacent to state borders. In 1994 under the IUCN "Parks for Life" project some 42 European existing transboundary protected areas were identified, furthermore establishment of some 25 new transboundary protected areas was recommended. Eight years later, in 2002 some 239 protected areas adjacent or close to state borders in Europe were in operation. This provides a clear indication that effective nature conservation in Europe would never be possible without cooperation of protected areas in both local (transboundary) and eco-regional scale.

Transboundary cooperation between protected areas has been recently raised to a position of particular prominence and the reasons for this are benefits that cooperation can provide in an increasingly dynamic Europe.These benefits include the more effective management of Europe's natural and cultural heritage, enhanced opportunities to promote sustainable development and the economic well-being of local communities living on or close to national borders, preservation and enhancement of local cultures, and in particular in the Balkans region, the reduction of political tensions and the promotion of peace.
However, transboundary cooperation between protected areas usually faces many problems simultaneously. Following the EUROPARC working group report on Transfrontier Protected Areas these are not only e.g. different institutional administrative frameworks, legislation, nature conservation policy and practice, languages and cultures or even physical barriers at the border - but also the lack of political support for transboundary cooperation resulting in inadequate or often no funding for joint activities available. Therefore transboundary cooperation is often dependant on short-term "project-based" financing, which does not provide for continuity or follow-up of undertaken joint activities in the long-term.

It is quite unlikely for the governments of two or more countries to agree on and support cooperation in just one transboundary protected area. Most often bilateral agreements on cooperation in environment protection are signed, but usually such are too general to facilitate transboundary cooperation of protected areas. This is why conventions ratified either worldwide or by several countries of the region proved to be more efficient than any other tools to raise interest of governments in transboundary and international cooperation of protected areas. Such legal instruments as conventions facilitate protected area regional networks formation. Regional networks of protected areas usually include a significant number of transboundary protected areas, therefore facilitate transboundary cooperation.

Networking as a tool for transboundary cooperation of protected areas

Protected area networks help to represent their interests towards national, European and international authorities and organisations. By working together as a network, protected areas gain lobbying strength to promote the idea of nature protection as well as of transboundary cooperation. They establish a common communication strategy and increase public awareness and support for nature protection. Common public relations work is more effective and convincing than individual public relations work. Networks help to build common regional identity and allow a more effective and harmonised management of habitats and species as shared natural heritage as well as joint preservation and promotion of cultural values of the region. Common databases and inventories allow ensuring data compatibility and better planning, jointly designing management and restoration plans, joint work programmes, research and monitoring. Networking allows joint fundraising for conservation projects and contributes to Natura 2000 concept implementation.

A good example of such network is the Alpine Network of Protected Areas (ANPA) created in 1995 as an implementation tool for the Protocol on "Nature conservation and landscape planning" of the Alpine Convention. The ANPA brings together representatives from 350 protected areas throughout the Alps in 8 countries: Austria, France, Germany, Italy, the Principality of Monaco, the Principality of Liechtenstein, Slovenia and Switzerland. The Network operates in the four alpine languages (French, German, Italian, Slovenian) and English, facilitating communication between protected areas in different regions.

Concrete examples of the coordinating work done by the Alpine Network are e.g. conferences and workshops for protected area managers (some 20 events per year), staff exchanges and common training, 15 working groups which address specific topics finding solutions for common management or research problems, common European projects (allowing the use of the EU financial tools) and communicating on the activities of the protected areas through a common website, information letters, the ANPA bulletin and transalpine exhibits.

The Carpathians stretch from Austria to Serbia and cover border areas of the Czech Republic, Hungary, Poland and Ukraine, significant part of Romania and a major

part of the Slovak Republic. Slightly bigger in size than the Alps (respectively 209 and 191 thousand square kilometres) the Carpathians form the bridge between Western and Eastern Europe, allowing migrations of animal populations and genetic exchange. They constitute one of the most important refuges for large animals of primeval habitats of Europe, still supporting viable populations of all native large carnivores. As a mainstay of about 8000 brown bears, 4000 wolves and 3000 lynx and one of the last European refuges for the wildcat - the Carpathians offer one of the last opportunities for bringing them back to existence in Western Europe. Moreover all big native herbivores like the European bison, red deer, roe deer and primitive Hutzul horse are present here. The Carpathian population of the reintroduced European bison is the only one inhabiting Europe's mountains.

The first protected area of the Carpathians was designated in 1895. The transfrontier co-operation on nature conservation began in 1924 in the Carpathians with the idea of establishing bilateral Nature Park in Pieniny Mountains, implemented in 1932; thus creating the first European transboundary protected area. The UNESCO Man and Biosphere Programme has designated the first trilateral transboundary protected area (the "East Carpathians" Biosphere Reserve) also in the Carpathians.

Following the pattern of the Alpine countries the Framework Convention on the Protection and Sustainable Development of the Carpathians has been recently (22 May 2003) signed in Kiev. Consequently, development of the Carpathian Network of Protected Areas (CNPA) is currently under preparation for the first Conference of Parties by the international steering committee, basing on ANPA experience. I also hope that the Carpathian Convention would allow also other continuum than the ecological one - it would become a tool for extending EU approach to nature conservation even beyond the EU borders to non-accession Carpathian countries. The future cooperation of CNPA with the Alpine Network as well as other mountain regions of Europe and other protected area networks and associations - like the Europarc Federation, should allow "networking between networks", thus facilitating international and transboundary cooperation of protected areas throughout Europe.

EUROPARC and the transboundary cooperation

The EUROPARC Federation is a pan-European, politically independent, non-governmental organisation, whose purpose is to support and promote the whole range of protected areas in Europe. Since 1973 the Federation has been working across Europe's borders, to improve the quality and management of protected areas, to ensure that the nature of Europe in all its diversity is preserved for future generations.

As the umbrella organisation for Europe's protected areas, EUROPARC quickly recognised the value of transboundary cooperation and has, over the last 15 years, developed significant expertise in this field.

Working within the framework of "Parks for Life: Action for Protected Areas in Europe", EUROPARC has commissioned transboundary studies, established and supported transboundary partnerships between protected areas and organised workshops, an annual conference and 2 pan-European expert-working groups on this topic.

The EUROPARC experience in developing Basic Standards for Transboundary Cooperation between protected areas in Europe

Most recently, EUROPARC has focused its efforts on meeting the demand for guidance on the promotion of best practice in transboundary cooperation in Europe. In this respect, the Federation has developed an innovative and unique 'system of Basic Standards' that aim to promote best practice in transboundary cooperation between European Protected Areas.

The Basic Standards – a practical tool

The basic standards define a range of activities that must be fulfilled in order for quality transboundary cooperation to be achieved and recognised. The activities seek to promote and strengthen transboundary cooperation in the conservation of both natural and cultural heritage. In turn, an ecosystems perspective is promoted, as is the establishment of corridors and connectivity between habitats is encouraged. Specific reference is also made to the requirements for cross-cultural interaction, the fostering of the social and economic well-being of local communities, the raising of political support and the promotion of peace.

A pan-European approach to the development of the system

The Basic Standards were first presented at an international seminar, held in June 2000 in the town of Retz, Austria. Participants from 13 different European countries, 12 Transboundary Protected areas and representatives of leading organisations including IUCN, the Peace Parks Foundation, and the European Union discussed and agreed a final version of the 'Standards'.

The Basic Standards

Consisting of nine 'Criteria' and five 'Fields of Work' - the 14 standards make up a series of practical and measurable actions that, if achieved, will secure long-term quality transboundary cooperation between protected areas.

Focusing very much on the practical aspects of transboundary protected area work the standards are relevant to all IUCN protected area categories and to the variety of combinations of category that may occur within a transboundary area.

It was agreed by the participants at Retz, that a minimum of 10 out of the possible 14 Standards must be achieved for quality cooperation to be considered to be taking place. In addition, the protected areas must also demonstrate how they involve local communities in the transboundary cooperation, and how the national sovereignty and socio-cultural differences of all cooperating parties is acknowledged and respected.

Setting the standard

The Basic Standards set the level for quality transboundary cooperation between protected areas in Europe, in doing so they also establish a clear basis for the objective evaluation of cooperation, thus allowing for cooperation to be formally assessed and recognised. To this end, the EUROPARC Federation acted upon additional recommendations of the Retz seminar, by establishing a working group to guide and review the further development of the 'Basic Standards' into a system that could be used and be of value to Europe's protected areas.

The working group

The Working Group, which consisted of eleven transboundary experts and practitioners from seven different European countries, came together for 2 meetings, the first in July 2001 and the second in September 2002. During the meetings the group discussed and agreed indicators for each of the Basic Standards Criteria and Fields of Work and refined and approved the framework for an evaluation system.

The evaluation system

The evaluation system consists of a series of forms and questionnaires that guide cooperating protected areas through a structured analytical process that allows for the thorough and transparent examination of their cooperation.

Testing the system

To ensure their relevance and rigorousness, the full system of Basic Standards criteria and fields of work, together with their indicators and the evaluation system were tested in 3 separate transboundary protected areas.

The aim of these test missions was to critically analyse the EUROPARC "Basic Standards' system and its function and effectiveness in very real and varied transboundary situations.

The 3 test parks were chosen for their range of ecosystems; combinations of designation, which included protected area categories II, and V and many international designations, and cultural and administrative positions within Europe. The test parks were:

1. Krkonose National Park (CZ) (Cat II) and the Karkonosze National Park (PL) (Cat II) Middle mountain protected areas incorporating tundra, high moor and forest landscapes, located on the border between the Czech Republic and Poland. In addition to National Park status the area is designated as a transboundary Biosphere Reserve. The Parks have a long history of transboundary cooperation

and are commonly thought to be one of the best examples of transboundary cooperation in Europe.

2. Neusiedler See National Park (A) (Cat II) and the Fertö-hansag National Park (H) (Cat II) Both National Parks protect and an extensive transboundary wetland ecosystem that lies on the border between Austria and Hungary. The area is also designated as an international Ramsar site. Cooperation between the Parks is relatively new.
3. Alpi-Maritime Nature Park (I) (Cat V) and the Mercantour National Park (F) (Cat II) High Mountain / Alpine ecosystem located on the Italian / French border. The Parks have a long history of transboundary cooperation and are commonly thought to be one of the most advanced examples of transboundary cooperation in Europe.

The tests were very successful and allowed for the indicators, application and evaluation processes to be refined and provided excellent results in respect to the practical application and value of the Basic Standards system in the parks concerned. Significantly, all of the test parks agreed that: the evaluation system in itself provides an invaluable tool for assessing the current state of cooperation and its strengths and weaknesses and, moreover, for identifying clearly the actions required to strengthen cooperation and to find a sound way forward for the cooperation.

In the transboundary parks own words, "The evaluation process greatly benefited our cooperation, irrespective of whether or not we meet the minimum standard required for the formal acknowledgement of our cooperation".

The Certificate

Thus, the standard that has been set is high. As such, it is only right that those who are successful in meeting this standard are acknowledged. This acknowledgement will be given by the presentation of a certificate of excellence for transboundary cooperation by EUROPARC to the parks concerned.

The award will be valid for an initial period of 5 years after which the cooperation will be monitored by a EUROPARC transboundary evaluator.

The system as a whole

Together the Basic Standards, the evaluation and certification process provides a unique support system for protected areas engaged in transboundary cooperation in Europe. protected areas should aspire. It also provides a unique opportunity for cooperating partners to carry out a detailed analysis and evaluation of their cooperation in a way that clearly defines the necessary actions required, in their own particular situation, to secure good quality, successful transboundary cooperation in the long term.

Finally, if after undertaking the evaluation, the cooperation is proven to be of a high standard, then the protected areas excellence in the field of transboundary cooperation will be acknowledged by EUROPARC with the presentation of an award.

Conclusions

The Basic Standards and the application and evaluation processes are the result of over 3 years of study and hard work.

The system has been subject to close peer review and to practical refinement by EUROPARC and an expert-working group at each stage of their development. Moreover, they have also been applied and tested in 3 transboundary protected areas complexes, thus they establish the standard for quality transboundary cooperation in Europe.

Today, the system is available to Europe's transboundary protected areas through the newly named and launched EUROPARC "Transboundary Parks - following nature's design" initiative.

The benefits of this initiative are clear: It can be used as a guide to identify the priorities and essential elements of quality transboundary cooperation by protected areas newly engaged in cooperation. Indeed, this is already taking place on the Finnish / Russian border.

It provides a standard, established, acknowledged and peer reviewed, to which, protected areas already involved in transboundary cooperation can aspire.

It guides protected areas through an analytical process that greatly benefits the transboundary cooperation - irrespective of whether or not the cooperation meets all of the stated criteria. Indeed, the test partners said that this was, perhaps, the greatest benefit of all.

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Annex 1 - The Basic Standards Criteria

Preamble

Cooperation between protected areas that adjoin across or lie adjacent to international borders makes a significant contribution to the conservation of both natural and cultural heritage and the achievement of sustainable regional development. Such cooperation also promotes international peace and understanding, and makes an important contribution to the development of a common Europe.

The importance of community involvement in the planning and management of protected areas is widely acknowledged. In transfrontier protected areas in particular, local communities often reside on each side of and move freely across the national border. As such, local people play a fundamental role in transfrontier cooperation and should be involved from the outset.

Nine quality criteria and five fields of work are presented. These represent the basic standards required for successful cooperation. The standards focus on the practical aspects of transboundary protected area work. They are relevant to all IUCN protected area categories, and to the variety of combinations of category, which may occur within a transboundary, protected area (for example, where a category II protected area shares a border with a category V protected area). It is anticipated that the standards will provide a motivation for the continual advancement and improvement of cooperation. Furthermore, they provide a basis for an objective evaluation of the transfrontier cooperation.

It is a fundamental requirement that, in meeting these standards, the national sovereignty and socio-cultural differences of all cooperating parties are acknowledged and respected.

The Criteria

1. Primary Criteria

1.1. Vision

In addition to the vision for their respective areas, the managing bodies of the transboundary protected area should have a common vision, a future orientation which can only be implemented together with the respective partner(s). The common vision should reveal that the wider benefits of transfrontier cooperation for the entire protected area have been recognised by all partners, independent of financial considerations.

1.2 Fields of Work

All fields of work of the cooperation should be determined jointly. They should be set within the frame of a mid-term work plan and include work in the primary and secondary fields indicated below, administrative capacity building and the training of staff from the partner protected areas. The fields of work should also correspond to national objectives and work schemes.

1.3 Official Agreement

An official agreement should have been signed at the appropriate management and political decision-making levels for facilitating the creation and progress of the transfrontier protected area within a given time frame. Where appropriate, multilateral and bilateral agreements and conventions should be used to support / provide a framework for transfrontier cooperation.

1.4 Staff

Permanent communication involving all levels of staff in a process of familiarisation should have been established and (a) facilitator/s for collaboration identified. Staff with responsibility for cooperative activities should meet regularly to discuss project management, evaluate progress and exchange knowledge and experience. In addition, staff should periodically carry out joint field trips and on-site activities in all partner areas. A joint steering committee is recommended.

2. Secondary Criteria

2.1 Guiding Rules for Cooperation

The partners should have established and put into practice compatible rules which guide cooperation and ensure permanent exchanges of information, the running and documentation of joint meetings, joint decision-making and dispute settlement. The rules should be based upon the mutual consideration of each partner's working methods, time management, native language, administrative structure and decision-making procedures.

2.2 Exchange of Data

The mutual exchange of data between all partners on the natural, historical and cultural aspects of the area should be in progress.

2.3 Foreign Language Communication

Foreign language communication, translation arrangements and facilitation should be ensured in the main areas of transfrontier cooperation.

2.4 Ecological Monitoring

The partners should have commenced the systematic linking of their resources for the ecological monitoring of the shared ecosystem.

2.5 Basis of Financing

The financing of joint transfrontier projects should be secured. Project proposals for international funding are to be jointly prepared and submitted. The use of funding from international programmes e.g. EU, GEF is to be mutually agreed.

3. Primary Field of Work

3.1 Nature and Landscape Conservation

The joint activities shall be compatible with the guidelines and recommendations for the application of the IUCN Protected Area Management Categories in Europe. Cooperation in the field of nature and landscape conservation should be developed through concrete activities and projects, e.g. the establishment and management of cross-border systems of inter-connected habitats and biotopes, the practical implementation of agreed management aims and plans, joint projects on biodiversity / species conservation, habitat restoration etc.

4. Secondary Fields of Work

4.1 Education and Communication

Transfrontier cooperation in the field of 'education and communication' should cover a range of joint activities providing information, raising awareness and communicating the message of the transfrontier protected area as a whole. This work will include, for example, the development of a common identity, the publication of joint, bi- or multilingual publications, maps, and video / internet presentations, the organisation of guided visits

for different target groups on both sides of the border, bi- or multi-lingual events for pupils and schools, as well as periodic cooperation with the media. This field of work also includes the development of a serviceable strategy for a cross-border system of ranger service.

4.2 Recreation and Sustainable Tourism

Transfrontier opportunities for people to experience nature and enjoy the landscape should be developed. This includes, for example, coordinated visitor management systems, visitor facilities and trails, and transfrontier public transport systems. This field of work also includes the development of sustainable transfrontier tourism initiatives covering, for example, the contribution of tourism to regional development, or the support of protected areas for marketing of local ecological products.

4.3 Research and Monitoring

The partners should develop and implement common mutually agreed research activities and monitoring programmes.

4.4 Mutual Understanding and the Promotion of Peace

The partners should stimulate and support joint activities, which promote cultural understanding and the sharing of cultural experiences, and which facilitate the building of communication and trust between neighbouring communities and peoples.

Protected forest areas in Europe

Jari Parviainen, Finnish Forest Research Institute

Abstract

Motivations to protect forest areas were firstly spiritual origin, hunting reserves for royal families, restrictions of forest use preventing the deforestation of forest for iron, salt and glass manufacturing or nature conservation movements, like romantism. Protection of forests by legislations, acts or other official statues began since the beginning of 1900's.

The first national park in the world, Yellowstone, USA was established in 1872, the second, Banff, Canada in 1885 and the third, Nahuel Huapi, Argentina, in 1903. In the Nordic countries, the Finnish explorer A.E. Nordensköld was the first who raised the idea to establish national parks with an article written in 1880. The first Finnish National Parks, Pallas-Ounastunturi and Pyhätunturi in Finnish Lapland were established in 1938.

Majority of the European protected areas were established between 1970-1990. During the last 10 years only few new protected areas has been established, mainly they are designated in the Eastern Europe. There are about 11.8 mill. ha (6.1% of the total forest area) legally designated protected forest areas in Europe (without European part of Russia). The area of strictly protected forests totals about 3 mill. ha (1.6% of the total forest area). The largest protected forests are locating in the Nordic countries and Central and Eastern Europe, mainly in the remote areas, where the human impact is been at its minimum.

The comparison of protected forest areas is extremely difficult because there is in use numerous categories and definitions. The IUCN classification is widely used for classification of large scale protected areas like national parks, but its implementation to the European forestry conditions is difficult due to the fragmented and modified forest landscapes. A new classification for protected forests in Europe was developed by MCPFE process, and adapted for implementation in the Ministerial Conference in Vienna, in April 2003.

The Nordic countries have given the emphasis on strict biodiversity protection whereas the Central-European countries have emphasised the active management of biodiversity on their protected areas as well as landscape values. Strictly protected forests are typical for remote, sparse populated areas where state forest ownership dominates. On densely populated areas, where private forest ownership is majority less strict categories of protection dominates.

Euroopan metsien suojeluverkko

Jari Parviainen, Metsäntutkimuslaitos

Tiivistelmä

Pitkäaikaisen käyttöhistorian ja yksityisen metsänomistuksen vuoksi eurooppalainen metsien suojelujärjestelmä poikkeaa muiden maanosien suojelusta. Suojelualueet syntyivät aluksi metsiin liittyvien uskonnollisten ja myyttisten tekijöiden turvaamiseksi, aatelisten ja ruhtinaiden metsästysmaiksi sekä metsien häviämisen estämiseksi kaivos-, suolateollisuus- ja lasinvalmistusalueilla. Ympäristölainsäädäntöön perustuva metsien suojelu alkoi vasta 1900-luvun alussa.

Ensimmäinen kansallispuisto, Yellowstone USAssa, perustettiin vuonna 1872, toinen, Banff vuonna 1885 Kanadaan ja kolmas Nahuel Huapi vuonna 1903 Argentiinaan. Pohjoismainen kansallispuistoaate syntyi 1880-luvulla tutkimusmatkailija A.E. Nordensköldin laatiman kirjoituksen ansiosta. Suomen ensimmäiset kansallispuistot Pallas-Ounastunturi ja Pyhätunturi perustettiin 1938. Kolin vaara-alueen ydinosa "kruununpuisto" on ollut geologian ja maisema-arvojen vuoksi suojeltu 80 vuotta, mutta kansallispuistoksi Koli muodostettiin vasta 1991 liittämällä valtion maihin läheisiä yksityisiä maa-alueita.

Eniten metsien suojelualueita perustettiin Eurooppaan 1980-1990 –luvuilla. Viimeisen 10 vuoden aikana uusia metsänsuojelualueita on perustettu vähän, eniten niitä on muodostettu Itä-Euroopan valtioihin. Luonnonsuojelulain, -asetuksen tai muun säädöksen mukaan perustettuja metsien suojelualueita on kaikkiaan Euroopassa ilman Venäjän alueita 11,8 milj. hehtaaria, eli 6,1 % metsäalasta. Tiukimmin suojeltuja metsäalueita, joissa ihmisen toimenpiteet on kielletty tai rajoitettu mahdollisimman vähiin on noin 3 milj. ha eli 1,6 % metsäalasta. Suurimmat yhtenäiset suojelualueet sijoittuvat Pohjoismaihin ja Keski- ja Itä-Euroopan vuoristoalueille, joissa ihmisten vaikutus ja liikkuminen metsissä on ollut eniten rajoittunutta.

Metsien suojelun tilastointi ja vertailu on kuitenkin Euroopassa äärimmäisen vaikeaa, sillä käytössä on yli 100 erilaista suojeluluokkaa. Kansainvälisen luonnonsuojeluliiton (IUCN) luokitus on usein perustana suurialaisten kansallispuistojen ja suojelualueiden vertailulle, mutta sen soveltaminen Euroopan metsäoloihin on ollut vaikeaa. Siksi Euroopan metsien suojelua varten on kehitetty uusi luokitus (MCPFE), jonka Euroopan metsäministerit hyväksyivät otettavaksi käyttöön huhtikuussa 2003.

Euroopan suojelumetsien luokituksen perusteella eliölajien säilyttämistä tavoittelevat Pohjoismaat sijoittuvat tiukassa metsien suojelussa selkeästi kärkeen, kun taas Keski- ja Itä-Euroopan maat asettuvat laaja-alaisen maisemasuojelun ja metsien suojelutehtävien perusteella omaksi ryhmäkseen. Tiukan suojelun alueet ovat tyypillisiä harvan asutuksen seuduilla valtion omistamilla metsämailla. Yksityismetsävaltaisilla alueilla suojelun luokitus ja sallittavien toimenpiteiden kirjo ja väljyys ovat suuremmat; esimerkiksi kansallispuistojen sijasta on perustettu biosfäärialueita.

Tällä hetkellä uusien suojelualueiden perustamisen sijasta suojelutoiminnan paino on olemassa olevan verkoston täydentämisessä, sen edustavuuden parantamisessa sekä suojelumetsien rakenteen ja laadun kohottamisessa. Mitään kansainvälisesti hyväksyttyä yhtä prosenttitavoitetta (esim. 5 % tai 10 % suojeltua metsää) ei Euroopassa ole, sillä eliölajien säilyminen ratkaistaan talousmetsien hoidossa. Euroopassa 80-90 % metsistä on monikäytön piirissä, jolloin luonnonläheisyys on tärkeä mittari eliölajien säilymiselle. Suojelukeskustelussa korostetaan ns. täsmäsuojelua eli pienten avainbiotooppien suojelua metsänhoidon yhteydessä.

Protected forest areas in Europe

History and motivations to protect forests

Motivations to protect forest areas were firstly spiritual origin, hunting reserves for royal families, restrictions of forest use preventing the deforestation of forest for iron, salt and glass manufacturing or nature conservation movements, like romantism. Protection of forests by legislations, acts or other official statues began very late, since the beginning of 1900's (Welzholz 2003).

The first national park, Yellowstone, USA was established in 1872, the second, Banff, Canada in 1885 and the third, Nahuel Huapi, Argentina, in 1903. In the Nordic countries, the Finnish explorer A.E. Nordensköld was the first who raised the idea to establish national parks with an article written in 1880. The first Finnish National Parks, Pallas-Ounastunturi and Pyhätunturi were established in 1938. The Koli National Park was established by law in 1991 when several privately owned forest areas were integrated with the former "crown land" area of the Koli hill. This crown land area had developed nearly untouched already over 80 years as an experimental area of Metla.

Majority of the European protected areas were established between 1970-1990. During the last 10 years only few new protected areas has been established, mainly they are designated in the Eastern Europe (Fig. 1).

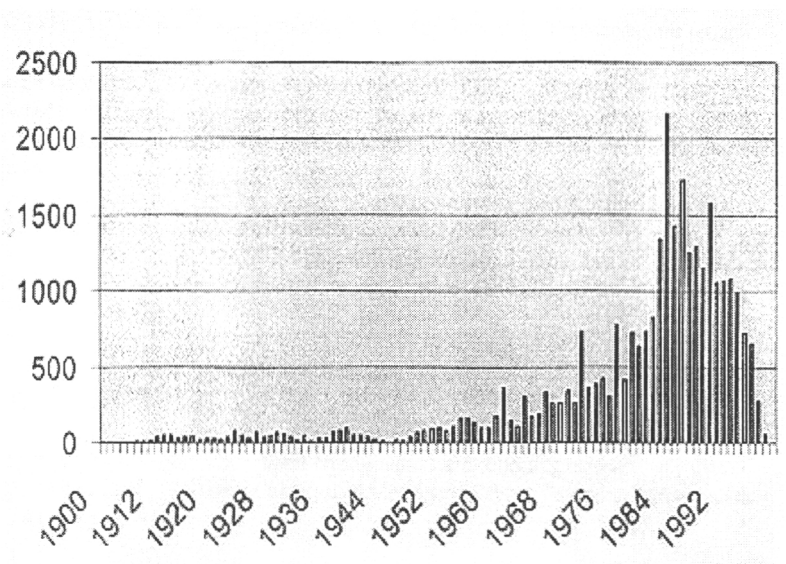

Fig. 1. Total number of sites designated/year. Establishment of protected areas during the last 100 years in EEC countries (18 European countries). Source: EEA CDDA statistics.

In 1995 , the European Environmental Agency (EEA) started to coordinate the activities related to data basis on designated protection areas. The project European Common Database on Designated Areas (CDDA) was established. In March 2000 there was in data base information on 640 designation types from 48 countries. This information includes about 45 000 individual designated sites or areas. The total number of designated areas in Pan-European area can be estimated between 65 000 and 70 000 sites, based on officially published country statistics. The newest estimates show that there are about 11.8 mill. ha (6.1 % of the total forest area) legally designated protected forest areas in Europe without European part of Russia (European Commission 2000).

What kind of protected forests there are in Europe

European approach for forest protection differs from that in other continents

Due to the long-term human impact, forest fragmentation and ownership structure the network of protected forest areas in Europe differs from networks in other continents. The "reservation" concept used for example in North America, Canada and Russian Siberia, where large continuous areas are left untouched, cannot be applied to the densely populated European continent, where forests have been subjected to human influence for thousands of years. Long-term use of forests has resulted that there are few original untouched virgin (natural) forests remaining in Europe.

The largest natural forests can be found in the boreal forest zone on European side of the Russian Federation, in the states of Komi and Archangelsk and in some parts of north-west Carelia near the Finnish border. In Southern, Atlantic and Central Europe forests gave way to human settlement, resulting in fragmented and highly altered forest islands by the Middle Ages at the latest. Human impact on forests in Northern Europe has also been intensive, although not as intensive as in Southern and Central Europe, lasting for periods of between 300-400 years. Between the 17th and the 19th centuries in Finland, Central-Sweden and Central-Norway, forests were utilised for the production of tar, metallurgy, slash and burn agriculture, hunting and reindeer husbandry (Parviainen and Frank 2003).

In Europe, forest protection includes forest areas where use is limited to a varying degree. Protected areas are often small, located in majority on land owned by the State, local authorities or other bodies and their management and upkeep is linked with the aims of multiple forest use. Currently the concepts of forest protection are going through a significant change from static approach towards dynamic approach.

The aims and degree of forest protection vary widely amongst European countries. In the Nordic countries during the last 20-30 years, the primary goal of forest protection has been the preservation of old forest remnants. The aim of forest protection is to maintain flora and fauna, which are not subject to commercial forest operations. In Central Europe, however, forests are protected rather as a part of the landscape, as a cultural feature or as specimens of original forests.

Definitions varies widely

Difficulties in the interpretation of forest protection statistics include an array of different forest protection definitions and the composition and location of protected areas. In addition to the definition of forest, definitions of protected forests and forest protection vary widely. The "protective functions" of forests such as protection against erosion, avalanches, groundwater or shelterwood forests should be distinguished from the "protected forests" which are in contrast to timber production or multifunctional forest areas. These protected forests are mainly set aside for the maintenance of biodiversity.

Objectives and goals of protection, forest protection categories in use and permissible management regimes in forest reserves vary enormously in different European countries. Protected areas sometimes include areas other than forest, for example, freshwater or mountain regions where forested areas form only part of the total protection area. This may result in the overestimation of the protected forest area if only the total protection area is quoted. The absolute or relative figure of forest protection in a particular country might not be representative for the whole country, where reserves are unevenly concentrated, for example, if most reserves are located in one region. Comparisons on the basis of percentage/area require careful analysis. In Europe, naturalness, fragmentation, human impact and other characteristics of forest cover also vary considerably from country to country. Regional or national networks have to take this into account by adequate representativity design.

The common concepts of forest classification and inventory are the basis for international forest resource comparison and measurement and also in the evaluation of forest protection. The present international UN/ECE/FAO (UN 2000) forest definition for TBFRA 2000 requires that the crown cover is greater than 10 % and tree height is greater than 5 meters. In Nordic countries, the concept of forest is based on productivity as a result of conventional forest management objectives. The annual growth of timber must be greater than 1 m^3/ha if an area is to be described as productive forest. For forest land where the mean annual increment of growing stock is typically 0.1-1 m^3/ha, the term low productive forest is used. Forest land where the increment is less than 0.1 m^3/ha is called other land area for forestry. In layman's language, the term forest implies productive forest land only. The newest data in Finnish and Swedish national forest inventories are also gathered nowadays according to the FAO classification for the international comparison.

In order to find a common basis for discussions on natural forests, the terms and definitions must be described in international context. For international comparison it is reasonable to subdivide the terms by two factors: categories by origin and development and categories by human influence and management of forests (see Ministerial Conference... 1993a; Schuck et.al. 1994).

The concept of "naturalness" allows to determine the forest quality of being natural. Naturalness of forest ecosystem or of the vegetation can be defined as the status how tree species composition of the existing vegetation correspond to that of the potential natural vegetation on the same site (Naturnähe Österreichischer Wälder 1997). "Hemeroby" is often used for the purposes of defining the degree of human influence on forests. Hemeroby includes all the anthropogenic influences such as effect of

management, impact of cattle grazing, browsing of game, tourism or other kind of human impact. The degree of naturalness can vary from virgin forest (extremely high degree of naturalness) to man made exotic tree species plantations (nearly no degree of naturalness). Austria, during the early 1990, was the first country in Europe to carry out an inventory on the naturalness of its entire forest estate (Grabherr et.al. 1998). From the current and historical data and records on forest structures it is clear that the majority of forests in Central and Eastern Europe are mainly altered or modified by man (Peterken 1993, 1997).

"Virgin forest" can be defined as follows: it is original in its structure and development and developed untouched by human under natural conditions. Virgin forest is not limited only to the climax stage, although majority of virgin forest are old growth forest. Often for parallel use with virgin forest has been introduced the terms primeval forest, primary forest or pristine forest (see Schuck et.al. 1994).

The term "forest undisturbed by man" has been recommended for use especially by FAO (2000) and MCPFE (2003), and this term is seen often as synonym for virgin forest. The definition of undisturbed is although less strict as the definition of virgin forest. Forest undisturbed by man shows natural forest dynamics, and the area is large enough to maintain its natural characteristics, but there has been no known significant human intervention or the last human intervention was long enough to have allowed the natural species and processes to become re-established.

"Natural forests" are developed and regenerated with natural succession, but can show anthropogenic influences from the past (see Schuck. et.al. 1994). Natural forests always originate from the original forest cover, e.g. forest are reproduced naturally or regenerated naturally (they are not modified generally by man by sowing or planting). The difference between virgin and natural forests occure in the human influence in the past. The term natural forest is more relevant in practice, when some elements of human influence in European forests nearly always can be found.

"Semi-natural" forests are affected by human influence, but the stand composition or structure has not been directly or indirectly modified. Stand composed predominantly by native trees of local origin, and can be achieved by natural regeneration or selective thinning or also is some cases by supportative planting (Schuck et.al. 1994; Forestry Commission 1994).

Strictly protected forests

Of all the protected forests in Europe, the most interesting category is the strictly protected forests. In strictly protected forest reserves the forests are left to develop freely in a state which is as original as possible. Forests left for "free" development can be found however in various categories of protection: strict reserves, nature reserves, core areas in national parks, old forest protection areas, wilderness areas, cultural monument areas etc. (Fig. 2)

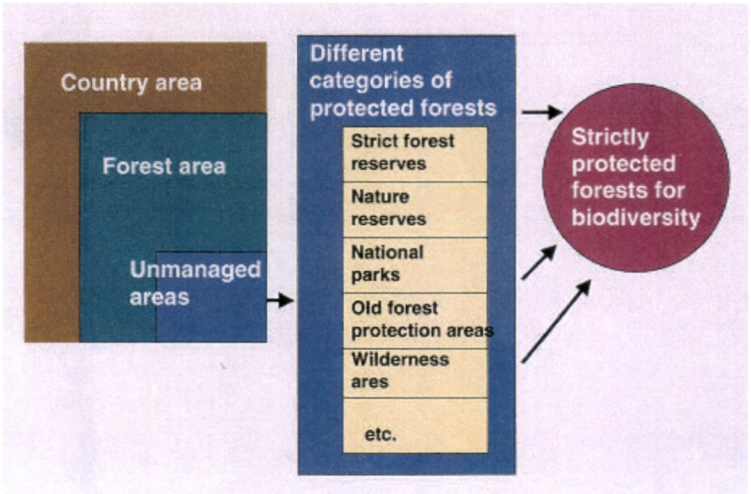

Fig 2. Strictly protected forests and their linkages to the protected forest categories according to the EU/COST E4 Action (European Commission 2000).

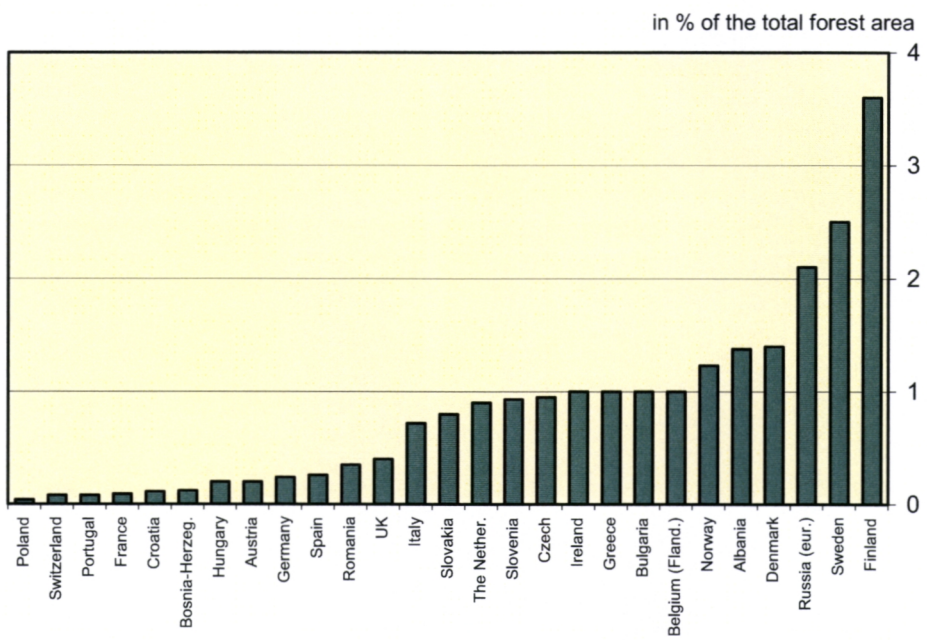

Fig. 3. Strictly protected forest areas in some European countries in % of total forest area by countries. Source: EU/COST E4 action 1995-1999 (European Commission 2000).

The COST Action E4 "Forest Research Network", carried out in 1995-1999, was the first systematic analysis on the strictly protected forest areas in Europe. Over 100 scientists and nature conservation administrators from 19 participating COST member

countries, in addition to 8 Central and Eastern European countries and Russia participated in the Action (Broekmayer et.al. 1993; Paulenka and Paule 1994; Parviainen et.al. 1999, 2000a, 2000b; Diaci 1999; European Commission, 2000).

The area of strictly protected forests, areas where no silvicultural interventions are allowed, totals about 3 mill. ha (1.6% of the total forest area). The largest, continuous strictly protected forest areas are locating in the Nordic countries and Central and Eastern Europe, mainly in the remote areas, where the human impact is been at its minimum (see Fig. 3).

The interpretation for "strict reserve" varies in different countries. In many cases game control, fire control, free visiting in the reserves and the removal of invading exotic species are allowed. The common nominator for a strict forest reserve was no silvicultural management. The ideal non-intervention concept, i.e. the development of appreciable areas of real virgin forest, is not realistic scenario in Europe.

Harmonizing of definitions is required

The IUCN classification (Table 1) is widely used for classification of large scale protected areas like national parks, but its implementation to the European forestry conditions is difficult due to the fragmented and modified forest landscapes. A new classification system for protected forests in Europe was developed by MCPFE process, and adopted for implementation in the Ministerial Conference in Vienna, in April 2003 (Vienna Declarations and Vienna Resolutions 2003). A working group established by the Liaison Unit of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) has developed the new classification system by using as a basis IUCN classification, TBFRA data collection procedure, EEA classification for CDDA (Table 3) and findings of COST E4.

Table 1. Protected area management categories by IUCN classification (IUCN, 1994).

Areas managed mainly for:	
I	Strict protection (i.e. strict nature reserve/wilderness area)
II	Ecosystem conservation and recreation (i.e. national park)
III	Conservation of natural features (i.e. natural monument)
IV	Conservation through active management (i.e. habitat/ species management area)
V	Landscape/seascape conservation and recreation (i.e. protected landscape/seascape)
VI	Sustainable use of natural ecosystems (i.e. managed resource protected area)

Table 2. Categories of designation types by EEA for protected areas (CDDA)

A.	Designation types used with the intention to protect fauna, flora, habitants and landscapes (the latter as far as relevant for fauna, flora and habitat protection)
B.	Statutes under sectorial, particularly forestry, legislative and administrative acts providing an adequate protection relevant for fauna, flora and habitat conservation
C.	Private statute providing durable protection for fauna, flora and habitats

Table 3. New classification for protected forests in Europe (MCPFE –classification in 2003 with linkages to EEA ja IUCN classifications). Adapted by the Ministerial Conference on the Protection of Forests in Europe, in Vienna, April 2003.

	MCPFE Classes	EEA*	UCN**
1: Main Management Objective "Biodiversity"	1.1 "No Active Intervention"	A	I
	1.2 "Minimum Intervention"	A	II
	1.3 "Conservation Through Active Management"	A	IV
2: Main Management Objective "Protection of Landscapes and Specific Natural Element"		B	III, V, VI
3: Main Management Objective "Protective Functions"		(B)	n.a.

The MCPFE classification consists of three categories: protected forests as management objective "biodiversity", management objective "protection of landscapes" and specific natural elements and management objective "protective functions" (soil, water, natural hazards). This classification has been used for comparisons and discussions in the 4th Ministerial Conference organized in 2003 in Vienna, Austria. The results of MCPFE classification on the category biodiversity, "no human intervention" has given quite similar results on the amount of "natural forests" in temperate zone of Europe as the COST E4 survey (State of Europe's Forests 2003, Fig.4, 5 and 6).

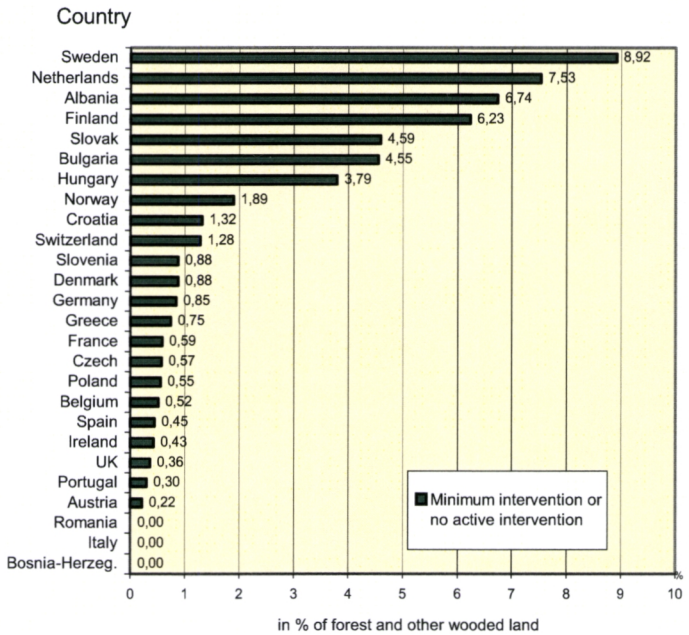

Fig. 4. MCPFE classification "protected forests for biodiversity". No active or minimum intervention (1.1.+1.2, see Table 3).

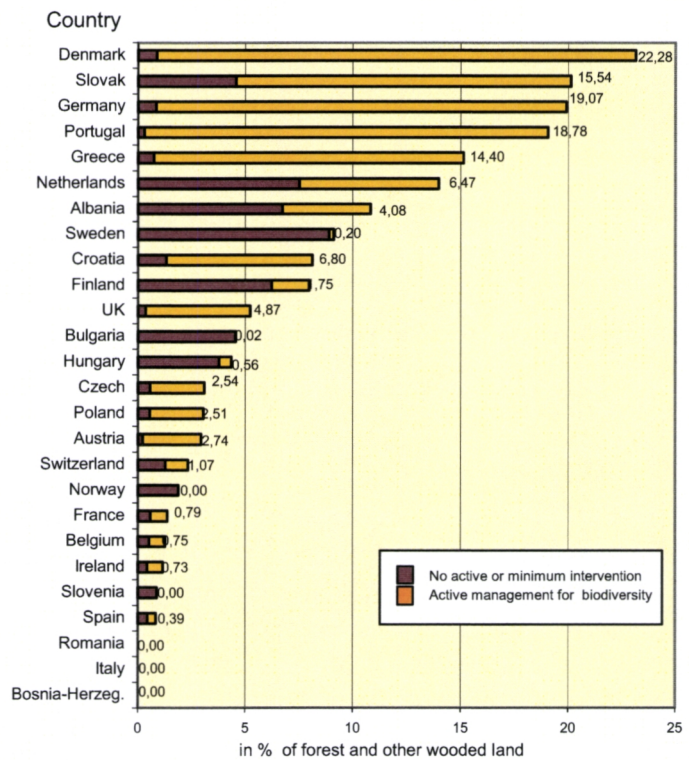

Fig. 5. MCPFE classification "protected forests for biodiversity". No active or minimum intervention and active management for biodiversity. (Classes 1.1.+1.2+1.3, see Table 3).

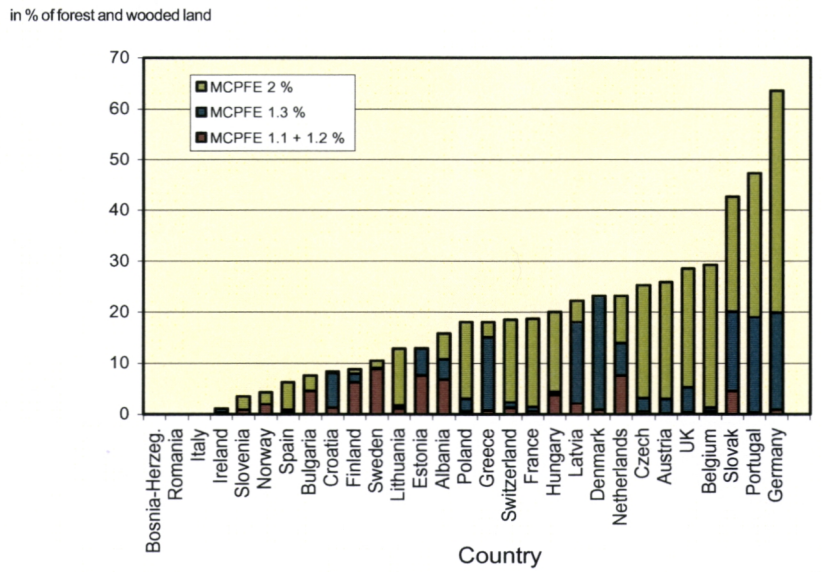

Fig. 6. MCPFE classification "protected forests for biodiversity and landscape". (Classes 1.1.+1.2+1.3+2, see Table 3).

The European countries can be classified to various groups according to the forest protection motivations. The Nordic countries have given the emphasis on strict biodiversity protection and are clearly the leading countries with classes of "no human or minimum intervention". The Central-European countries have emphasised the active management of biodiversity on their protected areas as well as landscape values. Strictly protected forests are typical for remote, sparse populated areas where state forest ownership dominates. On densely populated areas, where private forest ownership is majority less strict categories of protection dominates; for example instead of national parks biosphere areas has been designated.

Discussion and conclusions

Complementing the available networks of protected forests is one of the main goals of the current forest policy discussion. However there is no single, uniform or internationally agreed target with respects to the percentage (e.g. 5 or 10%) of forest, which should be strictly protected. Rare and vulnerable forests, especially remnants of virgin forests can only be protected by medium or large reserves. The focus of debate in Europe appears to shift from "total" large scale protection in segregated areas to "precision protection" and to restoration of available protected areas and to combining protection and timber production into the integrated forest management.

Static approach and protection of the old forests alone will limit our efforts to important, but only on one segment of the forests and may lead to increased risks of outbreak of insect, fire or storm calamities into the forest on surroundings. To guarantee various habitats and development stages of protected forests it is necessary to preserve young valuable forests, too. On that basis the protection or generally maintaining biodiversity should be seen as dynamic process in order to assure dynamic evolution of species and ecosystems parallel to the forest development cycle.

Maintaining biodiversity in forested areas can be achieved through an adequate network of protected areas and by the implementation of large-scale close to nature silvicultural management which integrates conservation, production and non-production functions (see Ministerial Conference 1993). Multifunctional forests have the greatest influence in terms of preserving living organisms, as they represent 80-90% of the forested areas in most European countries. Close to nature silviculture produces economically efficiently wood and at the same time provides large-scale protection and conservation effects by enriching biodiversity at all spatial levels.

Virgin and natural forests are important remnants of valuable and rare forest ecosystem and they serve a basis for close to nature silvicultural research and applications, for planning national protected forest networks and for providing a reference for naturalness inventories of "normal multifunctional" forests. It is generally accepted that natural forests are the basic model for the realisation of close to silviculture. In strict forest reserves the development cycle of natural forests can be observed, elucidated and understood, and these findings subsequently mimicked in multifunctional forests. Management of forests generally is based on a combination of knowledge derived from research in natural forests and silvicultural experiments in conventional forest areas (see Schütz and Matter 1992; Parviainen et.al. 2000b).

In the public debate, marked-oriented, voluntary forest certification has sometimes been seen as a tool to increase forest protection. However voluntary forest certification cannot resolve the need to protect more valuable forests or to set protected areas outside of multifunctional forest management. Because of the possible compensation for forest owners, the taxation aspects and the possibility of setting aside forest areas and excluding them from wood production permanently, decisions on forest protection have to be made by democratic parliamentary means. Logically, forest certification is directed primarily at the management of multifunctional forests, and can be seen as a simple tool to communicate that wood products come from well-managed forests.

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Fennoscandian Green Belt Network of Protected Areas

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Abstract

The area around the Finnish-Russian border is highly important for the conservation of biological diversity in the northern coniferous zone in Fennoscandia. It holds the most extensive and longest preserved natural areas with a rich biological variety.

The cooperation between Finland and the Soviet Union focusing on nature conservation was recognised as important at quite an early date, but in 1985 the bilateral agreement on environmental protection rendered this cooperation more effective. Finland drafted a national programme for the protection of old-growth forests in 1991-1996, and the 1992-1994 border forest project in the Karelian Republic established the importance of these cross-border areas in the protection of the western taiga ecosystems and the flora and fauna. The idea of a network of protected areas on both sides of the border then came up. This Green Belt was to extend from the Gulf of Finland to the Lappland.

The first elements of this Green Belt took form as early as 1990, when the Friendship Park was established in Kuhmo and Kostamus. The plans for protected areas drawn up in the Karelian Republic provided supplementary information on the protection values and delimitation in the 1990s. An important step forwards was taken in 1992 with the establishment of the Paanajärvi national park in the northern part of the Karelian Republic, facing the Finnish Oulanka national park.

So far, the Fennoscandian Green Belt has not been officially and formally recognised, although it is mentioned in many important protocols and agreements. In practice, the underlying idea has been promoted during the last decade through several Fenno-Russian joint nature conservation projects, focusing, for instance, on cooperation in the management and use of protected areas, in the inventory of the ecosystems, habitats and flora and fauna of the western taiga, and in research on nature and culture in the region.

In 1997, the Finnish-Russian development programme on sustainable forestry and conservation of biological diversity in North-West Russia was started, which has improved the prerequisites for work by providing more personnel and economic resources. Additionally, both Norway and Sweden have now become more engaged in the work to preserve natural values in Fennoscandia and the Barents area.

A very strong link in the Green Belt was forged when it was decided to set up the Kalevala national park in Russia, and Finland is working on a Kalevala park as well. These two parks will protect more than 100 000 hectares of old-growth wilderness areas in Russian Karelia and in Finnish Kainuu, safeguarding at the same time both natural and cultural values.

Since the protected areas came into being, cooperation between the Natural Heritage Services of Metsähallitus and the Russian nature conservation authorities has already become well established. Cooperation between nature protected areas is aimed at

creating a chain of functioning Finnish-Russian cross-border twin parks, which is uniquely extensive and varied in a European context.

The Fennoscandian Green Belt has also attracted international interest, in that sense whether the areas comprising the Green Belt could be included as part of the World Natural Heritage.

Fennoskandian Green Belt -suojeluverkosto

Pekka Salminen, Ympäristöministeriö

Tiivistelmä

Suomen ja Venäjän välinen rajaseutu on tärkeä alue pohjoisen havumetsäluonnon monimuotoisuuden säilymiselle Fennoskandiassa. Siellä on pisimpään säilynyt laajoja ja eliöstöltään arvokkaita luonnonalueita.

Suomen ja Neuvostoliiton välisessä luonnonsuojeluyhteistyössä näihin alueisiin kiinnitettiin jo varhain huomiota, mutta maiden välisen ympäristönsuojelusopimuksen myötä vuonna 1985 yhteistyö tehostui. Vanhojen metsien suojeluohjelman valmistelu Suomessa vuosina 1991–1996 ja rajametsäprojekti Karjalan tasavallassa vuosina 1992–1994 vahvistivat käsitystä rajanläheisten alueiden merkityksestä pohjoisen havumetsävyöhykkeen, läntisen taigan ekosysteemien ja eliölajiston suojelulle; - syntyi ajatus luonnonsuojelualueiden verkosta molemmin puolin rajaa, ns. Vihreästä vyöhykkeestä, joka ulottuisi Suomenlahdelta Jäämerelle.

Vihreän vyöhykkeen ensimmäiset palaset alkoivat hahmottua jo vuonna 1990, kun Ystävyyden puisto perustettiin Kuhmoon ja Kostamukseen. Karjalan tasavallassa tehtyjen suojelualuesuunnitelmien pohjalta tiedot monien alueiden suojeluarvosta ja rajauksesta täydentyivät 1990-luvulla. Tärkeä virstanpylväs saavutettiin, kun Paanajärven kansallispuisto perustettiin 1992 Karjalan tasavallan pohjoisosaan Suomen Oulangan kansallispuiston rinnalle.

Fennoskandian Vihreä vyöhyke ei ole saanut toistaiseksi varsinaista virallista statusta, vaikka se mainitaankin monessa arvovaltaisessa pöytäkirjassa ja sopimuksessa. Käytännössä toimintaideaa ovat edistäneet viime vuosikymmenen aikana monet Suomen ja Venäjän yhteiset luonnonsuojeluhankkeet, joiden kohteina ovat olleet esimerkiksi suojelualueiden hoitoon ja käyttöön liittyvä yhteistyö, läntisen taigan ekosysteemien, elinympäristöjen ja eliöstön inventoinnit maiden yhteistyönä sekä muu luonnon tutkimuksen ja kulttuurin alalla tehty yhteistyö. Luonnon virkistyskäytön ja luontomatkailun sekä luontovalistuksen edistäminen on ollut taloudellisesti ja sosiaalisesti tärkeä osaalue.

Vuonna 1997 aloitetun Luoteis-Venäjän kestävän metsätalouden ja luonnon monimuotoisuuden suojelun kehittämisohjelman myötä on lisätty sekä henkilöstöä että taloudellisia voimavaroja. Fennoskandian ja Barentsin alueen luonnonarvojen säilyttämisessä myös esimerkiksi Norja ja Ruotsi ovat tulleet työhön mukaan yhä enemmän.

Päätös Venäjän Kalevalan kansallispuiston perustamisesta ja Suomeen perusteilla oleva Kalevalapuisto muodostavat jälleen yhden vahvan lenkin Vihreän vyöhykkeen alueverkossa. Yhdessä näiden puistojen perustamisella suojellaan yli 100 000 hehtaaria ikiaikaista vienankarjalaista ja kainuulaista saloa sekä kulttuuriarvoja Suomessa ja Karjalan tasavallassa.

Suojelualueiden perustamisen jälkeen yhteistoiminta Suomen Metsähallituksen ja Venäjän luonnonsuojeluviranomaisten välillä on jo saanut vakiintuneita muotoja. Rajanläheisten luonnonsuojelualueiden yhteistoiminta tähtää Suomen ja Venäjän rajan yli toimivien puistoparien ketjuun, joka on Euroopan oloissa ainutlaatuisen mittava ja monipuolinen kokonaisuus.

Fennoskandian Vihreä vyöhyke on herättänyt paljon myös kansainvälistä kiinnostusta. Muun muassa YK:n kasvatus-, tiede- ja kulttuurijärjestön UNESCO:n Maailmanperintökomitean kokouksessa joulukuussa 2001 Helsingissä päätettiin arvioida, millä edellytyksillä Vihreän vyöhykkeen alueita voitaisiin ehdottaa sisällytettäviksi maailman luonnonperintöluetteloon.

Fennoscandian Green Belt Network of Protected Areas

Background

The border between Finland and Russia is 1 250 km long, and the areas around the border are important for the preservation of the Northern coniferous forests. In these regions the original boreal forests and mires can still be found in the natural state. Finland and Russia have a great responsibility for the preservation of this valuable Fennoscandian natural heritage.

For ten years now, the denomination "Green Belt" has been an accepted concept which includes the idea of joint endeavours. A working group coordinating Finland's and the Soviet Union's cooperation in nature conservation first discussed the issue in 1994. In 1996-97, there were already plans afoot for separate working groups to address the issue in both countries.

In Finland, the preparations for the Natura 2000 network took precedence when the country became a member of the European Community. However, the issue has again come into focus in international discussions.

Meanwhile, nature conservation cooperation between Finland and Russia has continued and contributed to further ideas on the Green Belt. This cooperation had begun in the 1970s, and in 1985 the establishment of a joint working group on nature conservation rendered activities more efficient.

The first major achievement was the establishment of the Friendship Park in Kuhmo and Kostamus in 1990. The joint objective of these protected areas on each side of the border also included joint research projects. Natural conditions on both sides of the border are quite similar, whereas the utilisation of natural resources has been different. This provideschallenging opportunities for research and comparisons.

An encouraging continuation of this work was the establishment, in 1992, of an extensive national park in Paanajärvi in the northern part of the Karelian Republic, facing the Finnish Oulanka National Park. Previously, there had been plans for utilisation of the water power in this unique Paanajärvi-area, but they have thus come to nought.

Protection and conservation have always taken advantage of various threats. In the late 1980s, an intense public debate arose about the remaining wilderness areas in Finland. This debate subsequently escalated and expanded to include to conflicts pertaining to the protection of old-growth forests all over the country. This issue has as yet not been completely resolved.

In Russia, too, logging started threatening the old-growth forests in the border areas. In order to provide justification for their protection, information on these forests and their natural values was urgently needed. In 1992-1994, a major project for the inventory of the cross-border forests was undertaken in cooperation with the Karelia Research Centre of the Russian Academy of Sciences.

This research resulted in a proposal for the establishment of four important protected areas, namely, Tolvajärvi, Koitajoki, Tuulijärvi (Tuulos) and Kalevala, and for further research on the natural conditions in these areas.

This cooperation also expanded to the Leningrad region, as plans were made for a strict nature reserve in the easternmost archipelago in the Gulf of Finland. Protected areas were also planned on the Karelian Isthmus and in the neighbourhood of St. Petersburg.

Again, in the far north, nature conservation cooperation between Finland, Norway and Russia began with the establishment of the Vätsäri wilderness area to the east of Lake Inarijärvi in Finland in 1991 and the establishment of the Paatsjoki strict nature reserve in Russia on the Norwegian border in 1992. The Övre Pasvik National Park in Norway was already in existence.

All in all, a number of projects were already afoot in the 1990s along the entire border.

The Green Belt takes shape

The preparations for the old-growth forests protection programme in Finland and the cross-border forest project in the Karelian Republic have made it even more apparent that these forest areas are important from a European point of view with regard to the protection of the ecosystems and species in the Northern coniferous forest zone.

A Green Belt was proposed in which the core area would lie in the present and planned protected areas on each side of the Fenno-Russian border. Depending on the delimitation of the areas, the coverage of these protected forests will eventually amount to nearly two million hectares. On the Finnish side, most of the areas forming the Green Belt were quite small protected forest islands, whereas in Russia, more extensive individual areas were concerned.

The Finnish government discussed the Green Belt in 1996, when the ministerial working group for cooperation with adjacent regions outlined the needs for cooperation in forestry and nature conservation to the year 2000.

As a result, a Development Programme on Sustainable Forest Management and Conservation of Biological Diversity in Northwest Russia was approved in 1997. This gave Finnish-Russian bilateral cooperation pertaining to forests and nature conservation a stable official status, and more resources on the Finnish side. A nature conservation working group responsible for cooperation between Finland and Russia supervises and directs the implementation of this programme and projects under it. In early 2001, the programme was continued until the end of 2004.

By early 2003, more than 40 nature conservation projects have already been implemented in various administrative districts in Northwest Russia, and the total project financing has been about 3 million euro. These projects have been based on development needs and proposals by the Russian counterparts.

Additional support has come from the European Union. To give an example, the project Karelian Parks was implemented under the EU Tacis programme, and it contained plans for the management and use of four proposed protected areas, Kalevala, Tuulijärvi, Koitajoki-Tolvajärvi and islets in Lake Ladoga. This project also encompasses the Paanajärvi National Park.

A very important decision was made by the government of the Russian Federation

in 2001 with the approval of a list of new national parks and strict nature reserves to be established before 2010. Of the projects included in the Development Programme for Northwest Russia, three areas of major importance were mentioned: the Kalevala National Park in the Republic of Karelia, the Onezhkoje Pomorje National Park on the shore of the White Sea in the Archangel area, and the strict nature reserve on the Gulf of Finland in the Leningrad region.

We may say that the planning of the Kalevala National Park in Russia has been of great importance in the cooperation between the Finnish Ministry of the Environment and the Republic of Karelia. Finland is also preparing its own Kalevala Park. When both these parks have been established, it means that more than 100 000 hectares of old-growth wilderness areas in Karelia and the cultural heritage of those areas will be preserved in Finland and in the Republic of Karelia.

Future challenges

The biggest new cooperation project at present is a GAP analysis, that is, a assessment of the representativeness and the gaps in the protected areas network in Northwest Russia. This project is also, to some extent, connected with the creation of the Green Belt. The main aim of this project is to study how representative the present network of protected areas is with regard to ecosystems, biotopes and species, and to study the local history and the characteristic features of traditional land use.

Cooperation between the Nordic countries is also growing. As part of the Barents regional cooperation, the International Contact Forum on Habitat Conservation in the Barents Region (known as the Habitat Contact Forum or HCF) was set up in 1999. The Forum met in Kuhmo in Finland on 3-6 November 2003.

Finland has already made official decisions on the main protected areas in the Green Belt. These include the protection programme for old-growth forests and the Finnish proposal for the Natura 2000 network, which have, to some extent, extended the protected areas in eastern Finland. The legal implementation of the Natura sites, as well as the organisation of the management and use of the Natura areas, is now an important task demanding much work.

The Finnish Forest and Park Service, Metsähallitus is working on establishing, along the Finnish-Russian border, a chain of twin parks from the Gulf of Finland to Paatsjoki in northern Lapland. This chain of cross-border protected areas will, when implemented, be a unique entity in the whole of Europe and will also form an important part of the Green Belt.

The regional ecological planning done by the Finnish Forest and Park Service has been important in promoting sustainable use of the state forests in eastern Finland. This planning has resulted in the discovery of many new areas worthy of conservation. The Natura 2000 network and the regional ecological plans together provide a representative ecological network in the Green Belt area. Regional ecological planning continues in a slightly modified form.

The biosphere area in northern Karelia has an important role and great significance

in the harmonising of economic, cultural and nature conservation aims on a regional basis.

In Russia, the planning of protected areas and the decisions on their establishment have not yet been finalised. It is to be hoped that final decisions on these areas will soon be at hand and that ideas and objectives in regional ecology will be applied in the use of forests.

New stage in the Green Belt development

At the UNESCO World Heritage Committee meeting in Helsinki in December 2001 it was decided to assess the preconditions for proposing the Green Belt areas to be included on the World Heritage List.

At the meeting between the IUCN and UNESCO in St. Petersburg on 9-10 October 2003, discussions on the issue continued. The boreal coniferous zone is gaining in importance, for instance with a view to global climate trends, while at the same time its forests are increasingly threatened. The boreal zone is threatened by habitat loss and fragmentation in the Green Belt also, and, therefore, it is important to see that it is not cut down and fragmented. The Fennoscandian Green Belt is the northernmost and most cohesive area of Scotch pine forests in the world, which makes it relevant in the light of the criteria for the World Heritage List. These latitudes elsewhere in the world are generally characterised by tundra ecosystems or sparse spruce-dominated forests.

The possible inclusion of the Green Belt on the World Heritage List is still at a very early stage. The timetable is at present non-existent. Finland and Russia have to agree on this World Heritage project, including justifications and objectives. Both countries also have to include the project on their project lists. Finland is at present preparing three national projects in this connection.

The St. Petersburg meeting was particularly important because this was the first time that the Fennoscandian Green Belt project has been mentioned in IUCN documentation and the importance and justifications have been discussed by international experts. There are chances for further preparatory work, although that will not in itself guarantee that the Belt will be added to the World Heritage List. In a few years hence, we will have a clearer picture of the situation.

One more thing worthy of mention is the 5th World Parks Congress in Durban in South Africa in September this year. Much attention was paid to transboundary protected areas between different countries and to the networks thus created. Progress was reported from many parts of the world in cross-border cooperation. This Koli meeting deals with the same important issue, and we will greatly benefit from hearing about European experiences in this matter.

National park as a source of social capital – case Koli networks

Lasse Lovén, Finnish Forest Research Institute, Koli National Park

Abstract

Development of networks for a national park introduces an option to develop the social capital for the local community. This includes the know-how, skills for connections, horizontal and vertical partnerships and special investments on increasing of knowledge and enhancing one's responsible relationship with nature by means of research, education and customer guidance. There has been an active attempt of developing networks in the fields of research, planning, environmental education, information services, nature tourism and resource management in the Koli National Park. An innovative network for environmental education and interpretation has been developed as an experimental partnership project connecting the park management and local community. A specific monitoring programme on customer feedback is controlling the outputs of the customer services produced through the new type partnership-based network.

Key words: Social capital, national park, partnership, local community, network.

Kolin kansallispuisto kehittää verkostoyhteyksiä

Lasse Lovén, Metsäntutkimuslaitos, Kolin kansallispuisto

Tiivistelmä

Kolin kansallispuisto on kooltaan yksi pienimmistä Suomen kansallispuistoista, vain 30 km2, mutta sen toimintaverkosto on huomattavan laaja. Verkostoyhteyksillä pyritään kehittämään ennen muuta monin eri tavoin muodostuvaa toimintayhteisön sosiaalista pääomaa. Tämä pitää sisällään tietotaitoa, yhteydenpitovalmiuksia, kumppanuuksia eri tasoilla horisontaalisesti ja vertikaalisesti sekä erityistä panostamista tutkimuksen, opetuksen ja asiakkaiden opastuksen kautta kertyvään tiedon lisääntymiseen ja vastuullisen luontosuhteen vahvistumiseen.

Konkreettisia toimintatapoja ovat paikallisesti sopimuksilla luotuun kumppanuusperiaatteeseen pohjautuva yhteistoiminta kolilaisten yhdistysten ja yritysten kanssa. Kumppanuusverkosto laajenee tällä suunnalla myös kansallispuiston kumppanien jatkotoimilla, esimerkkinä Ukko-Kolin Ystävät ry, jolla on sopimuksiin perustuvaa yhteistoimintaa noin 15 paikallisyrityksen ja maakunnallisen leirikouluverkoston kanssa. Valtakunnallisesti yhteistoimintaa on sekä luonnonsuojelusektorin sisällä Metsähallituksen luontopalveluyksiköiden kanssa, erityisesti voidaan mainita Savonlinnan ja Oulun alueyksiköt ja niiden kenttäyksiköt. Tutkimuslaitosten väliset yhteydet ovat vahvat sekä kotimaassa että rajojen ylitse.

Kansallispuistojen kesken yhteydet tapahtuvat EUROPARC järjestön Pohjoismaiden ja Balttian osaston kautta sekä myös suoraan puistojen välillä. Viimeisen kolmen vuoden aikana olemme toteuttaneet mm. ympäristökasvatukseen ja paikallissuhteisiin liittyviä hankkeita yhdessä Itävallan Hohe Tauern kansallispuiston, Latvian Gaujan kansallispuiston ja Kreikan Valja Galda kansallispuiston kanssa. Parhaillaan on viriämässä Interreg IIIc ohjelmaan liittyvä verkostohanke Italian Vesuvius-kansallispuiston kanssa. Tulevaisuudessa odotamme paljon Venäjä-yhteyksiltä. Tätä visiota puoltaa sijaintimme Euroopan itärajan tuntumassa ja hyvien liikenneyhteyksien päässä Karjalan tasavallasta ja Arkangelin alueesta. Yksi tulevaisuuden kehittämisideoista on luoda verkostoa ns. kansallispuistotuotteiden vaihdon yhteyteen. Tämä edistäisi puistojen suhteita paikallisyhteisöön ja lisäisi taloudellista ja sosiaalista kestävyyttä. Pidämme tärkeänä, että Luontokeskus Ukossa on näkyvillä kumppanipuistojemme informaatiota ja mahdollisesti myös niiden profiilituotteita. Niitä tulee esille tämänkin seminaarin yhteydessä eri muodoissaan, sekä suussa sulavina herkkuina että erilaisina ohjelmatuotteina.

Social capital

The concept of social capital became known during the 1990s especially due to the research conducted by Robert Putnam (1993). Social capital is generally defined as benefits gained by networking; also the social infrastructure can be understood as manifestation of social capital. At the same time it is an integral factor in the process of growth and development. Hjerppe & Taipale 2001 assess that the concept or social capital may rise to be a key factor in the evolving of the theory of social sustainable development.

The concept of social capital has been mostly developed through studies on local communities and regions (Coleman 1988, Putnam 1993). The World Bank has developed the concept originally as part of the concept for sustainable development along with ecological and economical sustainable development, which well describes the multiplicity of the concept (Serageldin 1996, World Bank 1998). Finnish Future Committee (Toimikunnanmietintö 1998) in its report accentuates education as a tool for developing of social capital.

Local view on social capital has achieved a new meaning in EU, which is developing functional programmes for mobilising local social capital in order to battle unemployment and displacement. At the same time the programmes strengthen EU in its world wide economical competition (Kajanoja & Simpura 2001). Economical aid supports especially companies and the third sector communities to form local networks of partnerships and by so means to strengthen their social capital (Loranca-Garcia 2001). The key factors in this model are the actors in the third sector. By supporting their actions EU is supposed to create and support such small-scale initiatives that may activate better employment and in the end also to create new business ventures. In this model the partnership is created between enterprises and the third sector organisations.

Väärälä (2001) and Simpura (2001) have made references to Finnish local and national authorities in connection to the new partnership network. Väärälä states that in Finland and in the other Nordic countries the municipalities play a major role as the playgrounds of local autonomy and act thus also as activators of social capital. Simpura argues that Finnish "society for citizens" ensures that the common state also covers the major part in the building process of local social capital, as the state is here traditionally a part of the entity of the citizen society. In this respect Finnish society differs significantly from many other European societies, where state traditionally holds a more distant role above the society of citizens.

Notion of social capital is also used in the micro level research of organisations, such as inter company networks or between enterprises (Woolcock 2001). According to Woolcock social capital means norms and social connections that have sprang roots to the social structures in the society. These norms and connections give people a chance to co-ordinate their behaviour in order to achieve wished objectives.

Central elements of social capital are the networks of the community, the inter-trust among the actors and the social code that is built on that trust (Putnam 1993, Väärälä 1998). According to Seligman (1997) reliance may be directed to people (trust) or institutions (confidence). Immonen (1999) argues that the fact that reliance includes a time perspective is crucial; it concerns the future and its predictability.

Connections and interactions between organisations and individuals have case by case taken a shape of networks in the scientific literature analysing society, also in the research of tourism (see Komppula 1997, 1998). There is a vast range of different types of networks and their interactive relationships are many in number. Networks settle typically between actors at similar level (horizontal) or different level (vertical) in the hierarchy of processes. Social networks may create additional value to society in forms of social capital. That capital appears as trust between the network actors, as deals and norms as well as attributes of the actors having a society wide relevance, such as knowledge and skills, and moreover as images and experiences, and finally as attitudes and values.

Project programme of the EU Commission (1998) attempting to develop local social capital defines also the intermediary organisation for social capital as part of social capital in question: "Local social capital means an intermediary organisation – either a district or local actor - that has an ability to offer support to people who join their resources in order to carry out micro level projects enhancing employment and social solidarity". Functions of these intermediary organisations are for example

- preservation of social solidarity
- intensifying of local groups and networks aiming at inclusion of social solidarity
- activation of social businesses and co-operatives

Intermediary organisations function within a precisely defined geographical region where they have to interact and cooperate with people in need of support as well as the groups representing them. Local social capital intermediaries aim at being in close and supporting contact with the grass root level, so that new initiatives may flow as answers to local needs. Local intermediaries create additional value also if they can use available assets and carried out actions as bases for acquiring additional resources. Intermediaries of social capital need to act in co-operation with local public services (social services, educational services) as well as with other social and economical actors in order to support the development of social capital (Loranca-Garcia 2000).

National parks (NP) have a multidimensional societal profile. Social capital is the third dimension of the benefits to be produced by a park as a promoter of sustainable development. The first operational function of a NP, linked with the values of nature, supports sustainable ecological development. The second operational function is most often linked with tourism and may support sustainable economical development. The third operational function linked with education and research, preserving cultural values, and developing networks supports sustainable social development. A more thorough examination of the networks of Koli NP as an example of a development process of

social capital is presented next. Also, I will examine more closely how the national park may be developed to function like an intermediary organisation or actor for social capital and like an innovative centre for development in remote rural peripheral area under recession.

Partnership as a key factor in network model

Partnership is a concept meaning that social services, previously provided with the line organisation of public authorities, are now provided with networks basing on the co-operation and contracts between different operational partners (Lorenca-Gracia 2000). Partnership may be defined as "a process including a number of diversified players from diversified sectors; the players come along with a common vision and act together towards the common goal". The process lies on the principles of democracy, acts with clearly defined supporting systems and includes constant evaluation in order to create results that produce common added value (European Commission 1998). Alanen & Kajanoja (2000) associate the concept of partnership particularly with the development of social capital on local levels.

Common application of the partnership model is a syndicate co-operation between two public government organisations, where both partners participate in operation as active operators with their partial programs and cover the expenses by their own budgets. Both parties gain operational benefit through co-operation. Partners may also represent public sector societies and private sector enterprises. This is also a union, where both parties have their own separate goals that are to be met through the joint venture. Partners form a consortium in which partners participate with their own resources and share the results according to a predetermined agreement.

Externalising public services by purchasing services from private enterprises by means of a bidding competitions differs from partnership. Purchased services replace services of the public administration and the relationship between the buyer and the provider of the service is a normal business relationship. A network that is based on the previous is a company and customer network. However, some externalised services may include features of partnership, especially in case where the agreement covers public goals and the operations are economically non-profitable.

A new type of a partnership network is formed by public societies and so called third sector societies (Kaunismaa 2000). Third sector means different societies that operate for public good, like non-governmental organisations, associations, citizen unions or other similar operational groups whose operations are not driven by profit maximisation but some special civic goal. The special civic goals are usually registered in the rules of these third sector societies and the society has a mandate to make agreements on behalf of its members in order to meet their goals.

Public administration and the third sector societies form a partnership based network mostly when the operation in question is not profitable enough for business enterprises, or the resources of the public authorities are not sufficient in order to produce the service in full. However, a partnership approach is potential in case the operation is important enough for the public authorities, the third sector societies are capable to

participate in practical operation and the final customers are willing to pay directly a part of the costs of services they consume.

National park as part of the public administration network

Operation of the national parks is connected to the operational strategies of their administrative organisations. Nature services of the Finnish Forest and Park Service (Metsähallitus) administer 34 parks (year 2003) and Finnish Forest Research Institute administers one, the Koli National Park, in the Finnish national park network. Centralised result oriented management system, applied by the Ministry of the Environment, covers most of the operations of the Finnish national parks. The ministerial management system controls strategic and tactic planing and budget allocation.

Strategic control by the Ministry covers the long term (10-20 years range) management plans (= master plan, Luonnonsuojelulaki 1996, 19§). The master plan is prepared by the organisation in charge of park management with its local and regional interest groups. Ministry of the Environment ratifies the plan, and rather frequently (for example Metsäntutkimuslaitos 1997) responds once more to some central issues of the plan as well as gives guidelines for the special operation plans to be done later.

The organisation in charge of park management prepares a special operation plan for the central themes of the master plan. The Ministry of the Environment either validates the operation plans or, more often, delegates the matter to the central governing body of the park management. Special operation plans are mostly tactic plans that normally cover the timeline of the master plan or less. Alternatively the tactical plans are applied to short-term special projects, such as projects dealing with developing the infrastructure of the national park. Development projects like Ukko-Koli service centre and park harbour serve as examples of the latter.

Ministry's annual management control is carried out through agreements on management outputs between ministry and the central governing body of the national park management. The central governing body in charge transfers its output objectives concerning Koli NP to be part of annual objectives of the Joensuu Research Centre, and Joensuu in turn transfers them as annual goals for the "research forest" -project in charge of operative management of the Koli NP. A part of the annual budget is allocated with setting of operative goals.

Network of the national parks and the interest groups

The national park network is carrying out the societal strategic responsibility over nature values. National parks provide also as nationally valuable scenic attractions a public service reserve for the benefit of citizens. Both views implicate that national parks form a significant public welfare resource over which many Finnish communities and individuals are interested in terms of utilities and development. This can well be

seen in the activities when the organised groups and private cups try to influence on the management and development of the park.

Interest upon national parks is transboundary since national parks form natural and cultural heritage networks, international natural and cultural tourism networks and networks of international education, environmental education and research. These networks have agreement-based organisations and they have regular bi- or multilateral interactions at various levels.

Network for European national parks is built in connection with European Federation for national and nature parks (EUROPARC) and its regional co-operation groups such as Nordic-Baltic Section. EUROPARC Federation unites over 350 European parks in 37 countries into an operational network working both at strategic and also partly on tactic level (www.europarc.org). About 100 Nordic national parks and other protected areas are working together in the frame of Nordic-Baltic Section of EUROPARC.

There are also direct contacts between national parks. For example during the last three years Koli NP has carried out projects dealing with environmental education, local relations and nature tourism with Hohe Tauern NP, Gauja NP Latvia and Valja Galda NP Greece. Also, some new plans are presently rising, for example an Interreg IIIc project of a heritage centre network with Vesuvius NP Italy and an Interreg IIIb development project of sustainable tourism network with some national parks in Sweden, Iceland and Scotland. We also have high expectations on our contacts to Russia. This vision is supported by our geographic position near by the eastern border of Europe as well as our good connections to Republic of Carelia and Arkangel region in Russia.

One of our ideas for the future is to build up a network for developing and introducing so called national park products. Developing of products and services in the framework of park´s profile together with local society and enterprises is a challenge, which might improve public relations between the park and the local community as well as enhance economic and social sustainability. Change of products and ideas between parks may activate international co-operation and understanding. In Koli NP we see it important that our Heritage Centre Ukko presents information like exhibitions and also possibly some profile products from our sister parks.

Research network of Koli National Park

Finnish Forest Research Institute has managed Koli NP like a natural and social laboratory, where scientists can monitor, collect cumulative data, analyse and create experiments on several research subjects concerning natural environments, species and people. The research issues expand outside of the natural sites since protected heritage in Koli NP also include heritage landscape and other cultural heritage. Koli has been a playground for nature and culture tourism more than 100 years, so tourism research with ecological and social issues is strongly present at the national park.

From 1997 onward Finnish Forest Research Institute has appointed one researcher to Koli NP, who also acts as the park director. Part of the working hours of the researcher-director is used to activate the network based research activities inside the

park as well as practical support functions to on-going scientific projects. A new senior researcher's post has strengthened the research network from 2003 onwards. Some researchers of Finnish Forest Research Institute – both in the Joensuu Research Centre and other regional research stations – have directed their research to Koli NP. Latter projects are usually not conducted in a network with other research institutes. However, most projects of Joensuu Research Centre dealing with Koli NP are network projects organised together with the University of Joensuu.

Multidisciplinary research in the national park opens possibilities and options for many research institutes. During last years the research network of the Koli NP has included groups of researcher within Finnish Forest Research Institute and 10 other research organisations. In addition to those, representatives from several different research organisations visit the national park yearly in order to become acquainted with research and development work that is carried out here. Koli NP has acted as an extension site for two EU COST-projects (E4/Strictly protected areas and E27/Common classification of the protected areas). The special aim of the COST projects is to compose and prepare scientific co-operational network projects.

Minor studies, which however were useful in national park management and planning, were produced in two different educational institutes in 2000 – 2003. These studies served both the nature conservation programme and sustainable tourism development programme of the park.

Interaction with educational institutes was reciprocal. Students achieved data from the databank of the national park or collected geographic information. Students achieved concrete support in research in the data collection when preparing, collecting and pre-processing the data. Support may also have been given in the form of equipment, workroom or accommodation. Also, partners agree that the support given when preparing and planning the study and instruction given when writing the study report benefited the final outcome. Researchers of the Finnish Forest Research Institute gave lectures to the students of educational institutes on various issues; like about park management and administration, planning systems used in park, research activities concerning landscape management and integrating tourism and conservation functions within the park management. The park researcher-director gave altogether 22 lectures, 4 of them in English, to student groups of the institutions of higher education during 2000 – 2003.

Studies served instantly the planning of the national park. Also, data collected and passed along with the study reports of the students contributed to the geographic database of national park. The park development projects, especially the harbour project and forest and landscape restoration projects, were given additional value by these studies conducted by students.

A special operation plan for developing research profile of the Koli NP is to be prepared according to guidelines defined by the new Master Plan of park. An international research seminar was held in April 2002 and 25 researchers from 13 different research institutes participated in this seminar. The seminar proceedings (Lovén 2004) is displaying multidisciplinary research activities and visions for further development of research in the Koli NP.

In the future one of the goals of the Finnish Forest Research Institute is to direct the

research function of the Koli NP so that the park introduces a specific experiment and extension site for researches on slash-and-burn landscape management and forest restoration, as well as research linked with geological and tourism issues. Scientific research seminars would be organised in the park on regular bases and the research results would be of international significance, if possible. In Koli NP there would be a wide range of demonstration sites available for researchers, educational institutions and communities in charge of practical park management. All the research results will be presented on the real sites.

In the vision described above, social capital can be acquired by research and education function of the national park. The forms of social capital would be the knowledge basing on research on natural and cultural values of the national park, educational information, programmes for environmental education in nature and heritage centre and continuously developing and strengthening network for co-operation of the scientific and educational communities. This developing know-how is transferred to the public of the park in a joint effort of the scientific community and the local society by means of guidance, interpretation and information systems.

Network for financing Koli National Park

The annual budget available for management and administration expenses of Koli NP was 500 000 € in 2003. The budget for investments in infrastructure rose up to 880 000 €. In 2003 the financing through the Ministry of the Environment covered 85% of the yearly running expenses of Koli NP management and 0% of the investments. Expectations of results exceeding actions which are possible within the annual budget limits are a normal phenomena within the administration of Finnish and also international national parks. This has led to a decentralised resources administration that attempts to gain resources from outside one's own administration. Decentralised resources administration has had a positive impact over the number of connections between different administrative bodies on national and regional levels including agreements on co-operation and resource allocations.

The annual financial resources of Koli NP originated from several different sources. In the year 2003 the resources for management, and investment were allocated from 7 different financial sources. Only 18% of the total financing and 64% of the management resources came as outcome of the agreement on management, which was made between the Finnish Forest Research Institute and the Ministry of Environment. Only 4% of the resources were coming from the operative budget funds of the Finnish Forest Research Institute allocated by the Ministry of Agriculture and Forestry. Externalised services (hotel and downhill slopes) are not in these numbers since the entrepreneur covers the main responsibility over them according to the contract between the Finnish Forest Research Institute and the company.

Sources of resources of a NP form a special financial network, which attempts to impact the emphasis and priorities of park management and development out of its' own personal motives. In order to acquire resources park administration has on a

regular basis to keep in connections with the finance sources and report on consumption of the previous funds. In order to acquire new financing park manager has to fill in new applications that are specific both in matters of form and operational plans. The outcome of these applications is always involved with a high degree of uncertainty. Substance skills involved with the financial applications are very important, since it is important to assure the financing parties of functional and productive utilisation of the resources.

Mastering interaction skills as well as acquiring and keeping up the trustful relation with the financing parties are the key factors for success in the decentralised resource administration. This is the core of social capital created between today's national park administration and its network of financing parties.

Network for environmental education

Tasks of the Finnish national park network that are stated by law (Luonnonsuojelulaki 1996, 1 §) include guidance and interpreting services involved in environmental education, providing facilities for educational activities and promoting park nature as a matter of hobby. Environmental education involves a vast range of operations in order to, for example, provide the NP customers with sufficient knowledge in order to strengthen the positive nature-man relationship and promote sustainable development. Substance of environmental education includes knowledge concerning NP and special skills needed in order to survive in nature. Tools for environmental education within NP include for example personnel and infrastructure for customer services and a special pedagogically oriented organisation that focuses on environmental education. Pedagogical informative material and programmes support other actions. Environmental education takes place typically as organised group activity, for example camp-school activity, where the educator and the person undergoing the educational program relate in a complex interaction relationship and where a diversified network of basic services supports the main operation.

The environmental education is organised in practice in a many different ways within European national parks. In the most active sites the NP administration works in co-operation with a special pedagogical institute for environmental education, which runs diversified programmes both within and outside the park. These environmental education institutes may be located as independent properties within national parks, such as Losehill Hall in Peak District NP England (Wharton 2003), in connection with nature centres like Waterschool in Hohe Tauern NP Austria (Staats 2002) or in the instant proximity of national park such as Alfred Toepfer Academy near by Lüneburg Heide NP Germany (Prüter 2003) or Rantasalmi Environmental Education Institute close by Linnansaari NP in the Lakeland Heritage Centre, Finland.

Environmental education function in Koli NP is multilevel in nature. The basis is formed by information freely available for the customers in forms of common guidance, free publications, thematic trails and electronic multimedia. A more sophisticated level is covered by publications, special guided services and electronic databases that are subject to a fee for the customers. These are available to customers in Heritage Cent-

re Ukko, which is the centre for customer services and interpretation in Koli NP. The third level of environmental education includes special services to defined target groups, such as diversified 1-5 days programmes for camp-schools.

Finnish Forest Research Institute and its research network produce information to be utilised by the environmental education services. That information includes research publications about Koli NP, information about nature and cultural inventories along the thematic trails as well as information about management and restoration nature such as meadows and slash-and-burn fields or information about cultural heritage like old private farmyards now being the park property. At the moment three environmental thematic trails with guidebooks and additional pedagogical material are to be produced with help of partial financing by the EU/Life Fund. Geological Survey of Finland has just published a geological hiking map and a guidebook for a geological nature trail (Huttunen 2003).

Middle and higher-level schools form presently the most important target groups for the environmental education function in the Koli NP. Later these target groups may possibly include other special groups such as retirees and incentive groups, groups for work capacity training as well as management skill training groups.

Preparation, organisation and management of Koli camp-school operation are done by the Friends of Ukko-Koli, a supporting association for Koli NP. The project is mainly funded by EU/Leader+ fund, city of Lieksa and the civic actions development committee of PKO (a regional business co-operative). Supporting association of the NP has an agreement-based partnership relation with Finnish Forest Research Institute to operate in Heritage Centre Ukko in the NP, where the association aids park administration in its visitor service function. A steering committee of the central interest groups of the project (Finnish Forest Research Institute, City of Lieksa, Vaara-Karelia Leader Association and enterprises providing supplementary services) control the operations of the camp-school project.

Koli camp-school development project started in 2002. The aim of the project was to prepare the pedagogical programmes i.e. teaching modules for camp- schools and activate a network of enterprises (Figure 1) in the Koli resort to produce the basic camp-school services for the practical implementation of the project. During the first 1,5 years a network of 9 agreement-based guidance services entrepreneurs or freelance guides, as well as 13 supplementary services companies (accommodation, meals, transportation, leisure time activities, equipment services) was formed. During its second phase (years 2003 – 2004) the camp-school project tries to form provincial network with other camp-school centres in order to introduce joint programmes, marketing and network operations for camp schools.

The third phase of the camp-school project that is currently being planned will possibly expand the network to national and international levels. Preliminary contacts to prepare this third phase have already been made for example with the Finnish Foundation for Environmental Education (Lakeland Heritage Centre, Rantasalmi) in order to prepare a national network solution and also with the camp-school centre of north-west Russia (Vodlalake NP, Russia), the Alps water school (Hohe Tauern NP, Austria) and the environmental education centre of Alfred Topfer –foundation (Germany) in order to develop an international network.

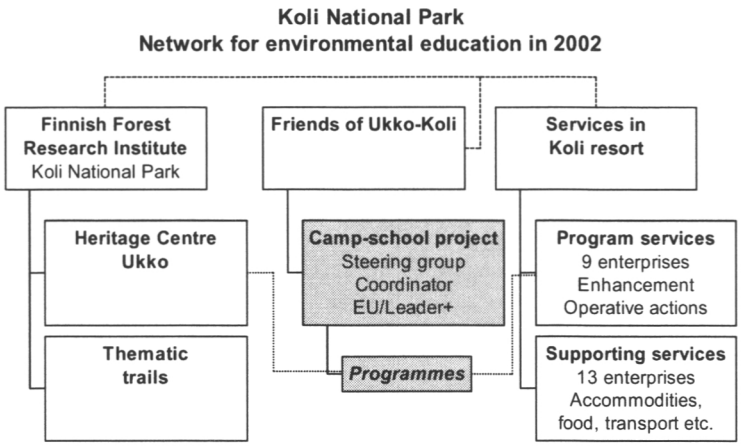

Figure 1. Phase 1 of the Koli environmental education network in 2002. Dashed line implicates contractual relations. Dotted line describes effect on educational context of action.

National park is a natural classroom for the Koli camp- school project and Heritage Centre Ukko on its behalf is an efficient operational centre. Most of the about 100 000 yearly customers of Koli NP acquaint themselves with the services provided by the Heritage Centre Ukko. Finnish Forest Research Institute supports the project by transferring scientific knowledge into form of educational and by helping the project create connections to the other actors of the NP's research network. As long as the camp-school project acts as a public non-profitable development project, the project is executing as a partner of the Finnish Forest Research Institute the operational network model of environmental education, which was defined in the Master Plan of the NP. In a network model, resource allocation of the NP that is directed towards development of camp-school activities, is realised through the operational environment. Due to the partnership relationship, the camp-school project operates free of charge in and with the facilities of the national park. The project finances the direct expenses of activities, such as personnel and operational expenses from the funds of external network financiers. Operational environment support given by Finnish Forest Research Institute is not used as basis for EU/Leader+ funding of the project.

Koli camp-school project is an innovative example of a network based operation for development between the NP and a local partners. As by-product of this partnership the change of information increases, the operational network knows one another better

than earlier, chances for economic progress grow better and the internal trust in the network strengthens. In the local society the Finnish Forest Research Institute and the NP is realised to be the central, even though passive, actor in this play. The connections between park and the local enterprises also increase, which enables to distribute information more effectively and open a platform for planning of common operations. These positive development trends significantly increase social capital of all actors. The positive network image also improves the experiences of the park customers on service quality and contributes to social capital gaining among the customers.

Partnership based network for visitor services

The previous application on partnership in Koli

A partnership model that forms a network between public administration and the third sector is not a new idea in Finland or in Koli resort. In fact the partnership model has been operating in one way or another in Koli already since the 1890s. In the Koli-case the most well-known example about partnership model is the organisation for tourism services for running the Ylämaja-hostel on the Ukko-Koli scenic point. The hostel, which was enlarged as hotel in 1930s, provided the basic services (accommodation and food) for tourists in Koli through the activities of the Finnish Travellers' Association, a non-governmental organisation for tourism promotion, with managerial complaisance and financial support of governmental authorities. The landscape tourism services of Koli were funded partly by customers (service fees) and partly by the government (investments on infrastructure).

Tourism infrastructure of Ukko-Koli included for example the hostel-hotel buildings, roads, harbour and network of hiking and skiing trails. Finnish Forest Research Institute organised the guidance system for Ukko-Koli during the 1930s. The system included signs for the trails, a hiking map and guidebook as well as a park ranger for fieldwork. The task of the Travellers' Association was to take care of the practical tourism services in the Ukko-Koli hostel and a visitor hut in the harbour doing business with some amount of financial support by government. A prerequisite for public funding was that the governmental authorities could have appropriate influence on the operational context and goals of the Traveller's Association. As the administrative officer of the area, Finnish Forest Research Institute had a permanent representation in the Board of the Traveller Association..

The Traveller Association started to act in Koli already in 1894 by renting a small piece of land on top of the Ukko-Koli Hill from a private landowner. The Association built a small pine lodge on the site in 1896. The government bought the land in 1907 and the lodge in 1908. Since then until 1996 the Traveller Association worked in good co-operation with the governmental authorities, especially with the former state forestry authorities. The Finnish Forest Research Institute entered the picture in 1923, when it was authorised as a new multifunctional public and scientific organisation to manage several well known valuable Finnish landscapes like Koli, Punkaharju and Kilpisjärvi.

The strategic aim of the co-operation was to introduce Koli and several other valuable scenic sites as important symbols of the Finnish national identity by means of the tourism approach.

Partnership between the state government and the Travellers' Association ended in Koli finally in the year 1996, as Hotel Koli Ltd bought it's business licence. Hotel Koli Ltd was formed by two shareholders; the North-Karelian Co-operative (PKO) and the Finnish state's tourism development company Nordia Ltd. Hotel Koli Ltd rented the hotel and the site for down-hill skiing centre, presently known as part of the national park property, from the Finnish Government represented by the Finnish Forest Research Institute. The contract for rent was then completed with an agreement on co-operation basing on the joint visions on national park development. This agreement combines and adapts the company activities to the overall development of the NP and especially to the development of its vital guidance services. According to the agreement, the company takes also partial responsibility to secure the funds for visitor guidance operations in the NP.

The 21st century partnership model in Koli NP

Finnish Forest Research Institute carries out the Koli NP visitor guidance function with a partnership network. The network includes three organisational levels; strategic planning and control, tactic co-operation and operative action.

The level of strategic planning and control of the guidance activities include connections to management control, and connections to international and national-provincial partners and regional co-operation bodies. Operationally these network contacts include the transfer of information, negotiations, planning and agreements on common operational guidelines as well as common visitor guidance projects that are carried out according to the partnership principles.

The "new type" of partnership in visitor services

Visitor guidance services in Finnish NP visitor centres are mainly organised with workers of park administration and with the help of voluntary trainees. Local people are employed within these centres especially when the funds of local labour authorities are available. Small visitor centres serving around 5000 – 10 000 customers per year are only open during the high season. They provide visitor guidance services and organise exhibitions. In mid-sized visitor centres serving up to 20 000 – 30 000 customers per year, guidance and exhibition activities are open also during the low season, if necessary, with less staff and shorter opening hours during the weekdays. Some of these mid-sized heritage centres, such as the Lakeland Centre in Rantasalmi or the Fell Lapland Nature Centre in Enontekiö, provide supplementary services with the help of their guides, such as small-scale selling of maps, postcards, posters and souvenirs.

Large Heritage Centres serve up to 50 000+ customers annually in Finland. Only the Lapp Museum Siida in Inari, Heritage Centre Kellokas in Ylläs, Heritage Centre Oulanka in Kuusamo and Heritage Centre Ukko in Koli NP reach this level of customers. The organisation for guidance and exhibition in Siida is based on the co-operation of two public organisations, the Finnish Forest and Park Service and the Lapp Museum, and externalised restaurant-cafeteria service operating as a private enterprise. The Finnish Forest and Park Service takes care of the visitor guidance services in Oulanka and Ylläs Heritage Centres with workers financed by the labour authorities.

About 55 000 customers visit Heritage Centre Ukko of Koli NP every year. During the first full operating year of 2001 the amount of customers was around 75 000. Due to the lag of resources (both ministerial and local labour office) a new type of operation model has been called for. This operational network model should activate the customer responsibility on resources and still clearly meet the objectives for visitor service, defined in the law and the Master Plan of the NP.

In Koli NP, as well as in other Finnish national parks, the visitor guidance service has been considered as a core operation of the park management that cannot be fully externalised. Low profitability of the visitor guidance services is also an obstacle for externalisation; considering the realistic customer flows in Finland, externalisation of visitor guidance services is not viable in case all operating expenses are compared toward the sales. Also, visitor guidance and exhibition service conducted as entrepreneurial activity would not fit the overall management concept nor the profile image of the NP, since it is normally seen as a public operational entity managing and protecting public national heritage.

Since the early days of operating in June 2000, the operational model for the visitor guidance services of Koli NP has been based on a new type of a partnership principle and network implementation. Finnish Forest Research Institute as the administrative officer of the NP is in charge for the operational outlines and context as well as central physical resources and their maintenance. Friends of Ukko-Koli Association, a support association of the NP that operates as a partner of the Finnish Forest Research Institute, took the responsibility for most of the visitor guidance activities and tidiness of the operational facility. A written partnership agreement dictates the conditions of partnership. The supporting association has a right to acquire operational resources through independent fundraising. The most important tools for that are the supporting fee of the special services and the commission of the sales products in the Nature Shop of Heritage Centre. The income from the service fee comes from the customers and the commission of the sales comes merely from the producers of the products. Finnish Forest Research Institute buys guidance services amounting to one guide's yearly pay as so called basic administrative service from the supporting association yearly.

The supporting association of NP may hire employees or make subcontracts with guidance service enterpr ises in order to operate the every day guidance services in the Heritage Centre Ukko. During the 2000 – 2003, Friends of Ukko-Koli Association has operated in the form of the network service organisation defined in Figure 2. The main part of the customer service taken care of by the association is done by the small local guidance services enterprises, that all have their own special skills areas and

customer segments, but all of them are profiled as actors of Friends of Ukko-Koli Association in the eyes of the customers. Yearly around 4 – 6 such local enterprises take part in visitor guidance activity of Ukko.

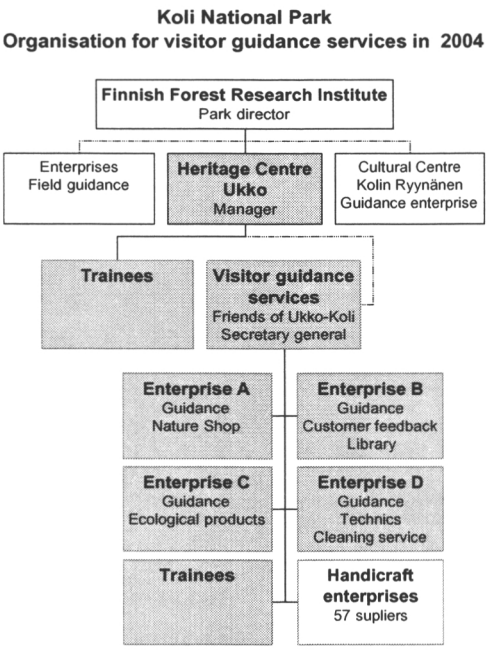

Figure 2. A partnership network model for Koli NP guidance services in the beginning of 2004.

A special customer feedback system is applied in monitoring the success of visitor guidance services in Heritage Centre. Customer feedback gives information over how the tourists and hikers are satisfied on the quality of service provided by the new partnership approach (Lovén 2002). According to the preliminary results, the experiences have been rather encouraging. Thus the Ministry of the Environment has given a permanent task to Koli NP for further developing of the network based customer service.

The strong cultural profile of Koli resort and the North Karelia Region affect the operations of Heritage Centre Ukko. Culture as a main stream runs through in oral guidance, brochures and guidebook publications supporting guidance, exhibitions as well as media programmes of Heritage Centre Ukko. Cultural heritage in linked also to the profile of Nature Shop "Vakka" in the Heritage Centre, being part of the customer services of Ukko. Nature Shop integrates the guidance services to the profile of the demonstrated and marketed products. The guides of Heritage Centre demonstrate local traditional products and handicrafts in the Nature Shop exhibition.

A"national park product" is a new innovative idea for park related products, and Heritage Centre Ukko is the first site to introduce the idea to park customers in Finland. Some European NPs have already for some years developed the "national park" brand in marketing of products that are produced within or in connection to the NP area. Several European NPs include substantial privately owned areas, where business activities such as agriculture, forestry, refinement of natural goods, tourism industry and even small scale local industrial activities take place. When the production process of a product is in harmony with principles of sustainable development and the product itself fits in the management idea of the NP, the product may be marketed as a national park product. Such products include by far for example dairy products (Spain, Poland, Czech), leather and wool products (Greece, Austria, Latvia), spring water (Norway) and wine (Austria). Also the concept of "national park service" or "national park hotel" has been introduced to public (Hohe Tauern NP, Austria).

So far only the slash-and-burn (swidden) turnip (Brassica rapa) and brown bread made of slash-and-burn rye (Secale cereale) have been presented as special "NP products" of Koli NP. The slash-and-burn turnip has been sold to customers as part of the menu of Hotel Koli. The slash-and-burn rye bread has been offered to customers in different NP festivities such as the local culture festival of this particular seminar.

A network of local handicraft enterprises – in early 2004 about 50 small companies – delivers their products to be demonstrated and sold in the Nature Shop of Heritage Centre Ukko. The Friends of Ukko-Koli Association achieves a sales commission that is used to finance the guidance activities in the Heritage Centre. The handicraft suppliers take part of the responsibility on resources by financing the operations by maintaining their ownership to most of the products until they are sold to customers. The handicraft entrepreneurs in the role of subcontractors of the Friends association may be considered as partners of the NP visitor guidance service network. As the key actor of the network, the NP supporting association co-ordinates the network connections of these subcontractors. In the visitor service network the park itself and especially the Heritage Centre create the core playground, a new type of centre for development, for this park and local society linking network striving for sustainable development. In this role the park and the Heritage Centre act as the ideal intermediary organisation for developing social capital.

Conclusions

Social sustainability is one of the three main dimensions of sustainable development. Successful managing for social sustainability as criteria of the development of a NP requires both conceptual and operational development in order to create valid indicators for monitoring the real social development. Social capital is created for example through network activity, in case it is successful from the point of view of the parties involved in operations.

Koli NP is one of the smallest NPs in Finland since it covers only 30 km^2 in size. The social networks of Koli NP for different aspects of management and operations of

are remarkably wide and multidimensional. Social capital of the operational community is developed through network connections and activities. This includes development and transfer of know-how, skills for connections and horizontal and vertical partnerships. Also it includes special investments on enhancement of responsible relationship with nature among visitors by means of research, education and customer guidance. Connections between the research institutes are strong both in Finland and over the borders.

In case of Koli NP, network enhancement has been actively developed in the areas of research, planning, resource management and funding, environmental education and visitor guidance services. In Koli, a network of environmental education and visitor guidance activities has been developed as a special experiment. The latter includes a special programme for monitoring of the effectiveness of the activities. The visitor guidance network consists of co-operation of public administration, enterprises and the third sector society. The key actors of this network are the Finnish Forest Research Institute as the administrative and managerial officer of the NP and the supporting association of NP acting as the leading partner. Local visitor guidance enterprises (4 – 6) and handicraft enterprises (around 50) are attached to the network through the NP supporting association. Entrepreneurs bring along to the network their local knowledge and cultural skills that are of great importance to the NP operational profile. The supporting association and the entrepreneurs adjust their operations to the basic development vision of the NP.

The vast network model for the guidance services tightly unites the NP to the local community and the regional economy. Network activity enables better transfer of information, joint planning for development and strengthening of the internal trust between the parties. Also, common goals and contractual operation models lessen the future uncertainties of everyone's operations. NP is evolved to form a new type of a development centre that enhances economic and social sustainability in remote area that is struggling with unemployment and rural recession problems. In the broad sense, the NP is seen as an intermediary actor for gaining new social capital; the existence of park itself and especially development of park network connections will strengthen the accumulation of social capital on the sphere of park influence.

One of our initiatives is to develop the transboundary co-operation with the change of local information and maybe also some profile products for trade. The project can be called as enhancement for "national park products" to smoothen the borders and create better understanding. This may also contribute the creation of economical and social sustainability in the local societies. In the future, we would like to see in Heritage Centre Ukko more international park information, exhibitions and profile products from our partner-parks.

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Project "Kalevalaparks "

Kerttu Härkönen, Kalevalaparks –project, Metsähallitus, Finland

One of the nature protection processes underway in Russian Karelia is the plan to establish the Kalevala National Park. This future park is situated in the administrative region of Kostamus next to the Finnish border and covers 74 000 hectares. On the other hand, at the end of the 1990, a decision was made to establish the Kalevala Park at the eastern part of the municipality of Suomussalmi in Finland. The Kalevala Park in Finland will consist of 22 separate areas, including mire protection areas, special protection areas and old-growth forest protection areas, some of which have had the protection area status for a long time, some of which will be established together with the park. As "neighbors" the Kalevala Park will have in the north the Hossa hiking area, with approximately 40 000 visitors annually, and in the south the Landscape Area of the villages Kuivajärvi and Hietajärvi, which represent the Viena Karelian culture on the Finnish side of the border. Close cooperation between the future park and both of these neighbours is envisaged. Altogether the Kalevala Park in Finland covers approximately 36 000 hectares. The two Kalevalaparks will form another "Twin Parks" –entity along the Finnish-Russian border.

To assist in and to promote the establishment of the parks, an EU –project was initiated through Fenno-Russian cooperation. This "Kalevalaparks" -project belongs to the Interreg III A Karelia –programme of the EU and takes place from 1.3.2003 till 30.6.2005.

The project aims to reach the following goals:

1. *To lend support to the establishment of the two parks and to create a local model for their cooperation.*
2. *To increase appreciation of the forest cultures and their traces in the nature in Viena Karelia and Kainuu regions.*
3. *To create a network of ecologically and culturally sustainable tourism enterprises with special emphasis on the Hossa hiking area.*
4. *To generally increase awareness of the wilderness areas on both sides of the border, and the past and present ways of life in this area.*

The organization responsible for the project is the Pohjanmaa-Kainuu Regional Unit of the Natural Heritage in Metsähallitus, Finland. Two people are employed in the project. The Project Manager carries the overall responsibility for the project, as well as for the budget (a total of 350 000 euros). It is also her task to anchor the project in the local environment and to manage the international relations. The Editor works with the project goals 2 and 4 of the above, preparing a variety of publications, exhibitions and other communications material.

At the moment, the statutes necessary for the establishment of the parks are being prepared in bothcountries. The Steering Group of the project has kept its first meetings. An inofficial INTERPARK- group also meets regularly to discuss topical matters. Contacts and links across the border are being created.

One of the main tasks of the project and the ensuing work is to determine the profile and character of the Kalevala Park with its special fragmented composition in Suomussalmi. It is also important to investigate the touristic possibilities of these two areas that basically are very similar but differ greatly as a consequence of the post-war development across the border.

Kerttu Härkönen, Metsähallitus

Tiivistelmä

Yksi Venäjän Karjalassa vireillä olevia metsä- ja suoluonnonsuojeluhankkeita on Kalevalan kansallispuiston perustaminen. Puisto sijoittuu Vienan Karjalassa Suomen itärajan viereen Suomussalmen kunnan korkeudella ja on kooltaan 74 000 hehtaaria. Samaan aikaan Suomessa on tarkoitus perustaa Suomussalmen kunnan itärajalla sijaitsevista suojelualueista yksi kokonaisuus, jonka nimi on Kalevalapuisto. Suomen puolen Kalevalapuisto koostuu 22 erilaisesta alueesta: mukana on mm. jo perustettuja soidensuojelualueita, Martinselkosen luonnonsuojelualue, vanhojen metsien suojelualueita sekä Hossan retkeilyalue. Pinta-alaa Kalevalapuistolla on runsaat 30 000 hehtaaria.

Puistojen perustamista tukemaan on suomalais-venäläisenä yhteistyönä parin viime vuoden aikana ideoitu EU-hanke. Tämä EU:n Interreg –ohjelmiin kuuluva hanke "Kalevalapuistot" alkoi virallisesti 1.3. 2003 ja jatkuu 30.6. 2005 saakka.

Projektin tavoitteet ovat:

1. *Tukea Kalevalapuistojen nopeaa perustamista sekä luoda paikallinen malli puisto pariyhteistyölle.*
2. *Lisätä vienankarjalaisen ja kainuulaisen metsän kulttuurin ja sen muokkaaman luonnon tuntemusta ja arvostusta.*
3. *Luoda ekologisesti ja kulttuurisesti kestävää käyttöä tukeva yrittäjäverkosto sekä toimintamalli Hossan retkeilyalueen ja venäläisten toimijoiden välille.*
4. *Tehdä ainutlaatuinen kainuulainen ja vienankarjalainen erämaa-alue ja siihen liittyvä elämäntapa tunnetuksi yleisölle.*

Projektista vastaa Metsähallituksen Pohjanmaan-Kainuun luontopalvelut. Projektissa työskentelee kaksi henkilöä, projektipäällikkö ja julkaisusuunnittelija. Projektipäällikkö vastaa projektin kokonaiskulusta ja budjetista (kokonaisbudjetti n. 350 000 €), puiston ankkuroimisesta paikalliseen toimintaympäristöön sekä kansainvälisistä suhteista. Julkaisusuunnittelijan tehtävänä on tavoitteiden 2 ja 4 mukaisesti lisätä puiston / puistojen tunnettuutta erilaisten julkaisujen, esitteiden ja näyttelyjen ja muun viestintämateriaalin avulla.

Tällä hetkellä Kalevalapuistojen perustamissäädöksiä valmistellaan molemmissa maissa. Hankkeen ohjausryhmä on aloittanut toimintansa, ja sen lisäksi toimii epäviralinen Interpark – ryhmä ajankohtaisten asioiden keskustelufoorumina. Yhteyksiä rajan yli rakennetaan mahdollisuuksien mukaan.

Suomussalmelle perustettavan Kalevalapuiston profilointi ja oman luonteen löytäminen on hankkeen ja sen jatkotyön tärkeimpiä tavoitteita. On myös tärkeätä selvittää näiden toisiinsa liittyvien alueiden matkailullisia mahdollisuuksia; alueiden, jotka ovat luonnonmaantieteeltään hyvin samanlaiset mutta joiden kehitys on viimeksikuluneiden vuosikymmenten aikana kulkenut eri suuntiin.

Bavarian Forest National Park and Sumava National Park Transfrontier large-scale nature protection areas at the border of the Germany and Czech Republic

Karl Barthmann, National Park Bavarian Forest, Germany and
Vladimir Silovsky, National Park Sumava, Czech Republic

Introduction

Sumava Nationa Park and Bavarian Forest National Park are located in the central European mountain range known as the "Bohemian Forest", having in common about 44 km of the Czech-German border.

The area of the two parks together is to be considered as the largest single tract of ancient and semi-ancient forests between the Atlantic and the Urals.

Abstract

Bavarian Forest National Park and Sumava National Park are situated in the central European mountain range known as the "Bohemian Forest", having in common about 44 km of the Czech-German border.

The Bavarian Forest National Park was established in 1970 as the first National Park in the Federal Republic of Germany. It was extended in 1997 to its actual size of about 242 square kilometres. It covers the heart of the mountain range "Bayerischer Wald" around the mountain peaks Lusen, Rachel and Falkenstein. The altitude spreads from 700 m (valleys at the bottom of south-western and eastern slopes) to 1453 m (Rachel peak) above sea level.

About 99% of the enclosed area is covered by forests. This makes obvious that – despite of ecologically very interesting non-forest sites like some tiny patches of peat bogs, the "Schachten" (which are open spaces in the centre of vast forests formerly used for pasture), rock fields and aquatic systems like springs, mountain streams and a small lake - the ecosystem "forest" absolutely is the dominant and characterising subject of this protection area.

The Sumava National Park represents the largest national park of the Czech Republic. Declared in 1991, it covers a relatively sparsely populated island of nature in the middle of civilisation of overcrowded Middle Europe, a result of 40 years long historical development of the area behind the "Iron curtain". 700 km² of deep forests, mires, glacier lakes and rivers, a home of lynx, otter, red deer, capercaillie, broad valleys and meadows with rare plants species. Area of great tourism potential like created for sustainable forms of tourism as hiking, bicycling, canoeing, cross-country skiing (partly already used). A Czech side of "Green Roof of Europe" shared together with Bavarian Forest National Park.

The area of the two parks together is to be considered as the largest single tract of ancient and semi-ancient forests between the Atlantic and the Urals.

Contact between the staff of the Bavarian and the Czech administrations started almost in the seventies, even before Sumava was established as a National Park. Co-operation then was exclusively based on individual contacts and personal relations. After the fall of the iron curtain and the establishment of the Sumava National Park some common projects where launched, e.g. the bilingual information point at Bucina, situated close to a border transit point.

Since 1999 the numerous common activities were given a formal base. The Czech and the Bavarian Government signed a memorandum, pointing out protection of nature, research, environmental education and public relations as the main topics of an extending and being steadily intensified co-operation.

Common activities in the field of nature protection started the recent years are (e.g.) projects concerning lynx, red deer, capercaillie, peat bogs and – almost at its beginning – a common approach to the tasks raised by the European protection system NATURA 2000.

Pointing at the public a lot of projects were or are about to be carried out. They are covering a wide amplitude, with there goals reaching from the challenge to broke the language barriers to the vision of bringing people together by common events, with private associations and residents from both sides of the border participating and thus beginning a lasting dialogue.

The entrance of the Czech Republic into the European Union coming up next year will cause new challenges for both of park administrations.

Bayerin kansallispuisto ja Sumavan kansallispuisto – Suurialaiset luonnonsuojelualueet Saksan ja Tsekin tasavallan rajalla

Karl Barthmann, Bayerin kansallispuisto, Saksa ja
Vladimir Silovsky, Sumavan kansallispuisto, Tsekin tasavalta

Tiivistelmä

Bayerin ja Sumavan kansallispuistot sijaitsevat Keski-Euroopan vuoristoalueella ns. Böömin metsäalueella (Bohemian Forest) muodostaen 44 km pituisen yhteisen rajaalueen Tsekin tasavallan ja Saksan valtioiden välillä.

Bayerin kansallispuisto perustettiin vuonna 1970, jolloin se oli myös ensimmäinen kansallispuisto Saksassa. Vuonna 1997 puiston aluetta laajennettiin sen saavuttaessa silloin kaikkiaan 24 200 ha pinta-alan. Puiston alueeseen kuuluu ydinalueena Bayerischer Wald (Bayerin metsäalue) ja sitä ympäröivinä vuorenhuippuina Lusen, Rachel ja Falkenstein. Korkeusvaihtelu ulottuu 700 metristä (koillis- ja itärinteiden laaksoalueet) aina 1457 metriin(Rachel vuoren huippu) merenpinnan yläpuolelle. Noin 99 % puiston alueesta on metsää. Tämä merkitsee sitä, että metsä on ehdottomasti suojelualueen pääelementti, vaikka puistossa on myös eräitä muita mielenkiintoisia ekologisia alueita kuten muutama pieni avosuo, Schachten (vanha avoin laidunalue keskellä laajaa metsää), kalliolouhikkoja sekä vesialueita: lähteitä, vuoristopuroja ja pieni lampi.

Sumavan kansallispuisto on Tsekin tasavallan suurin kansallispuisto. Tämä harvaan asuttu luonnonalue keskellä kansoitettua Keski-Eurooppaa julistettiin kansallispuistoksi 1993 "rautaesiripun takana" 40 vuotta kestäneen historiallisen kehityksen tuloksena. Alue on kooltaan 70 000 ha ja koostuu metsistä, soista, jäätikköjärvistä ja jokialueista, jotka ovat myös kotina ilveksille, saukoille, metsäpeuroille, metsoille ja harvinaisten kasvilajien valtaamille laajoille laaksoille ja niityille. Tämä monien matkailumahdollisuuksien lue soveltuu hyvin kestäviin matkailumuotoihin kuten samoiluun, pyöräilyyn, melontaan ja murtomaahiihtoon.

Tsekin tasavallan puolinen alue muodostaa yhdessä Saksan Bayerin kansallispuiston kanssa "Euroopan vihreä katto" alueen. Nämä kaksi puistoa yhdessä ovat suurin yksittäinen, yhtenäinen luonnonmetsien ja luonnonläheisten metsien alue Atlantin ja Uralin välillä.

Kontaktit Bayerin ja Sumavan alueiden metsähallinnosta vastaavien välillä luotiin jo 1970-luvulla ennen kuin Sumovan kansallispuisto perustettiin. Tällöin yhteistyö oli kuitenkin sattumanvaraista perustuen henkilökohtaisiin suhteisiin ja kontakteihin. "Rautaesiripun" kaatumisen ja Sumavan kansallispuiston perustamisen jälkeen muutamia yhteisiä projekteja aloitettiin, mm. kaksikielinen opetuspiste Bueinassa, lähellä rajanylityspaikkaa.

Vuodesta 1999 lukien lukuisat yhteistyömuodot saivat virallisen perustan. Tsekin tasavallan ja Saksan hallitukset allekirjoittivat yhteistyösopimuksen, jossa jatkuvasti

laajentuvan ja syventyvän yhteistyön keskeisinä kohteina ovat luonnonsuojelu, tutkimus, luontokasvatus ja viestintä.

Luonnonsuojelualueella viime vuosien aikana toteutetut projektit ovat koskeneet ilveksen, metsäpeuran, metson ja soiden suojelua, sekä – itse asiassa alusta alkaen – yhteistä lähestymistapaa Euroopan Unionin Natura 2000 alueiden rajaamisessa.

Kansalaisiin ja puistoissa kävijöihin kohdistettuja projekteja on toteutettu ja on meneillään lukuisia. Ne ovat hyvin erilaisia alkaen mahdollisuuksista murtaa kielivaikeudet kahden valtion välillä aina aloitteisiin, joilla pyritään saamaan ihmiset mukaan yhteisiin tapahtumiin molemmin puolin rajaa mukaan lukien niin yksittäiset asukkaat kuin yhdistykset. Näin pyritään ylläpitämään jatkuvaa vuoropuhelua kansallispuistoista.

Tsekin tasavallan liittyminen Euroopan Unioniin tuo tullessaan lähivuosina uusia haasteita molempien maiden puistohallinnolle.

(Käännös: Jari Parviainen)

Bavarian Forest National Park and Sumava National Park Transfrontier large-scale nature protection areas at the border of the Germany and Czech Republic

Bavarian Forest National Park

History and Status

The Bavarian Forest National Park was established in 1970 as the first National Park in the Federal Republic of Germany. It was extended in 1997 to its actual size of about 242 square kilometres. Today the protection area covers the heart of the mountain range "Bayerischer Wald" around the mountain peaks Lusen, Rachel and Falkenstein. Before the establishment of the park the forests included with only few exceptions were used to be managed commercially.

The Bavarian Forest National Park is classified as category II according to the IUCN guidelines for the classification of large-scale nature protection areas. The European Diploma awarded to the Park by the authorities of the European Union was renewed in 2001 until the year of 2006.

The entire area of the National Park is property of the State of Bavaria, there is no real estate owned by private persons or communities included. The National Park Administration for 33 years was part of the Bavarian State Forest Administration and directly subordinate to the Bavarian State Ministry of Agriculture and Forestry. 8 days ago this has changed: we now are subordinate to the Bavarian State Ministry for Environment.



The altitude of the park area spreads from 700 m to 1453 m above sea level.

The altitude of the park area spreads from 700 m (valleys at the bottom of south-western and eastern slopes) to 1 453 m (Rachel peak) above sea level. Its granite and gneiss rocks are hundreds of millions of years old.

Forests cover about 98% of the enclosed area. This makes obvious that – despite of ecologically very interesting non-forest sites like some tiny patches of peat bogs, the "Schachten" (which are open spaces in the centre of vast forests formerly used for pasture), rock fields and aquatic systems like springs, mountain streams and one small lake - the "ecosystem forest" absolutely is the dominant and characterising issue of this protection area.

The natural development of forests in the Bavarian Forest National Park – therefor the main topic of the strategies concerning the protection of nature – has achieved an unexpected dynamic kicked off by windfalls in the eighties and – much more important – an enormous increase of spruce bark beetle population in two waves in the eighties and the nineties. Yet middle-aged and mature forest stands of about 3 700 ha – mainly in the high altitude spruce forests - have been destroyed, and one still has to face a continuing dying of spruce trees, especially in dry and hot summers like we had one this year.

While square kilometres of aged stocks have been killed by bark beetles and – in decreasing rates - still are, a new generation of forest is establishing under their shelter. Our inventory data show that the natural regeneration is on its way. With an average of about 4 600 tree plants per ha with a height of more than 10 cm there are obviously enough tree individuals offered for the development of new forest ecosystems, which are – according to the non-intervention strategy of the park authority – absolutely not influenced by any treatment of man.



Natural regeneration under the shelter of the dead trees

- the birth of a new forest, growing up without influence of man

The birth of a new forest, large-scaled and growing up exclusively according to the rules of nature: that's really unique between the Atlantic and the Ural, a phenomenon that attracts more and more people to come along and to experience this outstanding situation.

Further main tasks

Safeguarding the undisturbed natural dynamics of forest ecosystems is of course the main aim of the Bavarian Forest National Park. But there are a lot of other tasks:

Research on nature

In the National Park we use scientific methods to help us recognise and understand how nature cycles and processes work. Research and long-term observation enable scientists to build up a picture of how forest communities grow and develop, and to identify unnatural disturbances.

Research within the National Park also provides important information for the sustainable use and management of commercial forests.

Environmental education

The National Park Administration offers a lot of activities, mainly for children, but also for the adult visitors: week-long stays in the Forest Youth Hostel, National Park discovery days, stays at the youth camp site, guided visits along the nature discovery trails or in other areas of the park, or self guided walks in the Park. Teachers and youth leaders are helped to prepare their group visits to the National Park.

A special offer concerning environmental education is the Wilderness Camp at the bottom of mountain Falkenstein, opened in 2002. Its special educational concept for children of different ages, demanding a high degree of individual commitment, puts the stress on a direct approach to nature. Children are living there in small housings, each of them dedicated to a special aspect of the environment around, expressed by the way of its construction.



Environmental education in the Wildness camp.

Regional development

The region of the Bavarian Forest always was economically rather disadvantaged and industrially poor developed. When plans were made to establish the National Park one of the central aspects was to enforce tourism as a fundamental base for to generate income and support a sustainable economic development.

Today the Bavarian Forest National Park welcomes estimated more than 2 millions of visitors every year. With its information and education facilities, its fascinating landscape equipped with a perfectly worked out and way-marked system of trails for hiking and cycling, the park attracts people from all over the world, contributing to a flourishing tourism and a considerable economic development of the region.

The park administration co-operating with the regional stakeholders is putting the emphasis on giving the touristic use and development a frame that makes it environmentally friendly and compatible to the main task of the National Park, the protection of nature.

Sumava National Park

History and status

The Sumava National Park, the biggest of Czech national parks, was declared in 1991 to protect the most valuable parts of former Sumava Protected Landscape Area. Nowadays its area covers 690 square kilometres. Protected landscape area, surrounding the national park, spreads on area of 940 square kilometres and both of them create together the Sumava Biosphere Reserve.

According to IUCN categorization Sumava NP belongs to category II. Large cutting trees as a reaction on a massive outbreak of bark beetle in not long ago commercial forests has caused a present discussion on a topic of forest management in Czech national parks.

Before establishing of the Sumava NP (1991) most of forests were owned by state and managed by the country's biggest forestry company, state owned The Forests of the Czech Republic (LCR), and by The Military Forests and Estates (VLS). According to the new law a management of forests inside of NP has been assigned to the Sumava NP and PLA Administration in 1993. According to the new Czech law 6 000 ha of forests land came over to some of local towns and villages. The new nature protection bill is discussed now in the Czech Parliament and some changes can be expected but in general most of land inside of NP should be belong to NP Administration henceforth.

Natural conditions, nature protection

The area of the Bohemian Forest (termed Sumava in Czech, but hereafter used for the Czech side of the Bohemian Forest only) belongs to the largest and eldest mountain range in central Europe, with extensive relicts of mountain plains lying at several altitudinal levels above 1 000 m a.s.l. These relict areas are located in the central part of the mountain range and are known as the Sumava Plains (450 square kilometres). The Sumava Plains are considered as one of the eldest relicts of palaeorelief in Europe.

In addition to the three principal zonal vegetation units – belts of species-rich beech forests, acidic montane beech forests, and climax spruce forests - a number of natural climatic azonal communities, or entire ecosystems, are present, usually as a result of edaphic conditions. These communities are usually mires, floodplain forests, waterlogged spruce forests, relict pine forests and forest-free boulder fields, scree mixed forests, the ecosystems of glacial cirques, rare relicts of natural, mainly wetland and frost-induced, forest-free areas, forest-free spring ecosystems, and ecosystems of standing and running waters. The total number of higher plants within Sumava NP is about 500 species, 69 of which are protected species. Among the species that permanently occur within the territory of Sumava NP, about 100 species belong to the category specially protected animal species.

Forest ecosystems within the Sumava NP cover more than 540 square kilometres, i.e. 81% of the total area of the NP, and such forests determine the character of the area. Since the creation of the Sumava National Park, the aims of forest management within the territory of the NP have substantially changed. The utmost goal of the management of forests within the Sumava NP is the conservation of ecosystems including the conservation of natural processes.

Hunting has represented a traditional form of activity connected with the large forest abundance in the Sumava Mountains for ages. Until 1991 hunting was a natural part of forest management structure in the region. Commercial hunting was cancelled in the Sumava NP in 1995 and complete hunting management has been done as non-profitable by NP staff since that time. New Czech hunting law was approved last year but its influence on hunting inside of NP is not substantial.

Despite the late colonization the present state of landscape of the Sumava Mountains reflects a long-term human presence in the territory. The Sumava pastures and meadows were created completely by man and they have contributed to picturesque impression of local landscape.

The mission Statement of the Sumava National Park is: "To conserve and improve its natural environment, especially to maintain or restore the self-regulatory functions of natural systems, to strictly protect wildlife, and to maintain the typical appearance of the landscape; to fulfill scientific and educational goals as well to promote appropriate tourism and recreation within the national park." To keep all demands of the statement at the same time can be sometimes very difficult. A large discussion among nature protectionists and other stakeholders, as mentioned above, should make clear in keeping standards of Czech national parks.

Local people

The picture from the beginning of last century belongs to the past now because of deep changes of the settlement after World War II. A standard density population in the mountains changed rapidly after the compelled evacuation of people of German nationality in 1945. Most of settlements disappeared both from the map and from the surface. Large "Iron Curtain" was erected to separate people inside of "enclosure" from western ideology. The long-term tradition of life close to the nature was tattered.

People coming from inland mostly did not have a relation to a new place, they did not have experience how to live in new such a specific conditions. Most of them left area after short adventure and the rest of people created a base of new local population.

Hardly 1 500 people live in seven villages inside of NP. The density of population is very low in NP, the lowest in such a large area in the Czech Republic. The tendency of people (especially those young ones) going to the cities to get better/easier conditions of daily life has influenced all marginal areas including the Sumava Mountains. About 20 000 people live in the buffer zone of NP, in PLA, deeply under the common level of population density.

A lot of new strategies, studies and plans were done. There is in fact no lack of similar documents. What is needed now it is a reasonable sorting of issues valuable for sustainable life in the region.

Tourism

The tourism went through many changes in the Sumava Mountains during the last decade. Number of tourists has increased rapidly (e.g. almost 2 000 000 visitor days per year in NP) and their interest caused the development of accompanying services. Many old neglected buildings have been saved for pensions, cottages, small hotels or other form of services.

Just in NP 500 km hiking trails, 400 km bicycle trails bring an enjoyment to people visiting the largest national park of the Czech Republic.

Winter season plays an important role in a regional offer. Mild and snow-rich area provides a fantastic background for "soft" kinds of winter tourism, e.g. cross-country skiing or walking. People seeking for peace and quiet can find them on 300 km ski tracks leading mainly in beautiful winter scenery of NP. The importance of winter season for local tourism business has increased rapidly.

The opening of the border has brought new form of cross-border tourism using the territory both of neighbours to common presentation of the region. The number of visitors has stabilised on certain level during last three or four years and the new form of offer should be found on both sides of the border.

Beside the landscape attractivity of the region a big challenge is represented by a revival of culture-historical aspect of the region. In spite the fact that most of old traditions were tattered after World War 2nd many of old local skills has appeared both to fulfil a gap in local tourism market and to satisfy natural needs of self-realization. Many of regional projects are focused to revive small workshops, feasts, traditions.

Ecological education

A National Park offers ideal conditions for promoting public awareness and education. These activities are closely connected with tourism and recreation in the Sumava NP and also related to the local inhabitants; the popularisation of nature protection is very much entwined with scientific and research activities. Six information centres and two facilities for ecological education represent a large opportunities. Public awareness and education are not a goal in itself but the means by which to achieve a higher level of understanding and feel for nature as whole among people – and not only inside of national park.

The co-operation between the two parks

Contact between the staff of the Bavarian and the Czech administrations started almost in the seventies, years before Sumava was established as a National Park (before 1991 the area was managed as a Protected Landscape Area). Co-operation at that time exclusively was based on individual contacts and personal relations. One can imagine that it was rather difficult then to build up relations, because the border between the two protection areas at that time divided the whole world into two parts, politically, socially and economically absolutely different and not always referring to each other as friends...

After the fall of the iron curtain and the establishment of the Sumava National Park some common projects where launched, e.g. the bilingual information point at Bucina, situated on Czech territory close to a border transit point. Since 1992 you can find information there – presented in German and Czech language – about the protection areas, but also about the history of the landscape and the residents of the region. This was not easy to work out, too, because concerning to this subject there were – and still are! – a lot of open questions. But in those years, powered by the euphoria about the end of the cold war, the fall of the iron curtain and the vision of coming together what had been divided for many years, the acting staff of the two parks in the end had been successful.

Since 1999 the numerous common activities were given a formal base. The Czech and the Bavarian Government signed a memorandum, pointing out protection of nature, research, environmental education and public relations as the main topics of an extending and being steadily intensified co-operation.

Three mixed working groups were established, trying to identify common or border-transcending issues and to work them out. The working groups are controlled with a directing group featuring the top management of the two park administrations.

Of course, when it comes to practical work, there are a lot of problems to be solved and obstacles to be removed:

— One of the obvious problems is language. In the staff of the Bavarian park administration itself there is actually no one being able to understand Czech language good enough. We have to charge extern interpreters with the translating of documents

etc.. Fortunately the other way round at Sumava park administration there are some staff members speaking German excellently, so meetings ore remote communication can be managed directly. Depending on the participants, some meetings are held in English.

— It also has to be considered that the two park administrations are integrated in national legal and administrative systems, which makes common projects referring to issues not exclusively concerning the parks themselves sometimes difficult or even impossible. An example: Of course a lot of information about fauna and flora is exchanged from one administration to the other, but we yet didn't succeed in starting an inventory based on a common standard providing data about the natural equipment of the two park territories. The Bavarian Forest National Park carries out quite voluminous inventories according to the standards of the Bavarian State Forest administration, the Sumava National Park does the same according to standards applied all over the Czech Republic. So starting a common inventory would mean to carry out an additional inventory at least in one of the parks, and that's .... a question of money!

— Last but not least, money, too, is a factor that limits the possibilities to realise common projects. But we have to say that a lot of our transfrontier projects were financially supported by private persons, groups, and business companies or by grants of national or international administrations, especially the European Union.

Nature projects

Despite of all those difficulties and obstacles, a lot of transfrontier activities in the field of nature protection where started the recent years or are planed to come up soon. Let us show you some examples:

Natura 2000

Based on the "Birds" and "Habitats" Directives, given for the protection of rare and endangered species and natural habitats, the European Union's Council of Ministers created NATURA 2000 as a network of sites protected at Community level. NATURA 2000 in the future years surely will give the frame for the management of most of the European large-scaled protection areas.

Almost the whole territory of Bavarian Forest National Park has been proposed on the German list of sites presented to the European Commission. Sumava National Park up to these days is not, simply because the Czech Republic is not yet member of the EU. But they will be in about 6 months, and since the ancient "Bohemian Forest", including the Bavarian Forest as well as the Sumava region, ecologically is to be considered as one unit and therefor together as a unique biogeographical region in the terms of NATURA 2000, one can foresee that most of the area of Sumava National Park soon will be proposed to Brussels as well.

So it absolutely makes sense to undertake a common approach to the challenges of the NATURA 2000 concept. Thus the two park administrations decided to install a common working group charged with that major topic. Experts of both sides try to work out a common system for the identification and classification of priority sites, for the monitoring of rare or endangered species according to the lists attached to the guidelines, and to find strategies for the management plans requested.

Red deer

After the establishment of the Bavarian Forest as a National Park attempts were made to develop solutions for the management of red deer in such a setting. An investigation conducted in 1984 showed that extensive areas in the National Park were not used by the red deer. The majority of the red deer in this park overwintered in the established enclosures and had their summer ranges on Czech territory between the national border itself and the border fence. In the past few years several changes have occurred to influence the habitat and behaviour of the red deer:

The removal of the border fence has permitted a greater movement of individuals between the Bavarian Forest National Park and the Sumava National Park. Especially a migration of the red deer from the Bohemian Forest to the unoccupied areas in the Bavarian Forest is assumed.

Due to the extensive clear cuts on the Czech side and the large areas of deadwood in the Bavarian Forest, the browse conditions for the red deer have substantially improved. Helicopter logging and the lack of cover apparently cause a change in habitat use among the red deer. The scant snow cover during the past few years and the consequent greater availability of browse and increased mobility permitted the red deer to even overwinter on the upper slopes. The recent occurrence of wild boar and lynx in this area could also affect a change in the temporal-spatial behavioural system of the red deer.

The red deer management system effectively practised for years has to be adapted to the changed conditions. For this purpose, an exact analysis of the above-mentioned changes and an evaluation of alternative solutions are necessary. And since the removal of the border fence makes the Bavarian and the Czech territory actually one habitat for the red deer, it obviously makes sense to co-operate. Transfrontier investigations should provide data to aid in the decision making process in the management of red deer on both sides of the border.

Therefore in March and April 2002 three red deer (female, young stag and older stag) in a winter enclosure were caught and provided with a GPS-Plus GSM collar. The red deer were outfitted with collars prior to release to test the data transmission system.

For the enlargement of those studies, another eight red deer were fitted with GPS-GSM collars in spring 2003. The GPS receivers are programmed to take fixings every 2-4 hours and to send the data by SMS immediately after 7 fixings are taken via the mobile phone system directly to our ground station at the office.

The present investigation is the first step in obtaining basic data on the actual use of habitat by red deer in the Bavarian Forest National Park and in the Sumava National Park. Although we have to consider that until now these investigations are mainly executed by the Bavarian park administration, kindly assisted by the Czech colleagues, both parks are willing to develop a common system of monitoring and as well management for that impressing species.

Lynx

The story of reintroduction of that beautiful creature back to the Sumava Mountains seems to be one of several successful stories of nature protection. But has the battle got its finish?

Lynx was completely exterminated from Sumava in ninetieth of 19th century. As an unsuspected omen of future co-operation 7 specimens of lynx were unofficially released to nature of Bavarian Forest National Park in 1970 – 71. Several years after 17 lynx were brought from Slovakia to create a new base for stabile lynx population in the Sumava Mountains. Population has been growing till half of ninetieth and despite some small declining there are more than 70 territorial animals on both side of the border at present.

New demands on the management were calling for new monitoring techniques. Old methods of estimating the number of animals, provided mostly by hunters, seemed to be too inexact. Since 1996 a telemetry method of monitoring has been used. The monitoring centre is under the control of zoologists from the Sumava NP, but co-operation among specialists from both neighbouring parks is vitally necessary. The lynx is an animal with mean territory about 350 km^2 and, of course, it does not know the border. 15 specimens have been monitored until present, most of them on both sides of the border.

Where is actually the threat mentioned at the beginning of this paragraph? Just half of monitored animals were illegally shot. The poaching has arisen probably as the biggest danger for lynx population. Scientists from both national parks know that fact very well, and they are intensifying their effort to protect together that king of Sumava´s predators.

Capercaillie

The need of close cross-border co-operation arises urgently in projects dealing with critically endangered species, especially concerning the last remnants of populations of species sensitive to a human impact. Management of capercaillie (Tetrao urogallus) can be such an example.

No more than 200 hundreds specimens survive in one the last refuge in the Middle of Europe. Some effort, financially very demanding, has been running to support a population with an artificial breeding and following releasing to the nature. However, the key management measure should tend to create/protect appropriate habitat with as natural conditions as could be.

Data exchange is one of the first obvious steps. What is crucial, it is their interpretation. Politicians, on all levels, should be respect these data and their policy should be as respectable to them as could be. Some populations of capercaillie are endangered by intended newly opened border-crossings in the most sensitive localities of our common NPs´ region. What can be a pleasure/fun for people, it can be a potential mortal danger for a critically endangered animal. A common argumentation both of NP administrations should be a relevant background aspect/warning for decision makers. It is a classical example of common communication project based on scientific research and monitoring.

There is a large potential to involve local people/visitors more into the project of protection of similarly critically endangered species and a big challenge and open space for both NP administrations. There is much to be done, but there are many opportunities.

RAMSAR / Peat bogs

An importance of the Sumava wetlands was recognized many years ago. More than 6 300 ha were put on the list of wetlands of international importance – i.e. a Ramsar site.

The Sumava peatlands are unique "habitats island ecosystem" of bogs representing natural ecosystems with numerous rare and endangered species of plants and invertebrates. Wetland ecosystems within the Sumava NP include – ombrotrophic, high-plateau and valley raised bogs, minerotrophic forested mires, minereotrophic meadow mires (fens) and their successional stages (peaty birch woods and willow carr, and others), springs, dead river arms (oxbow lakes), and shallow standing water biotopes created by humans.

However, the water regime of many wetlands has been negatively influenced by drainage – the main problems having been caused by drainage system from the 2nd half of the 20th century. Many fens, mainly those located at lower altitudes, have been irreversibly degraded or destroyed through intensive agriculture. The ecosystems of forested mires, e.g. in the area of Modrava, are endangered due to the continuing dieback of forest stands caused by bark-beetle outbreaks.

Despite of the fact that most of Sumava peatbogs are situated on the Czech side, the intensive co-operation, mainly data exchange, has been running. Examples of successful wetland or water streams restoration, special techniques of water regime improving, have been largely discussed at common topical field demonstrations and specialists from both sides meet each other at topical workshops.

Wolf / NATURVISION

The last individuals of a formerly stable wolf population in the Bavarian Forest were killed about 150 years ago. Due to its scale, its vegetation and especially to the fact that this huge territory is almost uncut by major traffic lines and free of larger settlements, the Bavarian Forest and the Sumava region today still are absolutely suitable as a habitat for the wolf.

The wolf hasn't arrived yet, but it is knocking at our door. Being aware of the wolf populations in the neighbour countries such as Poland and Romania, in the Czech Republic, and even already in the north east of Germany, it may be a question of time until wolves will re-conquer the park area as their territory. Single individuals have already been traced.

The return of the wolf basically is perfectly aligned to the aims of a national park. But at the same time it would provoke a special challenge to the park administration. One has to consider that in the common consciousness of the German people there is a lack of information about wolves combined with an imagination of a man-murdering beast formed by fairytales and mystic stories, causing a lot of misunderstanding and fears about this species. To give the return of the wolf a chance to be successful, it would be absolutely necessary to prepare people, to give them information and to develop the acceptance of the wolf living in the direct vicinity of their homes.



Wolf is returning to the National Park.

One of the first steps in this direction was taken in the frame of NATURVISION 2003. This international nature and wildlife film festival is taking place in the villages of Freyung and Neuschönau - both communities bordering the Bavarian Forest National Park –, and is since 2002 organised by a private association in co-operation with the two National Park Administrations. Aside of the competition of films the festival each year features a special topic. This year the festival provided a series of public discussions and other means of information about wolves, their biology and behaviour, the benefits and risks of their presence in regions comparable to the Bavarian Forest.

The winning films of the festival were shown some days later in a separate festival at Vimperk, the seat of the Sumava National Park Administration. The NATURVISION film festival therefor is an expression of the transfrontier co-operation in common projects aiming at the regional inhabitants.

Public projects

Referring to the public, a lot of projects were or are about to be carried out as well. For a single protection area, public relations pointing at the regional inhabitants means to start communication with those, to make them interested in what's going on in the park, accept its goals and measures, and maybe one will be successful to make the residents accept the park and refer to it as "our park". Transfrontier protection areas provide a further challenge:

The parks have to make the inhabitants of the regions feeling familiar also to the neighboured park and to make them understand that the protection of nature can't be terminated at man-made borders, even – and we do believe that this also is an important task for transfrontier parks, especially if you have to consider the historical background of the Czech and the German people - to make people on both sides of the border more familiar to each other. So these are the objectives we should try to realise:

- Information about the neighbour
- Visit the neighbour
- Make people feel familiar there
- Breaking the language barrier
- Get people together
- Common events

Let us give you some examples for our attempts to manage this:

Information about the neighbour

In the years of the iron curtain existing most of the inhabitants of the Bavarian Forest region never had the chance to visit the Sumava region and vice versa. Even after the opening of the border and t he establishment of the Sumava National Park only few people were crossing the border to see the neighbouring Parks.

Information about the neighbouring park thus seems necessary. The old railway station at Bayerisch Eisenstein / Zelezna Ruda, located directly at the border, therefor since some years provides an exhibition with interesting information about the two parks, historical facts, and a lot more.

In the new information centre of the Bavarian Forest National Park, in construction now and planed to be opened for the public in 2006, there will also be given space to attractive information about Sumava National Park.

Visit the neighbour

Transportation is a key issue in the sustainable tourism strategy. If you want to go to the neighbour you can chose one of several crossings possible only for foot and by bicycle. Going for a longer trip you can use your car or public traffic. One example of taking a positive approach on both sides of the border is making public transport attractive to visitors. For 7 years more than 100 000 visitors per year have been using the seasonal public traffic system on our side. Recently the German system has been involved to the larger seasonal public traffic system and both together contribute to the protection of environment in our common mountain region.

Information centres on both sides offer special guided tours for guests in both languages, several programmes visits across the border have been undertaken, small local travel agencies started to provided cross-border guided tour in co-operation with both NP administrations.

Make people feel familiar there

The nature on both side of the border in one region is the only one in spite the fact that some management approach can be partially different according to local specific conditions and different political and socio-economical development.

Creation of common information system is much ahead before common nature management. Both administrations have been building intentionally a compatible information system for more than 10 years to evoke the sense of one common nature space. People feel much better to meet familiar visitor system and that is important, they trust in it. Meeting each other at the EU a dream of common space should go to the reality.

Break the language barrier

The understanding of the foreign language was (and certainly still is) to be considered as one of the most important obstacles for the visit of the neighbouring National Park.

As a measure to break this language barrier in the information centre "Hans Eisenmann Haus" of the Bavarian Forest National Park most of the information (films, exhibitions…) is given in Czech language as well. Some information panels in the fields are bilingual, the same with leaflets and some other publications.

Get people together

Some projects are successful from the very beginning some need more time to be accepted. The project to get children with their grandparents from both sides together for two weeks of common stay in both of national park has failed for this year. It is just a common challenge for innovation.

On the contrary a common summer camps for young people was held again and children from Sumava region visited together their new friends in similar NP region in Czech and Saxon Switzerland.

Another step in the process of developing the transfrontier communication and come together of people might be common events that are no more exclusively ran by the National Park Administrations. We try not only to involve or integrate private persons ore associations from both sides of the border, but finally to hand over the active role and the leadership of projects to them. The Park Administrations may then play the roles of participants.

In summer an Ark, built up of more than 400 glass panels, each broken individually by hand, the ship over 5 metres long and with a weight of about 2.6 tons, was created by regional glass artists. The Glass Ark was placed below the peak of mountain Lusen, beside of a very highly frequented hiking path. It serves as a symbol for the safeguarding of nature, maybe of mankind, too, it catches the eye and attention of people passing by, gives the frame for several events and creates impulses for discussions, thoughts, meditation.... and by that way it offers a lot of different approaches to all the issues a National Park mainly is dealing with. Last, but not least the Glass Ark reminds of the rich history of glass manufacturing and industry in the regions of Bavarian Forest and Bohemia.



The Glass Ark.

The Glass Ark is going to spend winter in a churchyard at Grafenau, the seat of the Bavarian Forest National Park Administration, and will next year cross the border to the Czech Republic.

The pilgrimage of the Glass Ark will continue with many events on Czech side, meeting some special places in nature and settlements as well. Experience, got from our friends from German side, will help us to do it at the same level and new ideas will appear. Guided tours, exhibitions, concerts, camps and many similar events should deepen our present co-operation, friendship.

The future

The entrance of the Czech Republic into the European Union coming up next year will cause new challenges for the two park administrations. We hope we are ready to snatch that opportunity.

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Natural and cultural heritage of the Curonian Spit National Parks – Transboundary cooperation in Kuršis nerija national park (Lithuania) and Kuršskaja kasa national park (Russian Federation) 1998 – 2003

Albertas Kvietkus, Kuršis nerija national park administration

Abstract

Curonian Spit is a peculiar story for nature and culture of the south-east Baltic sea coastal fisherman's. The status of protected area for Curonian Spit de jure was conferred at the second part of 20th century, and at the end of the century Curonian Spit received the most honorees status of national parks in both parts - in Lithuanian and Russian one.

Curonian Spit is amongst five longest sandy spits in the world, this is the largest and the most impressive sandy spit in the Baltic region.

The Curonian Spit represents the largest marine-eolian accumulative form in the Baltic Sea. Curonian Spit is a long narrow sandy peninsula. The length is 98 km (52 km in Lithuania), average width is - about 2 km, max - 4.2 km, min - 0.38 km. It separates the Curonian Lagoon from the open Baltic Sea. The Curonian Spit excites interest for the diversity and beauty of natural conditions.

The most important value of the Curonian Spit is unique and sensitive landscape created by interaction of sea, wind and human activity. The highest dunes in North Europe, with big capes in Curonian Lagoon and rare or endemic flora and fauna species and their communities are characteristic for the Spit.

The main features are as follows: great dune ridge with an old parabolic dunes in Juodkrante, gray (dead) dunes in Agila-Nagliai segment, moving dunes in Parnidis segment, the sand covered layers of old soils, as well as the blow sand plains, coastal dune ridge, specific vegetation and fauna. Authentic cultural values are important. They are: ethnographic buildings of fishermen's, old villas in Nida, Juodkrante, Preila, Pervalka, cultural layers of old settlements covered by sand, memorial sites.

Without any doubt, the dominating element of relief is represented by a large high-dune ridge, which stretches for about 72 km and is from 250 up to 1.2 km wide. The average height of this ridge makes 35 m, however, some dunes exceed 60 m in height. In some places the windward side of the ridge is steeply sloping down to the lagoon. The dune valleys divide the ridge into separate dune massifs, as a rule, in front of these dune valleys the capes are situated. At present over a half of the considered ridge is covered with forests. In other sectors the high-dunes keep moving and represent the most attractive natural trait of Curonian Spit landscape.

The parabolic dunes represented a complex morphological system of linked and partly superposed eolian forms. The front of the massifs of parabolic dunes had a cuspate character

The biodiversity on the Curonian Spit is caused not only by relief forms, but even by the soil type. Two types of soils prevail: sandy (both dry and wet), and the peat soils. There is no soil cover on moving dunes. Currently, about 70% of the Spit area is covered by forests, mostly pine forests. There are only five settlements - Smiltynë, Pervalka, Juodkrante, Preila, and Nida (in Lithuanian part) The latter is the biggest one and is located close to Russian boarder and three in Russian part ;Morskoje,Rybaèij and Lesnoje.

Coastal sandy habitats prevail in Curonian Spit. Natural or seminatural or planted forests habitats cover Curonian Spit. Small agrarian or urbanised/technogenised habitats can be found. Curonian Spit and Curonian Lagoon area is the largest coastal wintering site in Lithuania and Russia as well.

The former settlements were covered by sand after cutting the forests in Curonian Spit. Some of the buildings have been moved to other places several times. Not all places of former settlements are known.

Settlements in Curonian Spit created before the beginning of 19th century are typical fishermen villages - the most significant monuments of the living style and ethnographic traditions of the kursiai community, which does not exist any more in Curonian Spit.

The settlements of Curonian Spit are examples of adaptation of living sites to natural conditions, examples of harmony with nature.

Albertas Kvietkus, Kuršis nerija -kansallispuisto, Liettua

Tiivistelmä

Kuurin kynnäksellä on eriskummallinen luonto- ja kulttuurihistoria, jota vaalivat Baltian meren kaakkoisrannikon kalastajat. Kuurin kynnäksestä muodostettiin suojelualue 1900-luvun puolivälin jälkeen, mutta vasta vuosisadan loppupuolella alue sai kansallispuiston arvon, jonka myönsivät sekä Venäjä että Liettua.

Kuurin kynnäs on yksi viidestä maailman pisimmästä hiekkaniemekkeestä, minkä lisäksi se on suurin ja näyttävin laadussaan Baltian alueella. Kynnäksen kokonaispituus on 98 km. Leveys vaihtelee välissä 0,4–4,2 km, mutta keskimääräinen leveys on noin 2 km. Kynnäs erottaa Kuurin lahden avoimesta Baltian merestä. Kuurin kynnäksen luonnon kauneus ja monimuotoisuus herättää kiinnostusta. Kynnäksen arvoa nostaa erityisesti sen ainutlaatuinen ja herkkä maisema, joka on meren, tuulen ja ihmistoiminnan yhdysvaikutuksen tulos. Omaleimaisuutta korostavat Euroopan korkeimmat dyynit, pitkät Kuurin lahteen työntyvät niemet sekä alueella elävät harvinaiset ja kotoperäiset kasvi- ja eläinlajit.

Alueelle ominaista ovat erilaiset dyynimuodostelmat vaativiin erityisoloihin sopeutuneine kasvi- ja eläinlajeineen. Myös alueen kulttuuriarvot ja kulttuuriympäristön alkuperäisyys lisäävät alueen arvoa. Luonnontilaiset, lähes luonnontilaiset ja viljellyt metsähabitaatit peittävät Kuurin niemekkeen. Alueella harjoitetaan myös pienimuotoista maanviljelystä, minkä lisäksi siellä sijaitsee urbaaneja ja teollistuneita asuinympäristöjä. Ennen 1800-lukua perustetut asujaimistot ovat yleensä kalastajakyliä, joiden arvo on niiden menneitä ja nyt jo hävinneitä *kursiai*-yhteisön elämäntapoja ja kansanperinteitä säilyttävässä olemuksessaan. Nämä historialliset asujaimistot ovat osoitus ihmisten sopeutuneisuudesta luonnonolosuhteissa elämiseen.
(Käännös: Jari Parviainen ja Kalle Eerikäinen)

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Introduction of the transboundary protected area and World Heritage Site

Curonian Spit is a peculiar story for nature and culture of the south-east Baltic sea coastal fisherman's. The status of protected area for Curonian Spit was conferred de jure at the second part of 20th century, and at the end of the century Curonian Spit received the most honorees status of national parks both in Lithuanian and Russian parts. Curonian Spit is amongst five longest sandy spits in the world, and it is the largest and the most impressive sandy spit in the Baltic region.

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The spit has many special features: great dune ridge with an old parabolic dunes in Juodkrante, gray (dead) dunes in Agila-Nagliai segment, moving dunes in Parnidis segment, the sand covered layers of old soils, as well as the blow sand plains, coastal dune ridge, specific vegetation and fauna. Authentic cultural values are also important: fishermen's ethnographic buildings, old villas in Nida, Juodkrante, Preila, Pervalka, cultural layers of old settlements covered by sand and memorial sites.

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The former settlements were covered by sand after cutting the forests in Curonian Spit. Some of the buildings have been moved to other locations several times. Not all locations of former settlements are known. Settlements in Curonian Spit created before the beginning of 19th century are typical fishermen villages - the most significant monuments of the living style and ethnographic traditions of the "kursiai" community, which does not exist any more in Curonian Spit.The settlements of Curonian Spit are examples of adaptation of living sites to natural conditions, examples of harmony with nature.

History of development

About 5 000 years ago, at the beginning of the "Littorina" period named after the then-plentiful Baltic Sea mollusc, the slowly rising eastern shore of the Baltic underwent increased destructive impact of waves. The destruction of the shore was going on a bit further to the south, on the Sambia peninsula. A good deal of sand was washed away, and south-western currents carried it northwards. The sand settled forming continuous shoals among the islands. Starting with the southern part, a prolonged belt of sandy land was forming based on a foundation of moraine islands and banks. In the course of the time, winds began to pull its surface into dunes. The spit elongated and grew higher. It was growing.

At the end of the 18th century professor J. Titius suggested restoring forests in Nerija, thus reviving all life there. Nevertheless, at that time it looked impossible to accomplish this feat. A start was made near Nida by the employee of the local post station, G. D. Kuwert, who planted trees on Urbas Hill (dune). G. Kuwert found like-minded people also in other parts of Nerija. The high dune, hovering over Pilkopa is named Efa after the man who planted trees on it. Franz Efa, who worked as a dune inspector in the second half of the 19th century, planted trees on the dunes that were threatening Rasyte and Pilkopa with burial. Besides this, he also studied the Nerija's flora and designed the protective dune. There were also other volunteers planting trees and shrubs in Nerija.

Even during the Soviet period, government understood and appreciated the uniqueness of this land. The necessity of preserving Curonian Spit appeared in the late sixties with the growing number of visitors and the approaching threat to natural values. In 1960 Curonian Spit Landscape Reserve was established within area of 9 766 ha. On

30 April, 1966 the Council of Ministers issued a Resolution on Further Regulations of Curonian Spit and approved a new statute of regulations, which made the regimen of special conservation more strict.

In 1990 the independence of Lithuania was declared. The old idea of creation of national park on Kursiu Nerija finally had an opportunity to come true. This took place on 23 April 1991 by approval of the Supreme Council of the Republic of Lithuania (Resolution Nr.I-1224 for the Establishment of Dzûkija, Kursiu Nerija (Curonian Spit), Þemaitija National Parks and Vieðvilë Strict Nature Reserve). Resolution of the Government of the Russian Federation was dated 6 November 1987 (N 423 about the establishment of the "Kuršskaja kosa National Park").

Characteristics

Curonian spit is natural geomorphic complex of sandy spit of particular aesthetic and scientific value, including unique great dune ridge with distinct dune tops. It has a diversity of eolian land surface forms being at different stage of evolution, diversity of blown sand plain. Lagoon coast line with combination of capes and bays is characteristic to the area, and it has an unique structure of eolian and moraine geological layers with the lagoon marl. The network of natural and semi-natural habitats with rare plant and animal species has been created by sandy beaches and sandy dunes and is particularly valuable for scientific knowledge and protection at European level. The unique habitats of ancient forests covering segments of great dune ridge are valuable from scientific and aesthetic point of view. The Curonian Spit and surrounding waters are located on the Northern flyway of migratory birds. The bird migration way is particularly valuable at international level. In addition, the largest coastal wintering site in Lithuania encompasses Curonian Spit and the Lagoon.

Curonian Spit is unique also in its aesthetic value. The highest spit dunes in North Europe are on Curonian Spit. Curonian Spit is the most valuable field laboratory for scientific investigations on interaction of natural processes and human activity. Scientific research of the relationship between nature and man is very significant even in historic retrospective. From the highest tops (peaks) of dunes panorama of Curonian Spit natural landscape and the Baltic Sea and Curonian Lagoon can be observed. From some tops of dunes small settlements can be seen. Cultural values - fishermen buildings (living houses and other buildings) are authentic in design, material, workmanship and setting.

Curonian Spit possesses numerous interrelated and interdependent components illustrating formation of the Spit, of its coast, the sandy coast of the Baltic Sea. Even today wind, water and vegetation are active agents in shaping the coast line, the beaches, the coastal dune ridge and the moving dunes.

Coastal and marine ecosystems cover large areas. Land surface varies in forms and in size. Though the soil cover has developed on the sand brought from the sea, it is quite diverse due to a varying amount of humidity. Both wetlands and areas without

any soil cover can be found. The natural processes occurring in the sand ecosystems are particularly evident in the moving dunes, where human activities are forbidden. Sandy habitats are not very rich in species, but on the Curonian Spit all the characteristic ones can be found. There is a great diversity of plant communities with threatened plant species.

Area of the property and of its Buffer zone

Total area, comprising	33 021 ha
Land surface	16 321 ha
The Curonian Lagoon (Kuršis maris)	4200 ha
The Baltic sea	12 500 ha

On the Lithuanian side, the territory and aquatory of the national park Kuršis nerija is State property. On the Russian side, the national park "Kuršskaja kosa" is specially protected territory of Russian Federation.

Transboundary cooperation

The first stage of cooperation was signing the cooperation agreement among two transfrontier protected areas (national parks) on1st of May 1998. According to the agreement, while striving for preservation of this natural and cultural heritage, both national parks undertake:

- To take measures to ensure strict adherence to conservation, preservation restoration visiting rules and other regulations on the whole territory of Kuršis nerija (in the Lithuania and Russian parts)classified as a national park; (Category II as per IUCN).
- To prepare and formulate programmes of joint actions and research within the limits of the said parks in the following areas:
  - Scientific research within the limits of bilateral projects;
  - Implementation of the programme of general methods and monitoring of shoreline dynamic, forest and biological monitoring;
  - Preservation and restoration of cultural heritage;
  - Strengthening of dunes;
  - Safeguarding of the lagoon and sea shores;
  - Restoration of green plantations.
- To carry out special training and education of their own personal on the treasures of Curonian Spit as a unique territory;
- To prepare special information aimed at the visitors to the territory on the unique natural and cultural heritage and its value within the context of World Heritage;

- To coordinate actions in the field of information exchange and maintain relations with all organizations, local societies and UNESCO.
- To coordinate actions in the field of visitor service. To prepare joint tourist schemes and routes throughout Kuršis nerija.
- To carry out joint activities aimed at creating an international border zone nationalpark in accordance with PHARE programmes.

The second stage was the preparation of nomination for UNESCO World Heritage Committee ICOMOS (common project and team work 1998-2000). The third stage in cooperation was related to joint activities on the preparation of the international transfrontier protected areas projects: (PHARE; TACIS; German section WWF and BTE; Sweden county Blekinge ect. in 1999-2004). In the fourth stage, cooperation between both parks specialists and administration is enhanced (according cooperation agreement).

Results

Teamwork between the two parks has been successful. Specialists from both parks made a proposal for the nomination to the UNESCO World Heritage Committee and as a result, the World Heritage Committee has included the Curonian Spit (Lithuania and Russian Federation area) on the World Heritage List in 2000. An EU-funded PHARE project "Environmentally monitoring and creation of the tourism information system in the Curonian Spit" was carried out. The project

Unified environmental monitoring on both sides (observing birds; vegetation; climate etc.) of the national park. Information material or public on the Curonian Spit was published. Brochures gave information on the transboundary area, including maps, interesting places and objectives of the Curonian Spit National Park.Specialists of both national parks worked closely to improve the environmentally monitoring programme. Within an EU-funded TACIS project "The integrated programme of the protection and management in the Curonian Spit", two international conferences were arranged (in the Russian side of the park).

Common team of the specialists from Lithuanian and Russian parts (including Klaipda, Kaliningrad and Kaunas Universities) are working on the preparation of management plans including both sides of transfrontier protected area (on dune management, coastal zone management, forest management, landscape management and recreational use). Project called "Ecological tourism in the lagoons area near the Baltic sea shore" (Lithuania-Russia and Poland) is carried out in cooperation with German WWF and BTE, and with Poland and Russia. The project publishes information material for visitors. Swedish county Blekinge and Klaipda county prepared a project "Atlas of the Baltic sea", which dealt with sea pollution.

Problems in the transboundary cooperation

Many problems are technical: problems in fax, phone or e-mail connections. From the professional point of view: Underselling of visitors information Centres in Russian side (NP still haven't, only one is open by German WWF, like municipality in settlement Lesnoje. In Lithuanian part -three lack of the legislation bases (in RF part) and big differences compare the Lithuanians lows Deficit the mains lows regulations and rules for protection and conservation, especially old buildings.

The administration structure in the national parks is different, as well as the responsibilities of the cooperation specialists. Persons in both sides of the border have their own mentality and different background. The education of the employees may also vary. The aims of the protected area and the World Heritage Site may be understood differentially.

Expectations for the future

It is important to try to improve the knowledge and understanding of the aims of the transfrontier protected area and WH Site. There must be an agreement on higher level on the continuation of the transboundary cooperation. International projects should be developed further and the connections between the countries should also be improved. The development of integrated protection, management and monitoring programme should be continued (implementation of PHARE and TACIS projects) according to the unified system. Good relationships between administration and specialists should be treasured. Exchanging experiences on both sides is valuable, and should be enhanced. It is also important to develop and unify legislation concerning the protected area, its objectives and regulations for its use.

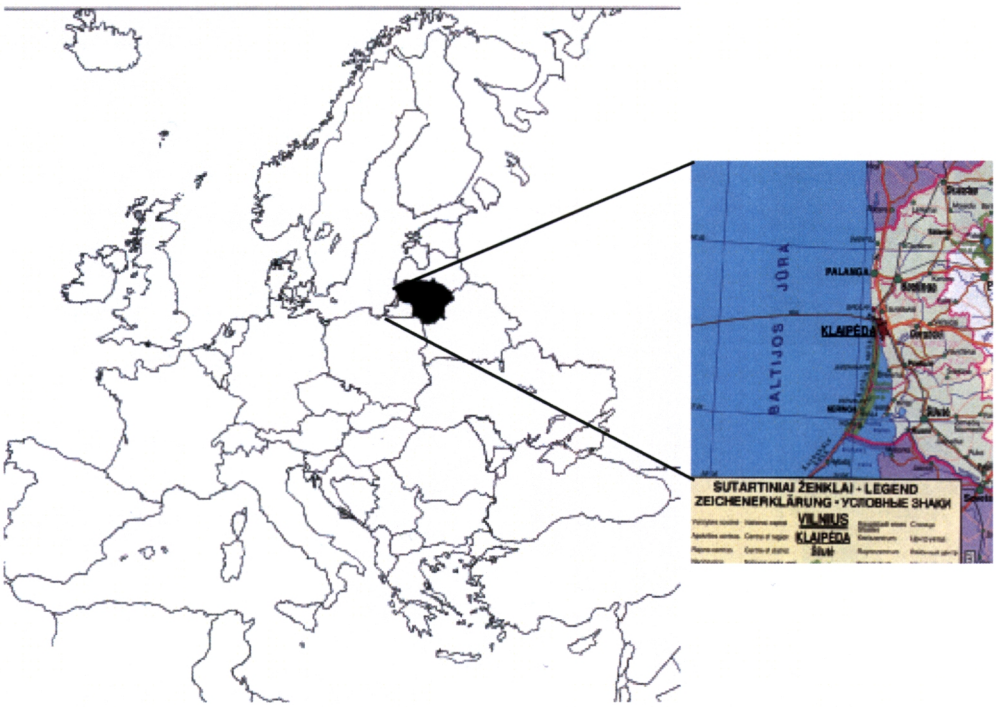

Fig. 1. Map of the location in EUROPE



Fig. 2. Strict nature reserve zone (white dunes) near the Russian Federation and Lithuanian border (on both sides of the national park -the same conservation status)

Transfrontier biosphere reserves

Mireille Jardin and Jane Robertson, UNESCO

Abstract

The World Network of Biosphere Reserves has been established by the UNESCO Programme on Man and the Biosphere (MAB) since the mid 1970s. The biosphere reserves concept was designed under MAB as a means to reconcile the conservation of biodiversity with economic development, backed up by research, training and education. The 1995 Statutory Framework, a non-binding but internationally negotiated document, defines the zonation pattern and functions of biosphere reserves, as well as the designation process and periodic review. Biosphere reserves are considered as an embodiment of the Ecosystem Approach of the Convention on Biological Diversity. Interest in transborder conservation efforts has increased greatly in the last 10 years for many ecological and political reasons. In 2000, a set of recommendations were adopted for the establishment and management of transboundary biosphere reserves (TBRs) addressing the designation procedure, TBR functioning, institutional mechanisms and suggested action for conservation, education, research/monitoring and information sharing. Today, there are 6 TBRs: five in Europe across the "old" Eastern European boundaries, and one in the "W" Region, between Benin, Burkina Faso and Niger. Many others are planned. The 5th IUCN World Parks Congress adopted a "new paradigm" for protected areas: this has a striking convergence with the biosphere reserve approach, underlining its relevance to integrate protected areas into the broader landscape. Transboundary conservation areas are the focus of many Congress recommendations. Designation as a TBR implies a political commitment for the countries concerned to cooperate. TBR designation also has the added advantage of conferring UN recognition of national actions, acknowledging the role of TBRs as a means for countries to implement international agreements and to secure peaceful relations with their neighbours.

Rajaseutujen biosfäärialueet

Mireille Jardin and Jane Robertson, UNESCO

Tiivistelmä

1970-luvun puolivälissä perustettu Maailman biosfäärialueiden verkosto kuuluu YK:n kasvatus-, tiede- ja kulttuuri-järjestön UNESCO:n alaiseen Ihminen ja biosfääri (Man and Biosphere, MAB) –ohjelmaan. MAB:n puitteissa luodun biosfäärialueiden tehtävänä on yhteen sovittaa monimuotoisuuden suojelun ja taloudellisen kehityksen tavoitteet tutkimuksen ja koulutuksen keinoin. Ei-sitova mutta kansainvälisesti neuvoteltu The 1995 Statutory Framework –ohjelma määrittää biosfäärialuiden vyöhykkeisyyden muodon ja toiminnot mukaan lukien varsinaisen nimitysprosessin ja alueilla kausittain suoritettavat tarkastukset.

Biosfäärialueet käsitetään elimelliseksi osaksi Yhdistyneiden Kansakuntien hyväksymää "the Ecosystem Approach of the Convention on Biological Diversity" eli CBD–sopimusta. Lukuisista ekologisista ja poliittisista syistä johtuen kiinnostus rajat ylittäviä suojelullisia toimintoja kohtaan on lisääntynyt suuresti viimeisten kymmenen vuoden aikana. Vuonna 2000 hyväksyttiin joukko suosituksia, joita katsottiin tarvittavan rajaseutujen biosfäärialueiden perustamista ja hallinnointia varten. Tällöin sovittiin myös institutionaalisista mekanismeista sekä esitettiin toimia suojelun, koulutuksen, tutkimuksen ja seurannan sekä tiedonvälityksen edistämiseksi osana biosfäärialueiden toimintaa. Tänä päivänä on olemassa kuusi eri biosfäärialuetta, joista viisi ylittää niin kutsutun "vanhan Itä-Euroopan" rajat ja, joista yksi sijaitsee Afrikassa Beninin, Burkina Fason ja Nigerin muodostamalla niin kutsutulla W-alueella. Edellisten lisäksi useita uusia alueita on suunnitteilla perustaa. Viides IUCN maailman puistojen kongressi muotoili suojelualueita varten uuden mallin, jossa painotetaan suojelualueiden laajempaa yhdentymistä ja jolla on siten yhtymäkohtansa biosfäärialuemallin kanssa.

Rajaseutujen suojelualueet ovat myös monien kokoussuositusten kohteena. Nimitys rajaseutujen biosfäärialueeksi itsessään merkitsee poliittista sitoutumista mailta, joiden näin ollen on katsottu tärkeäksi tehdä keskinäistä alueellista yhteistyötä. Nimitys rajaseutujen biosfäärialueeksi tuo myös lisähyötyjä mm. YK:n hyväksyminä kansallisina toimintoina, tunnusterttuna keinona toteuttaa eri maiden välisiä sopimuksia, minkä lisäksi se edistää naapurimaiden rauhanomaisten suhteiden kehitystä.
(Käännös: Kalle Eerikäinen)

Transfrontier biosphere reserves

UNESCO is the UN agency responsible for scientific cooperation. In 1968, due to the increasing global awareness of the negative impacts of human activities on the natural environment, UNESCO called a scientific conference to determine what should be done collectively by governments to address this growing issue. This "Biosphere Conference" gave rise to the launching in 1970 of the Man and the Biosphere Programme, known as MAB. It was the first governmental efforts to lay the scientific basis for improving people's relationships with nature (UNESCO, 1970). It is now over 30 years old, has accumulated a vast experience, and has been emulated by many other programmes nationally and internationally.

One of the "inventions" of MAB is the "biosphere reserve concept: this was designed as a tool for MAB work, where the "M" – people – were the central actors. The term "biosphere reserve" was coined at the time as part of the "branding process" of the MAB Programme to gain international recognition. (UNESCO, 2002) The name itself is however a misnomer, since the "reserve" term is not meant to imply restrictions or setting aside areas away from human activities. In fact, it is the opposite!

Today, biosphere reserves are defined by MAB as "areas of terrestrial and coastal-marine ecosystems which are internationally recognised for promoting and demonstrating a balanced relationship between people and nature" (UNESCO, 1996a)

The functions and the zonation system that were designed for biosphere reserves have been refined with time. The functions and the principles of the zonation systems which are the basic elements of the biosphere reserves concept are presented in Boxes 1 and 2.

A biosphere reserve has three functions:

- *a conservation function, contributing to the conservation of landscapes, ecosystems, species and genetic variation;*
- *a development function, fostering economic development which is ecologically and culturally sustainable;*
- *a logistic support function for research, monitoring, training and education related to local, regional and global conservation and development issues.*

It is the synergetic combination of these three functions which characterises the biosphere reserve.

Box 1 - Biosphere reserve functions (UNESCO, 1996a)

Biosphere reserves are organised into 3 inter-related zones in order to enable them to carry out the different activities involved. This zonation was conceived to be flexible enough to be adapted to very different ecological and socio-economic situations around the world.

- *a core area which is legally established to ensure long-term protection and which should be large enough to meet defined conservation objectives. There is minimal human activity.*
- *a buffer zone around or next to the core. This can be an area for experimental research to use the natural resources sustainably and in an economically viable way. It is the area for ecosystem restoration. It ca accommodate education, training as well as carefully designed tourism and recreation facilities.*
- *an outer transition area or area of co-operation whose limits are not fixed. It is here that the local communities, nature conservation agencies, scientists, cultural groups, private enterprises and other stakeholders should agree to work together to manage and develop the area's resources for the benefit of the people who live and work there.*

Box 2 - Biosphere reserve zonation (UNESCO, 1996a)

The Seville Conference on Biosphere Reserve

The first biosphere reserves were designated under the MAB Programme in 1976. In March 1995, the International Conference on Biosphere Reserves held in Seville, Spain, reviewed the progress made in putting the biosphere reserve into practice and sought to determine the role that biosphere reserves could play in the light of the 1992 Rio Conference on Environment and Development, and in particular in serving to implement the Convention on Biological Diversity and meet the concerns of Agenda 2. The World Conservation Union, IUCN, played an active role in evaluation of biosphere reserves for the Seville Conference. It was obvious that although the concept is attractive, it is very difficult to put into practice. This is probably due to the ingrained sectoral character of institutions in most countries. Interdisciplinary programmes such as MAB and field projects such as biosphere reserves do not fit comfortably with the establishment. In spite of this reality, the Seville Conference did demonstrate biosphere reserve concept has been applied with considerable success in very different parts of the world. (UNESCO, 1996 b)

The Seville Conference gave rise to the Seville Strategy for Biosphere Reserves and the Statutory Framework for the World Network, both of which were subsequently adopted by the UNESCO General Conference in November 1995.

The Seville Strategy sets out goals and objectives for biosphere reserves at the site level, the national level and the regional and international levels. It thus sets the course for action for the next ten or so years. In particular, it gives a "vision" for biosphere reserves in the 21st century. This "vision" breaks new ground in stating that a biosphere

reserves is "more than a protected area" but rather a "pact" between the local community and society as a whole. Management should be open, evolving and adaptive. Such as approach is signalled to ensure that biosphere reserves — and their inhabitants — are better placed to respond to external political, economic and social pressures.

The Statutory Framework sets out the rules for governing the functioning of the World Network, giving a formal definition, a set of functions and criteria and a designation procedure. In particular, it sets out a periodic review of biosphere reserves designated over ten years ago, with a view to bringing them up to the revised standards and criteria (Jardin, 1996).

The World Network of Biosphere Reserves in 2003

Today there are 440 biosphere reserves designated in 97 countries. According to the Seville Strategy, they have new role as:

- *living laboratories for testing and demonstrating approaches to sustainable development (UNCED — Agenda 21, and the WSSD);*
- *concrete sites for meeting the Millennium Development Goals, and WSSD and WEHAB goals, in particular those on environmental sustainability, and significantly reducing the loss of biological diversity by 2010;*
- *Pilot sites for applying the "Ecosystem Approach" adopted by the Convention on Biological Diversity.*

Concerning this latter point, the Parties to the Convention on Biological Diversity has defined the "Ecosystem Approach" as "A strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Application of the ecosystem approach will help to reach a balance of the three objectives of the Convention. .... It recognizes that humans, with their cultural diversity, are an integral component of ecosystems" (UNEP-CBD, 2000)

The biosphere reserve concept is considered to embody the "Ecosystem Approach". There is a striking similarity between the provisions of the vision of the Seville Strategy for biosphere reserves and the twelve principles of the Ecosystem Approach (UNESCO 2000). For example, the following three principles can equally be said to describe biosphere reserves:

Principle 1:	The objectives of management of land, water and living resources are a matter of societal choice.
Principle 7:	The ecosystem approach should be undertaken at the appropriate spatial and temporal scales.
Principle12:	The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

Transboundary biosphere reserves

Transboundary biosphere reserves (TBRs) have a special significance in relation to Principle 7 on the question of spatial scale. Interest in transboundary biosphere reserves has increased greatly in the last ten years for a number of reasons, both political and ecological. Their creation is recommended by the Seville Strategy as a means of dealing with the conservation of organisms, ecosystems and genetic resources that cross national boundaries. However, there no specify criteria or provisions for such sites in the Statutory Framework for Biosphere Reserves. In 2000, at the occasion of the "Seville + 5" meeting, an ad hoc task force was convened, with a view to drawing up recommendations in the establishment and functioning of transboundary biosphere reserves, addressing the designation procedure, their function, institutional mechanisms for transboundary cooperation, and suggested action for conservation, education, research/monitoring and information sharing (UNESCO, 2003)

Today, there are 6 officially designated transboundary biosphere reserves:

- *Tatra, between Poland and Slovakia (1992)*
- *Krkokonose/ Karkonosze, between the Czech Republic and Poland (1992)*
- *Danube Delta, between Romania and Ukraine (1998)*
- *East Carpathians, between Poland, Slovakia and Ukraine (1998)*
- *Vosges du Nord/Pfälzerwald, between France and Germany (1998),*
- *Région du 'W' between Bénin, Burkina Faso and Niger (2002)*

It can be noted that the first five of these are located across the old boundaries of countries of Eastern Europe, created after the fall of the Berlin Wall, thus giving them a special symbolism on their contribution to peace building. The first non-European site was designated in Africa, in a site marked by the movements of wild animals and also cattle and their nomadic herders across large tracts of land in search of forage and water. Many more transboundary biosphere reserves are being planned in other parts of the world.

The political dimensions of transboundary biosphere reserves are very important. A TBR can be nominated only by the national authorities of the two or more countries concerned, which implies that they have the political will and commitment to cooperate. For this, in general this is manifested by a formal agreement signed at the ministerial level by the countries. Once nominated, it the International Coordinating Council of the MAB Programme (consisting of 34 countries) which officially approves designation, representing formal recognition by a UN institution of this bilateral or trilateral commitment.

Once the political decision to create a TBR has been taken and expressed publicly, the question remains whether the TBR should be established jointly in one step, or whether it should be based on two (or three) already existing biosphere reserves. Both approaches are possible, but in each case the same conditions apply; i.e, a zonation pattern should be defined in common and conform to the general criteria, joint activities

should be already carried out or foreseen and a mechanism should exists to identify and define the basis for the key issues for coos-border cooperation.

Although the recommendations for TBRs made a number of specific recommendations on the desirable types of coordination structures and means of their operations for TBRs, (for example the need for a special TBR structure with a permanent secretariat and budget), experience in existing TBRs has shown that lighter and more flexible cooperation mechanism can also exist and ensure some success. What has proved important is above all the political will to cooperate, and the day to day habit of exchanging information and working together with colleagues across the border, taking account of the historical context and cultural and linguistic differences. (UNECO, 2003) However, it is certain that in the absence of a special structure or of persons responsible for ensuring continuity of cooperation, the TBR cannot really function.

The 5th IUCN World Parks Congress, Durban, September 2003

Since 1972, IUCN has been organising every ten years a major Congress devoted to analysing progress in establishing and managing protected areas and setting the scene for the next decade for the parks professionals. The Fifth World Parks Congress was held in September 2003 in Durban, South Africa, and, with some 3000 participants, was the largest and most ambitious to date. It focussed on the theme of "benefits beyond boundaries", emphasizing how protected areas can no longer be considered as islands set aside in a "hostile sea of development", away from the interests of local communities. While this was in effect an NGO event, the results are highly important for UNESCO and its Member States for the following reasons:

- The results of this Congress have been taken into consideration in the preparation of a draft Programme of Work on protected areas, which will be examine and adopted by the CBD Conference of Parties in February 2004. At the CBD technical meeting on this programme of work in November 2003, it was agreed for example to include in the draft programme of work a section on "governance, participation, equity and benefit sharing", reflecting the emphasis given in Durban to community conservation initiatives (as oppose to top-down government protection), and the need for protected areas to provide and share economic benefits with the people that live within and around them. This latter aspect is critically important in poverty stricken regions.

- The World Parks Congress is also a meeting place for the world protected area professionals, whether managers in the field, academics, or representatives of conservation organisations at national, regional and international levels. Collectively the recommendations of the Parks Congress represent the main trends in thinking and action at the field level, and hence carry considerable authority.

In this context, it is to be noted that the Congress adopted a "new paradigm" for protected areas, which is introduced as follows:

In this changing world, we need a fresh an innovative approach to protected areas and their roe in broader conservation and development agenda. This approach demands the maintenance and enhancement of our core conservation goals, equitably integrating them with the interests of all affected people… We see protected areas as providers for benefits beyond boundaries, beyond the boundaries on a map, beyond the boundaries of nation states, across societies, genders and generations. (IUCN, 2003)

What is striking here is the convergence with the biosphere reserve approach, which argues that biosphere reserve principles have at last been generally accepted by the "conservation community". It points also to the relevance of biosphere reserves in integrating protected areas (the core areas with their buffer zones) into the broader landscape (in particular through the transition areas).

Transboundary conservation areas were also a highlight of the Congress – again pointing their topicality and relevance in current conservation thinking and planning. However, one must point out that the transboundary biosphere reserves has a major and non-negligible added value: it confers formal UN recognition of national actions, acknowledging the role of TBRs as a means for countries to implements an international agreement and to secure peaceful relations and scientific cooperation with their neighbours.

Conclusion

Biosphere reserves have made a key contribution to the intellectual processes which led to the ideas of sustainable development and the "Ecosystem Approach": as such they can be considered as a tool for testing out these ideas in practice. The notion of transboundary biosphere reserves has helped neighbouring countries to work together to conserve ecosystems on a larger scale and to foster peaceful relations, using the UNESCO designation as a symbol of long-term commitment. Biosphere reserves have also helped in the evolution of conservation thanking towards a "new paradigm" for protected areas, helping them in particular to be integrated into wider territorial planning.

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A villager in a biosphere reserve

Kauko Kangas, Ilomantsi, Finland

Abstract

People living in the North Karelia have a very positive attitude towards the biosphere reserve due to their possibility to participate and influence its implementation and activities. It is also common that biosphere specialists are asked to participate local development projects. General principles of biosphere reserves have also been found useful in the coordination of the Leader projects funded by the European Union (EU). The development programs of these projects, including the Leader-project of Vaara-Karjala, also take into consideration the general aims of the biosphere reserve. Both of these projects start from the premiss that it is important to consider opinions and needs of local people, communities, enterprisers, etc. These participatory approaches have yielded encouraging results for instance in Ilomantsi, Lieksa and Tuupovaara.

A famous resort among travellers is the easternmost point of the EU in the village of Hattuvaara. Participants of the development project of this resort are the biosphere reserve, local community, Border Guards and employment authorities of Ilomantsi. Due to its neutrality the biosphere reserve is capable to gather different kinds of interest groups together. In addition, international connections of the biosphere reserve are available for local projects, which often facilitate the implementation of these projects. The future aims, actions and needs of the North Karelian Biosphere Reserve are as follows:

- The biosphere reserve should cover the whole area of Ilomantsi, Lieksa, Tuupovaara and Eno;
- Adequate budget, i.e. enough founds for the development activities and personnel resources;
- Landscape programs for the villages of the area;
- Implementation of the sustainable development in practise; and Establishment of the registered association of the North Karelian Biosphere Reserve and working groups for planning the future.

(Translation: Kalle Eerikäinen)

Kyläläinen biosfäärialueella

Kauko Kangas, Ilomantsi

Tiivistelmä

Pohjois-Karjalassa biosfäärialue koetaan läheiseksi, koska rajaseudun kylien asukkaat tuntevat pystyvänsä vaikuttamaan toimintaan. Hyvästä yhteistyöstä kertoo parhaiten se, että usealla kylällä toivotaan biosfääri-ihmisten olevan entistä tiiviimmin mukana kylien toimintojen kehittämisessä.

Biosfäärialueen periaatteet on oivallettu toimivaksi myös eräissä EU:n rahoitusohjelmia toteuttavissa Leader toimintaryhmistä. Hyvä esimerkki on Vaara-Karjalan Leader, jonka voimassa oleva kehittämissuunnitelma on biosfääripainotteinen.

- Lähtökohtana molemmissa ohjelmissa on paikallinen ja alueellinen näkökohta. Biosfäärialue toimii asiantuntijana ja uusien toimintamallien kehittäjänä. Hankkeiden hakijana ja toteuttajana ovat kylät, yhteisöt, yritykset ja yrittäjät. -

Erityisen ilahduttavaa on se, että syrjäisten rajaseutujen perusasukkaat ovat sisäistäneet biosfääritoiminnan ja kokevat olevansa biosfääri-ihmisten kanssa tasavertaisia kumppaneita. Tästä on onnistuneita näyttöjä Ilomantsissa, Lieksassa ja Tuupovaarassa.

Aaron piha Ilomantsissa on loistava esimerkki siitä mitä saadaan aikaan kun historiallisesti arvokkaan pihapiirin omistaja oivaltaa hakea kumppanikseen biosfäärialueen toimijat. Taloudellisesti lähes mahdottomasta hankkeesta tulee hyvän kumppanuuden avulla totta ja muutaman vuoden kuluttua voidaan avata esiteltäväksi tasokas talonpoikaiskulttuurin museo.

Euroopan Unionin mantereen itäisimpään kolkkaan sijoittuva EU:n itäpiste on hyvä osoitus siitä, mitä hyvällä yhteistyöllä ja lujalla tahdolla saadaan aikaan. Venäjän ja Suomen rajan rajavyöhykkeelle suosituksi matkailijoiden käyntikohteeksi noussut EU:n itäpiste syntyi biosfäärialueen, Hattuvaaran kyläläisten, Rajavartiolaitoksen ja Ilomantsin työvoimaviranomaisten yhteistoimin.

Neutraalina toimijana biosfäärialue pystyy kokoamaan erilaisia ryhmiä yhteen ja hankkimaan toimintaan laajempia, tarvittaessa kansainvälisiä, ulottuvuuksia. Tästä on hyvänä esimerkkinä Ilomantsin Hattuvaarassa käynnistymisvaiheessa olevat hankkeet, joista voitaneen mainita emolehmien kasvatukseen liittyvä hanke.

Samoin suokeskuksen rakentaminen ja savotta- ja viljelyperinteeseen liittyvän Hoskolan kartanon kunnostaminen näyttely- ja käyntikohteeksi.

Merkittäviä toimia ovat kylien maisemointiin liittyvät hankkeet, joita useilla kylillä toivotaan käynnistettävän.

Tulevaisuuden osalta keskeiselle sijalle Pohjois-Karjalan biosfäärialueen toiminnan kehittämistyössä nousevat:

- alue käsittämään kokonaan Ilomantsin, Lieksan, Tuupovaaran sekä Enon alueet
- budjetti, joka turvaa toiminnan laajentamisen ja henkilöresurssien kasvattamisen

- tulevaisuusryhmien toiminnan käynnistäminen ja koordinointi
- kestävän kehityksen "vienti" kentälle käytäntöön
- kylien maisemointiohjelman laatiminen ja toteuttaminen
- Pohjois-Karjalan biosfäärialue ry:n perustaminen kokoamaan innostuneita yhteen ja toimimaan "isättömien" hankkeiden rahoituksen hakijana

A villager in a biosphere reserve

Biosphere reserve is a concept not so widely known. When the name was heard the first time in the beginning of 1990's, suspicions arouse whether a biosphere reserve is only a new name for conventional nature protection. Protection programmes had caused bitter conflicts between landowners and protectionists. Too often the local people were forgotten in the protection processes and the suspicions were more than justified.

It gradually became evident, that biosphere reserves always also involve local people and work with them. Thus, in spite of the strange name and complex concept, biosphere reserve could also be used for those things being valued by the villages and villagers. Biosphere reserve is a tool, to be used for the benefit of the villages – new hands repairing old, valuable buildings, maintaining traditional village sceneries, new thinking and new opportunities.

North Karelia biosphere reserve was established in 1992 during a severe recession and the activities started with minor resources. Ilomantsi municipality, Ilomantsi labour office, Metsähallitus, University of Joensuu Mekrijärvi research station and some of the area's villages were among the first collaborators and unprejudiced enough to see the opportunites and give the new activities a chance. New contacts were created and soon several new development projects were running. Village activities lead to new credibitity. Finland's joining to the European Union in 1995 brought also new opportunities in rural and border area development. Today the activities are widely known and also accepted, and a good example about the spreading of the biosphere reserve thinking is Vaara-Karjala Leader+ -programme. This EU programme incorporates biosphere reserve ideology about local participation, sustainable development and extensive local, regional, national and international contacts.

Biosphere reserve activities in the villages started by development of waste management programmes. Composting, management of toxic wastes, working with schools and creating new teaching materials were successful. The municipal toxic waste station was built to the munipality centre as biosphere reserve co-operation. Co-operation with local orthodox parish started with somewhat unorthodox manner, when father Rauno, the vicar of the parish, participated in the inauguration ceremony of the building and gave church blessing to the new activities.

The unorthodox union of mundane and church activities lead to new areas being conquered. North Karelia biosphere reserve was active in helping Sonkaja village to build a new chapel (tsasouna) to the village. Also the village school was renovated together with the villagers for village and biosphere reserve activities. Simultaneously management of the traditional landscapes was started because decrease in agriculture inflicted uncontrolled invasion of bushes and gradual loss of sceneries was evident. Landscape management has extended widely over the area and the work is still needed and ongoing.



Cultural heritage is present in North Karelia biosphere reserve

After Finland joining the EU, it was noticed that the easternmost place of continental art of EU is situated at the border between Russia and Finland, in Ilomantsi – and also in North Karelia biosphere reserve. Biosphere reserve gathered people from Hattuvaara village, Ilomantsi municipality, Ilomantsi labour office and frontier guards. It was soon decided that a hut will be built in the easternmost corner of EU to serve visitors. EU's eastermost corner has became a well known and popular visititing place, which gives work for Hattuvaara village. Visitors guiding and food services can be ordered from Hattuvaara. The area hs since then been under constant development measures.

Aaron piha (Aaro's yard) in Ilomantsi is a splendid example what can be achieved when the biosphere reserve and the owner of a historically valuable milieu will work together for a common goal. Co-operation has made possible a programme being otherwise economically quite impossible.

The working partnership has been the key to success. The owner's activeness and co-operation with the nearby village school and Ilomamtsi labour office have constantly brought in new ideas and guaranteed progress on one field when another has temporarily got stuck. Finishing of this process is important, because Aaron piha is going to be, e.g., a new teaching environment for the local school and for visiting groups.

The biosphere reserve has been a partner in repairing several village houses, old wooden storehouses have been renovated, new traditional wooden fences have been built. Biosphere reserve has created the idea to establish a so called Fennoscandian Green Belt Nature Centre at Ilomantsi to colledt the information about the border area activities and nature in the same place. Green Belt Nature Centre would also be a gate to the border area verstile tourism services, including the Russian side adjacent to Ilomantsi and Lieksa.

North Karelia biosphere reserve is like an umbrella – it co-operates in the biosphere reserve and also outside it. Biosphere reserve thinking and working models have been already moved into various development programmes, as Vaara-Karjala Leader+ and North Karelia development programme POKAT 2006 (concerning Ilomantsi and Tuupovaara municipalities. Karjalan Luontokoulu (Karelia Nature School) is a new association promoting environmental education. Biosphere reserve concept are incorporated into these activities, too.

The reason why North Karelia biosphere reserve has been accepted in the area lies largely in the fact that the activities are near the local people. The actors also work with the people in the villages and try not to be distant. By giving help in planning various activities and structures, using local services, even providing ready drawings for, e.g., renovations work, the biosphere reserve has shown to the local people there being a real companion to work with them. Not a one dictating the terms of co-operation but a one listening to the local worries and sometimes guiding with a soft

By being active in the village, giving expertise and supervising work, by emplying villagers together with labour office, the biosphere reserve has been able to carry out projects important for the villages. This has on the other hand brought villagers as good partners into the activities.

International co-operation has all the time been visible in North Karelia biosphere reserve activities. Projects together with Russian Karelia have created new structures for nature tourism and plans & concrete actions for protecing biodiversity. Also middle Europe has been included in the co-operation sphere. At the moment there are plans to work more tightly with Estonia, joining the EU in Spring 2004. The biosphere reserve network, now comprising of more than 400 areas, is great enough to guarantee versatile opportunities and help to this work. European Union is also a good tool in co-operation.

New contacts in research, administration and training/education help to maintain effective activities and achieve results. Networking – co-operation of congenial partners – is the key to success.



Making shingles for roofs.

The future actions

The future is not waiting – it has to be done. There are a few prerequisites for future successes.

The present biosphere reserve is too limited and does not allow regional, economic analyses. It seems obvious that the area is to be extended to cover, e.g., Lieksa, Eno, Tuupovaara and Eno. This type of extension would make the area more uniform, visible and economically feasible.

North Karelia biosphere reserve has not a budget of it's own to safeguard proper development. Seed money for projects, and for a few more workers is needed. Research and planning are essential for the reserve but the most remote areas with very few actors cannot provide help in these.

All municipalities need to have a place for the youth – a workshop for future - to do things and meet each other. These workshops can provide some of the youngsters with activities and values. Respect of nature is one of the basic values to be promoted.

Sustainable development ideology needs to be promoted "in the field". It means unbreakable information dissemination, working with the people, showing environmentally

friendly practices. There already are lots of administrational strict rules, the biosphere reserve can apply these rules and make them understandable and also acceptable. The villages are eager to work for their own environment, but they need more information. Cultural heritage, such as old valuable buildings need to be listed soon. There still a a few valuable buildings in all villages, but their condition is getting worse because most of them are not in use any more. They should be included in a cultural heritage programme and the ruining is to be stopped by making first new roofs and, afterwords, a more complete renovation.

Establishment of an association to support North Karelia biosphere reserve would bring in more active people and a good actor for new projects. At best the biosphere reserve is like an ants' nest. There are different specialists working in their on fields for common benefit. And the people and nature are making well.



Making shingle roof in Ilomantsi.

The Green Belt of Fennoscandia: from idea to reality

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Abstract

The history of the development of the idea of the Green Belt of Fennoscandia is summarised. Strict nature reserves, nature reserves, national and nature parks designated lately in Russia especially along the Russian - Finnish border, have become an essential component of the developing pan-European network of protected areas. Russian areas together with their Finnish counterparts create a favourable setup for effective international co-operation and integration in the socio-economic sphere and nature conservation, including biodiversity. Green Belt of Fennoscandia, integrating the unique nature and cultural monuments along the border between Russia and Finland, is of pan-European environmental, historical and cultural value, and deserves being included in the UNESCO World Heritage List.

Tiivistelmä

Artikkelissa luodaan historiallinen katsaus Fennoskandian Green-Belt suojeluverkko-ajatuksen syntyyn ja kehitykseen. Tiukasti suojellut luonnonpuistot, muut luonnonreservaatit ja kansallispuistot, jotka on perustettu Venäjän puolelle pitkien Venäjän ja Suomen rajaa, muodostavat perusverkon yleiseurooppalaisen suojeluverkon kehittämiselle.

Venäjän suojelualueet yhdessä Suomen vastaavien suojelualueiden kanssa luovat hyvän mahdollisuuden yhteistyölle niin sosio-ekonomisissa kysymyksissä kuin myös luonnonsuojelussa mukaanlukien biodiversiteetin suojelun.

Fennoscandian suojeluverkko yhdistäessään Venäjän ja Suomen rajan molemmilla puolilla sijaitsevat ainutlaatuiset luonnon ja kulttuurin monumentit, on myös yleiseurooppalaisesta ympäristön, historian ja kulttuurin näkökulmasta arvokas ja voitaisiin pyrkiä sisällyttämään UNESCOn maailmanperintölistaan. (Jari Parviainen)

The Green Belt of Fennoscandia: from idea to reality

The Green Belt of Fennoscandia was a collective initiative of Russian and Finnish scientists put forward in the first half of the 1990s (Titov et al. 1995). The idea consisted of step-wise establishment of the network of protected areas (PA) along the Russian-Finnish border. In 1998, documents were compiled so as to nominate the Green Belt of Fennoscandia a World Heritage Site. The Belt in question comprising of PA from the Pasvik strict nature reserve in the north to the Ladoga Skerries planned national park



Fig. 1. Green Belt of Fennoscandia. Both planned and existing PA are shown.

in the south (Kleinn, 1998). PAs on both sides of the border would complement each other in securing conservation of natural communities and biological diversity (BD) of northern taiga, maintaining and improving the ecological conditions in the region and promoting the principles of sustainable nature management and international collaboration in nature protection.

The core of the Green Belt (fig. 1) is 15 existing and planned PA with a total area of 9700 km^2 on the Russian side and 36 operating reserves and national parks with a total area of 9500 km^2 in Finland (Friman and Högmander 2001). These areas comprise vast tracts of virgin coniferous forests with their specific floral and faunal diversity.

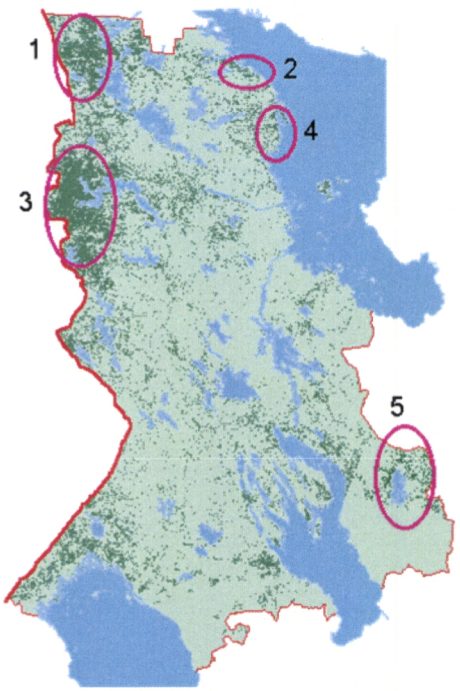

Fig. 2. Coniferous forests older than 120 years in Karelia. Data from 1997-2000 scanned satellite images treated by P. Litinsky. Numbers mark areas with the largest fragments of pristine forest. 1. Spruce forests in the low-montane north-taiga landscape (Lake Paanajärvi area, Paanajärvi NP); 2. Pine forests in the rocky north-taiga landscape (northern Karelian coast of the White Sea, south of the planned Keretsky NP in the Keret' river mouth); 3. Pine forests in the north-taiga tectonic denudation landscape (west of Lake Kuito, within the Kostomukshsky strict nature reserve and the planned Kalevalsky NP); 4. Spruce forests in the flat heavily paludified coastal landscape (northern Karelian coast of the White Sea, planned Syrovatka landscape reserve); 5. Coniferous forests in mid-taiga predominantly morainic landscapes (Lake Vodlozero area, within the southern Vodlozersky NP).

The recently designated Russian reserves and national parks, especially those in the border area, have become an essential component of the developing pan-European PA network which has taken the course of gradual "harmonisation" and integration of national and regional conservation programmes. The prerequisites for more effective international co-operation in the conservation of floral and faunal diversity as well as key habitats are thus established. Green Belt biodiversity consists of unique North European nature complexes of also global value and of a great number of rare and endemic species, the conservation of which Russia (and hence also Republic of Karelia) is particularly responsible for. Thus, the Republic's tasks in habitat and BD conservation correspond with both regional and European priorities.

The basic nature protection principles suggest that a primary concern is preservation of the habitats that are shrinking or getting transformed, with their essential characteristics rapidly changing. It is clear therefore that preservation of pristine forests not disturbed by economic activities or other human impacts is a priority. At present, forests of this kind in Karelia are well represented in waterside shelter belts on the White Sea coast, the Kostomukshsky strict nature reserve, Paanajärvi and Vodlozersky national parks in an area of more than 1400 km^2 (fig. 2). All other European PA larger than 1000 km^2 represent tundra communities with treeless mires or slowly growing open forest. In view of all these facts, feasibility studies for four new national parks (Kalevalsky, Tulos, Koitajoki-Tolvajärvi, Ladoga Skerries) were prepared in 1999-2001

It should be stressed that PA designation is always preceded by years of multidisciplinary research with habitat inventory and assessment of the floral and faunal diversity. The evaluation criteria for PA-to-be are both their uniqueness and how well they complement the existing PA network.



Fig. 3. Forests of the Kalevalsky National Park. Photos by A. Shelekhov and A. Krylov

Surveys carried out in the over 600-km-long and up to 60-km-wide border zone between Karelia and Finland revealed the most valuable areas for nature protection. Their size, boundaries and requirements for the conservation of the key forest communities shaping the specific landscape, ecological and zonal characteristics of taiga communities were defined. The most remarkable object in this respect is unique coniferous forests of the Kalevalsky National Park (the designation of it was scheduled for the second half of 2003), which cover over 680 km^2 (70% of the park territory). Their average age is 120-150 years (fig. 3). Besides, 200-year-old spruce and more than 300-year-old rupicolous pine forests have also been found. The oldest trees have survived to an age of 500 years. It has been concluded that the forests are of natural post-fire genesis, and although selective felling has been done there, they can still be regarded a standard for the north-taiga subzone of Fennoscandia (Kalevalsky National Park: proposals for designation, 2001).

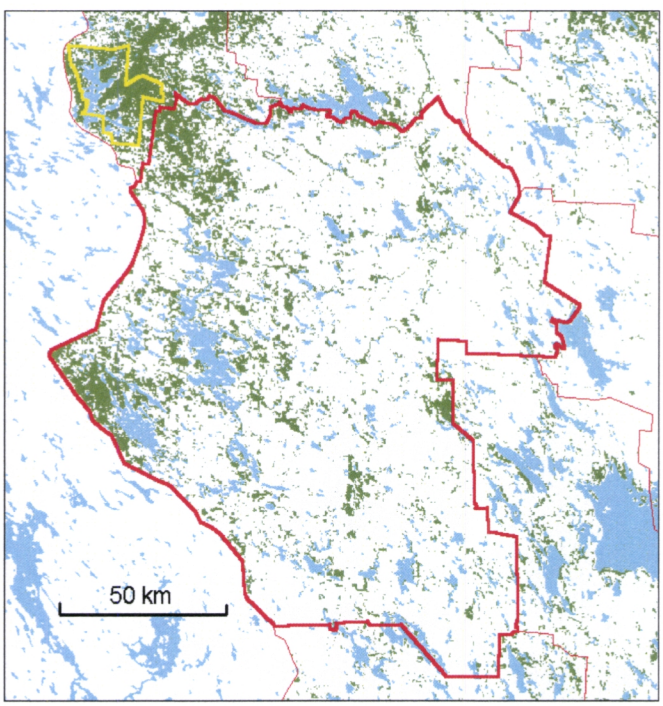

Fig. 4. Coniferous forests older than 120 years in the Muezersky District. Data from 2000 satellite images. Images treated by P. Litinsky. Yellow line in the top left-hand corner shows the boundaries of the Kostomukshsky reserve.

In areas furthe r south (planned Tulos and Koitajoki-Tolvajärvi parks), protected forests cover about 900 km^2 (fig. 4). Intensive logging operations had more or less recently taken place throughout the territory surveyed. Yet, fairly large fragments of pristine forest (to 20 km^2) older than 180 years have survived (Tulos National Park: proposals for designation, 2001; Koitajoki-Tolvajärvi National Park: proposals for designation, 2001).

The forested area of the planned Ladoga Skerries National Park is also quite significant –over 380 km^2. Although the proportion of old-growth forests in the park is low (3.7%), they are of considerable interest, being represented by unique forest communities of islands, skerries (long narrow bays) and Lake Ladoga shore (Ladoga Skerries National Park: proposals for designation, 2001).

Taken altogether, the parks designated now and planned to be designated in the future are expected to secure preservation of old-growth forests in an area of more 1,500 km^2, and to maintain the peculiar features of Karelia's flora and fauna, which is noted for high species richness in the south and a somewhat less rich but peculiar composition in the nort(table1.).

Table 1. Species diversity (no of species) of some floral and faunal groups in the planned national parks in the Republic of Karelia (Russian Federation).

	Park			
	Kalevalsky	Tulos	Koitajoki-Tolvajärvi	LadogaSkerries
Vascular plants	429	352	324/372	748
Mosses	160	106	132	350
Mammals	37	40	42	49
Birds	127	128	122/146	246
Fishes	12	14	11	58

The nomination documents suggest the national park status for all PA listed above. The choice was primarily stipulated by the fact that the natural complexes and objects represented there were of special ecological, historical and cultural value, and could potentially be used for nature protection, recreational, educational and research purposes. Furthermore, national parks act as a new and promising form of economic activities for these parts of the Republic. Unique nature, coupled with numerous cultural and historical monuments, living ethnographic and folklore traditions of rune-singing villages, the "Kalevala" epic provide a solid basis for tourism development and sustainable nature management.

The national park management plans and functional zoning of the territory that are now available enabled scientifically-grounded recommendations on the volumes and types of nature uses to be developed for each PA. Hunting is the only activity totally forbidden in national parks. Simultaneously, revival of traditional nature uses, recultivation of abandoned and degraded grassland and agricultural landscapes are encouraged. The human population of northern districts of Karelia being sparse and declining, the newly designated PA are to help reinvigorate and develop the economy of forest villages by broadening the range of economic activities and creating new jobs in forestry, agriculture and tourism. Nature tourism is the sphere of employment viewed as the most promising one for all parks. Naturally, organisation of national parks is to become an essential step towards strengthening cross-border co-operation in general.

At the moment, only the Paanajärvi National Park and Kostomukshsky strict nature reserve are quite active in developing nature tourism in borderline areas. Yet, tourism infrastructure has lately been developed also in the Suojärvi, Muezerka and Kalevala districts with support from various foundations and programmes. An example is the walking and water routes with on-route resting facilities that have already been put into operation in Koitajoki-Tolvajärvi. The construction of stopping sites along River Leksozera water routes is nearing completion. The infrastructure thus created is in fact the starting point for the development of a new economic activity in the region.

We believe the Green Belt of Fennoscandia to be a unique for Europe natural and socio-economic project, which current phase requires collaborative efforts of both scientists and governmental and municipal officials, potentially giving it the chance of becoming a UNESCO World Heritage Site.

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Tuomo Kotimäki, Indufor Oy/Metsähallitus Group
Alla Gudym & Vladimir Tigushkin, Vodlozero National Park

Artikkelissa esitellään pilottiprojekti, jossa pyritään lisäämään kansallispuistojen luonto- ja kulttuuriarvojen tehokkaammalla käytöllä paikallisen ja puistoja ympäröivän alueen väestön elinmahdollisuuksia ja kehittymistä. Kysessä ovat Kenozeron ja Vodlozeron kansallispuistot Luoteis-Venäjällä. Projektin yksi keskeinen elementti on pohjoismainen yhteistyö ja pohjoismaissa saavutetun kokemuksen siirto Venäjän alueelle.

National parks, local authorities and population – in the pursue of joint socio-economic benefits; A pilot project in the regions of the Kenozero and Vodlozero National Parks in Northwest Russia

The role of commercial forestry has declined in the regions of Kargopol (Arkhangelsk Oblast) and Pudoz (Republic of Karelia) due to changes in utilisation of forest resources and establishment of protected areas. Consequently, local population has lost a great part of their traditional livelihoods derived from timber logging. Unemployment is high and many social problems have emerged. Parks and local administrations have not been able to create compensating employment. The economic potential posed by the National Parks is not under proper utilisation. The situation has been similar in Nordic countries in the regions, where new protected areas have been established. Everywhere the key question has been how these regions and rural communities can survive and adjust themselves in the significant changes in land use circumstances.

The local actors are willing to co-operate in finding new ways to utilise natural resources, rehabilitate local economies and create more sustainable social situation. Nordic co-operation can give a decisive impact in the start-up of a positive and sustainable development.

Aim of the project

The project aims to promote the livelihoods of rural areas, which are influenced by the Kenozero and Vodlozero National Parks, through the better utilisation of economic and cultural potential of the parks. To this end, the project provides support for the strengthening of collaboration between local actors (parks, authorities, population) and the development of business skills of local SMEs. The project gains from the Nordic

co-operation through the wider expertise and variety of models of socio-economic development and survival of rural areas affected by national parks in Nordic countries. The project also aims to strengthen contacts and networks between the Northwest Russian target areas and Nordic countries at institutional as well as personal level.

To reach its aim the project has three main objectives:Promotion of participatory approach between local actors (parks, authorities, population) in the planning and implementation of local economic strategies and activities; Strengthening of collaboration between Russian target areas and Nordic countries in finding models for rural development, creation of networks and joint marketing efforts for the promotion of regions Development of local entrepreneurship, especially female and family SMEs, as a key actor for the provision of needed products and services and to carry on the results of the project The expected results include:

- Collaboration of local actors has improved
- Local actors have learnt methods of participatory planning process
- Joint understanding of the economic roles of actors is adopted
- Market potential of the target areas has been assessed
- Most potential enterprises have been selected (special emphasis is placed on female ones) for the intensive business training and tutoring and has resulted in the improvement of their business skills
- Improved and new services and a variety of products based on natural resources have been created to fulfil needs of visitors and local consumption. Also first schemes for joint Nordic-Russian tourism products have been developed.
- Nordic network between participating regions has been created
- Possibilities of Nordic-NWR marketing activities are studied and initial marketing steps have been taken

Main Results already Achieved in the Project

Participatory planning workshops

The purpose of a series of workshops was to learn participatory planning methods to be used in district and regional development in utilisation of natural resources in national parks and the near-by areas. The series of workshops formed a continuous process so that new methods and means learnt were used in the next workshop. Skills, essence and benefits of participatory planning and implementation were learnt to be committed to co-operation and networking. Present situation and development potentials were analysed, development goals of the districts were set and a strategy to achieve goals was prepared. The project has provided a neutral and structured platform for a deeper analysis and further discussions. In the joint seminar the thematic groups met to exchange experience and discuss on business, culture and administrative co-operation. The

thematic groups were focused on tourism, farm and nature products and administrational issues in districts, regions and national parks. During the seminar both regions were preparing regional visions and strategies for the +development utilisation of natural resources around national parks and villages.

Market survey

The Project carried out a Market Survey to find out present demand concerning products and services of the target area, making a survey of the change of the markets during the last three years and to prepare the prognosis of the future demand in various customer groups. Market Survey showed a clear trend in the increase of tourism industry in both regions and anticipated the need for various services to grow considerable, e.g. demand for accommodation services will double from the year 2000 to 2004. This trend makes it possible to involve more local people in tourism industry and strengthens possibilities to make better livelihood. Especially, the rapid expansion of demand of domestic tourists looks evident. The other growing sector is utilisation of non-wood forest products. To make it successful requires considerable inputs in upgrading of skills to process natural produce, building of networks of entrepreneurs, installing of processing technology and establishment of trading system.

Collaboration seminar

During Participatory Workshops an issue was raised up on how to improve collaboration between Kuganavolok Village and Vodlozero National Park. The village is situated inside the National Park in the southern part of the Park. The participants in the workshop made their personal proposals how to improve the situation. Based on those proposals a special Kuganavolok Seminar was held in 2002. It ended up to a memorandum of mutual interests and a proposal how to continue the work. Also a supporting village project "Children of Kuganavolok in Search of their History" was initiated for the development of the cultural points in the village school.

Business planning and partnering workshop

The Business Planning Workshops were organised in both districts having a focus on the following main themes:

1. Understanding customer behaviour and customer service;
2. Development of products and services of national parks; and
3. Business analysis

There were almost 30 participants and six Finnish experts giving training for the existing and becoming entrepreneurs and administrators working in areas in and around national

parks. Workshops concretely focused on creation of networks between Finnish and Russian entrepreneurs and brought forward models about co-operation in the development of tourist attractions, products and services in Finland. Differences in customer behaviour were studied in the context of cultural and historical aspects.

Best product and service idea of the year 2002

The Project launched in both districts the competition on the best new product or service idea of the year 2002. Product or service must be based on local resources, carried out by local people and it should have a connection to the national park. The winner got a small sum of money, 500 €, for the further development of her/his idea into a final product. The local administration provided a "Runner-up" Prize for the best competitor to the winner.

The results of the competition were very promising. Entrepreneurs were rather modest to present their ideas publicly. Kargopol entrepreneurs submitted four proposals, among which the jury could not find any clear winner, so it decided to grant second prize to two proposals and third prize also to two proposals. The winners had business ideas to cover meeting and workshop arrangements in historical village of Ledino including traditional catering, Bed & Breakfast services and guided tours. The other second prize winner was proposing commercial use of Potentilla anserine (local medicinal herb), organising of its collection and pre-processing. This herb has traditionally been used as home-made medicine for treatment of diseases like bronchitis and gastric infections. Also in Pudozh four proposals were given and the jury awarded three prices. The winning proposal to develop guided fishing trips on Vodlozero Lake takes into account very well interests of a local village, Kuganavolok and Vodlozero National Park. The originality of the idea is to use traditional fishing method –drag seine. The business idea is well developed and includes various phases of implementation. It is also possible to develop complimentary products around the core product. The 2nd prize went to a new enterprise "Rodnik" having old living houses in a picturesque Karelian village of Pjalma.

New schemes for rural livelihoods and tourist sights

In June 2003 creation of networks between Russian administrators and entrepreneurs continued successfully. Project partners and stakeholders from Kargopol and Kenozero visited in Pudozh and Vodlozero. They attended a common seminar to improve knowledge in rural livelihoods, to find new alternatives for income generation in farms and to adjust farm production towards new markets. Preparation of business plans for individual businesses were continued. Along the seminar several excursions were made to Vodlozero National Park, Besov Nos Rock Paintings, Pyalma Old Village and other attractive sights and tourist places.

The Project has one focus in farm production and how to adjust that to serve visitors and their needs for local products. It was explained how modern farms are seeking for new product alternatives to enhance income generation. Farms are nowadays transferred to produce special products and they may also provide other complimentary activities for tourists and other interested groups. Vivid discussions were held with participants who are tackling with problems to market their basic products. The proposal to have consultation with entrepreneurs in their farms was taken up with delight. A series of an individual consultations were later held, in which the expert goes from one interested farm to another to make an analysis and recommendation how to change production to serve better customer needs and requirements.

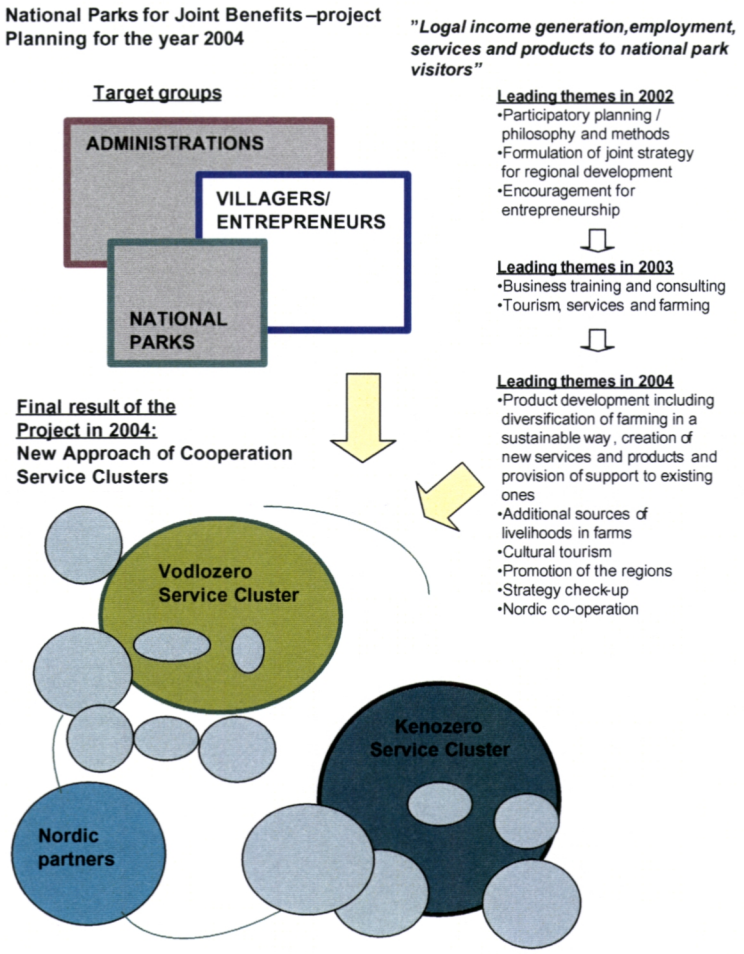
Study tour to Finland and Sweden

In September almost 30 participants of the project visited Finland and a smaller group went to Sweden to learn about Finnish and Swedish methods and arrangements around national parks and other protected areas. The main theme was focusing on co-operation between local administrations, protected area administration and entrepreneurs. Special village programmes were presented in Lieksa and Ilomantsi and network of entrepreneurs in Ruunaa Area. Similar objects were also seen in Vasterbotten in Sweden. There was also business partnering meetings and discussions on how to expand collaboration between parties.

Individual business plans

Consultations are going on in individual business plans to improve the quality of products and services in and around national parks. Especially, in Vodlozero National Park there are several new entrepreneurs who are collaborating with the park. They are doing their business in very serious way and they are anxious to safeguard the good image of the park. The same applies with the new entrepreneurs in Kenozero National Park and the surrounding villages.

The Project has established an Internet page in English and Russian to promote activities and to deliver and disseminate the results for a wider audience. The address of the page is: www.parksandbenefits.com



Service clusters are designed to promote local livelihoods in and around national parks. They include services provided by national parks, villagers, local entrepreneurs and administrations for visitors and local population and are based on joint strategy work during the project. The clusters area agreed upon and promoted jointly.

Service clusters give a comprehensive description on what is available and where by presenting short key information on services and products (e.g. bed and breakfast providers, cottages, fishing tours, transport services, interpretation, guides, meals, etc.) and contact details of their producers. Information is available on Internet –pages of all partners and it provides part of marketing material of target groups. Service clusters are also made known through media.

Animal movements across borders – a threat or benefit to borderland people

Kaarina Kauhala, Finnish Game and Fisheries Research Institute

Abstract

The raccoon dog was introduced to the former Soviet Union during the first half of the 20th century and it also colonised Finland in a few decades. Today it is among the most common medium-sized carnivores in the country. Grey wolves and brown bears were hunted intensively and became very sparse in the early 20th century. Viable populations remained, however, in Russian Karelia, and wolves and bears have immigrated to eastern Finland from Russia. The populations have thus increased in Finland, and now there are breeding populations also in this country. There are about 135 wolves and 830 bears in Finland today. The wild forest reindeer became extinct in Finland a hundred years ago. Since a viable population again remained in Russia, some reindeer immigrated to eastern Finland in the 1950, and today there is a population of at least 2 500 animals in the country.

Large carnivores may compete for game animals with people, they can kill domestic animals and some people even consider them as a threat to man. On the other hand, they give unforgettable nature experiences and they could be a valuable resource for tourism and draw people to national parks. The raccoon dog is a fur animal and it seems to be rather harmless to small game animals, but it can be a vector of diseases and parasites that can threaten native fauna and even people. The wild forest reindeer has been welcomed to Finland.

Eliöiden siirtyminen yli rajojen - uhka vai etu rajaseudun ihmisille?

Kaarina Kauhala, Riista- ja kalatalouden tutkimuslaitos

Tiivistelmä

Suomeen on viimeksi kuluneiden sadan vuoden aikana tullut idästä tai kaakosta useita uusia nisäkäslajeja. Näihin kuuluvat supikoira, metsäkauris, villisika ja rusakko. Lisäksi alkuperäiseen faunaamme kuuluvat suurpedot ja metsäpeura ovat palanneet tai saaneet huomattavaa täydennystä itärajan takaa. Keskityn tässä esityksessä muutamaan esimerkkiin: supikoiraan, suteen, karhuun ja metsäpeuraan.

Venäläiset istuttivat 1900-luvun alkupuolella supikoiria Itä-Aasiasta silloisen Neuvostoliiton länsiosiin saadakseen uuden arvokkaan turkiseläimen luontoon. Näistä istutuksista käsin supikoira levisi Suomeen kaakosta 1950-luvulta alkaen. 1980-luvulla kanta saavutti nykyisen levinneisyytensä maassamme. Nykyisin supikoira on yleisimpiä pienpetojamme. Kanta-arvio on noin 70 000-80 000 aikuista ja vuotuinen metsästyssaalis 86 000.

Supikoira on kaikkiruokainen keräilijä. Se on kömpelö ja hidasliikkeinen ja sillä on pienet kulma- ja raateluhampaat. Ravinnosta suurin osa pikkunisäkkäitä, mutta se syö paljon myös kasveja, hyönteisiä, sammakoita ja raatoja. Sen ravinnossa on jonkin verran lintuja ja niiden munia. Riistaa se saalistaa kuitenkin vain vähän, joten sen merkitys esim. vesilinnustolle lienee odotettua vähäisempi. Supikoira voi kuitenkin levittää tauteja ja loisia, kuten rabiesta ja trikinelloosia. Toisaalta supikoiraa voidaan pitää arvokkaana turkisriistana.

1800-luvun lopulla Suomen susikanta hupeni metsästyksen takia. Susikantamme oli sukupuuton partaalla 1920-luvulla. Kanta sai kuitenkin täydennystä Venäjän Karjalasta. Susien runsaudessa on ollut jaksottaista vaihtelua, joka on johtunut Venäjän susikannan muutoksista. Nykyisin Suomessa on oma pesivä susikanta, jonka koko on vähintään 135 yksilöä. Suomen susikanta on edelleen vahvasti itäpainotteinen, vaikka susia liikkuu Länsi-Suomessakin. Susi koetaan ongelmaksi tiheän kannan alueilla ennen muuta sen aiheuttamien kotieläinvahinkojen takia. Susi myös verottaa alueen hirvikantaa. Susi on kuitenkin edelleen uhanalainen ja kuuluu Suomen alkuperäiseen luontoon. Suden olemassaoloa voitaisiin kenties hyödyntää elämysmatkailussa.

Myös karhukantamme hupeni voimakkaasti 1800-luvun lopulla ja 1900-luvun alkupuolella. Syynä oli liiallinen metsästys; karhu koettiin uhkaksi karjankasvatukselle. Karhut joutuivat vetäytymään Lapin perukoille ja itärajan tuntumaan. Karhu on kuitenkin runsastunut viime vuosikymmenien aikana, koska kanta on saanut täydennystä itärajan takaa. Muuttoliike Suomeen on keskittynyt Ilomantsin, Tohmajärven, Parikkalan ja Imatran alueille. Nyt karhuja on vähintään 830 yksilöä. Karhuja on kaadettu 1990-luvulla noin 50 vuosittain. Ilman itärajan takaa tulevaa täydennystä näin suuri kaatomäärä olisi johtanut karhukannan pienenemiseen. Eniten karhuja on Kymen riistanhoitopiirin itäosissa, Pohjois-Karjalassa, Kainuussa ja Savossa. Myös Keski-Suomessa paikoin runsas karhukanta.

Suden tavoin karhu voi aiheuttaa kotieläinvahinkoja mukaan lukien vahingot mehiläistarhoilla. Karhu koetaan paikoin uhkaksi myös ihmiselle. Varsinkin keväällä karhu kaataa myös hirviä. Suden tavoin karhua voidaan hyödyntää elämysmatkailussa. Myös karhun metsästys on monille tärkeä elämys. Lisäksi sen liha on syötävää.

Metsäpeura hävisi Suomesta noin sata vuotta sitten liiallisen metsästyksen takia. 1950-luvulla metsäpeuroja ilmestyi Kuhmon itäosiin rajan yli. Nyt Kainuussa on jo vankka kanta. Peuroja on myös Keski-Suomessa siirtoistutuksen ansiosta. Suomi on saanut arvokkaan riistaeläimensä takaisin.

Suurpedot kilpailevat siis osin samasta riistasta ihmisen kanssa, ne voivat aiheuttaa kotieläinvahinkoja ja ne koetaan jossain määrin myös uhkaksi ihmiselle. Toisaalta ne tarjoavat unohtumattomia luontoelämyksiä ja niitä voitaisiin hyödyntää enemmän elämysmatkailussa. Supikoira on riistalle kohtalaisen harmiton, mutta sen levittämät taudit ja loiset voivat olla uhkana alkuperäiselle eläimistölle tai ihmiselle.

Animal movements across borders – a threat or benefit to borderland people

New species and re-colonisation

Several new mammal species have invaded to Finland from east or south-east during the last century. The new fauna include the raccoon dog (Nyctereutes procyonoides), wild boar (Sus scrofa) and European hare (Lepus europaeus). Also some roe deer (Capreolus capreolus) have wandered to Finland from the south-east (Nummi 1988). Large carnivores (the grey wolf Canis lupus, brown bear Ursus arctos, lynx Lynx lynx ja wolverine Gulo gulo) and the wild forest reindeer (Rangifer tarandus fennicus), which belong to the original fauna of Finland, have returned or their populations have increased due to individuals that have crossed the eastern border of Finland. In this presentation I focus on a few examples: the raccoon dog, wolf, brown bear and forest reindeer.

Raccoon dog – a vector of diseases and parasites

Russians introduced raccoon dogs from the Far East into the western parts of the former Soviet Union during the first half of the 20th century in order to get a new valuable fur animal in the wild (Lavrov 1971, Helle & Kauhala 1991). Some of the introductions were made rather close to the border of Finland, e.g. in Estonia and in the Karelian Istmus. From these introductions the raccoon dog spread also to Finland. The first observations of the species in Finland were made as early as in the 1930s and 1940s, and in the 1950s, the raccoon dog really started to colonise Finland from the south-east. A couple of decades later the southern and central parts of the country were inhabited by raccoon dogs. The population reached the present distribution and abundance in Finland during the 1980s. Today the raccoon dog is among the most abundant medium-sized carnivores in the country. A rough estimation of the population size gives about 70 000 – 80 000 adults, the mean annual bag being 86 000 individuals.

The raccoon dog is an omnivore gatherer rather than a skilful hunter. It is a clumsy and slow animal with small canine and carnassial teeth. Small mammals constitute the major part of its diet, but it also consumes fruit and berries, insects, frogs, lizards and carrion (Kauhala et al. 1998). It often visits compost heaps. Its diet also includes some birds and eggs. It preys only rarely on game animals, however, and its impact e.g. on waterfowl populations seems to be of minor importance.

The raccoon dog may, however, be an important vector of diseases and parasites like rabies and trichinosis (Müller 2000, Sukura 2003). The raccoon dog was the most common victim of rabies during an epidemic of sylvatic rabies in Finland in 1988-1989 (Westerling 1991), although in most European countries the red fox (Vulpes vulpes) is the most important vector of the disease. The dense raccoon dog population probably made the epidemic possible in this country, because the fox population may not be

dense enough for an outbreak of a rabies epidemic. Because the raccoon dog and the red fox can easily transmit the disease to each other, the role of the raccoon dog is important in this context.

Trichinosis was rare in Finland and was observed only in imported pigs before the 1950s. Since then it has become more common, and today the cases are numerous in both pigs bred in Finland and wild animals, like raccoon dogs, foxes, brown bears and lynxes (Sukura 2003). Trichinosis is very common in wild animals of southern Finland compared to those in other European countries. The abundance of raccoon dogs and trichinosis correlate. Also every second red fox in southern Finland is infected, while in northern Finland, where the raccoon dog is rare, only 4% of foxes are infected.
Echinococcus multilocularis is a parasite that has become more common in central Europe during the last decades. The most important vector of this parasite - that can be dangerous also to man - is the red fox, but also raccoon dogs can transmit it. The parasite has not been found in Finland (Department of Food and Health 2002), but the dense raccoon dog population may increase the risk that it will spread also to Finland. The raccoon dog may thus be harmful by transmitting diseases and parasites, but on the other hand, it can be considered a valuable fur animal.

Is there room for wolves in Finland?

Wolf numbers decreased sharply in Finland at the end the 19th century because of intense hunting (Kojola 2003a). The wolf competed with people for game animals, especially the moose (Alces alces). When game animal populations declined and animal husbandry became more common, wolf attacks on domestic animals became more numerous. At the same time, firearms became more common and wolf hunting thus became easier. Consequently, the wolf was almost extinct in Finland in the 1920s when only few wolves lived near the eastern border of the country (Kojola 1997a). However, some wolves dispersed from Russian Karelia to eastern Finland preventing extinction, and the wolf population in Finland gradually started to increase (Kojola 2003a). Wolves wandered into Finland mainly along two routes, Suomenselkä and Salpausselkä. Wolf numbers have since then varied periodically due to changes in the Russian wolf population and immigration from Russia. The numbers were highest in the late 1950s and early 1960s and in the early 1980s, when about 200 wolves lived in Finland. Thereafter the population decreased to about 100 individuals due to persecution (Kojola 1997a).

Since 1995 wolves have reproduced regularly in Finland and the number of litters born annually has doubled from the late 1990 to 2003 (Kojola 2003a). Today there is a wolf population of at least 135 individuals in Finland with 12 reproductions in 2002 (Kojola 2003b). Wolf density is still highest in eastern Finland (Pohjois-Karjala and Kainuu), although some wolves are regularly seen also in the western parts of the country. Breeding wolf packs also live in Pohjois-Savo and Kymi and one in the western coast and in central Finland (Kojola 2003a). In the area of reindeer husbandry there are no breeding wolf packs.

The home ranges of wolf packs are about 1000 km^2 in Finland. Young wolves disperse, usually at the age of 11-16 months, to all directions and some cross the border

to Russia (Kojola 2003c). Rather many wander westwards, but some go towards south or north. The dispersal distances of radio-tracked wolves have been between 40 and 400 km (Kojola 2003b). The total length of the wolf routes have been much longer, even 2 300 km. Many dispersing wolves have been shot, but some have managed to found a new pack and reproduce.

The wolf is not welcomed by everyone in areas where wolf density is high, because of the damage caused to domestic animals including dogs (Kojola & Kuittinen 2002). The wolf may consider the dog as a competitor and an intruder in the wolf's territory and thus kill it. On the other hand, especially lonely wolves may have difficulties in killing moose and therefore they may hunt dogs – an easy prey. Wolves also attack sheep and semi-domesticated reindeer. For instance in 2002, depredations on reindeer or sheep occurred within 6 out of 16 wolf pack territories (Kojola 2003b). Because wolves mainly prey on moose, hunters and wolves also compete for game. Furthermore, some people are afraid of wolves.

The wolf is, however, still endangered in Finland and it is part of our native fauna. It is considered a symbol of wilderness, although in fact it is flexible and lives where its main prey – the moose – lives (Kojola 2003d). The existence of wolves and the possibility to hear wolves howling could, however, benefit tourism. In America, the large carnivores draw tourists to national parks.

Brown bear and man

Also brown bear numbers decreased during the late 19th and early 20th centuries. The hunting pressure towards bears was very high, because the bear was considered as a threat to animal husbandry. Bears were forced to retreat to Lapland and to remote areas near the eastern border of Finland. In the 1960´s there were only about 150 brown bears in Finland. The numbers have, however, increased during the last decades due to individuals that have immigrated from Russia (Kojola 2003e). In NW Russia, there are about 4 000 bears, about 2 500 of them being in Russian Karelia. Most bears have invaded to Ilomantsi, Tohmajärvi, Parikkala and Imatra. Today the minimum population size is estimated at 830 individuals (Kojola 2003f). Bear density is highest in south-eastern Finland, in Pohjois-Karjala, Kainuu, Savo and Keski-Suomi. During recent years, 73-100 bears have been hunted annually (Riista- ja kalatalouden tutkimuslaitos 2003). Without animals immigrating from Russia, this would probably have caused a decrease in the population size. Home ranges of males are large and some of them hibernate in Russia (Kojola 2003e). Therefore, bears move to both directions across the border. Home ranges of females with cubs are much smaller. Young males are most eager to move westwards in Finland.

Bears may cause damage to domestic animals and beehives. The bear is sometimes even considered to threaten people. Especially people picking berries and mushrooms may be so much afraid of bears that they do not dare to go to the woods. Bears also prey on moose, especially in spring. On the other hand, the possibility to see bears could be valuable for tourism. In addition, bear hunting offers unforgettable experiences to hunters. Bear meet is also edible.

Return of the wild forest reindeer

The wild forest reindeer became extinct in Finland about a century ago, because the hunting pressure was too high (Kojola 1997b). Fortunately, a viable population remained in Russia, and some reindeer immigrated to Finland across the Russian border; the first individuals were observed in eastern Kuhmo during the 1950. Since then the population has increased and today there is a stable population of about 1500 individuals in Kainuu, eastern Finland. Forest reindeer were also reintroduced to central Finland (Suomenselkä) in the late 1970 and early 1980, and the population has been increasing also this area. Today there are more than 1 000 wild forest reindeer in Suomenselkä. The rate of population increase has been even 20% in the area, which is close to the theoretical maximum for a species that produces only one calf per female (Kojola 1997b). There are small populations (20-30 individuals) also in central Finland (Ähtäri) and in Pohjois-Karjala. Thus, taking into account the young of the year, there are now about 3 000 wild forest reindeer in Finland. The valuable game animal has returned to our country. Because the wild forest reindeer population in Russian Karelia has declined, Finland now has the responsibility for the conservation of the species.

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The Krkonose/Karkonosze Biosphere Reserve: Experience and Challenges in the Changing Region

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Abstract

The Giant Mountains, 400 – 1 602 m a.s.l. (Krkonose in Czech, Karkonosze in Polish) highest mountains of the Sudetes mountain range. They extend 40 km along the border of NE Czech Republic and SW Poland. The highest peak is Snezka ("snow mountain") 1 602 m., the Elbe River rises in the Czech side of the mountains.

The region was largely German-speaking until 1945. However, the term "Sudeten Germans" designated all the German-speaking population in the regions of Czechoslovakia bordering on Germany. The Sudetenland, home of these Germans for centuries, has always been a part of Bohemia. The Sudeten German party was an offshoot of the German National Socialist party. In 1938 the party became Hitler's chief instrument in the events leading to the Munich Pact and the annexation of the Sudetenland to Germany. The districts were recovered by Czechoslovakia in 1945, and most of the German population was expelled.

The Giant Mountains are protected as the Czech - Krkonose National Park (since 1963) and the Polish – Karkonosze National Park (1959) with 29, resp. 7 towns and villages with about 30 thousand inhabitants. The protected area was declared by UNESCO a bilateral Biosphere reserve Krkonose/Karkonosze in 1992.

The area is known for its high biodiversity in four altitudinal vegetation belts, from sub-montane to alpine. The mountains constitute a kind of ecological island of arctic and alpine ecosystems whose counterparts are found in the Alps, north and north-west Scandinavia and even in the British Isles (Jenik, J. 2000).

On the Czech side of the biosphere reserve, there are numerous mountain meadows, a dense network of chalets, and a significant sports and tourism infrastructure. The Polish part of the biosphere reserve is much smaller, very steep, with little similar infrastructure, and is covered mostly by forests that are, on both sides of the mountains, heavily impacted by air pollution. The Giant Mountains are a popular tourist destination for hikers and skiers with about 6-8 million on the Czech side and 2,5-3 million on the Polish one (2002).

The mountains are among the best investigated areas in Central Europe, studied in the course of four centuries by scientists from different scientific schools. The main recent research subjects are: Anemo-orographic systems; response of biota to air pollution; tundra habitats; snow and avalanche activity; palynology; ecological classification of plant and animal communities; restoration and management of forests and montane meadows.

The primary goal of the transboundary cooperation in the Biosphere Reserve is the protection of unique natural ecosystems and setting up regulations on the use of natural resources for sustainable economic development by the population living in the region.

Besides scientific research and cooperation, various cross-border and inter-sectoral activities have been realised to reconcile nature conservation with socio-economic development in the area. The main effort has been directed towards supporting communication and mutual understanding among the leaders of different sectors which influence the future development of the Giant Mts. Particularly inspiring has been the exchange of information and opinions between neighbouring Czech and Polish communities, where people deal with similar social and economic problems.

Rajaseututoimintojen edistäminen tsekkiläin- puolalaisella biosfäärialueella ja suojelualueen kansallispuistoissa

Hana Petrikova, Man and Krkonose Mts., Tsekin tasavalta

Tiivistelmä

Sudeettialueella sijaitsevat Krkonose-vuoret (puol. Karkonosze) muodostuvat 40 kilometrin jatkumon Koillis-Tshekin ja Lounais-Puolan rajalla. Vuorten korkein huippu Snezka eli "lumivuori" ulottuu 1 602 metriä meren pinnan yläpuolelle ja Elbe-joki myötäilee vuorten Tsekin puoleista sivustaa.

Krkonose-vuorten alueella sijaitsee kaksi erillistä kansallispuistoa, joista tshekkiläinen puisto on perustettu vuonna 1963 ja puolalainen vuonna 1959. Kyseessä olevalla suojelualueella on seitsemän kaupunkia ja alueella asuu 30 tuhatta asukasta. Kahdenkeskiseksi Krkonose/Karkonosze -biosfäärialueeksi kahden maan alueella sijaitseva suojelualue hyväksyttiin UNESCO:n toimesta vuonna 1992.

Biosfäärialue on kuulu monimuotoisesta ja lajirikkaista korkeuden mukaan vaihettuvista neljästä kasvillisuusvyöhykkeestään. Krkonose-vuoret muodostavat eräänlaisen arktisten ja alpiinisten ekosysteemien ekologisen saarekkeen, jonka vastineet ovat löydettävissä Alpeilta, Pohjois- ja Luoteis-Skandinaviasta ja jopa Brittein saarilta.

Biosfäärialueen tshekkiläisellä puolella sijaitsee lukuisia vuoristoniittyjä, tiheä alppimajojen verkosto sekä merkittäviä urheilua ja matkailua varten perustettuja rakenteita. Alueen matkailullista merkitystä kuvaa se, että vuonna 2002 Tshekin puolella biosfäärialuetta vieraili noin 7 miljoonaa patikoijaa tai hiihtäjää, kun taas Puolan puoleisella alueella oli noin 3 miljoonaa kävijää. Puolalainen osa biosfäärialuetta on maastoltaan jyrkkää, puustoista ja alueeltaan pienempi. Aleen metsien uhkana ovat ilmansaasteet.

Biosfäärialueella harjoitettava tutkimus on keskittynyt erityisesti seuraaviin aiheisiin: tuuli- ja vuoristosysteemit, ilmansaasteiden vaikutus eliölajeihin, tundrahabitaatit, lumen ominaisuudet ja lumivyöryjen toiminta, siitepölytutkimus, kasvi- ja eläinyhdyskuntien ekologinen luokittelu sekä metsien ja vuoristoniittyjen ennallistaminen ja hoito.

Biosfäärialueella tehtävän rajaseutuyhteistyön ensisijainen tehtävä on suojella alueen ainutlaatuisia luonnon ekosysteemejä sekä aikaansaada ja kehittää luonnonvarojen käyttöä sääteleviä lakeja ja säädöksiä, jotka mahdollistaisivat kestävän taloudellisen kehityksen tulevaisuudessa.

Tutkimustyön lisäksi alueella on esimerkkejä lukuisista rajat ylittävistä ja eri sektorien välillä tapahtuvista yhteistyön muodoista, joiden tarkoituksena on yhteen sovittaa alueen luonnonsuojelulliset ja sosio-ekonomiset tavoitteet. Suurimmat ponnistelut ovat kohdentuneet eri sektorien johtajien välisen yhteydenpidon parantamiseen, jolla on suora vaikutus alueen kehitykseen. Erityisen innoittavaa tässä mielessä on ollut samojen sosiaalisten ja taloudellisten ongelmien kanssa kamppailevien tshekkiläisten ja puolalaisten yhteisöjen välillä tapahtunut tiedon ja mielipiteiden vaihtamiseen tähtäävä toiminta.

(Käännös: Kalle Eerikäinen)

The Krkonose/Karkonosze Biosphere Reserve: Experience and Challenges in the Changing Region

History of cooperation between the two national parks

During the communist regime, the limiting factor for direct cross-border cooperation was, above all, rather strict regime to safeguard the state borders. To enter the other country, Czech and Polish citizens needed a special letter of invitation from a counterpart. From 1978, informal contacts developed between Czechoslovakia and Poland. The summits of the Giant Mountains were often a secret meeting place of Czech-Polish independence and opposition movements (the Polish-Czechoslovak Solidarity). Today's prominent personalities, including Vaclav Havel, the former Czech president, marked the beginnings of these contacts. Activists participating in the meetings called also for a common programme of preservation of the mountains.

In spite of some difficulties, joint conferences and meetings of the Scientific Councils of both the parks and their staff took place almost annually. From 1964 to 1989, the topics discussed included (Petrikova, H. 1990):

- research on primeval forest (spruce-beech), changes in forest, climatic conditions;
- research on subalpine peatbogs, frost soil forms;
- problems of tourism and sport activities, facilities, cable ways;
- agricultural management;
- proposal of a new methodology for research, coordination of regional planning and territorial management;
- problems of forest pest outbreaks (bark beetle) and treatments;
- forest dieback, combating air pollution impacts

Since the end of the communist regime (1989), conditions for cross-border relations have gradually improved. The visa obligation between the two countries was cancelled and four new border crossings for pedestrian within the bilateral biosphere reserve were opened. New opportunities for more intensive cooperation in both the field of scientific research and social–economic relations emerged.

Changing strategies for protected areas in Central Europe

Initially, the concept of biosphere reserve established by the UNESCO Man and Biosphere Programme was stressing the combination of nature conservation and research within protected areas of individual countries.

The transboundary dimension of natural resources is an obvious fact. The need to manage these resources in a coherent and efficient way across borders has widely been recognized internationally. Generally, goals concerning research and conservation of ecosystems are more or less defined and do not differ much across borders.

Thus, the primary MAB concept was in full conformity with the mission of the Czech and Polish national parks who initiated the establishment of the bilateral biosphere reserve through the pertinent national ministries in 1992. The parks also undertook the role of unique administrators and managers of the biosphere reserve from the start.

The MAB Programme enhanced by the Seville Strategy puts more emphasis on sustainable development (interdisciplinary and inter-sectoral approach in ecosystem management, participation of local societies). In addition, twinning, networking and transboundary cooperation is being promoted between biosphere reserves. Also the IUCN and the Durban World Parks Congress 2003 recommend much more interactions between nature conservation and sustainable development issues as well as more intensive transboundary initiatives in protected areas.

Besides the recent MAB and IUCN concepts that advises higher diversification and integration of the functions of protected areas, there are other social-political factors bringing oversubstantial changes in the region: the accession of the Czech Republic and Poland to the European Union in June 2004 as well as the aspect of growing and omnipresent globalization.

Transboundary protected areas are now viewed as an effective institute to expand and improve the capacity for sustainable development of national protected areas. Ideally, they should bring extra biodiversity, social, institutional, political and economic benefits. In our case the area should be better prepared for integration and cooperation in multi-national environment of the EU and for an appropriate respond to the impact of globalization in the region.

Institutional framework for bilateral cooperation in the biosphere reserve

Following the recommendation of the Seville Strategy and the Statutory Framework of the World Network endorsed by the UNESCO General Conference in 1995, the two partners, Czech and Polish national parks, started to seek a solution that would meet the more complex goals of a biosphere reserve.

In 1996 a new institutional framework for the Krkonose /Karkonosze Biosphere Reserve was established:

CZ	PL
The official governmental coordinators, represented in the National MAB committees are:	
Krkonose National Park Administration - under the Ministry of Environment	Karkonosze National Park Administration – under the Ministry of Environment
The Czech-Polish Council for the BRK/K based on the Agreement about Mutual Cooperation; a non-legal entity, consisting symmetrically of the directors of the two national parks, representatives of the regional authorities, local communities, business,science and NGO	
The Czech-Polish Office for the BRK/K - a supportive organization to theCouncil.Itserves as a neutral platform to initiate and facilitate inter-sectoral and interdisciplinary communication, to organize joint meetings and to propose, prepare and coordinate joint projects. It operates within:	
Man and Krkonose, Czech NGO	The Karkonosze Foundation, Polish NGO

Cooperative activities and some obstacles experienced

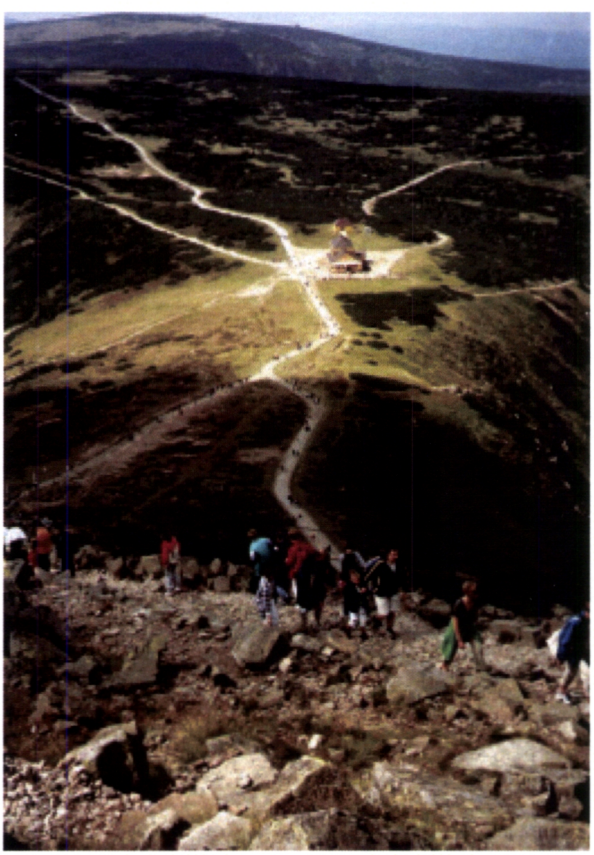
Various activities have been organized by the two national parks: The effort has been focused mainly on exchange of information on research, nature conservation and forestry management, information systems and environmental education.

The main task of the Czech-Polish Office for the BR has been to support communication among the leaders of different sectors which influence the development in Krkonose and to raise public awareness on sustainability issues. Particularly inspiring is the exchange of information and opinions between the communities across the borders where people deal with similar contradiction between nature conservation and economic development. In order to tackle these issues effectively, activities on different levels have been organized.

Various cross-border and inter-sectoral activities have been designed to reconcile conservation and sustainable use of biological diversity with the socio-economic development in the region. The natural idivisibility of the Giant Mountains as one and unique bio-geographical entity has been promoted.



Information board at the border.



Path network in the biosphere reserve.

Examples of joint activities	Drawback/National Differencies
Publications	
"Atlas of Breeding Birds" covers the whole area of the Czech and Polish Giant Mountains area. Distribution of birds and their biotopes using atlas method, base on the international criteria. Occurrence of 182 birds pecies confirmed.	None
The first joint monograph on the Giant Mts. by Czech-Polish scientific team of authors is under preparation.	None
Oral Testimony of native mountain people of German origin	None
Information systems	
A joint Geopraphic Information System is in preparation to homogenize the GIS concepts for monitoring and planning Digital elevation model of the area has been elaborated. Presently there are about 300 GIS layers at the Czech national park. The metadata list containing in formation on the layers (datasets) is accessible via internet.	Different map projections used in the Czechia and Poland have to be mutually converted through a specialized software. Forestry maps homogenization is problematic since different detailed traditional systems have been developed and used for centuries.
A joint multimedia information system for visitors is installed on both the sides of the borders (touch screen computers with updated information on the biosphere reserve in Czech, Polish, English, German and Dutch).	None
Practical management	
Forest restoration subsidy:Native beech seeds were offered and delivered by the Polish side to help restore the Czech forest stands.	None

Research and monitoring	
Pollen analyses of sediments in glacial lakes on the Polish side by Czech scientists to find out the acidity thousands years ago.	None
Visitors censuscounting of tourists and assessing distribution patterns	None
Survey on Indicators of sustainability for the BRthe aim is to integrate and assess the socio-economic, environmental and cultural data, monitoring of the indicators to identify trends	A critical element of the project is the participation of local government and their support
Conferences, seminars	
"The Geo-Ecological Problems of the Giant Mountains", a common bi-annual conference, meeting platform for researchers and scientists to share the latest abiotic, biotic and socio-economic studies of the region.	Absence of joint research teams. Practical application of scientific knowledge is very poor, there is little use of the knowledge in decision-making processes; relation between scientists, conservationists, land users and those who decide are far from being in harmony. Findings are not presented in a clear language understandable to investors and politicians who often see nature protection as a disincentive for the development of their activities.
Natura 2000 program in the Krkonose/ national parks —joint preparation seminars	Different national approaches to mapping
Sectoral seminars, workshops and interdisciplinary communication – meeting for mayors, planners, scientists, managers...e.g.: - Significance of cross-border cooperation for sustainable development of natural and cultural diversity - Opportunities and limits for sustainable development in the bilateral BR	Mayors and communities representatives are usually elected for a limited time period and thus their interests lie in short-time benefits, often without consideration of the sustainability of their decisions. Apart from using the two different languages, experts from different sectors use jargon that makes the communication difficult.

PRACTICAL FIELD PROJECT-to involve volunteers, the public and specific groups	
Revealing contradictory history of the region – students of Czech and Polish secondary schools interviewed old local citizens of German origin, publication in 3 languages	None
Promotion of eco-agro-tourism (training farmers, providing them with a shared wheat mill on the Polish side…) - seminars	More relevant to the Polish side for socio-historical reasons
Restoration of neglected monuments in landscape (chapels, crosses…); Online database of cultural monuments	None

Conclusions

A number of challenges have arisen during the existence of the bilateral BR and the transborder cooperation of the two partners. The challenges extend beyond the boundaries of the two national parks and their administrations.

All activities and measures require ensuring of well-defined roles and responsibilities of the staff, appropriate funding and time for implementation.

There is a need to integrate the BR planning with other sectors, such as the public and private economic, development, social, health and cultural sectors.

There is a common concern that the results of scientific research often are not incorporated in to management decisions. The scientific research should ply a more prominent role in decisions about the BR. Interdisciplinary approach and a greater emphasis on social science is recommended.

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What is Argumenta?

Matti Sintonen

The view of the Finnish Cultural Foundation

Borders have a dual function. On one hand they run across natural and man-made regions, thus highlighting and fostering geographic, political and cultural differences. On the other hand borders are not just barriers but also bridges and interfaces between peoples and cultures. We tend to look at borders as immutable. The facts of the modern global world nevertheless make it plain that borders move and are moved. Moreover, as the notion of a biosphere testifies, the innocent-looking distinction between man-made and natural borders must face the fact that man is part of nature, and that the fate of nature also very much depends on political, cultural and economic facts.

Koli Border forum is a pilot project of the Finnish Cultural Foundations series Argumenta. Argumenta aims at discussing and debating the academic or scholarly aspects of some important phenomenon, such as transfrontier national parks and biosphere reserves. At the same time it has more a more tangible aim – that of bringing the results and views of the scholarly community within the reach of decision-makers - local, regional, national and global. This new form of support differs from current types of funding in a number of ways. The time span of Koli Border Forum as well as of the planned series of events in the Argumenta falls between those of short-lived one- or two-day seminars and research groups which live for several years. Argumenta projects also focus on some unsolved and possibly even controversial but practically important problem - with the idea of giving scholars and regional and national decision-makers a forum for discussion and debate.

Argumenta also aims at interdisciplinarity, and at transgressing or crossing disciplinary boundaries. Each one of the autonomous sciences or disciplines has its own descriptive vocabulary and own patterns of explanation. This way of specialization is a condition of depth and insight - indeed, it has often been thought that pursuing a particular disciplinary angle further and further is a precondition of success of in science. However, many of the pressing problems in our days allow for different ways of slicing the problem. Interdisciplinarity and consequently the ability to recognize and possibly acknowledge the legitimacy of different points of views is increasingly important in the rapidly changing world. The central idea of Argumenta, then, is to create a setting for interdisciplinary scholarly and scientific discussion and debate, and to make the results accessible to the wider audience.

This is not always an easy task, as participants to this seminar witness. To pick out just one example, it is far from trivial to find a classification of forests to suit the various legitimate scientific and non-scientific concerns. The scientific or cognitive interests are geared to cutting nature at her joints, to design descriptive accounts and classificatory

schemes which serve the purposes of scientific generalizations. However, the practical or non-cognitive interests for resorting to any particular definition of "forest" can vary, from commercial or economic to recreational and conservationist.

For the Finnish Cultural Foundation Koli Border Forum is theoretical and practical experiment for Aurgumenta, a new type of opening for interdisciplinary and societally oriented – argumentative - funding. In the Finnish natural and cultural identity Koli holds a very special place, and it is no accident that the pilot series of five seminars takes place here. We are gratreful to the University of Joensuu, the Karelia Institute, the Finnish Forest Research Institute, the North Karelia Regional Environment Centre and The Finnish Institute of International Affairs for their role in designing and managing this series of events. We very much look forward to seeing the results of this theoretical and practical experiment. The protection of the environment, ecosystems and biospheres – withing or across borders – is a live concern for everyone and at all times.

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