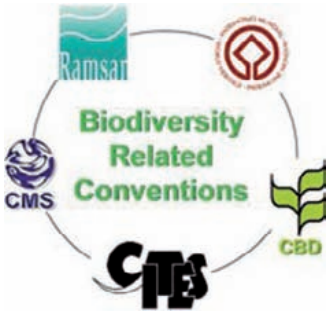
Biodiversity-related Conventions

Finland is a member of more than a hundred international environmental agreements, including all the international and regional conventions that focus on biodiversity issues. The Ministry of the Environment represents Finland in these agreements, and directs the international nature conservation work of Metsähallitus.



Convention on Biological Diversity, CBD (1992)
The objectives of the Convention are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from commercial and other utilization of genetic resources. The agreement covers all ecosystems, species, and genetic resources.

Bonn Convention, CMS (1979)
The Convention on the Conservation of Migratory Species of Wild Animals aims to conserve terrestrial, marine and avian migratory species throughout their range. Parties to the CMS work together to conserve migratory species and their habitats by providing strict protection for the most endangered migratory species, by concluding regional multilateral agreements for the conservation and management of specific species or categories of species, and by undertaking co-operative research and conservation activities.

Ramsar Convention (1971)
The Convention on Wetlands of International Importance Especially as Waterfowl provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The convention covers all aspects of wetland conservation, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities.

CITES Convention (1975)
The Convention on International Trade in Endangered Species of Wild Fauna and Flora aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

World Heritage Convention (1972)
The UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage aims to identify and conserve the world's cultural and natural heritage, by drawing up a list of sites whose outstanding values should be preserved for all humanity and to ensure their protection through a closer co-operation among nations.

Bern Convention (1979)
The Convention on the Conservation of European Wildlife and Natural Habitats relates to the conservation of wild animals, plants, and their habitats. It has led to EU legislation, such as the Habitats Directive and the Birds Directive, on the grounds of which Natura 2000 Network is established.

The Helsinki Convention (1992)
The Convention on the Protection of the Marine Environment of the Baltic Sea Area covers the whole of the Baltic Sea area, including inland waters as well as the water of the sea itself and the sea-bed. Measures are also taken in the whole catchment area of the Baltic Sea to reduce land-based pollution. In 2002, The Finnish government has approved The Baltic Sea Protection Programme that is based on the Convention. This programme lists more than 30 ways to improve the state of the Baltic Sea and to protect the marine environment.

Message from Malahide: Biodiversity and the EU

Source: Duke, Guy (ed.) 2005: Biodiversity and the EU – Sustaining Life, Sustaining Livelihoods. – Conference Report. Stakeholder Conference held under the Irish Presidency of The European Union in partnership with the European Commission, 25th - 27th May 2004, Malahide, Ireland.

THEME 1: CONSERVATION OF NATURAL RESOURCES

Sector 1: Conservation and sustainable use Of natural resources

Objective 1: To ensure conservation of Europe's most important wildlife habitats and species within a thriving wider environment.

Objective 2: To ensure that biodiversity concerns are fully recognised in the conception and implementation of community legislation and instruments in both environment and other sectors.

Objective 3: To develop and implement measures for the prevention and control of invasive alien species and alien genotypes.

Objective 4: To prevent or minimise the negative impacts on biodiversity and optimise opportunities to benefit biodiversity, in relation to climate change adaptation and mitigation.

Sector 2: Agriculture

Objective 5: To further integrate biodiversity issues into the Common Agricultural Policy in order that the agricultural sector can fulfil its contribution to the 2010 biodiversity target.

Sector 3: Forestry

Objective 6: To conserve and enhance biodiversity through sustainable forest management at national, regional and global levels.

Sector 4: Fisheries

Objective 7: To further promote conservation and sustainable use of commercial stocks and to continue reduction of adverse impacts of fishing and aquaculture on species and habitats making full use in particular of the CFP instruments.

Sector 5: Regional policy & spatial planning

Objective 8: To ensure that Cohesion policy and spatial planning support conservation and sustainable use of biodiversity.

Sector 6: Energy & transport, construction & extractive industries

Objective 9: To prevent, minimise and mitigate negative impacts on biodiversity of construction, infrastructure and extractive industries, or related to the use of infrastructure.

Sector 7: Tourism

Objective 10: To make all tourism sustainable.

Sector 8: Economic and development cooperation

Objective 11: To ensure an improved and measurable contribution of EU economic and development co-operation to achieving the global target 'to significantly reduce the current [2002] rate of biodiversity loss by 2010' in support of the Millennium Development Goals.

Sector 9: International trade

Objective 12: To contribute to the global 2010 target by promoting ecologically sustainable international trade.

THEME 2: SHARING OF BENEFITS, TRADITIONAL KNOWLEDGE

Objective 13: To ensure the fair and equitable sharing of benefits arising out of the use of genetic resources while promoting their conservation and sustainable use.

Objective 14: To ensure the implementation of CBD decisions on knowledge, innovations and practices of indigenous and local communities embodying their traditional lifestyles.

THEME 3: RESEARCH, MONITORING AND INDICATORS

Objective 15: To implement an agreed set of biodiversity indicators to monitor and evaluate progress towards the 2010 targets, with the potential to communicate biodiversity problems effectively to the general public and to decision-makers and provoke appropriate policy responses.

Objective 16: To improve and apply the knowledge base for the conservation and sustainable use of biodiversity.

THEME 4: EDUCATION, TRAINING & AWARENESS, PARTICIPATION

Objective 17: To reinforce measures for public communication, awareness and participation.

THEME 5: INTERNATIONAL ENVIRONMENTAL GOVERNANCE

Objective 18: EU contributes to improved international environmental governance to increase implementation of the CBD and other biodiversity related agreements.

Reporting on Protected Area Management

	PERFORMANCE	STATE OF THE PARKS	MANAGEMENT EFFECTIVENESS
Reporting interval	1 year	5 years	10 years
Evaluation subject	Management of NHS-administered PAs (NHS performance)	Finland's PAs and their management (state and development of the PA network)	Finland's PA network and its management Regional protected area network: EU Alpine and Boreal Regions Nordic-Baltic area and Russia
Evaluation base	Strategic objectives of NHS MoE and MAF performance agreements	Protected area representaviness Finland's national objectives EU Natura 2000 and CBD objectives	EU Natura 2000 objectives CBD + programmes of work objectives HELCOM objectives for the Baltic Sea
Evaluation content	Realisation of performance targets Impacts of management	I. State of the protected area system II. State of the parks (profiles) State of habitats and species Ecological and social impacts	CBD implementation Management effectiveness Directions and recommendations
Evaluation method	Self evaluation (external comments)	Self evaluation and external comments	External evaluation International evaluation
Information base	Metsähallitus, NHS	Metsähallitus, NHS and other units Ministry of the Environment Research institutes and scientists	State of the parks reports, park profiles Additional information as requested (interviews, field trips)
Indicators	Measures and indicators Outputs	Selected measures and indicators Biodiversity indicators	State of the parks, selected indicators Other indicators (evaluation criteria)
Target groups	Ministries Stakeholders	NHS staff and other Metsähallitus units Finnish society EU authorities /CBD secreteriat	International nature conservation community IUCN WCPA network CBD secreteriat and parties
Publishing format	Electronic/ print on demand	I. Printed/ electronic (report) II. Internet (park profiles)	Printed/ electronic
Publishing language	Finnish	Finnish/English Summary Finnish/Swedish/English/ Sámi	English Summary English/Finnish/Swedish

NHS = Metsähallitus Natural Heritage Services
MoE = Ministry of the Environment
MAF = Ministry of Agriculture and Forestry
PAs = protected areas
EU Natura 2000 = European Union's Natura 2000 network of protected areas
CBD = Convention on Biological Diversity
HELCOM = Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Commission)

Park Profile: Basic Data on a Protected Area and its Management

Elements	Indicators, key figures and measures
PART 1 - BASIC DATA FOR MANAGEMENT PLANNING	
Area description	
Main characteristics	objectives of establishment, network connectivity, valuable natural and cultural assets, visitor records, criteria of sustainable use
Regional administration	NHS regional unit, regional environment centre, region, municipality
Legislation	law, act, decision
Surface area	land and water / ha; km²
N2000 site(s)	biogeographic region, Natura 2000 code, site type (SCI, SPA, SAC)
International classification, agreements and recognitions	IUCN-PA category; Baltic Sea protected area, Ramsar site, Biosphere reserve, World Heritage site, diplomas etc.
Natural, cultural and recreational values	
Habitat types and species	threatened and EU Directive habitats and species; geological sites
Cultural heritage	valuable cultural heritage sites and ancient relics
Infrastructure	buildings, constructions and trails
Use and users of the area	
Recreation and nature tourism	visitor statistics; hunting, fishing and snow mobile permits
Livelihoods	contracts / agreements signed with tourism enterprises; land use contracts/leases; mining claims; reindeer numbers
Research	research permits; number of studies and assessments
Management challenges and plans	
Pressures and threats	land use analysis: major threats (> management challenges and objectives)
Existing plans	plans for the use of natural resources, management and operations
PART 2 - MANAGEMENT PERFORMANCE AND EFFECTIVENESS	
OPERATIONAL RESULTS AND EFFICIENCY (OUTPUTS)	
Resources and cooperation	
Resources	funding, human resources (incl. volunteering)
(Transboundary) cooperation	area(s) involved in transboundary cooperation, number of projects
Management planning	
Protected area establishment	status of property, statute and regulation in relation to goals and needs
Planning and monitoring data	coverage of basic data in relation to needs for management planning and monitoring of current status
Management planning	status of plans in the relation to goals and needs
Stakeholder participation	numbers of stakeholder events and statements received for planning
Securing protected values and directing land use	numbers of authority transactions, collaborative meetings, given statements, land use permits
Conservation of nature and cultural heritage	
Collection of natural and cultural heritage data	coverage of inventories in relation to goals
Habitat protection and management	area of ecological restoration and management in relation to goals
Species protection	number and type of (threatened) species monitoring and management measures
Management of cultural heritage sites	numbers of renovation sites; grazing contracts (traditional agricultural sites)
Nature recreation and tourism	
Visitor data collection	visitor monitoring and customer survey coverage in relation to goals
Service infrastructure data collection	coverage of up to date data
Construction and maintenance	numbers of new constructions, maintenance sites
Customer services and nature interpretation	numbers of visitor contacts, participators in interpretation, website hits
Game and fisheries	
Customer data collection	customer data coverage in relation to goals
Game and fisheries data collection	coverage of data in relation to goals and needs
Population, site and water management	number and type of habitat and stock management measures
Supervision	number of illegal activities, and their relation to the number of inspection contacts

Elements	Indicators, key figures and measures
MANAGEMENT IMPACTS (OUTCOMES)	
Achievement of statutory objectives	realisation of the conservation and management objectives set as basis for establishment (legal and strategic documents as source)
Ecological sustainability: effect of management on natural values	statuses of threatened special responsibility species; (Directive) species and habitats; indicator species; game and fish populations
Cultural sustainability: effect of use and management on built cultural heritage	physical condition of (valuable) buildings and other infrastructure
Socio-economic sustainability: effect of nature tourism on local/regional economy	development of income and employment associated with nature tourism
Service capacity: ability to maintain and develop services to meet the demand	development of customer satisfaction figures (feedback, customer/visitor surveys)
Social effectiveness	the development of public awareness and attitudes towards nature conservation and the NHS; visitor surveys; media follow-ups

Evaluation of the Finnish National Action Plan for Biodiversity 1997-2005

Source: Auvinen, A.-P. et al. 2007: Evaluation of the Finnish National Biodiversity Action Plan 1997–2005. Monographs of the Boreal Environment Research 29.

A. Factors affecting biodiversity and ongoing changes in biodiversity in different habitats during the period 1997-2005, and related key measures within the Action Plan

Habitats	Pressures and related factors	Ongoing changes in biodiversity during the period of the Action Plan	Related key measures from the National Action Plan (1997-2005)
Forests	- high profitability of timber production compared to other possible land uses - the historical clearance of farmland continues to affect biodiversity in southern Finland - implementation of uniform forestry practices continues - continuing conflicts between forestry and reindeer herding	- continuing decline in species associated with natural forest features, especially decaying wood - continuing decline in herb-rich woodlands valuable for biodiversity, although this trend may have slowed - continuing habitat loss and fragmentation of old-growth forests in southern Finland	- expansion of protected areas, especially in Northern Finland - identification of key habitats in managed forests - natural resource planning and landscape ecological planning for State-owned lands - habitat restoration in protected areas - gradual changes in forestry practices - new measures designed to safeguard biodiversity tested in privately owned lands - new monitoring and research data available
Mires	-intensified use of natural resources - attempts to make mire habitats more productive, especially for timber production, but also for peat extraction	- species in decline, especially species of nutrient-rich mires - mire habitats and their species in general decline in Southern Finland, but decline slowing - changes due to the effects of natural processes on artificially drained mires continuing	- no more new peatland drainage schemes - expansion of protected areas - clear changes in forestry and peat extraction practices - habitat restoration begun in protected areas - natural resource and landscape ecological planning on State-owned lands include mires
Rocky habitats and eskers	- intrusion of built-up areas - excavation of sand, gravel and bedrock - forestry intensified on eskers → nurseries, forest fires prevented	- loss of rocky habitats and eskers slowed - decline of specialist species of rocky and sandy habitats - worsened prospects for species dependent on forest fire dynamics	- expansion of protected areas - rapid changes in extraction practices (gravel → crushed rock) - survey of valuable rocky habitats and key forest biotopes
Alpine habitats	- productivity pressure in reindeer husbandry - recreational land use pressures increasing - climate change	- arctic lichen heaths widely suffering from erosion, although in some areas conditions have improved - palsa mires disappearing increasingly rapidly as permafrost patches melt	-improved planning of management and use of protected areas -gradual changes in land use practices - increased emphasis on biodiversity related tourism
Inland waters	- demand for energy → hydrological engineering and regulation of water levels - higher diffuse loads due to the intensification of farming and forestry, and productivity pressure - rising living standards→ higher wastewater loads from rural settlements and holiday homes - increased exploitation of inland waters for fisheries → uncontrolled introductions	- declines in habitats and populations associated with smaller waterbodies, natural rivers, and nutrient-poor lakes - general decline in biodiversity of habitats in inland waters slowed and in many places halted - previously acidified lakes are now recovering	- expansion of protected areas - reductions in pollution loads from point sources -restoration work begun on lakes, rivers and river systems - growing concern for small water bodies in forestry - new research on better water level regulation and restoration practices
Baltic Sea	- increased diffuse loads due to the intensification of farming and forestry, and productivity pressure - rising living standards → increasing wastewater loads - increasing risk of oil spills due to growth of transportation volumes	- radical changes in plant and animal communities in the Gulf of Finland and the Archipelago Sea due to eutrophication - changes in biodiversity continuing (e.g. spread of invasive species)	- expansion of marine protected areas - reductions in wastewater loads - large-scale survey of marine underwater habitats initiated - risks related to marine transport have been addressed - new research data available
Shores	- decline in grazing and mowing of shores - spread of building along shores in rural and built-up areas	- impoverishment of species diversity in shore habitats due to overgrowth and construction, although these trends have slowed in places	- gradual changes in controls over construction - special agri-environmental subsidies - measures to restore and maintain important coastal bird areas

Agricultural habitats	- increased production pressures in farming - trends in subsidy schemes hard to predict - the number of livestock is in continuous decline	- increasing uniformity of habitats and impoverishment of species diversity, although these have slowed in places - extent of meadows has diminished radically - red-listed farmland species increasing	- gradual changes in farming practices - management of traditional agricultural biotopes initiated with the help of special subsidies - new monitoring and research data available - proportion of organic farming is increasing
Built-up areas	- expansion of infrastructure, infill in existing built-up areas, and other intensification of land use	- natural habitats built over, loss of green areas and open disused land, shrinkage of older low-density housing areas - increased high density developments - some species moved into newly built-up areas	- gradual changes in activities - recognition of opportunities to protect parts of areas under development - initiation of management designed to safeguard biodiversity - establishment of first national urban parks

B. Measures taken during the Action Plan considered by the evaluators to have been effective in terms of safeguarding biodiversity

Habitats	Measures taken over extensive areas	General grounds for changing activities, and measures taken to promote favourable attitudes	More specifically targeted measures taken in important habitats
General measures	- implementation of nature conservation programmes	- drafting of whole programme: biodiversity recognised as a social value - EU funding (e.g. LIFE projects) - research into various aspects of biodiversity, including research in the social sciences - improvements in training and education	- proposal for national Natura 2000 network (approved)
Forests	- new forestry recommendations - Metsähallitus's natural resource planning and management of protected areas - management of military areas according to Metsähallitus specifications	- research into forest biodiversity, especially species dependent on decaying wood - research related to habitat restoration - training on natural forest management - further identification and testing of voluntary conservation measures in the METSO Programme	- drafting and implementation of revised legislation on forests and nature conservation - old-growth forest conservation programme - surveys of key habitats - ending of commercial forestry in forests within sites of the mire conservation programme - protection of genetic resources of trees
Mires	- no more new drainage schemes	- research into the biodiversity of peatland habitats	- implementation of mire conservation programme - habitat restoration in protected areas
Rocky habitats and eskers			- Land Extraction Act, Forest Act - surveys of ecologically valuable rocky habitats - implementation of esker conservation programme
Alpine habitats	- implementation of Wilderness Act - stricter controls over reindeer numbers	- support for nature-based livelihoods - research into aspects of reindeer husbandry - planning of land use and management in protected areas	- management plans for wilderness areas
Inland waters	- water protection plans	- research into aquatic biodiversity - research into watercourse protection and restoration - water protection programmes - restoration of natural lakes and rivers	- shore conservation programme - Natura 2000 - protection of smaller water bodies by the Forest Act, and the Water Act
Baltic Sea	- water protection plans	- research into biodiversity - research into Baltic ecosystems - Bireme Research Programme -publicity and the Baltic Sea programme	- Natura 2000 - extensive surveys of biodiversity
Shores	- Land Use and Building Act	- expansion of research into shore ecosystems, especially around the coasts of the Baltic Sea	- shore conservation programme - Land Use and Building Act
Agricultural habitats	- agri-environmental subsidies - expansion of organic farming	- research into biodiversity of farmalands -environmental programme for agriculture, environmental subsidies, with landscape values recognised in rural development schemes	- special subsidy systems - genetic resource programmes
Built-up areas	- regional land use plans and local master plans - Land Use and Building Act	- identification of recreational values - research into biodiversity in built-up areas and opportunities to develop favourable land management practices - greater importance given to green areas at municipal level - biodiversity issues included in environmental management systems in transport planning	- Land Use and Building Act - management measures for local forests, green areas and disused land within cities and other built-up areas

Legislation Pertaining to Protected Area Management in Finland

Name of Statute	Number
METSÄHALLITUS	
Act on Metsähallitus	1378/2004
Decree on Metsähallitus	1380/2004
State Enterprise Act	1185/2002
ADMNISTRATION	
Administrative Procedure Act	434/2003
Act on the Openness of Government Activities	621/1999
Decree on the Openness of Government Activities and on Good Practice in Information Management	1030/1999
Act on Electronic Service in the Administration	1318/1999
Act on Electronic Services and Communication in the Public Sector	13/2003
Archives Act	831/1994
Public Procurement Act	1505/1992
AREAS	
Nature Conservation Act	1096/1996
Nature Conservation Decree	160/1997
Acts and Decrees for establishment of protected areas	
Wilderness Area Act	62/1991
Outdoor Recreation Act	606/1973
Council Of State Decision on X Hiking Area	758/1979, 284/1994
Act on Protection of Rapids	35/1987
Act on the Delimitation of the Territorial Waters of Finland	463/1956
Public Water Rights Act	204/1966
NATURE VALUES	
EU Habitats Directive	92/43/ETY
EU Bird Directive	79/409/ETY
CULTURAL VALUES (Sámi/ archipelago areas)	
Act on the Sámi Parliament	974/1995
Decree on the Sámi Parliament	1727/1995
Language Act	148/1922
Sámi Language Act	1086/2003
Act on the use of the Sámi language before the authorities	516/1991
Human Rights Agreement	63/1999
Agreement on Joining the EU	103/1994
Koltta Sámi Act	253/1995
Reindeer Husbandry Act	848/1990
Act on Financing of Reindeer Husbandry and Indigenous Livelihoods	45/2000
Archipelago Act	494/1981
CULTURAL VALUES (material heritage)	
Antiquities Act	295/1963
Act on the Protection of Buildings	60/1985
Decree on the Protection of State-owned Buildings	480/1985

Name of Statute	Number
PLANNING (land use)	
Land Use and Building Act	132/1999
Land Use and Building Decree	895/1999
Act on Environmental Impact Assessment Procedure	468/1994
Environmental Impact Assessment Decree	268/1999
Real Estate Formation Act	554/1995
Government Decree on the Acquisition, Possession and Management of State Real Estate Assets	1070/2002
Act on the Right to Transfer State Real Estate Assets	973/2002
Land Extraction Act	555/1981
Land Extraction Decree	91/1982
Mining Act	503/1965
Water Act	264/1961
Fishing Act	286/1982
Fishing Decree	1116/1982
Fishing Decree, amendment	1364/1997
Hunting Act	615/1993
Hunting Decree	666/1993
Off-road Traffic Act	1710/1995
Off-road Traffic Decree	10/1996
Water Traffic Act	463/1996
Water Traffic Decree	124/1997
Highways Act	503/2005
Public Roads Act	243/1954
Private Roads Act	358/1962
Aviation Act	281/1995
MANAGEMENT AND SURVEILLANCE	
Act on Surveillance of Hunting and Fishing	1157/2005
Decree on Surveillance of Hunting and Fishing	1273/2005
Environmental Protection Act	86/2000
Environmental Protection Decree	169/2000
Waste Act	1072/1993
Waste Decree	1390/1993
Forest Decree	1200/1996
Act on Prevention of Forest Fungi and Insect Damage	263/1991
Territorial Surveillance Act	755/2000
Territorial Surveillance Decree	971/2000
Border Guard Act	578/2005
Rescue Act	468/2003
Finnish Penal Code	39/1889

Operating Environment of the Metsähallitus Natural Heritage Services Regional Units in 2005

Operating environment	NHS, Southern Finland	NHS, Ostrobothnia	NHS, Lapland	Total
Provinces	2.5	1.5	1	5
Regional councils	13	5	1	19
Employment and economic development centres	10	4	1	15
Regional environment centres	9	3	1	13
Forestry centres	9	3	1	13
Game management districts	10	4	1	15
Municipalities	289	105	22	416
Population estimate (million)	4.4	0.6	0.2	5.2

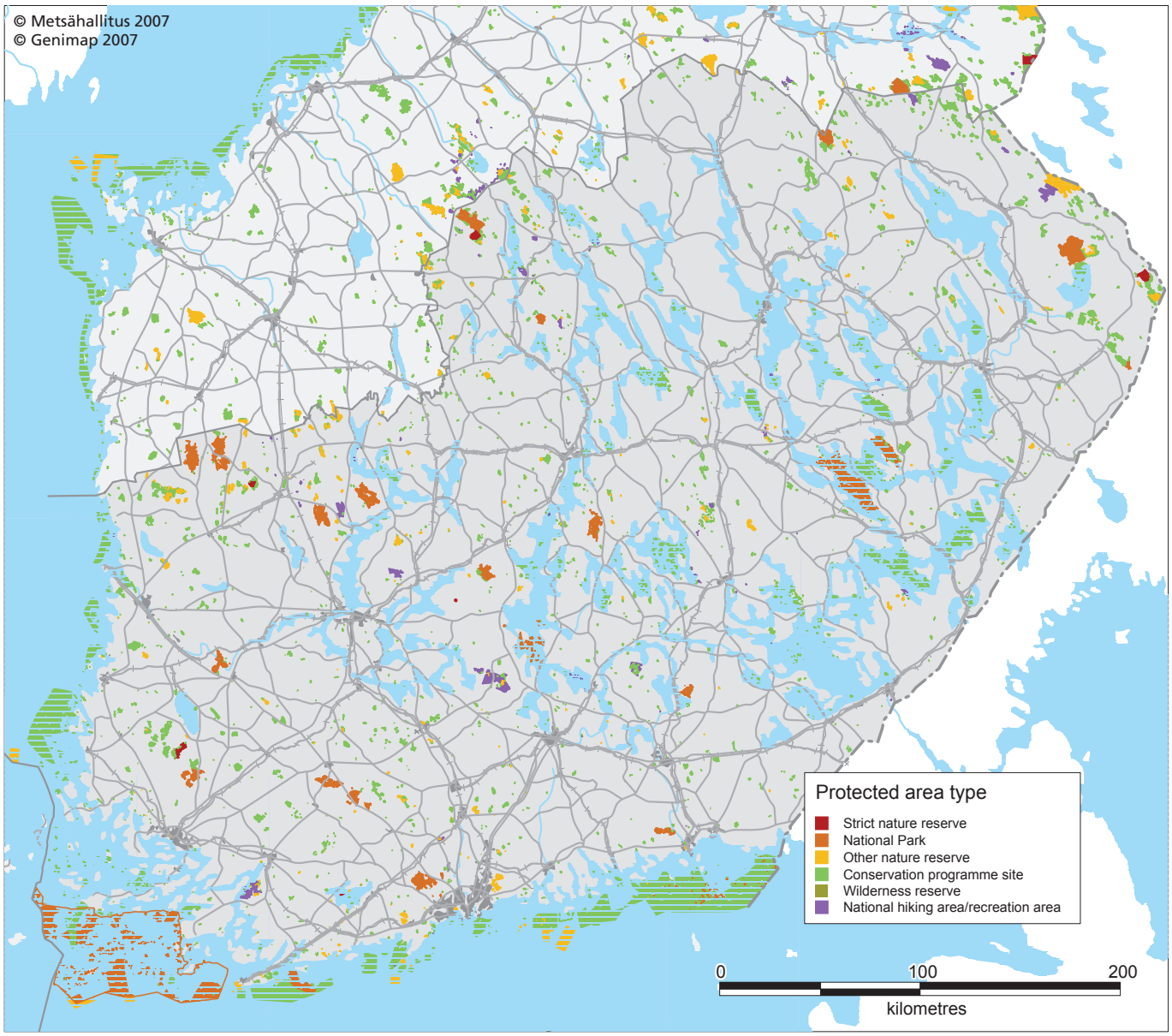
Key figures	NHS, Southern Finland	NHS, Ostrobothnia	NHS, Lapland	Total/mean
Surface area under regional unit management, ha	665 000	480 000	3 397 000	4 542 000
Number of PA sites under regional unit management	1503	503	381	2 387
Mean PA surface area, ha	461	900	8 917	1 902
Metsähallitus land, % of total surface of region	16%	35%	68%	32%
Metsähallitus forestry land, % of total surface of region	4%	22%	32%	14%
Regional unit budget, million euros	14.4	8.8	10.8	34.0
Project budget, % of total budget	55%	57%	39%	50%

NHS = Natural Heritage Services
PA = protected area

Old and new regional units of the Metsähallitus Natural Heritage Services.

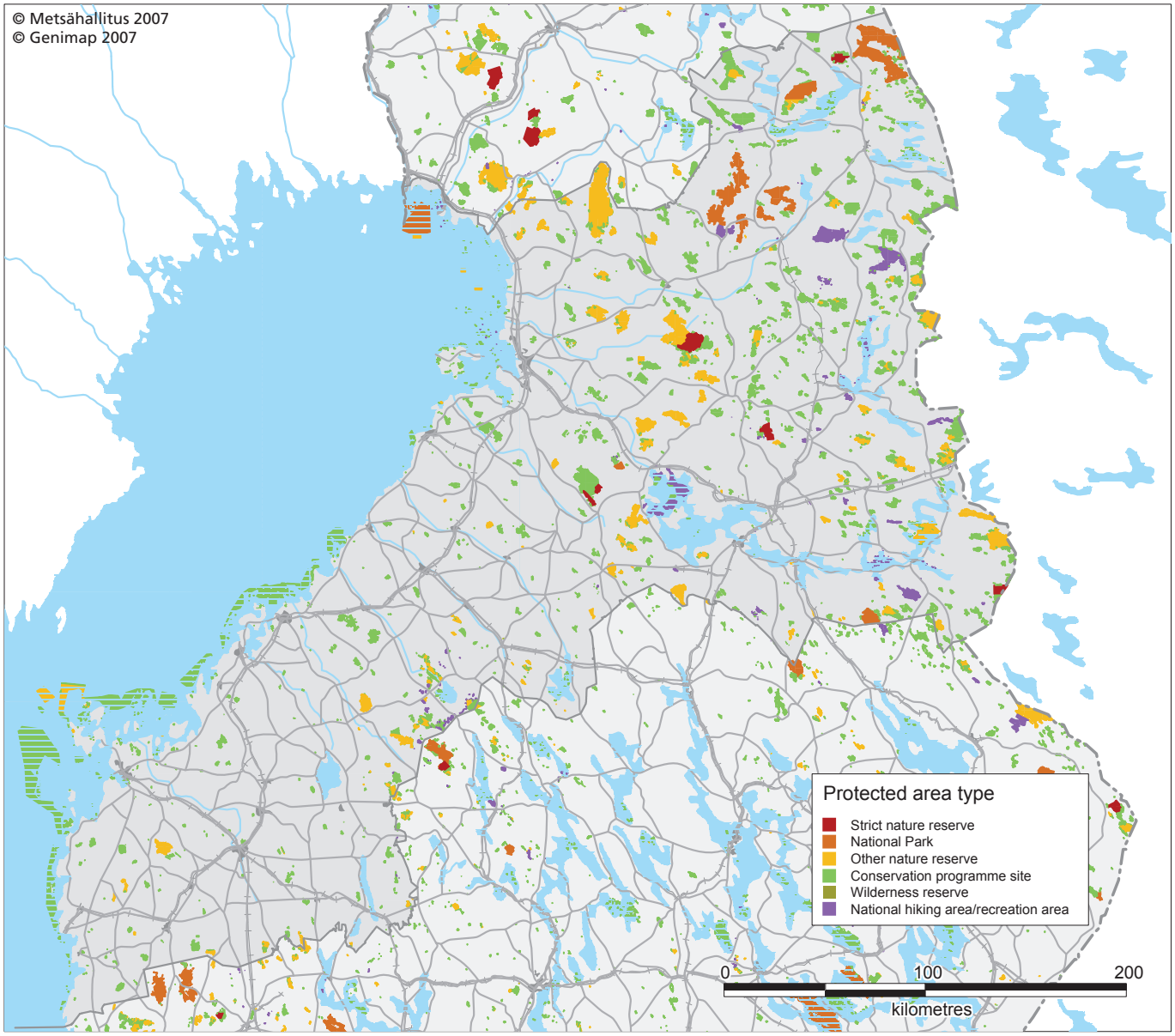
Protected Areas by Metsähallitus Natural Heritage Services Regional Units in 2005

Natural Heritage Services, Southern Finland



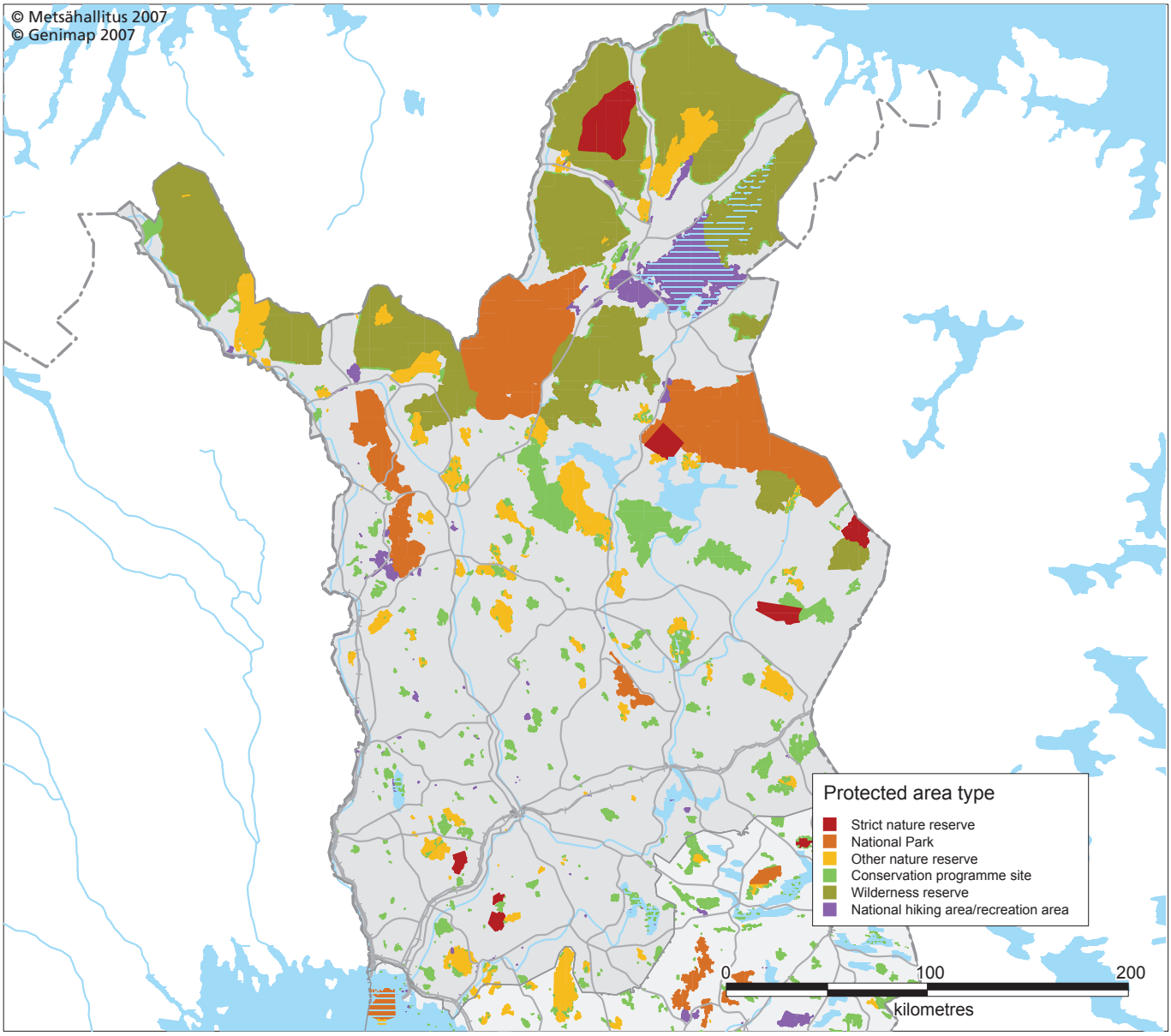
Protected area type	Number of sites	Land surface, ha	Water surface, ha	Total surface area, ha
Established nature reserves				
Strict nature reserves	6	5 734	72	5 806
National parks	25	77 234	60 827	138 060
Old-growth forest reserves	68	7 339	166	7 505
Mire reserves	43	19 474	186	19 659
Herb-rich forests reserves	18	227	2	229
Other nature reserves	83	9 455	16 601	26 055
Reserves established by Metsähallitus	22	663	41	705
Nature conservation programme sites	834	104 332	45 412	149 744
Areas designated/reserved in land use plans	180	3 181	178 790	182 151
Metsähallitus's protected forests	147	9 413	15 020	24 433
National hiking areas	3	9 138	950	10 088
Metsähallitus's recreational areas and/or forests	1	61		61
Total	**1 430**	**246 250**	**318 066**	**564 496**

Natural Heritage Services, Ostrobothnia



Protected area type	Number of sites	Land surface, ha	Water surface, ha	Total surface area, ha
Established nature reserves				
Strict nature reserves	5	16 430	217	16 647
National parks	6	69 364	16 261	85 626
Old-growth forest reserves	21	2 533	43	2 575
Mire reserves	71	114 513	1 804	116 316
Herb-rich forests reserves	13	260	3	263
Other nature reserves	25	29 706	16 382	46 088
Nature conservation programme sites	498	213 571	94 421	307 992
Areas designated/reserved in land use plans	53	4 168	9 452	13 672
Metsähallitus's protected forests	29	2 100	25	2 125
National hiking areas	4	15 847	9 598	25 445
Metsähallitus's recreational areas and/or forests	5	280	129	409
Total	**730**	**468 770**	**148 333**	**617 103**

Natural Heritage Services, Lapland



Protected area type	Number of sites	Land surface, ha	Water surface, ha	Total surface area, ha
Established nature reserves				
Strict nature reserves	6	126 008	2 350	128 358
National parks	4	647 463	7 734	655 196
Other nature reserves	3	672	20	692
Mire reserves	57	308 312	9 494	317 806
Herb-rich forests reserves	17	580	8	588
Reserves established by Metsähallitus	2	101	2	103
Nature conservation programme sites	191	270 573	6 138	276 711
Areas designated/reserved in land use plans	2	27		27
Metsähallitus's protected forests	42	7 952	218	8 170
Wilderness reserves	12	1 380 479	109 829	1 490 309
Metsähallitus's recreational areas and/or forests	13	68 943	71 165	140 107
Total	**349**	**2 811 109**	**206 957**	**3 018 066**

Areas under Administration of Metsähallitus Natural Heritage Services 2001-2005

A. Surface areas (ha) by area type

	31.12.2001	31.12.2002	31.12.2003	31.12.2004	31.12.2005
Nature reserves	1 407 542	1 487 500	1 499 489	1 504 443	1 568 277
national parks	750 808	750 808	813 758	816 263	878 882
strict nature reserves	144 088	144 088	150 278	150 811	150 810
reserves established by Metsähallitus	809	809	807	807	808
other nature reserves	511 837	511 837	526 572	528 402	529 433
private nature reserves	(no data)	(no data)	8 074	8 160	8 343
Conservation programme sites	529 015	617 761	617 761	787 518	734 447
Protected forests	22 258	18 105	18 105	11 633	34 727
Other protected sites	17 613	11 567	11 567	212 323	195 617
Wilderness reserves	1 487 228	1 489 522	1 489 522	1 490 359	1 490 309
Hiking and recreation areas	152 333	178 870	178 870	176 115	176 109
national hiking areas	35 961	35 935	35 884	35 534	35 532
other recreation sites	116 372	142 935	141 767	140 581	140 577
Other areas	280 462	281 174	280 072	360 406	360 385
Public waters outside above areas	2 712 000	2 752 000	2 436 000	2 432 000	2 433 000
Total	**6 608 451**	**6 836 499**	**6 882 802**	**6 974 796**	**6 992 871**

B. Area numbers by area type

	31.12.2001	31.12.2002	31.12.2003	31.12.2004	31.12.2005
Nature reserves	410	472	480	489	494
national parks	30	32	34	34	34
strict nature reserves	14	17	17	17	17
reserves established by Metsähallitus	24	24	24	24	24
other nature reserves	342	351	350	351	348
private nature reserves	(no data)	48	55	63	71
Conservation programme sites	1 179	1 230	1 429	1 505	1 523
Protected forests	127	124	101	103	218
Other protected sites	239	236	188	241	235
Wilderness reserves	12	12	12	12	12
Hiking and recreation areas	31	33	29	27	26
national hiking areas	7	7	7	7	7
other recreation sites	24	26	22	20	19
Other areas	40	42	28	8	9
Total	**2 038**	**2 149**	**2 267**	**2 385**	**2 517**

Conservation programme site: national nature conservation programme site under Metsähallitus administration, not yet established as a nature reserve.
Protected forest: site established by Metsähallitus decision primarily for nature conservation.
Other protected site: site reserved for protection in land use planning, or METSO programme site not included in national conservation.
Other recreation area: site established by Metsähallitus decision primarily for recreational purposes.
Other area: area reserved for land exchange for conservation or other purposes.

Definitions of the IUCN Protected Area Management Categories

Source: IUCN 1994: Guidelines for Protected Area Management Categories. CNPPA with the assistance of WCMC, IUCN, Gland, Switzerland and Cambridge, UK. 261pp.

Category Ia

Strict Nature Reserve: protected area managed mainly for science

Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Category Ib

Wilderness Area: protected area managed mainly for wilderness protection

Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Category II

National Park: protected area managed mainly for ecosystem protection and recreation

Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Category III

Natural Monument: protected area managed mainly for conservation of specific natural features

Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

Category IV

Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

Category V

Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation

Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Category VI

Managed Resource Protected Area: protected area managed mainly for sustainable use of natural ecosystems

Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Natura 2000 Barometer of Sites of Community Interest (SCI) in EU25 Member Countries in December 2005

Source: http://ec.europa.eu

Country	SCI number	Total area (km²)	Proportion of land area (%)
Slovenia	259	6 360	31.4
Spain	1 380	119 104	22.6
Portugal	94	16 503	17.4
Greece	239	27 641	16.4
Estonia	509	10 591	15.9
Hungary	467	13 929	15.0
Luxembourg	47	383	14.8
Italy	2 255	43 977	13.9
Sweden	3 981	62 557	13.7
Finland	**1 715**	**48 552**	**12.7**
Malta	23	39	12.5
Slovakia	362	5 739	11.8
Latvia	331	7 651	11.0
Austria	164	8 884	10.6
Ireland	413	10 561	10.2
Lithuania	267	6 664	10.0
Belgium	278	3 221	10.0
Germany	4 617	53 294	9.9
Czech Republic	841	7 241	9.2
The Netherlands	141	7 510	8.4
Cyprus	26	510	8.0
France	1 304	48 810	7.9
Denmark	254	11 136	7.4
United Kingdom	610	25 102	6.5
Poland	192	13 124	4.2
Total	**20 789**	**559 082**	**12.2**

Ramsar Areas in Finland by Province

Source: www.ymparisto.fi

Wetland types: A = Archipelago, B = Coastal bay, C = Bird lake, D = Mire
* Area is completely or partly administered by Metsähallitus

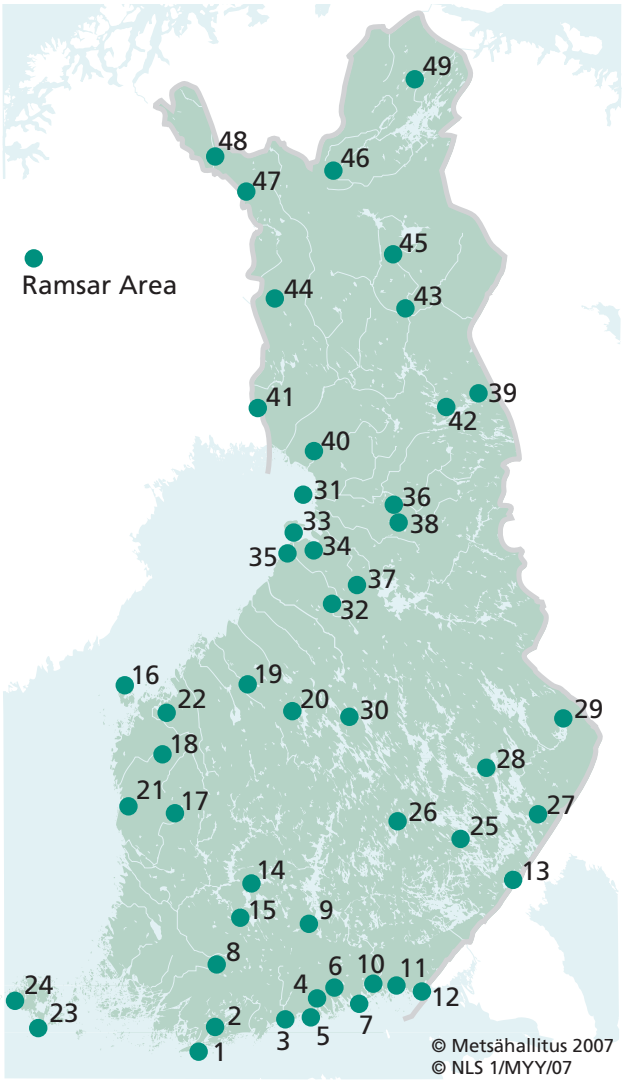
SOUTHERN FINLAND	Area (ha)	Type
1. Hangö and Ekenäs Bird Wetlands*	55 196	A+B
2. Lake Läppträsket	199	C+D
3. Vanhankaupunki Bay and Laajalahti Bay*	508	B
4. Porvoo River Estuary - Stensböle	958	B+D
5. Söderskär and Långören Archipelago	18 219	A+B
6. Pernajanlahti Bay	1 143	B
7. Aspskär Islands	731	A+B
8. Torronsuo National Park*	3 093	D+C
9. Lake Kutajärvi Area	1 051	C
10. Valkmusa National Park*	1 710	D
11. Hamina Kirkkojärvi ja Lupinlahti	649	B+C
12. Kirkon–Vilkkiläntura Bay	194	B
13. Siikalahti Bay area*	682	C

WESTERN FINLAND	Area (ha)	Type
14. Lake Kirkkojärvi Area	305	C
15. Vanajavesi Bird Wetlands	702	C
16. Kvarken Archipelago*	63 699	A
17. Kauhaneva-Pohjankangas National Park*	5 510	D
18. Levaneva Mires*	3 343	D
19. Pilvineva Mires	3 667	D
20. Salamajärvi National Park*	9 261	D+C
21. Lapväärtti Bird Wetlands	1 224	C+B
22. Vassorfjärden Bay	1 537	B

ÅLAND	Area (ha)	Type
23. Lågskär - Björkör Archipelago	6 309	A
24. Signiskär - Märket Archipelago	22 566	A

EASTERN FINLAND	Area (ha)	Type
25. Rantasalmi Bird Lakes	1 109	C+D
26. Suurenaukeansuo-Isosuo Mires and Pohjalampi	1 640	D+C
27. Rääkkylä and Kitee Bird Lakes	1 227	C
28. Lake Sysmäjärvi	734	C
29. Patvinsuon National Park*	12 727	D
30. Lakes Heinä-Suvanto and Hetejärvi	1 224	C+D

OULU	Area (ha)	Type
31. Krunnit Islands	4 436	A
32. Haapavesi Bird Lakes	3 616	C+D
33. Hailuoto Bird Wetlands	6 512	B+A+C
34. Liminganlahti Bay Area	12 275	B
35. Siikajoki Bird Wetlands	2 691	B+D+C
36. Lakes Aittojärvi and Kongasjärvi	703	C
37. Veneneva-Pelso Mires	12 039	D
38. Olvassuo Mires*	27 073	D
39. Oulanka National Park*	29 390	D



LAPLAND	Area (ha)	Type
40. Martimoaapa-Lumiaapa-Penikat Mires*	14 086	D
41. Kainuunkylä Islands*	1 005	C
42. Riisitunturi National Park*	12 461	D
43. River Luiro Mires*	12 345	D
44. Teuravuoma-Kivijärvenvuoma Mires*	5 788	D
45. Koitelainen Mires*	38 840	D
46. Lemmenjoki National Park*	285 990	D
47. Sotkavuoma Mire*	2 602	D+C
48. Lätäseno-Hietajoki Mires*	43 367	D
49. Sammuttijänkä-Vaijoenjänkä Mires*	51 749	D
TOTAL AREA	**782 632**	

Baltic Sea Protected Areas (BSPA) in Finland

Source: www.helcom.fi

Natura 2000 site code	Name of area
FI1400047	Åland Area: Signilskär/Märket
FI1100201	Hailuoto northshore
FI1100203	Isomatala–Maasyvänlahti
FI0408001	Eastern Gulf of Finland Archipelago and waters
FI0100026	Kirkkonummi Archipelago
FI1100202	Kirkkosalmi
FI1000033	Kokkola Archipelago
FI0800134	Kristiinankaupunki Archipelago
FI1102200	Liminka Bay
FI0800132	Luoto Archipelago
FI0800130	Kvarken Archipelago
FI0800135	Närpiö Archipelago
FI0200077	Oura Archipelago
FI1300301	Perämeri National Park
FI0100078	Pernaja Bay and Pernaja Archipelago Marine Protection Areas
FI0100074	River Porvoo Estuary - Stensböle
FI1000005	Rahja Archipelago
FI0200164	SW Archipelago
FI0100077	Söderskär and Långören Archipelago
FI0100005	Ekenäs and Hangö Archipelago and Pojo Bay Marine Protection Area
FI0100006	Tulliniemi Bird Protection Area
FI0800133	Uusikaarlepyy Archipelago
FI0200072	Uusikaupunki Archipelago

Number of Threatened Species by Primary Habitat in 2000

Source: Rassi, P., Kanerva, T. & Mannerkoski, I. (eds.) 2001: Suomen lajien uhanalaisuus 2000. (Abstract: The 2000 Red List of Finnish species. Report of the II Committee for the Monitoring of Threatened Species in Finland.) Ministry of the Environment; Finnish Environment Institute, Helsinki. 432 p.

Habitat	Vertebrates	Invertebrates	Vascular plants	Crypto-grams	Fungi	Total	Proportion of threatened species
	Number of species						%
Species, grand total	383	26 600	3 200	5 900	6 906	43 000	
of which evaluated	346	8 599	1 208	901	4 027	15 081	
Threatened species, total	50	759	180	142	374	1 505	100,0
Forests	12	252	35	15	250	564	37
Old heath forests	4	69	–	1	70	144	10
Other heath forests	3	10	3	1	24	41	3
Old herb-rich forests	1	58	–	8	32	99	7
Other herb-rich forests	2	64	26	4	120	216	14
Esker forests	–	15	6	–	–	21	1
Burnt forests	–	29	–	–	–	29	2
Other forests, not specified	2	7	–	1	4	14	1
Mires	1	14	18	25	9	67	4
Rich fens	–	3	17	13	4	37	2
Fens	1	2	1	1	2	7	0
Pine mires	–	5	–	–	1	6	0
Spruce mires	–	2	–	9	2	13	1
Other mires, not specified	–	2	–	2	–	4	0
Aquatic habitats	20	48	11	21	3	103	7
Shores	5	98	37	9	13	162	11
Rocky habitats	–	11	14	56	44	125	8
Alpine habitats	6	16	15	16	10	63	4
Agricultural and urban habitats	6	320	50	–	45	421	28

Classification of Cultural Heritage in Protected Areas Used by Metsähallitus Natural Heritage Services

Conservation value	Landscape	Cultural historical environment	Building	Ancient relic
International	[World Heritage natural sites]	World Heritage cultural sites		World Heritage cultural sites; IUCN Delos sites (to be approved)
National	Nationally significant landscapes; landscape conservation areas; national urban parks	Nationally significant cultural historical environments; Metsähallitus's statutory sites and NHS* heritage farms; Hague convention** sites (by NBA*** designation)	Metsähallitus's legally protected buildings; Buildings protected by agreement with NBA; Hague convention** sites (by NBA designation)	NBA ancient relic registry, class I sites; Hague convention** sites (by NBA designation).
Regional	Regionally significant landscapes (marked on regional land use plans); landscape conservation areas	Regionally significant built environments; museum roads (designated by the Finnish Road Administration)	Regionally significant buildings (marked on regional land use plan).	NBA ancient relic registry, class II sites
Local				NBA ancient relic registry, class III sites
Cultural heritage "reserve"	National landscapes; traditional agricultural landscapes; landscape sights (marked on regional land use plans)	National and regional sites inventoried by authorities; nationally significant cultural historical environments, proposed new sites (to be approved); sites designated by the Finnish Maritime Administration to be legally protected	Building or construction situated within a nationally significant landscape or established landscape conservation area, national urban park or nature reserve; valuable building or group of buildings built before 1960	Ancient relics registered in Metsähallitus data systems

* NHS = Natural Heritage Services
** The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, adopted in 1954 under UNESCO
*** NBA = National Board of Antiquities

Visits to National Parks and Hiking Areas 2000-2005

National Park	2000	2001	2002	2003	2004	2005
Helvetinjärvi	32 000	32 000	32 000	32 000	32 000	32 000
Hiidenportti	9 000	7 300	8 000	7 500	7 700	10 000
Isojärvi	8 000	7000	8 000	8 000	9 000	8 000
Eastern Gulf of Finland	16 000	15 000	18 000	15 000	15 000	16 000
Kauhaneva–Pohjankangas	6 000	6 000	6 000	6 000	6 000	6 000
Kolovesi	4 000	4 500	5 000	6 000	6 000	6 500
Kurjenrahka	15 000	20 000	20 000	20 000	20 000	25 000
Lauhanvuori	28 000	28 000	30 000	25 000	27 000	27 000
Leivonmäki				4 500	7 000	10 000
Lemmenjoki	10 000	10 000	10 000	10 000	10 000	10 000
Liesjärvi	25 000	25 000	15 000	15 000	16 000	25 000
Linnansaari	25 000	27 000	27 500	28 000	28 000	28 000
Nuuksio	80 000	100 000	100 000	100 000	100 000	110 000
Oulanka	145 000	143 000	162 000	165 000	173 000	173 500
Pallas–Ounastunturi*			98 000	125 000	125 000	
Pallas-Ylläs**						300 000
Patvinsuo	15 000	15 000	15 000	15 000	20 000	14 000
Perämeri	10 000	10 000	6 500	7 200	7 200	2 500
Petkeljärvi	15 000	15 000	17 000	17 000	17 000	17 500
Puurijärvi–Isosuo	22 000	22 000	15 000	15 000	15 000	17 000
Pyhä-Häkki	12 000	11 000	11 000	11 000	11 000	9 000
Pyhä-Luosto*						95 000
Pyhätunturi**			35 000	25 000	25 000	
Päijänne	8 000	8 000	8 000	8 000	10 000	12 000
Repovesi				65 000	65 000	65 000
Riisitunturi	10 000	6 000	6 000	7 000	7 000	7 000
Rokua	30 000	28 000	24 000	24 000	20 000	20 000
Archipelago	40 000	40 000	60 000	80 000	80 000	60 000
Salamajärvi	8 000	7 000	7 000	7 000	9 000	10 000
Seitseminen	37 000	37 000	37 000	40 000	40 000	40 000
Syöte	30 000	30 000	25 000	24 000	34 000	33 500
Ekenäs Archipelago	22 000	22 000	24 000	20 000	20 000	23 000
Tiilikkajärvi	5 000	5 000	6 000	6 000	7 000	6 500
Torronsuo	10 000	15 000	20 000	20 000	20 000	20 000
Urho Kekkonen	150 000	150 000	150 000	160 000	160 000	165 000
Valkmusa	6 000	6 000	6 000	5 000	5 000	6 000
Total visits	**833 000**	**851 800**	**1 012 000**	**1 123 200**	**1 153 900**	**1 410 000**

National Hiking Area	2000	2001	2 002	2003	2004	2005
Evo	60 000	50 000	50 000	50 000	50 000	50 000
Hossa	35 000	40 000	44 500	42 000	42 000	48 100
Iso-Syöte	50 000	25 000	20 000	22 000	24 000	25 000
Kylmäluoma	42 000	45 000	35 000	34 000	34 000	35 000
Oulujärvi	25 000	25 000	27 000	27 000	25 500	25 000
Ruunaa	108 000	115 000	110 000	118 000	115 000	117 000
Teijo	30 000	55 000	60 000	60 000	60 000	60 000
Total visits	**350 000**	**355 000**	**346 000**	**353 000**	**350 500**	**360 100**

* Transfered to Metsähallitus 1.1.2002 and repealed 31.12.2004
** Established 1.1.2005

Principles of Sustainable Nature Tourism in Protected Areas

In the nature and wilderness reserves, and other protected sites that are managed by the Metsähallitus Natural Heritage Services, sustainable nature tourism is practiced so that…

1. Natural values are preserved and all activities promote nature conservation.

- Nature is an important reason for visits.
- Visitors can learn about nature and conservation.
- Tourism does not disturb nature; not all areas are suitable for tourism.
- Groups are small, and marked trails are used whenever possible.
- Tourism is channeled into areas with suitable facilities.
- Facilities are designed to fit in with the surroundings; the most beautiful areas are left undeveloped.
- Erosion and other impacts are monitored, and if necessary, corrective measures are taken.

2. The environment is subjected to as little pressure as possible.

- Nature comes first; every effort is taken to avoid damage and disturbance.
- Visitors leave no trace behind them.
- Firewood is used sparingly.
- Emissions of all kinds are minimised and, renewable energy sources preferred.
- Metsähallitus and other organisations set good examples on environmental protection.

3. Local cultures and traditions are respected.

- Visitors are encouraged to learn about local cultures.
- Local cultures are suitably considered in the provision of information and activities.
- Local guides are familiar with local conditions.

4. Visitors increase their understanding and appreciation of nature and cultures.

- Information is available for visitors before they come.
- Information is easily available and attractively presented.
- Visitors can contribute to the management of the area.
- Guides are well trained.

5. Improved recreational facilities are provided for visitors.

- Needs of all visitors are considered.
- Facilities suit local demand and conditions.
- Visitors can enjoy peace and quiet, as well as guided activities.
- Facilities and services are developed in cooperation with local firms.

6. Visitors are encouraged to enjoy both mental and physical recreation.

- Visitors are encouraged to move under their own steam.
- Facilities are provided for hikers and other visitors.
- Opportunities exist for a variety of activities in natural surroundings.
- All routes and other facilities are safe.

7. Local economies and employment are promoted.

- Local firms' products and services are used where possible.
- Local people are employed where possible, although outsiders may also contribute valuable ideas to help promote local development.

8. Publicity materials are produced responsibly and carefully.

- Information is reliable and up-to-date.
- Publicity work is conducted openly and interactively.
- Publicity does not work against nature conservation.

9. Activities are planned and organised cooperatively.

- Visitors' opinions are very important.
- Training is organised together with local firms.
- All interested parties may participate in planning.
- In cooperation work, preference is given to organisations committed to these principles of sustainable nature tourism.

Principles and Operational Guidance for Application of the Ecosystem Approach

Source: www.cbd.int

The following 12 principles are complementary and interlinked

1. The objectives of management of land, water and living resources are a matter of societal choices.
2. Management should be decentralized to the lowest appropriate level.
3. Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.
4. Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context.
5. Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach.
6. Ecosystem must be managed within the limits of their functioning.
7. The ecosystem approach should be undertaken at the appropriate spatial and temporal scales.
8. Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.
9. Management must recognize the change is inevitable.
10. The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity.
11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.
12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

In applying the principles, the following five points are proposed as operational guidance

1. Focus on the relationships and processes within ecosystem.
2. Enhance benefit-sharing.
3. Use adaptive management practices.
4. Carry out management actions at the scale appropriate for the issue being addressed, with decentralization to lowest level, as appropriate.
5. Ensure intersectoral cooperation. Further information.

Projects Financed by the European Union Involving Metsähallitus Natural Heritage Services during 2005

EU LIFE Nature projects

These projects aim to protect species and habitats whose protection is prioritised by the Habitats and Birds Directives; and to develop areas within the Natura 2000 Network.

2005-2009 Restoration of dune and coastal habitats in the Vattaja Military Area
2005-2008 Conservation of *Anser erythropus* on European migration route
2004-2008 Tourist destinations as landscape laboratories. Tools for sustainable tourism
2004-2008 Natural forests and mires in the Green Belt of Koillismaa and Kainuu
2004-2008 Restoration and maintenance of valuable aquatic bird habitats of Pirkanmaa
2003-2008 Saving the endangered Fennoscandian *Alopex lagopus* (SEFALO+)
2003-2007 Management of wetlands along the Gulf of Finland migratory flyway
2002-2007 Karelian mires and virgin forests - pearls in the chain of geohistory
2002-2007 Restoration of boreal forests and wooded mires
2002-2006 Restoration of mire and bog ecosystems in North-Savo with reference to environmental education
2001-2006 Protection of valuable bird-rich wetlands in Central Finland
2003-2005 Best practices in Finnish bird wetlands (Co-op)
2002-2005 Evo Forest - Awareness-raising and protection of Southern Finland forest biotopes
2002-2005 Protection of aapa mire wilderness in Ostrobothnia and Kainuu
2001-2005 Herb-rich forests, forests of *Dendrocopos leucotos* and Western Taigas in North Karelia
2002-2005 Conservation of *Cypripedium calceolus* and *Saxifraga hirculus* in Northern Finland
2000-2005 Protection and usage of aapa mires with a rich avifauna in Central Lapland
(total 17)

Projects financed through EU Structural Funds

These projects aim to reduce regional inequalities within the EU by supporting less developed areas; and to achieve various environmental objectives.

2005-2007 Baltic Sea management – Nature conservation and sustainable development in the marine ecosystem through marine spatial planning (BALANCE) (Interreg III B)
2005-2007 Coastal sustainability as a challenge (Interreg III B)
2005-2007 Building of exhibition for Hailuoto Visitor Centre (Objective 2 Programme)
2005-2007 Oulanka-Paanajärvi - wilderness, experiences and well-being (Neighbourhood Programme Euregio)
2004-2007 Bird rich wetlands of international importance, nature reserves and cultural landscapes as resources for sustainable developments in rural area (BIRD)
2004-2007 Building of exhibition for Kalajoki Marine Nature Centre (Objective 2 Programme)
2004-2007 Wetlands, nature reserves and heritage landscapes as resources in rural areas (Interreg III B)
2005-2006 Turning environmental and wellness know-how into entrepreneurship in the Archangel corridor
2003-2006 Endangered species in common - Condition and impacts on conservation and society (Interreg IIIA)
2003-2006 Historical background to nature tourism on River Lieksanjoki (Interreg III A Karelia)
2003-2006 The occurrence and state of the populations of the freshwater pearl mussel in the NE parts of the North Calotte
2004-2005 Natura 2000 sites - a resource for Lapland
2004-2005 The green bridge III (Interreg III A)
2004-2005 Keropirtti construction project (Objective 1 Programme)
2004-2005 Developing nature tourism along the Peuran Polku Trail
2004-2005 Developing nature tourism in the Kuninkaanpuisto Park
2003-2005 A model for sustainable tourism in Arctic regions (Interreg III B)
2003-2005 Kalevala Parks (Interreg III A Karelia)
2003-2005 Launch of the Finnish Large Carnivore Information Centre (Interreg III A Karelia)
(total 19)

Targets in the Programme of Work on Protected Areas

Source: Secretariat of the Convention on Biological Diversity 2005: Protected areas for achieving biodiversity targets. CBD News Special Edition.

The Parties to the Convention on Biological Diversity have the following targets

(the numbers in brackets refer to the goals and suggested activities of the Parties)

By 2005

- Evaluate effectiveness of existing financial resources and needs. (*3.4.1*)

By 2006

- Establish national protected area targets and indicators. (*1.1.1*)
- Establish and expand protected areas in, intact or unfragmented or highly irreplaceable natural areas, or areas under high threat. (*1.1.2*)
- Address the under-representation of inland water ecosystems. (*1.1.3*)
- Review existing and potential forms of conservation. (*1.1.4*)
- Complete protected area system gap analysis. (*1.1.5*)
- Evaluate efforts to integrate protected areas into land- and seascapes. (*1.2.1*)
- Undertake to identify legislative gaps and barriers. (3.1.1)
- Undertake capacities needs assessments, and establish capacity building. (*3.1.1*)
- Develop standards, and indicators for evaluating management effectiveness. (*4.2.1*)

By 2008

- Address the under-representation of marine ecosystems. (*1.1.3*)
- Undertake steps to integrate protected areas into surrounding land- and seascapes. (*1.2.2*)
- Undertake measures for preventing or mitigating negative impacts of key threats. (*Goal 1.5*)
- Establish mechanisms for equitable sharing of both costs and benefits. (*Goal 2.1*)
- Ensure effective participation of indigenous and local communities. (*Goal 2.2*)
- Ensure supportive and enabling environment. (*3.1*)
- Ensure sufficient financial, technical and other resources. (*Goal 3.4*)
- Implement country-level sustainable financing plans. (*3.4.2*)
- Increase public awareness. (*Goal 3.5*)
- Develop standards, criteria, and best practices. (*Goal 4.1*)

By 2009

- Designate protected areas identified through gap analysis. (*1.1.6*)
- Address legislative gaps and barriers. (*3.1.1*)

By 2010

- Establish terrestrial protected areas. (*Goal 1.1*)
- Establish and strengthen transboundary protected areas. (*Goal 1.3*)
- Address approaches to liability and redress measures. (*1.5.2*)
- Undertake comprehensive capacity building programmes. (*Goal 3.2*)
- Ensure transfer of appropriate technologies. (*Goal 3.3*)
- Establish frameworks for management effectiveness. (*Goal 4.1*)
- Undertake management effectiveness evaluation. (*4.2.2*)
- Undertake effective monitoring of protected area coverage, status and trends. (*Goal 4.3*)

By 2012

- Establish marine protected areas. (*Goal 1.1*)
- Achieve effective management. (*Goal 1.4*)

By 2015

- Integrate protected areas into the wider land- and seascapes. (*Goal 1.2*)

Existing and Proposed New Indicators for Biological Diversity in Finland

The second column refers the indicator's position in the DPSIR framework (Smeets & Weterings 1999) and the fourth column indicates the code of the indicator according to Auvinen et al. (2007). Those indicators, which do not have this code have been proposed by Auvinen and Toivonen (2006) as new indicators to be added in the set.

No.	DPSIR	Indicator	Auvinen et al. 2007
FORESTS			
1	P	Total amount of roundwood removals	FO 1
2	P	Total amount of log removals	FO 2
3	P	Area of clear fellings	FO 3
4	P	Area of soil preparation in regeneration areas	FO 4
5	P	Area of artificial forest regeneration	FO 5
6	P	Amount of construction of forest roads	FO 7
7	S	Amount of dead wood	FO 8
8	S	Level of fragmentation	FO 10
9	S	Age structure and species composition of tree stands	FO 11
10	S	Forest breeding bird populations	–
11	S	Mammal diversity / Wildlife richness index	–
12	S/I	Changes in forest vegetation	–
13	S/I	Status of red-listed forest species	FO 14
14	S/I	Status of forest species listed in the EU Habitats and Birds Directives	FO 15
15	R	Area of prescribed burning	FO 6
16	R	Nature management in commercial forests	FO 9
17	R	Area of protected forests	FO 12
18	R	Area of restored forests	FO 13
MIRES			
1	P	Use of mires for forestry	MI 1
2	P	Use of mires for peat extraction	MI 2
3	P	Other uses of mires	MI 3
4	S	Fragmentation of pristine mires	MI 4
5	S	Area of pristine mire edges	MI 4
6	S	Mire breeding bird populations	–
7	S	Mire butterfly populations	–
8	S/I	Changes in mire vegetation	–
9	S/I	Status of red-listed mire species	MI 7
10	S/I	Status of mire species listed in the EU Habitats and Birds Directives	MI 8
11	R	Nature manegement in forested mires	–
12	R	Management of abandoned peat extraction sites	–
13	R	Area of protected mires	MI 5
14	R	Area of restored mires	MI 6
ALPINE HABITATS (FELLS)			
1	P	Size of reindeer herds	AL 1
2	P	Total amount of tourism	AL 3
3	P	Number of snowmobiles and other off-road vehicles in northern Lapland	AL 4
4	S	Quality of lichen pastures	AL 2
5	S	Alpine breeding bird populations	–
6	S	Alpine butterfly populations	–
7	S/I	Extent of palsa mires	AL 6
8	S/I	Status of red-listed alpine species	AL 8
9	S/I	Status of alpine species listed in the EU Habitats and Birds Directives	AL 9
10	R	Integrity of wilderness areas	AL 5
11	R	Indicator of the management plans for wilderness reserves	–
12	R	Alpine protected areas	–
ROCKY HABITATS AND ESKERS			
1	P	Extent of mining activities	RE 1
2	P	Amount of soil extraction	RE 2
3	P	Other uses of rocky habitats and eskers	RE 3
4	S	Populations of rocky habitat and esker species	–
5	S	Area of exposed rocky and esker habitats	–
6	S/I	Status of red-listed rocky habitat and esker species	RE 5
7	S/I	Status of rocky habitat and esker species listed in the EU Habitats and Birds Directives	RE 6
8	R	Area of protected rocky and esker habitats	RE 4
9	R	Management and restoration of exposed rocky and esker habitats	–

No.	DPSIR	Indicator	Auvinen et al. 2007
INLAND WATERS			
1	P	Nitrogen load and concentration	IW 1
2	P	Phosphorus load and concentration	IW 2
3	P	Loading of organic matter	IW 3
4	P	Acidification and harmful substances	IW 4
5	P	Extent of regulated watercourses	IW 5
6	S	Inland water breeding bird populations	–
7	S	Fresh water fish stocks	–
8	S	Indicator of the state of streams and brooks	–
9	S/I	Status of red-listed inland water species	IW 7
10	S/I	Status of inland water species listed in the EU Habitats and Birds Directives	IW 8
11	R	Area of protected inland waters	IW 6
12	R	Area of restored inland waters	–
BALTIC SEA			
1	P	Nitrogen load and concentration	BS 1
2	P	Phosphorus load and concentration	BS 1
3	P	Harmful substances	BS 4
4	P	Amount of sea traffic and oil transportation	BS 5
5	S	Concentration of chlorophyll a	BS 2
6	S	Area of anoxic bottoms	BS 3
7	S	Marine breeding bird populations	–
8	S	Marine fish stocks	–
9	S/I	Status of red-listed marine species	BS 7
10	S/I	Status of marine species listed in the EU Habitats and Birds Directives	BS 8
11	R	Area of protected sea areas	BS 6
12	R	Indicator of action taken to improve water quality in the Baltic Sea	–
SHORES			
1	P	Propotion of shoreline used for building	SH 1
2	P	Management of coastal, lakeside and riparian forests	–
3	S	Changes in onshore vegetation communities	SH 2
4	S	Shore breeding bird populations	–
5	S/I	Status of red-listed shore species	SH 4
6	S/I	Status of shore species listed in the EU Habitats and Birds Directives	SH 5
7	R	Area of protected shores	SH 3
8	R	Restoration and management of waterfowl wetlands	–
AGRICULTURAL HABITATS			
1	P	Number of active farms and their average arable area	FA 1
2	P	Number of livestock and cattle farms	FA 2
3	P	Amount of pesticides and fertilizers used	FA 3
4	P	Area of clearance and reforestation of fields	FA 4
5	S	Area of field margins and buffer strips	FA 5
6	S	Amount of traditional agricultural biotopes	FA 6
7	S	Farmland breeding bird populations	–
8	S	Farmland butterfly populations	–
9	S	Weeds on spring cereal fields	–
10	S/I	Status of red-listed farmland species	FA 10
11	S/I	Status of farmland species listed in the EU Habitats and Birds Directives	FA 11
12	R	Extent of management of traditional agricultural biotopes	FA 7
13	R	Area under organic farming	FA 8
14	R	Indicator of the agri-environmental support scheme	–
URBAN AND TRANSPORT AREAS			
1	P	Extent of population centres and number of people living in them	UA 1
2	P	Land use in population centres and cities	UA 2
3	S	Urban breeding bird populations	–
4	S	Green areas in cities	–
5	S/I	Status of red-listed urban species	UA 4
6	S/I	Status of urban species listed in the EU Habitats and Birds Directives	UA 5
7	R	Area of national urban parks	UA 3
8	R	Area on protected areas in cities	UA 3

State of the Parks Indicators and Key Figures

- **CONTEXT AND STATE OF THE PROTECTED AREAS**
  - Operational context
    - Key figures on context by region: Southern Finland, Ostrobothnia, Lapland
    - Key figures on conservation administration and work
  - Development of conservation programmes
    - Surface area and degree of realisation by programme
    - Programme funding and growth of surface area
  - State of the protected area networks
    - State of the network in Finland
      - conservation degree of land surface nationally and by forest vegetation zone
      - protected area numbers, surface areas and proportions by class (conservation programme)
      - protected areas administered by Metsähallitus NHS by land use class and regional unit
    - State of the Finnish network in Europe
      - conservation degree and surface area of Natura 2000 sites in the EU and by member state
      - conservation surface area and representativeness of BSPA ja Ramsar sites
      - number of UNESCO Biosphere and World heritage sites
- **PROTECTED AREA VALUES**
  - Biodiversity
    - Conservation status of habitats by ecosystem type
      - ecosystem type proportions of Finland's land surface
      - ecosystem type conservation: area, conservation degree and representativeness
        - forest, mire, rocky and esker habitats
        - fell habitats
        - inland water, Baltic Sea and shore habitats
        - agricultural and built habitats
      - protected area habitat types by land use class (incl. Natura 2000 habitat types)
    - Conservation status of species by taxonomic group
      - taxonomic group proportions by primary habitat
      - threatened species proportions by habitat and taxonomic group
      - primary habitats of threatened species
      - conservation degree and status of Nature Directive species by taxonomic group
  - Cultural heritage
    - International and national sites (on Metsähallitus lands)
      - special areas defined by national land use objectives
      - landscapes and cultural historical environments
      - ancient relics
  - Recreational values
    - Recreational services
      - facilities (constructions and trails)
      - activities
      - customer service network
    - Nature tourism growth areas
- **PROTECTED AREA VISITORS AND USE**
  - Nature recreation and tourism
    - Annual national and regional visitor numbers by protected area type
  - Hunting, fishing and traditional livelihoods
    - Hunting and fishing permits (in protected areas)
    - Reindeer numbers (in protected areas)
  - Research and education
    - Scientific studies in and on the protected areas by area type and topic class
    - Student group numbers

CHALLENGES OF PROTECTED AREA MANAGEMENT

Factors effecting conservation values

- Protected area size and interconnectivity
- Pressures and threats by region, ecosystem and protected area type
  - habitat change (diminishing and fragmentation)
  - habitat quality degradation (pollution, eutrophication)
  - habitat overexploitation (reindeer grazing)
  - invasive alien species and climate change

Management and land use objectives

- Development of legislation
- Development of protected area management principles

PROTECTED AREA MANAGEMENT AND ITS EFFICIENCY

Management objectives

- Development of Metsähallitus NHS strategies

Planning of network and sites

- Status Metsähallitus's natural resources planning
- Status of protected area management planning
- Status of Natura 2000 general planning

Financial and human resources

- Amount, proportion and development of funding by source
- Allocation of work contribution by task and regional unit (incl. voluntary work)
- Development of human resources and productivity

Management procedures

- Coverage of basic data for management by protected area type and data type
- Supply and use of protected area information: web-site hits by service and language
- Cooperation projects by mode of cooperation and type of funding
- Amount and mode of participation of local communities and stakeholders
- Amount of feedback by type

Processes and outputs

- Land and water acquisitions (amount and coverage of target)
- Regulation drafting and property establishment (number and coverage of target)
- Management plans (number and coverage of target)
- Number of land use contracts/leases
- Habitat type inventories (amount and coverage of target)
- Habitat restoration and management (amount and coverage of target)
- Species site inspection and management (occurrences by taxon and region)
- Construction and repair of buildings and recreational facilities (number of projects)
- Number of maintenance sites by type of facility or service
- Amount of nature interpretation material produced
- Number of visitor monitoring sites and customer surveys
- Amount of guidance and interpretation
- Contracts / agreements signed with tourism enterprises

PROTECTED AREA MANAGEMENT EFFECTIVENESS

Realisation of protected area aims and objectives

- Protected area coverage and representataviness
- Trends in development of ecological networks
- Conservation status of species and habitats (incl. Habitats Directive types)
- Trends in development of natural livelihoods and the Sámi culture
- Trends in development of research in/on protected areas
- Trends in development of recreational use of protected areas

Social impacts/effectiveness

- Trends in conflict resolution (e.g. seals vs. fishers, wolves vs. reindeer herders)
- Impacts on local and regional economies and employment
- Impacts on human well-being
- Trends in development of awareness and attitudes

International impacts/effectiveness

- Acknowledgements/ recognition received for protected area management
- Trends in development of transboundary and regional cooperation

ISSN 1235-6549
ISBN 978-952-446-622-6 (printed)
ISBN 978-952-446-623-3 (pdf)

Publications can be ordered from:
Julkaisua voi tilata osoitteella:

Metsähallitus
Customer services / Asiakaspalvelut
P.O. Box 36, FI-99801 Ivalo
FINLAND
e-mail: natureinfo@metsa.fi
www.metsa.fi

Telephone: +358 205 64 7702
Puhelin: 0205 64 7702

NORDIC ENVIRONMENTAL LABEL
441 002
Printed matter

Lönnberg Print, Helsinki 2007