

**Conservation of Arctic Flora and  
Fauna**

**CAFF**



**CIRCUMPOLAR PROTECTED AREA NETWORK (CPAN)**

**NATIONAL PRINCIPLES AND MECHANISMS FOR  
PROTECTED AREAS IN THE ARCTIC COUNTRIES**

**CAFF Habitat Conservation  
Report No. 3**

### About CAFF

The Program for the Conservation of Arctic Flora and Fauna (CAFF) was established to address the special needs of Arctic species and their habitats in the rapidly developing Arctic region. It forms one of four programs of The Arctic Environmental Protection Strategy (AEPS) which was adopted by Canada, Denmark / Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States through Ministerial Declaration at Rovaniemi, Finland in 1991. The other programs of the AEPS include the Arctic Monitoring and Assessment Program (AMAP) and the programs for Emergency Prevention, Preparedness and Response (EPPR) and Protection of the Arctic Marine Environment (PAME).

Since its inaugural meeting in Ottawa, Canada in 1992, the CAFF program has provided scientists, conservation managers and groups, and indigenous peoples of the north with a distinct forum in which to tackle a wide range of Arctic conservation issues at the circumpolar level.

CAFF's main goals, which are achieved in keeping with the concepts of sustainable development and utilization, are:

- to conserve Arctic flora and fauna, their diversity and their habitats;
- to protect the Arctic ecosystems from threats;
- to improve conservation management laws, regulations and practices for the Arctic;
- to integrate Arctic interests into global conservation fora.

CAFF operates through a system of Designated Agencies and National Representatives responsible for CAFF in their respective countries. CAFF also has an International Working Group which meets at least annually to assess progress and to develop CAFF Work Plans. It is headed up by a chair and vice-chair which rotate among the Arctic countries and it is supported by an International Secretariat. When needed, CAFF also sets up Specialist and Experts Groups to handle program areas.

The majority of CAFF's Work Plan activities are directed at species and habitat conservation and at integrating indigenous peoples and their knowledge into CAFF. Some examples are: work on rare, vulnerable and endangered plants and animals of the Arctic; developing circumpolar conservation strategies for certain species; work on Arctic vegetation, analyzing and making recommendations on threats to Arctic species and habitat; an Arctic strategy on biodiversity conservation; an indigenous peoples mapping project. Most of CAFF's work is carried out through a system of Lead Countries as a means of sharing the workload. Some projects are also assigned to the CAFF Secretariat. Whenever possible, CAFF works in cooperation with other international organizations and associations to achieve common conservation goals in the Arctic.

**National Mechanisms and Principles for Protected Areas  
in the Arctic Countries**

**CAFF Habitat Conservation Report Number 3**

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## Summary

The paper is a review of the principles, mechanisms and criteria used by CAFF countries to establish protected areas. It is based on responses to the Russian/CAFF Secretariat questionnaire on the subject from seven of the eight countries, as well as other published sources.

Overall, CAFF countries employ a combination of a classical or traditional protected area approach which focuses on land use restrictions inside protected areas, setting areas aside to preserve their natural state, and an approach which focuses on protection of species via restrictions and regulations on users of biological resources (chiefly hunters and fishermen) which also extends beyond protected areas *per se*. It is the specific combination of these two approaches which differentiates the national systems. While the details as to type, administrative practices and criteria for designating protected areas do differ across the CAFF countries, there is an underlying commonality to them. Thus, in all CAFF countries, habitat, species and ecosystem conservation serve as the primary designation criteria while a variety of other criteria are of secondary importance. This is a good starting basis for the CPAN project.

CAFF should consider the following options for criteria in developing the CPAN network. They are drawn from the existing practices of one or more of the CAFF country national systems of protection:

- *Significant Reliance on and Conformity with International Conservation Conventions.*
- *Trans-boundary Protected Areas, International Parks and Wildlife Refuges*
- *Significant Roles for International Non-Governmental Conservation Organizations*
- *Representation of all Bio-geographic Terrestrial and Marine Zones in the Arctic*
- *A Focus on Specific, Specialized Habitat Types*
- *The "Cluster" Model of Protected Areas and Strict Nature Reserves*
- *"Zones" of Protection which Move with Species Migrations and/or Seasonally*
- *Thorough and Elaborate Pre-Designation Scientific and Socio-Economic Studies and Environmental Impact Assessments.*
- *Measures for Temporary Protection During the Designation Process and Appeals.*
- *Comprehensive, Rationally Planned Network Concept and Systems which are Administratively and Procedurally "Lean".*
- *A Pan-Arctic Protected Area Registry of Candidate Site for Future Action/Designation*
- *Significant Role for Indigenous Peoples and Local Communities*
- *Secure a High-Level of Political Direction and Support*

CAFF countries should also consider a declaration of principle placing Arctic habitat, species and ecosystem conservation as a vital common interest and a primary factor to be considered in Arctic economic development projects, i.e. projects should be evaluated according to sustainable development criteria and their environmental impact on Arctic habitat and species.

The paper follows with a detailed country by country explanation of protected area systems, the background, statutes, actors and agencies involved, the process of designating protected areas and problems reported by questionnaire respondents. Charts highlighting the designation process are provided. Unique and/or innovative features of the various national systems are pointed out. Categories and types of protected areas and some of the regulations governing their use are also identified and discussed. The section on Russia includes a comprehensive list of principles formulated by Stanislas Belikov which are intended to guide the future construction of Russia's protected area system.

The paper concludes with some remarks/recommendations for the CPAN network. Foremost among these are the need for more information from some of the CAFF countries on certain features of their protected area regime which CPAN may wish to incorporate. It also recommends a close look at the UNEP Regional Seas Program and the Antarctic Treaty for measures which can be used to protect Arctic Ocean areas which are not under any national jurisdiction. It also recommends that for purposes of profile and continuity, a CAFF permanent body be kept in being to monitor the progress of the CPAN network and advise on further directions and action. The paper closes by highlighting the problem of accessing resources within CAFF countries for protected areas action and problems of interdepartmental competition for priorities and resources within CAFF governments which virtually all countries highlighted as problems in their responses.

## INTRODUCTION

This paper is a report/discussion on the processes and criteria used in CAFF countries to select and designate protected areas, and is intended to further the development of a Circumpolar Protected Area Network (CPAN) in the Arctic, to be coordinated through CAFF. This report, CAFF Habitat Conservation Report No. 3, is the second axis of the CPAN project. The paper is a merging of Stanislav Belikov's paper on national principles with Gregg Legare's CAFF Working Paper on the same subject. Unfortunately it has been impossible to make it completely comprehensive since detailed protected area regulatory information was available from only seven of the eight CAFF countries. We trust, however, that it provides a solid indication of the types of legal regimes, regulatory processes and designation criteria which are currently being used in CAFF countries.

### Synopsis of Designation Criteria

Each of the circumpolar countries possesses a network of specially protected natural land and water areas, which differ significantly from one another, depending on the objectives, requirements and priorities set for them. The legislative and legal basis of the different types of specially protected natural land and water areas also differ, as do administrative practices and managerial structures. Chart I represents the data on the basic principles applied to choose protected areas in CAFF countries. Habitat, species and ecosystem conservation tend to serve as primary designation criteria in nature reserves, special wildlife areas and national parks in many CAFF countries. (Note: Canada's national park system is something of an exception since habitat and species concerns are secondary.) The chart also shows that, in general, scenic value to humans, tourism and recreation potential and allowance for multiple uses tend to be of secondary or lesser importance in most categories of protected areas. Subsistence, research and educational uses of protected areas are allowed on a fairly widespread basis. While some data is unavailable, the chart shows a considerable degree of overall compatibility between CAFF countries in their designation criteria (no doubt due to a fairly close adherence to the IUCN management classification system). However, a large portion of the protected areas in Alaska and particularly in Sweden belong to IUCN categories V-VIII which do not ensure adequate protection of Arctic ecosystems and biodiversity. In addition, some types of specialized habitat under protection in some CAFF countries (e.g. Finland, Greenland) may not meet IUCN size criteria (10 km<sup>2</sup> size).

Overall, CAFF countries employ a combination of a classical or traditional protected area approach which focuses on land use restrictions inside protected areas and setting areas aside to preserve their natural state and an approach which focuses on protection of species via restrictions and regulations on users of biological resources (chiefly hunters and fishermen). The latter approach extends beyond protected areas *per se*. CAFF countries vary as to the specific weight of each approach within their national systems, some focusing heavily on the classical territorial approach (e.g. Russia, Finland) while others have a larger component of use restrictions (e.g. Greenland, Canada). However, all use both approaches and it is their specific combination which differentiates the national systems .



The basic compatibility of designation criteria forms a promising foundation when considering the development of a CAFF Circumpolar Protected Area Network (CPAN), as categories of protection and criteria to choose them do not diverge greatly.

What follows is a synopsis (presented in Chart I) of the criteria and priority system used in CAFF countries and a listing of particular features of protected area regimes drawn from the national mechanisms of the CAFF countries. This is followed by more detailed discussion on current procedures in each CAFF country used to designate protected areas. These individual country discussions and survey results are organized around the following categories: an opening introduction, Actors/Agencies & Legislation, Process and Problems. Charts outlining the process and agencies involved in the designation of protected areas have been prepared for seven of the countries and accompany the text.

**CHART I**  
**BASIC PRINCIPLES/CRITERIA TO DESIGNATE PROTECTED AREAS IN CAFF COUNTRIES**

- LEGEND:** P = Primary Consideration  
 S = Secondary Consideration  
 T = Tertiary Consideration  
 Y = Area is networked with others  
 N = Area is not networked  
 NA = No Answer/not applicable  
 NC = Not considered  
 SUB= Subsistence Needs  
 ED = Educational Value  
 RES = Research Purposes  
 SNR = Strict Nature Reserve or Zapovednik (Finland, Russia)

COUNTRY TYPE	HABITAT	SPECIES	ECO-SYSTEM	CULTURE/HERITAGE	GEOPHYSIC SITES	SCENERY	TOURISM/RECREATION	MULTIPLE USE	OTHER
<u>CANADA</u> National Wildlife Area N	P	P	S (some)	NA	NA	NA	S	S	NA
Migratory Bird Sanctuary N	P	P	NA	NA	NA	NA	NA	NA	NA
National Parks Y	S	S	P	P	S	S	S	S (limited)	NA
<u>YUKON</u> Ecological Reserves N	S	S	P	P	S	S	S	NA	NA

COUNTRY TYPE	HABITAT	SPECIES	ECO-SYSTEM	CULTURE/HERITAGE	GEOPHYSIC SITES	SCENERY	TOURISM/RECREATION	MULTIPLE USE	OTHER
Natural Environment Park N	S	S	P	P	S	S	S	NA	NA
			NO	DATA ON	PROVINCIAL	PARKS			
<b>FINLAND</b> National Parks Y	P	P	P	P SUB	P	P	S	S (some)	ED,RES
SNRs Y	P	P	P	NA	S	NA	NA	S (some)	NA
Mires Y	S	P	P	NA	P	P	S	S (limits)	NA
Eskers Y	NA	S	NA	NA	P	NA	NA	NA	P
Wetlands Y	P	P	P	NA	NA	NA	NA	NA	NA
Marine Y	NA	P	P	NA	P	NA	NA	NA	ED,RES
Wilderness Y	NA	NA	P	NA	NA	NA	NA	NA	SIZE
Old Forest Y	P	P	P	NA	NA	NA	NA	NA	NA
<b>GREENLAND</b> All types N	P	P	P	NC	NC	NC	NC*	NC	NC
<b>ICELAND</b> National Park N	P	S	P	P	S	P	T	NA	NA
Nature Reserve N	P	P	P	NA	NA	S	T	NA	NA

COUNTRY TYPE	HABITAT	SPECIES	ECO-SYSTEM	CULTURE/HERITAGE	GEOPHYSIC SITES	SCENERY	TOURISM/RECREATION	MULTIPLE USE	OTHER
Natural Mon. N	NA	NA	NA	NA	P	S	T	NA	NA
Country Park N	NA	NA	NA	NA	NA	NA	P	P	NA
<b>NORWAY</b> National Park Y	P	P	P	P (some)	P (some)	P (some)	P (some)	NA	NA
Nature Reserve N	P	P	P	S	P (some)	P (some)	S (some)	NA	NA
Natural Mon. NA	P (some)	P (some)	S	S	P	S	S (some)	NA	NA
Landscape N	P	P	P	P	P (some)	P (some)	P (some)	S	NA
Biotype Reserve Y	P	P	P	S	P (caves)	S (some)	S (some)	NA	NA
<b>RUSSIA</b>									
Zapovednik N	P	P	P	NA	NA	NA	NA	NA	ED, RES
National Park Y	P (some)	P (some)	P	P (some)	S	P (some)	S	NA	ED, RES
Nature Park Y	S	S	P	S	S	P	P	S	ED, SUB
Wildlife Sanctuary N	P (some)	P (some)	S (some)	T	NA	S (some)	S (some)	S (some)	SUB (some)

COUNTRY TYPE	HABITAT	SPECIES	ECO-SYSTEM	CULTURE/HERITAGE	GEOPHYSIC SITES	SCENERY	TOURISM/RECREATION	MULTIPLE USE	OTHER
Natural Monuments Y	NA	NA	S (some)	S (some)	P	S	T	NA	NA
<u>SWEDEN</u>				NO	DATA	PROVIDED			
<u>USA-FEDERAL</u>									
National Wildlife Refuge Y	P	P	P	S	S	S	S/NC	NC	SUB,ED
National Park Y	P	P	P	P	P (some)	P (some)	P (some)	NC	SUB
Wild Rivers Y	P	P	P	P (some)	S	P	P (some)	S	SUB
Wilderness Area Y	P	P	P	S	P (some)	P (some)	S/NC	NC	SUB
<u>ALASKA</u> Special Areas	P	P	NA	NA	NA	NA	P	P	NA

\* Tourism is marked as NOT CONSIDERED because of the difficulty of access to Greenland's protected areas. If there were easy access it would be PRIMARY

## **Elements for A CPAN System: The Menu for Choice**

This section highlights a number of prominent features from the protected area systems of the CAFF countries which could be considered for adoption in the CPAN system. The features discussed here are drawn from the national features of the protected area systems of one or more CAFF countries. Some of them are innovative approaches to nature protection which it would be desirable to "internationalize" through the CPAN process, that is, CAFF members could agree to adopt them in future protected areas and those areas which are designated as part of the CPAN Network. They are in rough order of applicability to more than one national system. Inclusion of a country name does not mean that feature is exclusive to that country or absent in others' systems, only that the feature is highly pronounced in the country mentioned.

### *Significant Reliance on and Conformity with International Conservation Conventions.*

e.g. Ramsar, World Heritage and Man and the Biosphere Program (MAB). Virtually all CAFF countries incorporate one or more of these conventions and their criteria in their protected area systems and planning.

### *Trans-boundary Protected Areas, International Parks and Wildlife Refuges*

Virtually all CAFF countries (except Iceland) have established protected areas contiguous to their international boundaries and there are significant international agreements which cover several migratory species who share the area (e.g. the Canada-US Porcupine Caribou Herd)

### *Significant Roles for International Non-Governmental Conservation Organizations*

e.g. World Wide Fund for Nature (WWF), BirdLife International, Nature Conservancy etc. play a key proactive role in a number of CAFF countries. The variety of roles played by these organizations is considerable ranging from provisions of expertise and an advisory role to the outright financing and, in some cases, ownership and management of protected areas.

### *Representation of all Biogeographic Terrestrial and Marine Zones in the Country*

Russia, Finland and Canada have all made special efforts to ensure that their protected areas are networked to comprehensively represent the full diversity of their ecosystems and that some portion of each is protected.

### *A Focus on Specific, Specialized Habitat Types*

Beyond National Parks and Nature Reserves, Finland, Iceland and Sweden have taken special measures to protect specific habitat types in their systems. Examples are peatlands, rivers and rapids and old-growth forests.

### *The "Cluster" Model of Protected Areas and Strict Nature Reserves*

Developed particularly by Russia and also Finland. Huge land tracts do not have to be set aside as with large National Parks or Wildlife Refuge systems. Human use for other than scientific purposes is highly restricted in order to keep these areas in a pristine state.

### *"Zones" of Protection which Move with Species Migrations and/or Seasonally*

Pioneered by Greenland this is an efficient means to protect species during key phases of their annual life-cycle and when they are in the process of migrating. It is particularly apt for the protection of marine species who roam over large areas and is used by Greenland for Arctic charr.

### *Thorough and Elaborate Pre-Designation Scientific and Socio-Economic Studies and Environmental Impact Assessment.*

This is a very prominent feature in the American designation system where studies of alternative uses and an EIA must be done by federal law. All countries do biological studies before establishing protected areas, but the Russian practice is characterized by also doing elaborate socio-economic ones as well.

### *Measures for Temporary Protection During the Designation Process and Appeals.*

The designation process is a lengthy one in most countries and sometimes an area is in imminent danger of damage while the process moves on or there are appeals by landowners etc. against designation. Norway and Finland have developed systems to temporarily place such areas under protection pending the outcome of the designation process or objections.

### *Comprehensive, Rationally Planned Network Concept and Systems which are Administratively and Procedurally "Lean".*

Norway and Finland both have systems in which network planning is central and rationally sought for but they also have procedures and regulations which are not overly cumbersome or time-consuming.

### *Protected Area Registry of Candidate Site for Future Action/Designation*

In Iceland, if a protection proposal is turned down it goes into a registry of areas from which it may be resurrected at some future date when priorities might change or the climate for protection is more favourable. Such a registry at the Pan-Arctic or Circumpolar level might be useful.

### *Role for Indigenous Peoples and Local Communities*

Protection of areas in the Arctic will have the largest impact on the Arctic indigenous peoples and also local communities which are nearby or adjacent to protected zones. The roles of indigenous peoples in national designation processes varies widely, ranging from co-management of protected areas in Canada, institutionalized procedures for their consultation and active participation in Sweden (and Canada, USA) to a special emphasis on the protection of indigenous cultures and ways of life along with species and habitat as is found in Russia and Greenland. The USA and Sweden have detailed, institutionalized procedures for local community involvement (indigenous or not) and contribution in all phases of their designation process.

### *High-Level Political Direction and Support*

A major feature in the American system where Congressional support often drives the designation process with many proposals coming from legislators. This is very true of the State of Alaska's system as well.

A couple of administrative/legal features are also of special relevance to CPAN. The Swedish Natural Resources Act defines nature conservation as a key national interest and mandates its use as a criterion to decide on conflicting/competing land uses, putting nature protection on a par with other key national interests. With the Government of Canada's recent reorganization, a major component of protected areas, (Parks Canada), has been administratively incorporated with the Department of Canadian Heritage. As Parks Canada is the management agency and custodian of the National Parks system, this can be interpreted as an acknowledgement that nature, as well as Canadian history and cultures are part of the Canadian heritage.

## **REPORTS AND SURVEY RESULTS - BY COUNTRY**

### **CANADA**

Canada's Arctic is a mosaic of different jurisdictions. Its two territories, the Northwest Territories and the Yukon Territory, are under federal jurisdiction and comprise the vast majority of Canada's Arctic territory. The remainder of the Canadian Arctic is under the jurisdiction of five of the provinces. At the federal level, Canada has two broad categories of protected areas. The first are National Wildlife Areas and Migratory Bird Sanctuaries may soon be included. The second type are National Parks and Marine Protected Areas. The remaining protected areas in the Arctic region are classified as Provincial/Territorial Parks, and are under the jurisdiction of the Canadian provinces/territory in which they are located. Ramsar, World Heritage, and Man in the Biosphere sites may be under dual jurisdiction.

The government of the Northwest Territories has been making efforts at wildlife conservation since the early 1980s. Wildlife Conservation areas are an integral component



of the strategy for stable development which is being designed by the government. Presently there is no systematic approach to the organization of a protected area network but the government of the Northwest Territories is working to develop one. The territorial government manages a system of territorial parks and wildlife areas. These are intended to promote tourism and do not have the goal of preserving nature and natural resources. The territorial wildlife sanctuaries protect only a few species or ecosystems. There is no legislative basis for the protection of major predators in these sites, although plans for such do exist.

In the Yukon, identified key habitats (47 sites) have so far not received protected status but they appear on federal land maps and both the Canadian Wildlife Service and the Yukon Department of Renewable Resources can make an examination of any planned activity in these areas. In the Yukon, two government agencies, the Yukon Parks Branch and the Yukon Fish and Wildlife Branch, are involved with protected areas establishment and management. The respective legislative instruments are the Yukon Parks Act and the Yukon Wildlife Act. Yukon's Parks System Plan has divided the Territory into eight Park landscapes and 22 Ecoregions. Three Landscapes and eight Ecoregions fall within the Arctic. Several types of parks are defined in the Parks and Outdoor Recreation Policy of 1991, but only two types, Ecological Reserves and Natural Environmental Parks qualify under IUCN designations I-IV. The procedures used to select and establish a new protected area are summarized in Chart II-C. In 1992, the Yukon Territorial government made a commitment to complete the establishment of a Yukon Parks System by the year 2000. At minimum, this system will include one Natural Environmental Park and one Ecological Reserve in each of the eight Park Landscapes and are representative designations in each Ecoregion. Progress, however, has been slow. Only two Ecological Reserves have been established so far (one of them - Herschel Island - is in the Arctic), and work on two more is underway. One of these areas - Fishing Branch Ecological Reserve - will be in the Arctic. While the Wildlife Act allows for the creation of protected habitat areas, none have yet been established. Yukon's native people are presently involved in the settlement of their land claims. A number of protected areas have been proposed and will hopefully come into being in the next few years

Each Canadian province also has Provincial Parks under its jurisdiction. Typically, their uses are recreational based on camping, day-use and nature enjoyment activities. In general, provincial actions on protected areas are complementary to federal action. Ontario has put forward a discussion paper on protected areas, entitled *A Natural Areas Strategy for Ontario: Responding to the Endangered Spaces Challenge*. This describes methods of protecting natural heritage areas and proposes a schedule for completion of the organization of a protected areas system before the year 2000. In the province of Quebec, a moratorium on new provincial parks was lifted in 1991. A five year plan for the implementation of a parks strategy was announced in 1992. Planning for a system of protected areas will be based on the representation of each natural region. Newfoundland has committed itself to completing a protected area system before the year 2000. Saskatchewan and Manitoba have launched studies to identify areas which should be protected.

### **Actors/Agencies:**

The two chief federal statutes governing Canadian protected areas are the Canada Wildlife Act and the National Parks Act. For areas under provincial jurisdiction, legislation specific to those provinces governs Provincial Parks. In Canada's Arctic, the main agencies with jurisdiction in the system of protected areas are:

**FEDERAL:** Environment Canada (Canadian Wildlife Service)  
Department of Canadian Heritage: (Parks Canada)  
Department of Fisheries and Oceans: (various fish/marine mammal conservation and management units)

**TERRITORIAL:** Northwest Territories Department of Renewable Resources  
Northwest Territories Department of Economic Development & Tourism  
Yukon Parks Branch  
Yukon Fish and Wildlife Branch

**PROVINCIAL:** Provincial parks have traditionally been managed by a department of the provincial government. For example, the British Columbia Ministry of Environment, Lands and Parks or the Ontario Ministry of Natural Resources. Several provinces are now working towards a Species Operating Agency status which will see quasi-government agencies managing parks.

**PRIVATE/NGO:** Aboriginal Land Claims Organizations  
Inuit Circumpolar Conference  
World Wildlife Fund (Canada)  
Wildlife Habitat Canada  
Ducks Unlimited Canada  
Nature Conservancy of Canada

### **National Wildlife Areas**

National Wildlife Areas and Migratory Bird Sanctuaries are administered and generally owned by the Canadian Wildlife Service of Environment Canada. They do not comprise a planned network of linked sites, rather they respond to evolving habitat protection needs of migratory birds and, to some extent, other species and threatened ecosystems. Both meet a management category corresponding to the description in the IUCN 1990 classification system. Bird Sanctuaries are established under the Migratory Birds Convention Act, in conformity with the 1917 Migratory Bird Convention with the United States whereas National Wildlife Areas are established under the Canada Wildlife Act. Wildlife areas can also be designated under the Porcupine Caribou Herd Agreement with the USA. Any of these can also be designated as sites under the World Heritage, Ramsar or UNESCO's Man and the Biosphere (MAB) Conventions, in addition to their national protected status if they meet the criteria established by these International Conventions. Some have been so designated, and it is planned to add to them in future. Planned sites may become Important Bird Areas or will become part of the Western Hemisphere Shorebird Reserve Network. Provision can also be made to designate sites as special

wildlife areas under various aboriginal land claims agreements so that they would continue to be protected but be co-managed by both federal and aboriginal officials.

The primary considerations used to establish Migratory Bird Sanctuaries are:

- to protect key breeding/staging areas for migratory species.
- to protect a specific species.
- to protect an assemblage of species but these sites are generally insufficient in size
- to protect an entire ecosystem or representative portion of an ecosystem.

Selection of National Wildlife Areas is according to species criteria and a site must contain 'nationally significant' wildlife habitat defined as one or more of the following conditions. A site must:

- contain at least 5% of the Canadian population of a species.
- if it contains more than one species of interest, it must contain at least 1% of the Canadian population of each.
- the site contains a unique assemblage of species.
- the site has potential for research on species.

Many of these sites are co-managed by federal authorities and local, often indigenous peoples' authorities. In National Wildlife Areas, tourism, trapping, hunting and other multiple uses may be allowed depending on local interests, the wishes of the co-management partners and the conservation objectives of the area. Regulations prohibit hunting of migratory birds, taking of their eggs or nests. Activities such as clearcut logging and mining are permitted if they do not interfere with the "target species" the areas are set up to protect. Migratory bird sanctuaries control activities within their boundaries only when migratory birds are present and are not designed to provide year-round habitat protection. National Wildlife Areas place control on activities which disturb habitat all year round. These areas can be "deregulated" if they lose their value for migratory birds or, if privately owned, consent is revoked by the landowner.

#### **Process:**

Chart II-A presents a schematic outline of the Canadian designation process for National Wildlife Areas. While normally Canadian Wildlife Service nominates candidate sites, members of the scientific community, provincial government biologists, indigenous groups, conservation groups and private citizens have all made proposals for them. The formal designation process for a protected area involves an evaluation of biological information on the site to establish its conformity with the selection criteria above, including in-depth field studies. All potentially interested groups and agencies are then advised of the intention to designate the site as a protected area. After this is established, a management plan is negotiated between all concerned parties, reviewed by them and agreed to. If the site is privately owned, an agreement must be reached with the landowner. Once these stages are accomplished, the site is officially designated through amendment of the Canada Wildlife Act by Parliament and Order-In-Council.

## National Parks

The national parks system in Canada is part of a larger federal program for the preservation of representative areas in each of the identified natural regions of the country (see below), as well as critical wildlife habitats (the Green Plan). The territories and provinces, who also contribute to this goal, work with federal agencies, and non-governmental organizations and aboriginal associations as well as the private sector.

The Canadian National Park system is based on the concept of a planned network, covering 39 natural regions or ecozones identified in Canada (16 are wholly or largely Arctic). The natural physico-geographical zoning of the territory (ecozones) serves as the basis for the organization of new national parks in Canada. Differences in the plant cover and animal world, geological and geomorphological structure are taken into consideration in distinguishing ecozones. The National Parks system aims to represent each of the regions with at least one park. The completed system will cover 3% of Canada's land area. A similar approach is underway to establish National Marine Conservation Areas in a systematic way. Of the 29 identified marine ecozones, 9 are in the Arctic.

All National Parks and National Marine Protected Areas are federally owned with regulatory authority residing with Parks Canada. Such areas, in addition, can also be nominated for international status under the World Heritage Convention (3 sites) or other International Conventions. The main purpose of the national parks system is the protection and maintenance of the ecological integrity of ecosystems, as reflected in the National Parks Act. The primary objectives in designating National Park sites are:

- protection of ecosystems and maintenance of their ecological integrity (the main management objectives since 1982).
- protection of sites with significant cultural or heritage resources. These are provided the highest resource protection available.

While habitat and species protection, maintenance of geophysical sites and/or important scientific areas are not singled out as primary selection objectives, it is assumed that all these objectives are accomplished, *inter alia*, as a result of the establishment of a National Park for the site in question. Provision for tourism and recreation within National Parks is of secondary importance and, while provisions are made in the National Parks Act for some tourist and visitor use, no commercial resource extraction activities are allowed. Motorized navigation and some commercial fishing are permitted in marine parks.

### Process:

Chart II-B presents a schematic outline of the process for designating National Parks in Canada. The process to designate a National Park or National Marine Protected Area is very similar to that used for National Wildlife Areas and Bird Sanctuaries. The steps in the process are as follows:

- Identify and study candidate sites representative of natural areas.

- Choose a site as a potential National Park based on further studies and consultations. Once this is done, complete detailed studies including land use studies assessing mineral and energy resource assessment.
- Hold consultations with provincial/territorial governments, local communities, indigenous peoples' organizations and interest groups. Propose preliminary boundaries and show public support.
- An agreement is negotiated for the park's establishment. Where indigenous land claims are involved (e.g. Baffin Island), agreement needs to be reached with indigenous groups and the territorial government for administration and control to be transferred to Parks Canada.
- Formal establishment of the park by amendment by Parliament of the National Parks Act and proclamation by Order-in-Council.

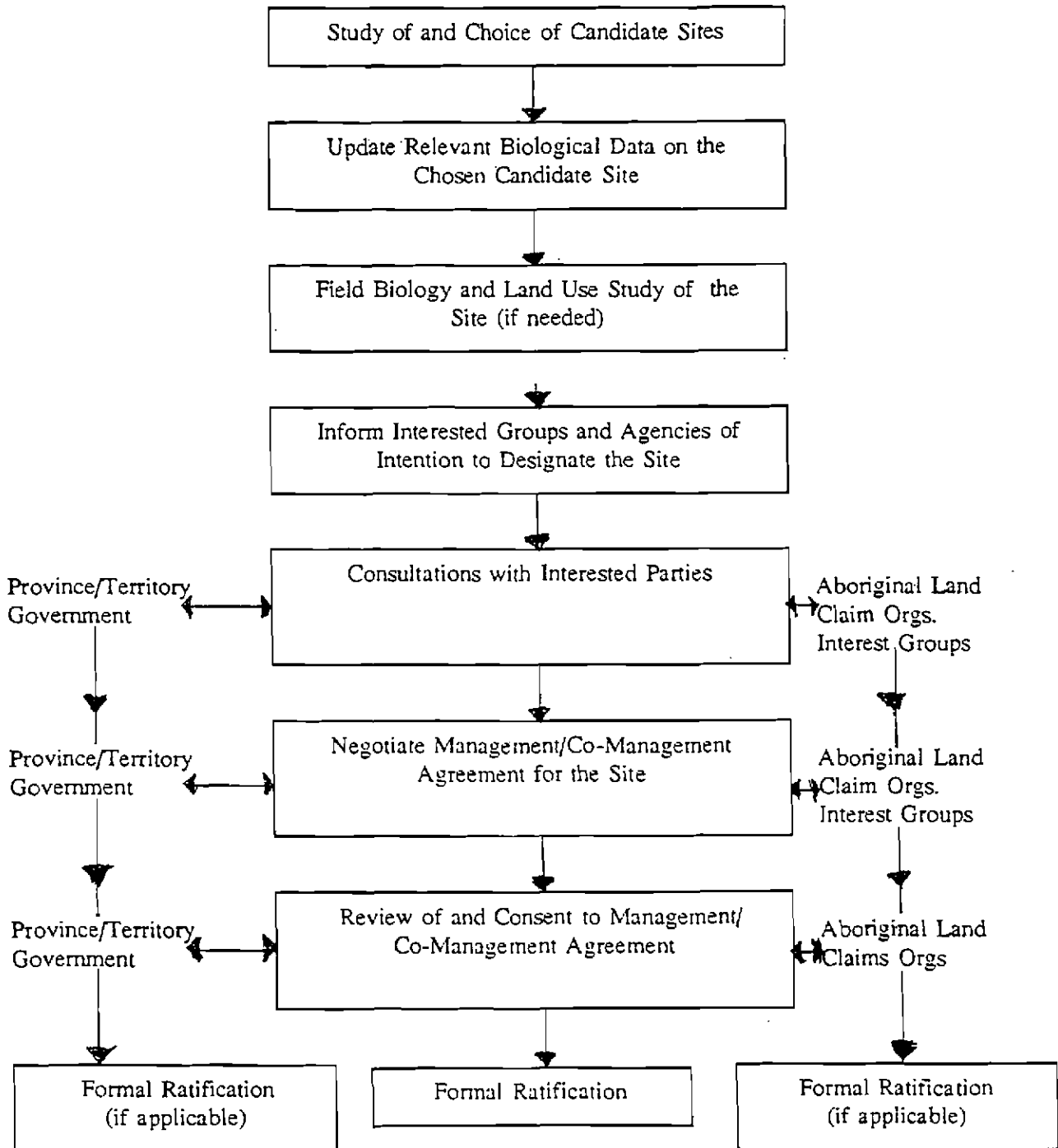
The types of protected areas under federal jurisdiction in Canada are intended, together, to form a protected area network sufficient to represent all Canada's natural regions and the habitat critical for the survival of its diverse wildlife. However, action only at the federal level is not sufficient. Provinces must also complete their systems and cooperate to minimize gaps. Support of aboriginal peoples, local communities, the private business sector and other interest groups is also essential.

As an example of the procedure followed to establish a protected area by a Territorial government, Chart II-C summarizes the steps taken to create a Territorial Park in the Yukon.

The Canadian Wildlife Act has recently been amended to allow for the designation of maritime areas, an obvious gap until now. Marine areas (both salt and freshwater) also involve the jurisdiction of the Department of Fisheries and Oceans. To further complicate the matrix of jurisdictions, virtually all areas can also involve jurisdiction of Canada's component provinces and territories, which also maintain their own protected areas and provincial parks. A major problem reported by federal officials are the complex bureaucratic hurdles encountered in developing a protected area system. This can also include the lack of support from other federal departments involved. The complexity of negotiations is caused by the abundance of interested parties involved. The consultation requirements are time and manpower-resource intensive. An obvious problem is a lack of financial resources needed for establishing new protected areas. Canada has also experienced problems over competition for land and resources for alternative uses to protection and there has been a lack of support or active opposition from resource extraction industries who wish these areas left open to commercial exploitation.

**CHART II-A**  
**CANADIAN DESIGNATION PROCESS FOR**  
**NATIONAL WILDLIFE AREAS AND BIRD SANCTUARIES**

**FEDERAL**



NOTE: Levels of formal ratification and by whom will depend on nature of management/co-management agreement (i.e. tripartite, federal-provincial/territorial or federal/land claim organization)

CHART II-B

CANADIAN DESIGNATION PROCESS FOR NATIONAL PARKS AND NATIONAL MARINE PROTECTED AREAS

FEDERAL

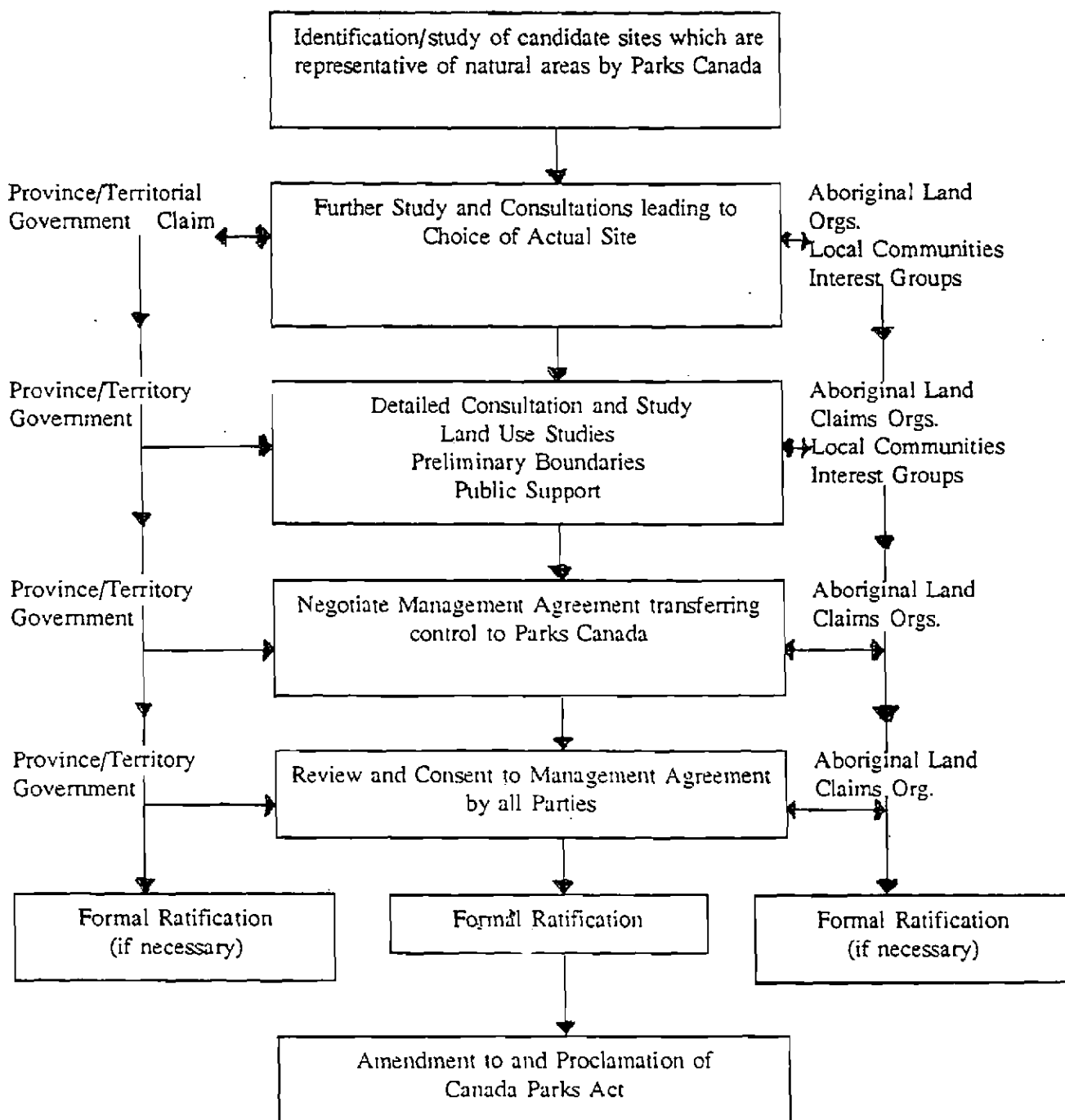
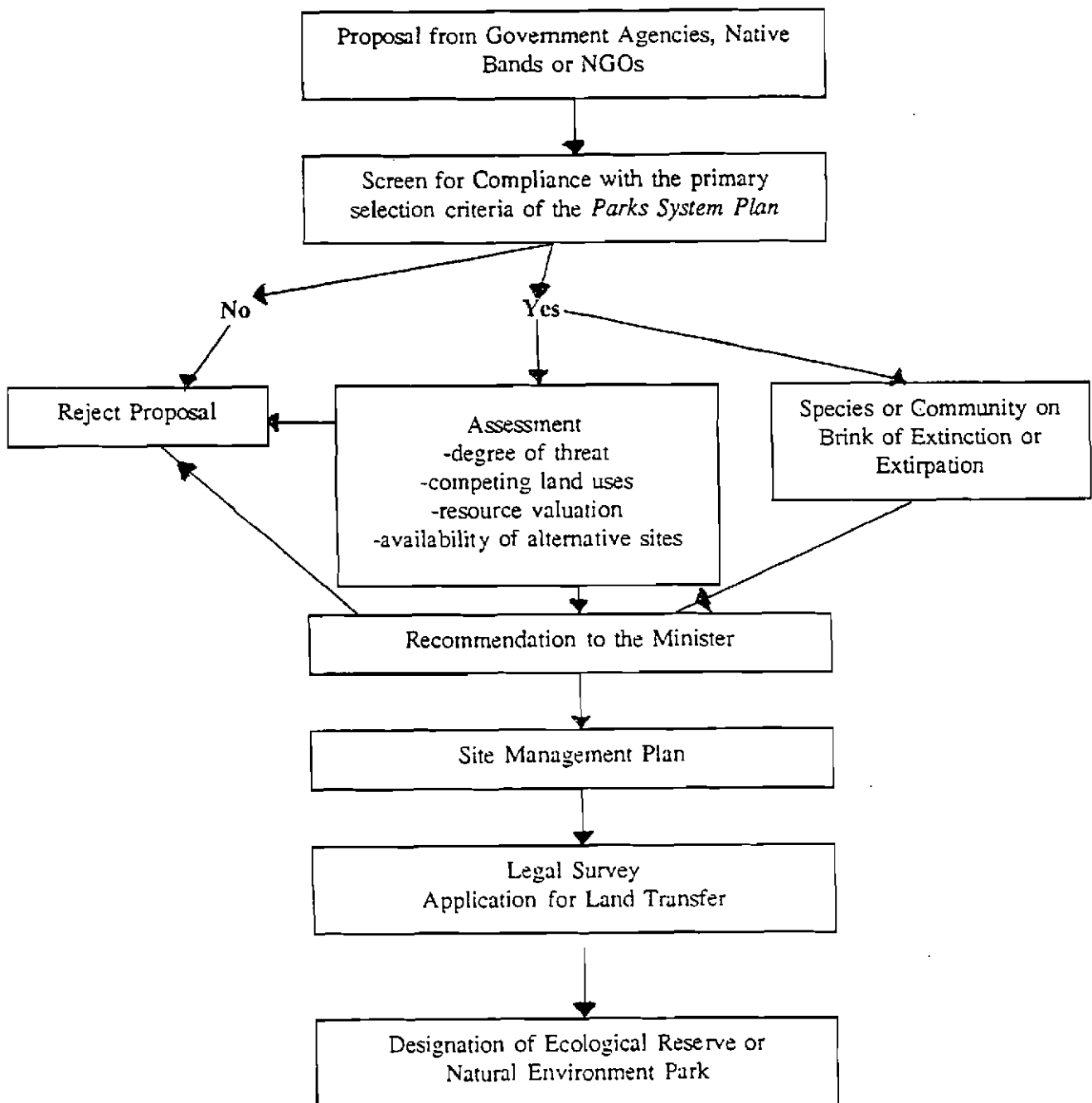


CHART II-C

YUKON TERRITORIAL DESIGNATION PROCESS FOR ECOLOGICAL RESERVES AND NATURAL ENVIRONMENTAL PARKS





## **FINLAND**

Systematic planning of protected areas was begun in Finland in the mid 1970s and the trend in this planning has been a move from general conservation values represented by National Parks and Strict Nature Reserves toward more specific criteria related to discrete nature types such as mires, wetlands and old forests. Habitat types are selected on the basis of Finland's division into physio-geographic regions based on its vegetation zones. The first comprehensive surveys on threatened species were done in 1985 and the presence of threatened species has been used as a general protection criteria ever since. The primary designation criteria for protected sites in Finland are the preservation of habitats, species and ecosystems.

The principal legislative instrument is the Nature Conservation Act of 1923 and subsequent amendments made to date. The Nature Conservation Act covers a number of categories, strict nature reserves, special reserves (small) and national parks (large), natural monuments and peatland reserves. It allows for the establishment of these different categories of protected areas on both state-owned and private land. It also allows for the protection of individual trees and small geological formations as National Monuments. In particular, several species of deciduous trees are very sparse in Finland so protection of individual trees and/or small groups of them is important. The Wilderness Act of 1991 set aside 12 areas in the province of Lapland, about 5% of its total area. Each of the areas has an individual management plan regulating its use and these are under the direction of the Finnish Forest and Park Service. This Service has also protected four categories of forest area (see below).

Both governmental agencies and a number of voluntary organizations carry out conservation activities in Finland. Small scale protection is also undertaken by private citizens, communes and municipalities, generally to protect specific bird colonies, valuable copses and small woodland areas. These are done at the initiative of the private parties who generally retain some utilization rights within the area.

The Finnish system of national parks and strict nature reserves forms a loose network covering the entire country. The largest new program in Finland concerns the establishment of a network of protected old forest areas where 100,000 ha. are currently being surveyed preparatory to selection of sites. This is intended to be a tighter network than the park-nature reserve network.

### **National Parks and Strict Nature Reserves**

The largest protected areas fall within these two categories and the general criteria applied to them are that they form complete landscape units and include whole watershed areas. Both types should represent either virgin or human-modified areas of natural landscape. Human modification criteria are restricted to those areas of traditional game/land-use practices and slash and burn agriculture, excluding more 'modern' land use patterns. The stipulation that all typical ecosystems and nature types and/or discrete landscape entities be included in National Parks means that, in practice, one or more National Parks will be established in all the biogeographic zones of Finland, ensuring full representivity, as in the

Canadian case. Parks are intended to be relatively large areas and to contain beautiful landscapes.

Wildlife species criteria are that a) rare floristic types with a small range, and b) areas where single rare plant and animal species occur should be protected, particularly for species which are classified as threatened. Parks are open to the public. Reindeer husbandry, hunting and fishing is permitted in some of them.

Strict nature reserves (SNRs) are selected according to the same criteria but with the additional stipulation that they are not generally open to public use but reserved for research purposes. Activities in the vicinity which disturb wildlife and habitat should be minimal. Public access to these is regulated but some reindeer husbandry is allowed in certain SNRs.

Finland also has extensive categories of specific habitat types which are given protected status. The categories and criteria for selection are as follows:

#### **Protected Mires:**

Finland contains about 80 types of mires, many of which are both threatened and small in area. Mire protection is to ensure that a good sample of all types are preserved. The basic requirement is to protect not only the mire itself, but the whole mire complex including its margins and, in the case of aaga bogs, the whole watershed area. Other features used in selection are special geological features in the mire's structure, its landscape value and its research and educational potential. Three classes of mires are defined, based on their stage of development. Rankings of importance are also based on the number of individual mire types within a mire complex. Mire bird fauna is used as an indicator of the virgin state of the mire and the presence of several threatened species such as Peregrines indicates high conservation value. Detailed evaluation is based on four classes of bird diversity, the broadest being those which support 22 or more specialized mire species. Within protected mires, removal of soil material, drainage or felling trees growing on peat is forbidden. Some utilization of mineral soils for forestry purposes is permitted as long as it is in conformity with the management plan. Some recreational uses are also permitted.

#### **Protected eskers:**

General criteria are that an esker's stage of exploitation and the proximity of factors which threaten it (e.g. plans to extract gravel from an esker). The typicality/rarity of the esker is also important. Typicality is measured based on the natural history of the formation and its geomorphological features relative to the general natural feature of the esker zone. Diversity of esker formation and subsequent development, special landscape values and/or rarity are also important considerations for protection. To a lesser extent, the presence of esker flora also form a reason for selection.

#### **Protected waters and shorelines:**

Water areas are selected according to a number of criteria. First, there is an attempt to protect entire hydrological entities and complete watershed areas. Special geological formations and rare lake types receive special consideration as do glo-lakes and other formations special to Finland. Second, the presence of species which are threatened such

as lake salmon or Saimaa seals are also criteria for protection. Third, a water area's overall ecological importance is a criterion. Fourth, research and education potential are also important considerations.

### **Protected rapids**

Finland has a Rapids Protection Act under which a variety of criteria are applied to the selection of sites. The volume of water flow and height of the rapids are governing considerations as is the surrounding landscape and its approximation to being in a natural state. Both water quality and the use of surrounding land and water areas is taken into account as is the rapid's relation to habitation and transportation nearby. A rapid's support of and importance to fish and other fauna are selection criteria. The Act forbids the building of power stations in these sites and can protect individual rapids or entire watercourses.

### **Protected Wilderness:**

Protected wilderness areas in Finland are at least 15,000 hectares in size and are usually over 10 kilometers in breadth. Generally they are roadless, and the landscape is overwhelmingly in a natural and complete condition. All human built structures must be adapted to nature. As far as possible, these areas should contain wide ecological diversity with intact ecosystems and complete watershed areas.

### **Protected 'Old Growth' Forests:**

These areas protect trees older than those found in managed forest areas and the age criteria varies in different parts of the country. The diversity and structure of the forest are key, with those with several canopy levels and several tree species and older generations of trees being the most highly valued. The volume of dead and living trees is also a selection factor, as is the presence of important tree types such as aspens and 'noble' deciduous trees. Again, the presence of threatened animal and plant species within an area increases its protection value.

The forestry protection categories protected by action of the National Forestry Board are:

- primeval - old forests left in virgin condition without logging (148 areas).
- natural state forests - conserved for landscape management and recreation. Parts have closely restricted forestry (291 areas).
- drainage management areas - conserved to preserve natural water balance for a mire area. Some forestry permitted.
- highland and protected forest zone - forests growing under severe conditions (300 m above sealevel are exempted from economic exploitation. The Forest Zones Protection Act of 1922 allows only the so-called natural forestry in the northern protected forest zone outside highlands. In some cases, this law also permits protection of forests on islands and shorelines.

### **Protected Wetlands:**

Eutrophic and mesotrophic lakes (important waterfowl sites) are comparatively rare compared to those where vegetation is sparse. While prime sites are only about 2% of total waterfowl habitat they support 20% of total waterfowl breeding activity. Over the

past century much of this area has been lost to drainage. In 1982, a wetlands conservation program was put in place which focuses on 287 sites.

### **Finnish-Russian Nature Reserve of Friendship.**

This reserve was established on both sides of border July 1, 1990 in the Kuhomo and Suomussalmi area and over the past 10 years was previously a site of several research projects by Finnish and Russian researchers. The purpose of the park is to act as a research unit to allow the carrying out of studies on conservation, ecology and environmental protection. It also contains a Mining Works which emits both sulphur and metallic emissions, whose effects are being studied. A wide variety of other research projects are also underway.

### **Actors/Agencies:**

**Ministry of Environment:** the highest authoritative agency for biodiversity and nature conservation, it is responsible for the planning of protected areas.

**Finnish Environmental Agency:** an advisory body under the Ministry, it handles the scientific aspects of biodiversity conservation.

**Regional Environment Centres:** there are 13 regional bodies under the Ministry which do practical conservation activities.

**Finnish Board of Forestry:** a state company, it is responsible for the management of protected areas under the direction of the Ministry and has as one objective the conservation of biodiversity in state-owned forests.

**Forestry Research Institute:** a state research body, it manages a few national parks and strict nature reserves.

**Finnish Association for Nature:** an NGO, it concerns itself with nature conservation in general and the protection of old-growth forests.

**Greenpeace Finland:** an NGO concerned with the protection of forests.

**WWF-Finland:** an NGO concerning itself with general nature conservation and also has many species programs.

### **Process:**

The designation process begins with the Ministry of Environment setting up a committee or working group representing government, NGO and other interests at both national and regional levels. They examine available material on an area and undertake additional field surveys, if needed. Sites are chosen and a draft program is prepared. This is distributed widely for comments upon which a final plan is drafted and submitted to the Council of Ministers for approval. A decision of principle is made regarding the sites to be protected. The program is then implemented according to the provisions of the Nature Conservation Act. New sites are either purchased by the state or they can remain in

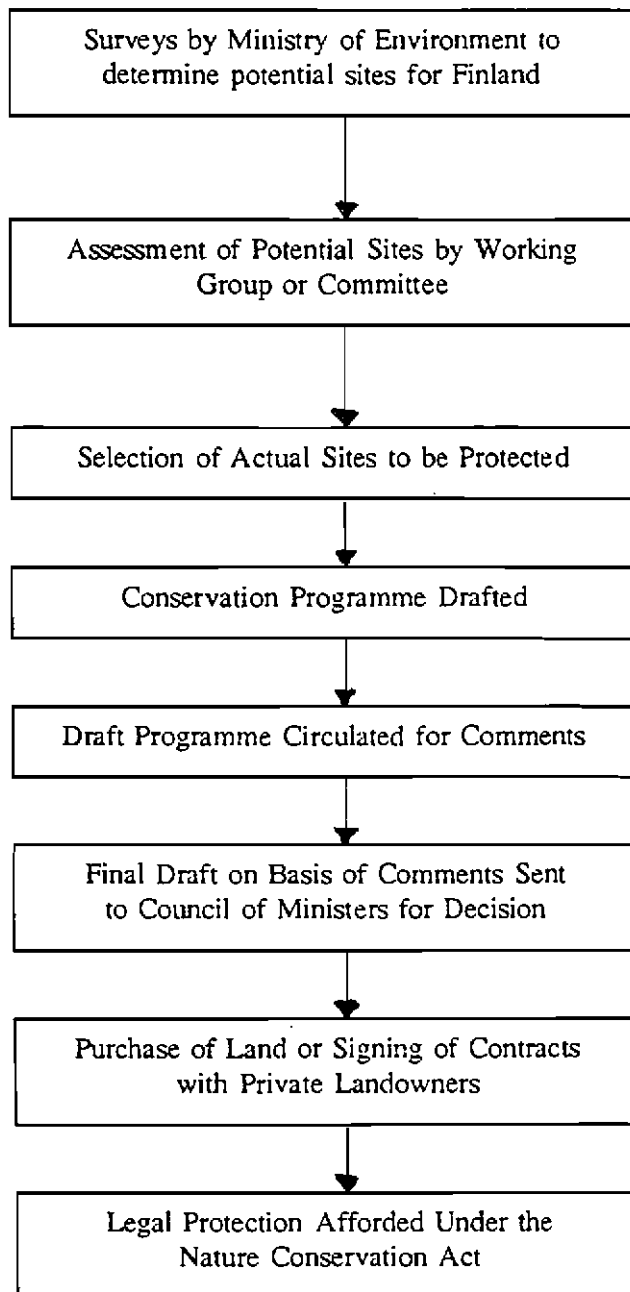
private hands, the owners of which are entitled to compensation for protective measures and restrictions on land use.

**Problems:**

Reported problems in the Finnish system are in conserving the whole variety of representative sites in some areas of the country. While the main part of the system is in northern areas, it is clear that the areas of protected old forest in the southern part of the country are too small to maintain their flora and fauna. The status of the southern old forest is highly problematic. In addition, the evaluation of peatlands and oligotrophic wetlands supporting low densities of important bird species remains problematic. The wide dispersion of waterfowl populations in the boreal zone presents difficulties in applying Ramsar criteria to the conditions here. The Nordic Council of Ministers is studying this problem.

### CHART III

#### FINLAND'S PROCESS TO DESIGNATE PROTECTED AREAS



## GREENLAND

Despite having the Arctic and the world's largest single protected land area, Greenland's approach to nature conservation is heavily focused on species conservation and sustainable use of living resources. It uses a combination of a traditional area protection approach and a hunting/fishing and harvesting regulations, and the weight placed on user group restrictions for species conservation is higher than in most other national systems. Greenland also has a rather unique system of moveable and seasonal protected reserves.

Greenland acquired Home Rule in 1979, providing for full internal self-government. Prior to this the Greenlandic Council had legislative authority over certain hunting and fishing regulations and advisory capacity over other conservation issues. In 1962, the Council declared the sub-Arctic valleys of South-West Greenland with their unique and fragile "woods" as preserves. In 1980 the Nature Conservation (Nature and Ancient Relics) for Greenland Act was enacted to "safeguard and care for Greenland's natural scenic assets". This act authorized protection of plant and animal species, as well as areas of land of high preservation or scientific value. Executive orders are used under the framework of this act to designate the following protected areas:003D

*Northeast Greenland National Park* (expanded by the Landsting Act No. 15 - 1988), the world's largest National Park. The Park also contains two Ramsar sites and was declared a Biosphere Reserve (MAB) in 1977. Animals and birds in the park are under total protection from outside visitors who require permission to visit it. Traditional harvesting activities are permitted by local communities. Outside the park, some areas have been declared breeding reserves for birds, where restrictions apply seasonally.

The *Melville Bay Nature Reserve* and *Arnangarnup Qoorua (Paradise Valley) Nature Reserve* were established in order to preserve important habitats and places where polar bears construct their dens (Melville Bay), and to preserve areas of birch growths (Arnangarnup Qoorua). Both are strict conservation nature areas. Birch forests in southern Greenland would also be protected by executive order, but were overlooked when Greenland acquired Home Rule. This problem will be remedied this year.

The Act on Full Time Hunting and Fishing can also be used for species protection and both Arctic charr and caribou (through reserves) are protected in this manner. Another feature of Greenland's system is a large number of regulated areas, each with its own specific rules depending on which animal species occur/migrate there in which seasons. These areas are used to protect Arctic charr and caribou. Every commune designates 20% of icefree area as caribou reserves, but these reserves can be moved from one area to another if the caribou distribution or migration rates change or had a bad impact on vegetation. Thus, both the species and the land can be protected with this system, since the main reason people use these areas is for caribou hunting almost exclusively. In 1993 and 1994 Greenland instituted a complete ban on caribou hunting which has only recently been lifted and replaced with a quota system to protect the caribou and the caribou reserves have been closed. The system to protect Arctic charr is similar. It is the only fish present in streams and lakes in Greenland, so fishing is aimed solely at this species. Every commune now has to ban fishing in several streams and it is advised that these be in the

same fjord area. The specific streams are under a fishing ban for five years, but then other streams have to be protected.

To date, Greenland's protected areas have often been chosen for the protection of habitat critical to specific species (e.g. polar bear, birch trees) and Ramsar sites have been chosen to protect a variety of migratory waterfowl habitats. Up until this year, the 11 Greenland Ramsar sites were not recognized in Greenlandic legislation although approved by the Home Rule Parliament. Greenland now has three sites proposed for nomination as World Heritage Sites, which, if accepted, will be incorporated into Greenland legislation.

All colonies of marine birds that number more than ten pair are protected from human disturbance and zones around colonies are protected. If the birds are murrelets, guillemots, dovekies, kittiwakes, comorants and fulmars the protected zone during the breeding period is 5 km. If the species are eiders, kingeiders, terns and gulls the diameter is 200 metres. There are 12 well known coastal areas with a non-interference zone of 500 metres. It is worth noting that while these are efficient mechanisms of species protection, they would not qualify under IUCN categories because they are not large enough to meet the IUCN definition (10 km<sup>2</sup>).

### **Actors/Agencies**

The Department of Health, Environment and Science is responsible for the management of the National Park system and works collaboratively with the Danish Ministry of the Environment and the Danish Polar Centre. The Northeast Greenland National Park is under the jurisdiction of the Home Rule Premier who is advised by a National Park Board, whose members come from the Greenland Assembly and the scientific community. Most recently, the Greenland Institute of Natural Resources has been established by the Home Rule government as a Greenland-based research institution.

Withdrawal of lands from public usage, for protection or for other reasons requires the approval of municipal authorities in settled areas or the Home Rule authorities in other areas. Local communities can make their own rules and regulations, but can only strengthen those of the Home Rule government which form the minimum standard. At the local level there are a variety of different regulations. These provide some protective functions but whether they regulate species and areas, or the activities of groups of hunters or fishermen, for example the impact of regulations on large versus small boats or people using a kayak versus those using power boats.

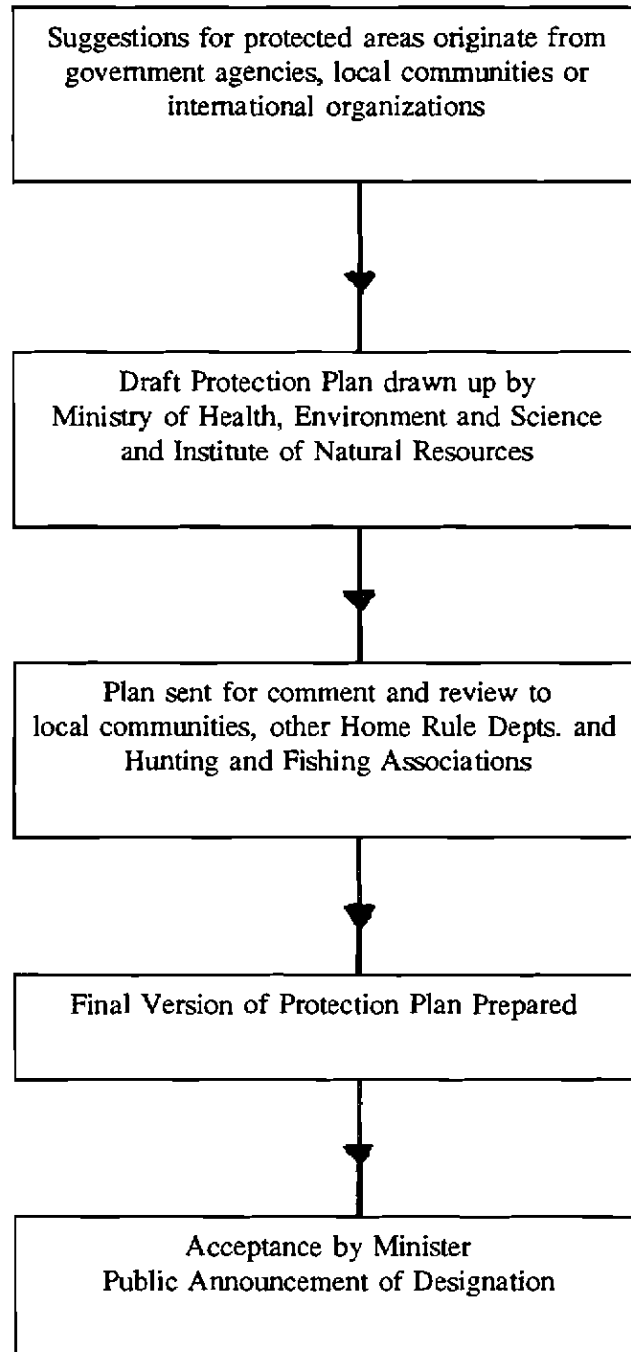
### **Process:**

Chart IV presents the Greenlandic designation process at the Home Rule level. Suggested areas are provided by government agencies, local communities or international organizations. The specific proposal for the area is drafted by the Department of Health, Environment and Science with the advice of the Greenland Institute of Natural Resources. This is then sent for comment and review by local communities, other Home Rule Government Departments and to Hunting and Fishing Associations. After this review a final proposal is prepared by the Department of Health, Environment and Science which is sent to the Minister for approval and the area is established by public announcement.



## CHART IV

### GREENLAND'S PROCESS TO DESIGNATE PROTECTED AREAS



## ICELAND

To date in Iceland, conservation of areas has not been based on a systematic inventory but largely on a case by case evaluation. Surveys which compare particular environment and habitat types such as inshore lagoons, waterfalls and thermal springs are increasingly being done.

Provisions for environmental protection in Iceland are contained in the Nature Conservation Act of 1971. The main goal of the act is to provide for the conservation of a diversity of habitats, landscapes, flora, and fauna, and to provide the public with greater access to and knowledge of the country's natural riches, while ensuring that:

- (a) terrestrial and marine ecosystems, the air, and living organisms will not be harmed during interactions within the "nature-man" system;
- (b) that the evolution of natural systems will occur in a natural manner;
- (c) that areas of special natural or historic value be protected;
- (d) that species and populations will be protected from the threat of extinction and from other negative processes.

The Nature Conservation Council is responsible for the conservation of areas, wildlife, plants, and their habitats. It prepared a tentative strategic plan in September 1993. As the primary agent of nature conservation in the country, the Council may veto any projects which it judges to have a negative effect on the natural environment or that threaten any species of animal or plant. But the complex legal and legislative provisions, permitting ambiguous interpretations of individual articles in the acts, and the absence of the necessary financial resources create problems when it comes to protecting wetlands and wilderness districts from overgrazing or from the growth of tourism in protected areas. Responsibility for solving these and other nature conservation problems has been assumed by the Ministry of the Environment, created in 1990. Work on these problems is currently under way.

Iceland has 4 categories of protected areas defined as follows:

**National Parks:** established in areas of exceptional landscape, flora, fauna or historical significance. State-owned, they are established in areas suitable for public access. Selection criteria, in order of importance are conservation of habitat, ecosystems preservation, cultural heritage, important scenic areas (all primary) and species, geological sites and tourism and recreation (all secondary).

**Nature Reserves:** can be established in areas of unusual landscape, fauna or flora. Primary criteria are conservation of habitat, species and ecosystems with secondary consideration given to scenic value. Tourism and recreation is tertiary.

**Natural Monuments:** sites of unusual natural phenomena, scientific value, beauty and/or uniqueness. In order of importance the criteria are to conserve important geological sites, scenic value, tourism and recreational use. Monuments include waterfalls, volcanoes, hot springs etc.

**County Parks:** are established at the request of local authorities, managed by them and are mainly intended as recreation areas. Multiple uses and tourism and recreation are the primary selection criteria.

The Icelandic system is not designed as a network but it does aim to protect important areas as widely distributed as possible and the system has at least one representative of each habitat type in each quarter of the country. Some of the proposed areas (those for White Fronted and Brent Goose) will form part of an international network for protection of migratory species under international multilateral or bilateral agreements. Several of the proposed sites will be Ramsar sites and Important Bird Areas (IBAs) within the BirdLife International Network. Iceland has not ratified the World Heritage Convention so sites are not part of this network.

### **Actors/Agencies**

The main actors in the Icelandic conservation process are:

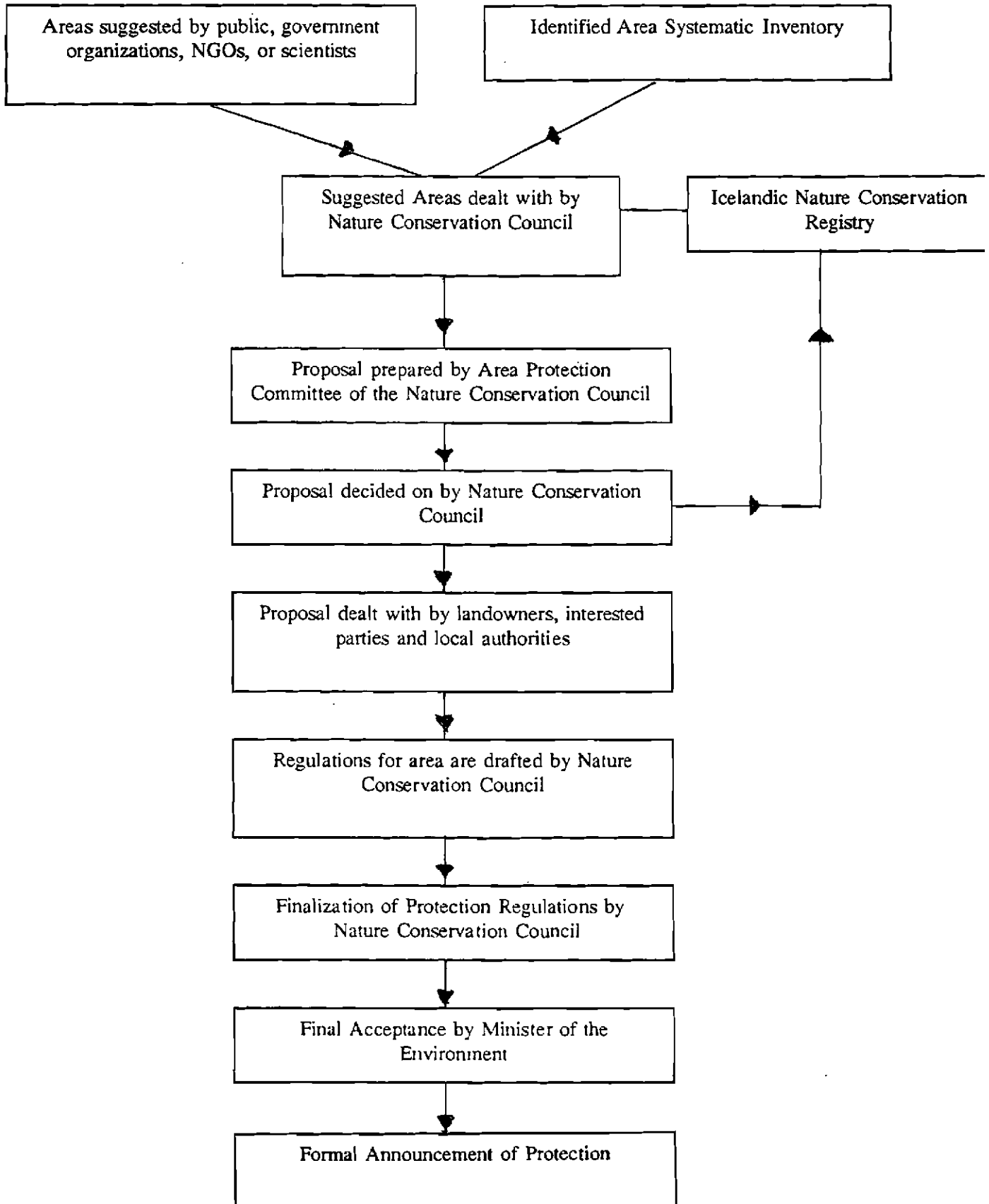
- Nature Conservation Council: mandate is to encourage nature protection in general. It collects information on sites of special interest/value for protection as well as proposed national parks, nature reserves or country parks. It compiles a register of these sites and areas, prepares regulations for management and supervises the warding of protected areas.
- Icelandic Museum of Natural History: mandate is the systematic compilation of information on nature and to carry out research on nature.
- Soil Conservation Service: mandate is to halt erosion and to conserve soil.
- Forestry Service (Skógrækt riskisins): Reforestation and forest protection

### **Process:**

Chart V outlines the Icelandic designation process. Areas for protection are suggested by the general public, governmental or non-governmental organizations or scientists. A proposal to protect an area is forwarded to the Nature Conservation Council (NCC). The proposal or draft regulation is considered by interested bodies who may reject it, propose amendments to or accept it. If the proposal is rejected, the NCC may declare its intent it protect the area in the future. If the proposal is accepted, the NCC prepares the final version of the protection plan. Acceptance of this by the Minister for the Environment is also required.

CHART V

ICELANDIC DESIGNATION PROCESS FOR PROTECTED AREAS



## NORWAY

The establishment of Norway's park system did not get underway until 1962 and only in 1973 in Svalbard. In 1962, the National Council for Nature Conservation initiated a systematic survey of important habitat, forest, botanical and ornithological areas, and produced a plan for national parks two years later. The plan was adopted in 1967. It is formulated on the basis of inventories and assessments and is divided into several thematic plans including: biota, coniferous forests, deciduous forest, wetlands, bird habitats and sites of particular geological interest. A new plan was approved by parliament in 1993. It identifies regions which have additional types of physico-geographic areas; and it is proposed to organize parks on private lands.

In general, Norwegian protected areas designation is covered by two acts, the Nature Conservation Act, which governs activities on the Norwegian mainland proper and the Svalbard Act, which covers activities on Svalbard. The Nature Conservation Act declares nature a national asset to be administered for its long-term preservation. Nature is to be utilized in accord with a long-term, comprehensive administration of resources. The act provides overall guidelines for the categories of protected areas but regulations are made specifically for each site. In addition, a Wildlife Act (1981) provides for flora and fauna protection outside national parks. The act confines hunting to certain species in given areas, allows the protection of key wildlife areas valuable for game and prescribes that planning authorities give due consideration to the effect on wildlife in land-use planning. The Building and Planning Act also has some temporary regulatory provisions for land-use planning which can contribute to nature protection, especially for river wetlands and bay areas. To date, these measures have been little used because of the compensation terms applying to the owners.

Svalbard came under Norwegian sovereignty by treaty in 1920. Citizens of the contracting parties have equal rights to hunt and fish in the area and to conduct commercial operations, but Norwegian environmental law applies here. There are a series of Royal Decrees which have established reserves and national parks on Svalbard and Jan Mayen.

Overall, there are four categories of protected areas in Norway; national parks, nature reserves, natural monuments and protected landscapes. In areas of major importance to flora and fauna, biotype reserves and bird sanctuaries can also be created. However, while sometimes broadly considered as a subtype of nature reserve, these latter two types of areas do not have to fulfill the same legal requirements as the other categories. Internationally, Norway has four areas (cultural) designated as World Heritage Convention sites, has established fourteen sites under the Ramsar Convention and one site under the Man and the Biosphere Program (UNESCO). In addition, it has declared eleven biogenetic reserves under the Council of Europe program, and is heavily involved in the environmental work of the Nordic Council. A number of transboundary protected areas have also been established with Finland and Sweden, and cooperation on transboundary protected areas also takes place with Russia.

Norwegian protected areas are defined as follows:

**National Parks:** are primarily under state ownership, but adjoining privately owned land of the same type may also be included in a park. Their purpose is to preserve large unspoiled or essentially unspoiled or singularly beautiful tracks of land and to minimize human disturbance. While they have no internal zoning, parks can be seasonally or permanently closed to the public. There are no buffer zones around the parks but some have adjoining forest or landscape protected areas. Rules for parks are drawn up individually. In general, they allow grazing (both animal husbandry and reindeer) and forestry. Parks are open to public access by foot. Tourism development and large organized visits are not allowed but sport fishing is generally allowed. The following activities are prohibited in national parks:

- a) construction of residential or commercial buildings of any type (nautical facilities are an exception), mining, oil drilling, quarry works, or any activity that damages the environment. Trawl net shrimp fishing is permitted where the water is more than 100 metres deep;
- b) dumping of waste or other objects which could be harmful to plants or animals or disfigure the landscape;
- c) mammals and birds and their lairs and nests are protected. No harm of any kind may be done to them and they are not to be disturbed. The introduction of new plant and animal species, damage or destruction of plants and their fossil remains is prohibited. However, hunting is allowed for certain common species;
- d) use of land transport and landing of aircraft are banned but the County Governor may impose restrictions on the minimal flight altitude of aircraft or the coastal navigation of ships.

**Nature Reserves:** are state or private lands which have unspoilt or virtually unspoilt nature or contain special types of nature of scientific and educational importance. With few exceptions no human interference is allowed. Reserves are created on the basis of regional conservation plans but together they are not necessarily representative of all ecosystem types in Norway. On approximately one-third of the reserves (mainly seabird colonies), public access is restricted.

**Landscape Protected Areas:** are state or privately owned land reserved to preserve unique or beautiful natural and/or cultural features. Restrictions apply to human activities such as traditional farming, grazing and forestry activities, but no activities which threaten to change the nature and character of the landscape are permitted. All human induced development which would significantly alter the landscape is prohibited. Motorized traffic is also restricted. In some cases, landscape areas also serve as buffer zones around parks.

**Natural Monuments:** are geological, botanical and zoological features of scientific and historic interest or which are unusual, together with area around the feature.

**Statutes and Important Documents:** -The Nature Conservation Act 1970(amended 1985)  
-The Svalbard Act 1925  
-Various environmental protection regulations for Svalbard laid down by royal decree, e.g regulations concerning the conservation of the natural environment

- Provisions for regulations of intervention in nature on Jan Mayen
- The Forestry Act (1965)
- The Wildlife Act (1981)
- The Open-Air Recreation Act (1957)
- The Cultural Heritage Act (1978)
- Report to the Storting No. 22 (1994-95) on environmental protection in Svalbard (to be shortly translated into English)
- Report to the Storting No. 62 (1991-92) on a new national plan for national parks and larger protected areas in Norway
- Report to the Storting No. 68 (1980-81) on protection of nature in Norway
- The Environmental Strategy for Northern Areas (not yet published, but partly incorporated into the Environmental Action Plan of the Euro-Arctic Barents Region)

#### **Actors/Agencies:**

Ministry of Environment  
 Directorate for Nature Management  
 National Council for the Conservation of Nature (advises Ministry)  
 Norwegian Polar Institute (advises Ministry)  
 County Governors of the Northernmost counties: Nordland, Troms, Finnmark  
 Governor of Svalbard  
 Norwegian Society for Nature Conservation (NGO)

Overall, the protection and conservation provisions of the Nature Conservation Act are the responsibility of the Nature Conservation Division of the Ministry of Environment, including establishing and designating protected areas on both the mainland and Svalbard, conservation planning, monitoring, surveys and inventories of areas and species needing protection. The division also acts as the Secretariat of the National Council for the Conservation of Nature, which advises the Ministry on protection and conservation issues.

The County Governors are responsible for the appropriate management of protected areas, but most of the practical work of managing and protecting the national parks is done by the Crown Lands and Forests Company (Statsfog SF) in the name of the County Governor in consultation with the Ministry of the Environment. Each of Norway's 18 counties also has an environmental protection department, responsible through the County Governor, to the Ministry of Environment. A separate Environmental Protection Department is also planned for the Svalbard archipelago.

## **Process:**

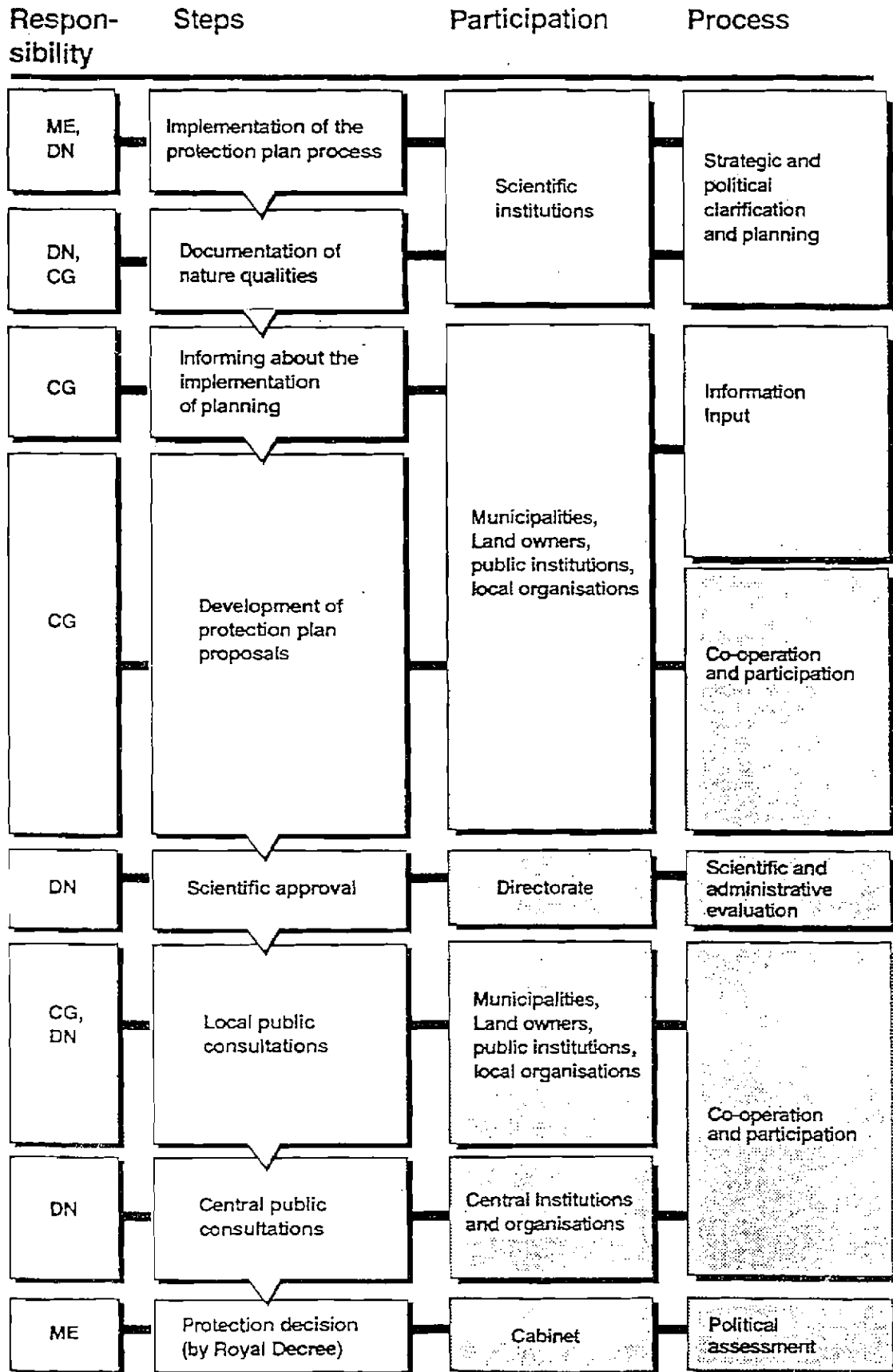
Chart VI shows the Norwegian process of designation of protected areas in schematic form. Owners, users and others affected must be notified of any plans to designate an area within a specified time limit, either individually (where feasible) or through the Norwegian Official Gazette and local newspapers. Owners are offered the opportunity to contribute to the proposal. All plans and documents relating to the protected area must be on public view for a minimum six-week period, but 3 months is recommended in the regulations. Local county boards are also given an opportunity to express their concerns and opinions on the proposal. Officials are encouraged to try to solve any conflicts at this stage. Access to provisional protected areas remains unrestricted, regardless of ownership, in keeping with the traditional Scandinavian practice of allowing general access to land free of cultivation and buildings. If a decision is made to protect an area, owners of the property are entitled to compensation according to a specific law on expropriation. Claims for compensation are allowed to the County Governor for up to a year after the decision and this time limit can be extended by the Ministry. If agreement on compensation is not reached, the claim is forwarded to the courts.

While owners and users of natural resources are guaranteed the right to comment and participate in protection activities proposed by governmental and administrative agencies, either federal or provincial, the Ministry can place resources under preliminary protection until the process of consultation is completed. Such interim protection is done by the Directorate for Nature Management but decisions can be appealed to the Ministry. If so designated, all development and construction work, pollution and any other types of encroachment are forbidden in the area.



## CHART VI

### NORWEGIAN PROCESS TO DESIGNATE PROTECTED AREAS



ME = Ministry of the Environment

DN = Directorate for Nature Management

CG = County Governor's Environment Department

## RUSSIA

The Russian system of protected areas is relatively new and embraces the network concept of a unified system based on different types of protected areas. However, they are not yet united into a practical network and there are several independent subsystems. There are, in fact, three parallel groups of protected areas, a *zapovednik* network with some federal wildlife sanctuaries under their supervision; a park network; and a network of regional wildlife sanctuaries, monuments and locally protected areas.

The principles which the system of specially protected natural areas (SPNA) is based on in Russia are:

- primary or close-to-primary balance of nature should be maintained at the level of very large natural systems. It can be ignored only at the lower levels of the hierarchical ladder;
- optimal balance of nature can be attained only with a spatially discontinuous multifunctional network of protected areas in place (Clusters). In each of the natural subcompartments, this network is organized in order to ensure the sustainability of component balance and the preservation of a variety of ecosystems of different successional age, including climax and key ones;
- the network of specially protected areas is not only to preserve the best preserved sites, but also to regenerate ecosystems and their components;
- the size, configuration, number and ratio of protected natural areas in each region has its own specific features which are determined by the natural conditions, socioeconomic conditions, the infrastructure of the economy and its developmental tendencies;
- the network of specially protected land and water areas in the Arctic should include typical and unique sections of glacial landscapes (land and sea), permafrost soils and land/sea boundary areas;
- the areas recommended for protection in the Arctic should be large enough to ensure the protection of the parts of territories inhabited by large vertebrate animals. However, in some cases, it is advisable to organize several clusters instead of one large protected area;
- in areas of traditional exploitation of the natural environment, priority should be given to those categories of protected natural land and water areas which will be the most conducive to the preservation and utilization of the biological resources, and to the maintenance of the culture and customs of the local population;
- territorial protection in an exclusive economic zone has an essentially different legal basis than the protection of land and water areas under the sovereignty of coastal states. This actually means that a regime of absolute protection, e.g. the kind in Russia's preserves, cannot be established in this part of the World Ocean;
- the placement of a large part of Arctic land and water areas under future reservations, nature reserves, national parks and other categories will serve as an important mechanism for maintaining ecological balance, preserving biodiversity and stable development of traditional forms of environmental utilization and preservation.

The types of protected areas in Russia are *zapovedniks* (IUCN category I: scientific reserves and nature areas), national parks (IUCN category II), natural wildlife sanctuaries (IUCN category IV), natural monuments (IUCN category III) and the habitats of indigenous peoples, (unique to Russia as a discrete category). The network also includes protected water and swamp habitats. The Russians plan to have 14 *zapovedniks* and 4 national parks in the Arctic.

**Zapovedniks** are meant to preserve ecological balance, prevent local ecological crises and to conserve biodiversity as a whole as well as typical and unique ecosystems. The *zapovedniks* are important for biological monitoring and research. Public access is allowed for nature viewing and education but economic activities are prohibited. Natural complexes and natural objects of special conservation, scientific and educational value are located within these areas. They are important as a standard for typical as well as unique ecosystems and places for the conservation of genetic biodiversity of flora and fauna. They are created to preserve ecological balance, to study natural processes, to preserve overall genetic biodiversity of flora and fauna as well as particular species and to preserve typical and unique ecosystems. The *zapovednik* network in the Arctic is organized to be representative of bio-geographic and physio-geographic regions and there is one in each region in order to represent all typical landscapes in every zone and subzone. Their floristic and faunistic diversity is the chief criterion for designation and priority is placed on the degree of species vulnerability. The introduction of living organisms for their acclimatization is also prohibited.

**National Parks** include natural complexes and objects of special ecological, historical and aesthetic value. They are meant to preserve nature and to educate the population. Their territory can be used for scientific and cultural purposes and for regulated tourism. The main functions of National Parks are as follows: to preserve typical and unique ecosystems and objects, to protect historical and cultural monuments and other objects of cultural heritage, to facilitate and organize ecological education, to create conditions for regulated tourism, restoration of damaged natural historical and cultural complexes as well as specific cultural objects and to develop and apply scientific methods of nature protection and ecological education. National Parks are characterized by several zones; the core protected area and specially protected area (where use is strictly limited), recreational zones, zones for protection of historical and/or cultural artifacts, visitor zones and zones where economic use is permitted. In National Parks located in areas inhabited by population, a zone of traditional extensive nature management which is not harmful to the natural environment and does not exhaust biological resources is allowed. Conditions of economic utilization of National Park territories are governed by statutes of the appropriate federal agency and regional administrations. Any activities which have the potential to damage natural or cultural-historical complexes and objects or is in variance to the main functions of National Parks are prohibited. For example, mining, highway construction, pipelines, electrical transmission lines and other communications facilities and any activities which can damages soils, plant and animal habitat or disturb hydrological conditions are not allowed. The main criteria for National Park designation are: presence of unique or representative ecosystems, presence of rare and endangered species of flora and fauna, intact habitats, cultural/historical monuments, scenery and regulating tourism as well as restoration of natural areas (See Chart I). Most Russian national parks have been created since 1992 and are under the jurisdiction of the Federal Forestry Service. A

problem with the parks is that they must survive on scarce federal budget resources, although attempts are underway to make them more self-financing through promoting tourism and some forestry activities. In national parks located in areas inhabited by the local population, a zone of traditional extensive nature management which is not detrimental to the natural environment and does not exhaust biological resources is allowed.

Regional administrations and special authorities in nature protection in Russia submit programs for the designation of areas as *zapovedniks* and National Parks to the Government of the Federation and are designated by its authority. The approval of regional administrations is also required. Surrounding *zapovedniks* and National Parks are organized buffer zones and areas of restricted economic utilization. Regional administrations make the regulations for these zones and statutes on protected zones need the approval of the executive authority of these administrations.

**Natural Parks** are areas of land or water where natural complexes and natural objects of great ecological and aesthetic value are located. They are meant to protect nature and for public education and they can also be used for public recreation. Typically, these too are zoned into several use classifications depending on their ecological and recreational value. Protected, recreational, agricultural and other zones of economic utilisation as well as zones of cultural/historic complexes and objects characterize natural parks. The primary designation criteria for natural parks are the ecological values of the area, natural landscapes and organized tourist regulation. Special nature protection authorities of the Federation Government, with the concurrence of local authorities submit programs to designate natural parks to Regional Administrations and these parks are designated under the authority of Regional Administrations. If there are sections of land and/or water of Federal economic utilization in these areas, decisions about removing such activity are made with the agreement of both Federal and Regional government. Activities which reduce ecological, aesthetic, cultural and/or recreational value of the area or that will influence the natural landscape and conditions for the protection of cultural/historical monuments are prohibited.

**Natural Wildlife Sanctuaries:** The priority criteria for the designation of wildlife sanctuaries is the conservation of valuable plant and wildlife. There are forest, botanical, zoological, landscape and hunting natural reserves, but the majority of them are mixed use. The Federal Forestry Service has jurisdiction over 500 of these. The majority of them are small in size and unbuffered, so they are fairly vulnerable to anthropogenic interference and they have lesser legal protection status than National Parks and reserves. The executive authority of Regional Administrations and special Federal nature conservation agencies submit programs for designation of wildlife sanctuaries to the Federation government which makes decisions on Federal Wildlife Sanctuaries while Regional Sanctuaries are designated by the Regional Administration in concurrence with local administration. Designation as a National Wildlife Sanctuary permits the removal of the area from economic use or its continued use as the authorities see fit. In sanctuaries inhabited by local populations, a zone of traditional extensive nature management not detrimental to the environment and which does not result in unsustainable resource use is permitted. However, activities which may damage natural complexes or their components can be prohibited either permanently or temporarily. Regulations for protection of each

particular Federal Natural Wildlife Sanctuary are made by designated Federal conservation agencies with the agreement of the Executive Authorities of the Regional Administration in question and its regional designated agencies. Persons using land located within Wildlife Sanctuaries are subject to its regulations and are liable for any violations of them. The chief designation criteria for Wildlife Sanctuaries are the presence of rare, endangered or economically important species and flora and fauna (for biological sanctuaries) unique and typical ecosystems (mixed and hydrological sanctuaries).

**Natural Monuments:** These are places of special natural interest including geologic zones. Forest and landscape monuments predominate. Again they are largely under the jurisdiction of the Forestry Service. Regional administrations propose plans for designation of these sites to the Federation Government as Federal Natural Monuments and corresponding territories which enjoy a special protected status. Regulations for particular Federal monuments are set by Federal agencies and Regional monuments by Regional authorities. Removal of privately owned land from economic utilization are allowed within Natural Monument sites. If there is Federal economic use of land or water within a monument site, designation is made by the Regional Administration in conjunction with the Federation Government. Activities within these sites which may damage natural monuments are prohibited. Private landowners and users of land or water in natural monument sites are bound by the regulations governing protection of the monument.

**Biosphere Reserves (UNESCO):** Biosphere reserves include sections of land and water areas with zones within them: a zone of limited economic activity (biosphere site), in which the results of scientific research into conservation are tested; a buffer zone in which the regime of utilization is aimed at reducing the effect of economic activity in the core area of the reserve.

Nature reserves can be placed in the following categories: protected landscapes or complex reserves intended for the preservation and regeneration of highly valuable or typical (standard) natural landscapes and their components; biological (botanical and zoological) reserves intended for the protection and reproduction of plant and animal resources, including fish stocks, as well as the preservation and restoration of species important to the economy, science and aesthetics, and also rare and endangered biological species and their gene pool; paleontological reserves intended for the preservation of sites at which animal and plant remains or fossils important to science have been found; hydrological reserves (palustrine, lacustrine, riparian, marine, etc.) intended for the preservation and restoration of bodies of water and ecosystems, as well as the lands adjacent to them which ensure the best hydrological balance; geological reserves intended for the preservation of valuable sites and complexes of inanimate nature (peat bogs, mineral deposits, etc.), remarkable topographic forms and the landscape elements associated with them.

**Federal Statutes:** Law on the Protection of the Natural Environment (1992)  
Land Code of the Russian Federation (1991)  
Statute on State Natural Zapovedniks (1991)  
Statute on Natural National Parks of the Russian Federation (1993)  
General Statute on State Wildlife Sanctuaries of Federal Value (1993)  
Statute on Nature Memorials of Federal Value (1993)  
A new law on preservation of protected areas (1995)

## Law on Fauna (1995)

### Actors/Agencies:

- FEDERAL ● Russian Federation Ministry for Environmental Protection and Natural Resources
- Russian State Forest Fund
  - Russian Ministry of Agriculture
  - Institute of Ecological and Evolutionary Problems: Russian Academy of Sciences
- REPUBLICAN-LOCAL ● Governments of Russian Republics
- Regional Administrations
  - Local Authorities
- PRIVATE-NGO ● World Wildlife Fund-Russia
- Centre for Wild Nature Conservation

### Process:

Chart VII summarizes the Russian designation process. The designation process begins with a significant battery of ecological-biological-environmental studies on threats to the area in question as well as socio-economic studies of traditional nature use and the degree of development of agriculture, industry, transport etc. These studies also take account of specific factors which may call for a more regionally-specific approach.

The Federal Law on Specially Protected Areas (1995) is the main legislative instrument governing the Russian processes of designation, protection and the use of protected areas. In accordance with this Act, specially protected areas are defined as "... land, water and air where natural complexes and natural objects of special conservation, scientific, cultural, aesthetic, recreational, medicinal-sanitary value are located, which are removed from economic use in part or completely and for which special conditions of protection are set by the decision of state authorities". The body of Federal law on protected areas also includes other acts and statutes, namely the Law on the Protection of the Natural Environment (1992), the Law on Fauna [Animal World] (1995) and the Land Code of the Russian Federation (1991).

The Federal Law on Specially Protected Areas defines the following categories of protected areas: state *zapovedniks*, including biosphere reserves (UNESCO MAB-IUCN Category I), National parks (IUCN Category II), Natural Wildlife Sanctuaries (IUCN Category IV), Natural Monuments (IUCN Category III), Natural Parks (IUCN Category V), Dendrological and Botanical Parks, Medico-Sanitary and Health Resorts. The categories without IUCN classifications are not very important for the conservation of Arctic flora and fauna and so are not discussed.

The Russian designation process is basically a seven-step process. It begins with state and public agencies, scientific organizations, local administrations or individuals preparing proposals to designate a protected area and submitting them to the Regional nature

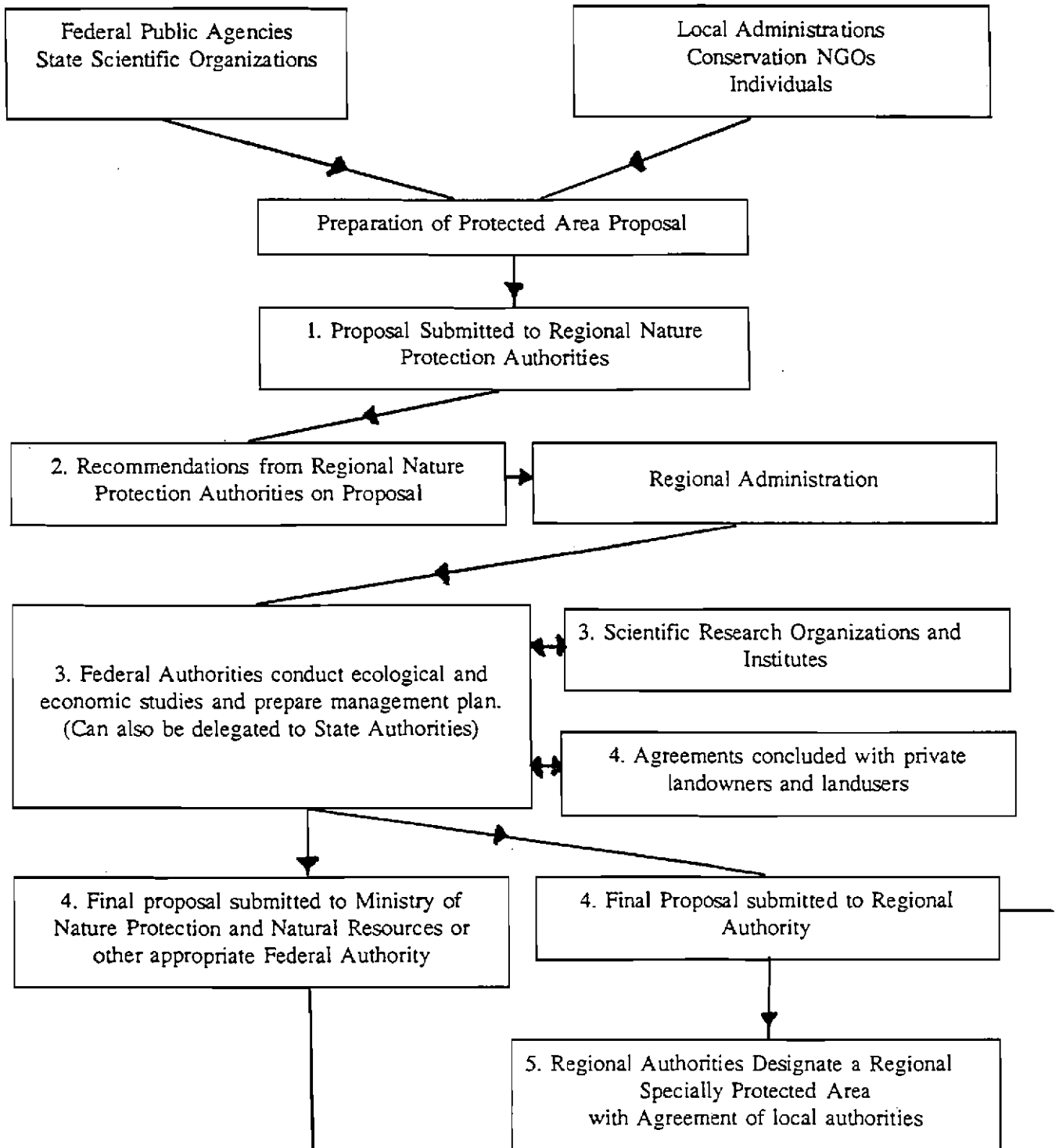
protection authorities. These authorities and agencies then prepare recommendations on protection from these proposals to nature protection Regional Authorized Agencies which are submitted to Regional Administrations. Thirdly, either Federal authorities or State authorities of the Russian Federation (at Federal request) conduct ecological and economic studies and preparations to organize a specially protected area plan, also relying on input from scientific and research organizations and institutes. Fourthly, agreement with private landowners and users of the land is reached and the proposal then submitted to Regional Authorities and the appropriate Federation Authorities (generally the Ministry for Environmental Protection and Natural Resources). Fifth, the Regional Authorities will designate a regional specially protected area with the agreement of local authorities. Six, for Federal Protected Areas, nature protection agencies coordinate the project with the appropriate Ministries and their agencies and prepares final recommendation on the designation proposal which are submitted to the Federation Government along with the decision of the Regional Authorities. Lastly, the Government of the Russian Federation officially designates a specially protected areas.

The Government of the Russian Federation and Regional Administrations and Local Authorities have rights to designate other types of specially protected areas (from those mentioned above). These include urban forests and parks, green zones, landscape monuments, protected river systems and others.

In order to protect protected areas from anthropogenic interference, sections of protected land and water with zones of limited economic activity (buffer zones) can be created in which the utilization regime aims to reduce the effects of economic activities.

# CHART VII

## RUSSIA'S PROCESS TO DESIGNATE PROTECTED AREAS



over



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graph TD; A[ ] --> B[6. (For Federal Areas) Federal Nature Protection Agencies coordinate final plan with other Ministries and Agencies and submits final recommendation to Federation Government along with Decision of Regional Authorities.]; B --> C[7. Formal Designation and Decree by Federation Government Establishes a Specially Protected Area];
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6. (For Federal Areas) Federal Nature Protection Agencies coordinate final plan with other Ministries and Agencies and submits final recommendation to Federation Government along with Decision of Regional Authorities.

7. Formal Designation and Decree by Federation Government Establishes a Specially Protected Area

## **Problems:**

Legally, the main statute governing designation is the Law on the Protection of the Natural Environment (1992), which, up until the most recent act on Specially Protected Areas, had some real problems in need of reform. Among these were an incomplete listing of protected area types, an insufficient consideration of real biodiversity needs in terms of territorial and landscape diversity, and poor phrasing in some areas which raised obstacles to enforcement. The Land Code of the Russian Federation (1991) also regulates land uses which impact on habitat protection and has some similar problems.

The *zapovednik* system is under more or less intensive anthropogenic influence from outside and is in a precarious state. "Republican sovereignization" within the Federation is cited as an important factor destabilizing the system. Attempts have been made to transfer the ownership of some of these areas away from the federation government, in violation of current legislation and attempts to create new areas have met with reluctance by Republican authorities to transfer ownership to the federal level. The joint US-Russian park in Beringia has been delayed by this problem.

Another problem, more serious in Russia, but not unique to it, is a severe shortage of funds to develop the Russian protected areas system due to the country's serious deficit problem. Five *zapovedniks* have been on hold since 1994 due to this problem. In fact, much of the funding that has been available has come from the Russian branch of WWF.

There is also land-use competition from other federal departments seeking to sell the rights for oil, gas and mineral exploitation in Arctic areas which are candidates for protection (e.g. Barents Sea).

Overall, Russia has a problem of coordination between the levels of government among the departments mandated with conservation and nature protection functions, with various levels often working in opposite directions. The Russians also point to a relative shortage of properly trained protected site management staff as a problem in their system.

## **SWEDEN**

Sweden was the first European country to provide for protected areas in the Arctic, establishing its first national park in 1909. National Parks were originally established in order to facilitate research in unspoilt nature areas. Current protected areas are based on the national virgin forest inventory and the mountain protection plan. As a result of a new National Park Plan, physio-geographic regions are now used to make proposals for new protected areas. In the Arctic, Sweden currently has five Ramsar sites and one Biosphere Reserve (MAB). It is planning to establish a World Heritage Site as well.

Sweden has four categories of protected areas. They are National Parks, Nature Reserves, Natural Monuments and Nature Conservation Areas. The use of natural resources is highly restricted in them, but no directive can infringe on the rights of the aboriginal residents (the Saami). These rights are identified in the Reindeer Management Act. The native peoples have the right to pasture reindeer (and may use a dog to manage the herd), to hunt and to fish.

## **Actors/Agencies:**

**Legislation:** Swedish Nature Conservation Act  
Environmental Protection Act  
Natural Resources Act  
Forestry Act  
Reindeer Management Act  
Game Act

**FEDERAL:** Ministry of Environment and Natural Resources-Environmental Protection Agency  
Environmental Advisory Council  
National Board of Forestry  
National Board of Fisheries  
Swedish Board of Agriculture  
Saami Council

**LOCAL:** County Administrative Boards  
County Forestry Boards

**NGO:** World Wide Fund for Nature (Sweden)  
Swedish Society for the Conservation of Nature

The main legislative instrument governing state-owned protected areas is the Swedish Nature Conservation Act, which was passed to safeguard outdoor recreation opportunities as well as to preserve habitat. This law applies to National Parks and Reserves. The act also allows for the protection of particular species of flora and fauna. Crown Reserves are large, state-owned areas where forestry is prohibited. Large areas of pre-mountain forest which were becoming vulnerable to modern forestry practices have recently been protected. Sweden also has privately owned protected areas which are managed by the landowners. In Sweden, regulations are drawn up for protected areas on an individual basis, rather than following a generalized, uniform set of rules.

The Swedish Natural Resources Act has as its stated objective the long-term sustainable use of land and water resources in national ecological, economic and social terms. It's intent is to form the basis for weighing different interests in decisions over change in land or water use. It defines several areas to be key to the national interest in their entirety because of their natural habitat or cultural significance. It stipulates that primary weight be given to conserving these natural and/or cultural values when competing land use claims are made for these areas.

County administrative boards are the cornerstone of the Swedish system of managing protected areas. First, National Parks and reserves are managed by them. In general, these areas are totally protected against exploitation, but reindeer husbandry, snowmobiling and some hunting by the Saami are allowed. Forestry is not allowed in National Parks. The same restrictions apply to Crown Reserves except that hunting is permitted but regulated under the Hunting Law. In some Reserves, limited forestry activities are permitted. The

county administrative boards are also the "hands-on" management authority for the Crown Reserves.

County administrative boards make decisions on individual nature reserves and wildlife sanctuaries, ensure their proper management, apply habitat protection regulations for non-forest lands and rule on exemptions from shore protection provisions or permits to drain land or extract minerals or peat. Since 1988, municipal councils have also had the authority to set up nature reserves (delegated from the county). Municipal councils together with some county councils have formed eight regional conservation foundations which purchase lands for reserves and manage protected areas.

Small areas of special habitat significance even down to the level of individual trees can also be protected as national monuments.

**Marine Reserves:** In order to identify marine areas as protected marine reserves, an initial examination is done to assess the area and to compile its characteristics and economic activity. It is not obligatory to wait until the area has been well studied, as this can be done later, after a protective regime has been organized in the water area. Rules regulating particular activities are introduced for protected water areas. For example, a part of a water area which requires strict protection (due to its special value or vulnerability) can be surrounded by a buffer zone, which will also be protected, but not by such severe restrictions. The regulations established by the Nature Conservation Act may be employed to protect both surface waters and the sea bottom as well as marine fauna and flora.

#### **Problems:**

With the multitude of actors engaged in Swedish nature protection, in practice, there is some problem with the dividing line between agencies' responsibilities. An example is between the Environmental Protection Agency and the Forestry Board which have joint responsibilities over forestry but differ over the responsibility for environmental impacts on forest landscapes that are unrelated to forestry activities.

## **UNITED STATES OF AMERICA**

Like Canada, the United States of America has divided jurisdiction for public lands and protected areas between the federal and state governments. The U.S. federal government has large land holdings in Alaska. In the Arctic case, the only state government involved is Alaska. But, unlike Canada's territorial governments, the state government's authority is not delegated from the federal level. Like Canadian provinces, the State of Alaska has its own process for designating protected areas under its jurisdiction.

The American system of conservation areas in the Arctic dates from the early part of this century. It has developed incrementally, in response to specific circumstances. A major impetus was added with the 1971 passage of the Alaska Native Claims Settlement Act, where the federal Secretary of the Interior was required to withdraw 80 million acres of existing public land for nomination to protected status as new national wildlife refuges, parks, forests, and wild and scenic rivers.

After a decade of public hearings, detailed investigation by federal staff, and political debate, the Alaska National Interest Lands Conservation Act was passed in 1980. It established a number of new protected areas of various types. It also established certain wilderness areas and mandated that other lands be evaluated for the purpose of Wilderness Area designation under the Wild and Scenic Rivers Act. The reviews have been completed but recommendations have yet to be forwarded to the President for action.

While the Alaskan (and American) systems are not planned as a network per se, they have evolved over time into a complementary network. A natural classification of the basic kinds of ecosystems now forms the basis for organizing the network of protected areas in Alaska. Nine types of ecosystems are identified, among which different varieties of tundra (which cover approximately 90 per cent of the surface of Arctic Alaska) are of primary importance. All types of terrestrial ecosystems are adequately represented in protected areas, but marine ecosystems are underrepresented due to conflict situations that have sprung up around extensive areas of the continental shelf that are rich in oil and natural gas. Relevant here is the National Estuarine Research Reserve Program which is to designate and protect river estuaries in all the coastal zones of the US, and a National Marine Sanctuary Program. As yet there are no areas in Alaska designated under these programs but they appear to be relevant to the expressed concern of CAFF countries to enhance the protection of marine areas in the planned Circumpolar Protected Areas Network.

### **The American Federal Process of Designating Protected Areas**

**Federal Statutes** Alaska National Interest Land Conservation Act  
Wild and Scenic Rivers Act  
National Parks and Recreation Act  
Wilderness Act  
National Wildlife Refuge System Administration Act  
Refuge Recreation Act  
National Environmental Policy Act (NEPA)  
Acts governing structure and functioning of federal agencies

### **Agencies/Actors:**

United States Department of the Interior. The three services of the Department involved in the designation and management of protected areas are the Fish and Wildlife Service, the National Parks Service and the Bureau of Land Management.

#### **US Fish and Wildlife Service**

Mandated to manage National Wildlife Refuges, conserve fish and wildlife populations and habitats in their natural diversity, to fulfill international treaty obligations to same, to provide for continued subsistence uses by local residents and to ensure necessary water quality and quantity within each refuge. The Service also has responsibility for species covered under international commitments such as migratory birds, otters, walrus and polar bear.

### US National Parks Service

Mandated to manage federal parks according to a variety of legislatively defined criteria (1916 Organic Act and 1980 Alaska Lands Act). Parks are to be managed to protect the landscape, natural and historical objects and the wilderness that they contain and in order to ensure the enjoyment of park visitors by ways which will preserve these objects unharmed for the benefit of future generations. Management goals are established for each unit in the park system under the Alaska Lands Act.

### US Bureau of Land Management

Mandated to ensure the balanced management of public lands and resources, based on principles of multiple use and sustained yield. In Alaska, the Bureau aims to safeguard public lands and ensure needed resources are available to future generations (sustainable development), to honour federal land commitments to the Alaskan indigenous peoples and the State of Alaska and to serve as an information storehouse for the public.

### US Environmental Protection Agency

The chief 'environmental pollution' agency of the federal government, charged with regulating environmental quality. The environmental impact assessments which must be filed under the US designation process are filed with and approved by this agency.

### US Arctic Network - an NGO

A cooperative organization among indigenous peoples', conservation and health organizations, who aim to promote conservation of the circumpolar Arctic ecosystem, to protect indigenous cultures and the sustainability of local communities. The network has a large membership of the Alaskan chapters of the prominent environmental conservation organizations in the US and indigenous people's organizations.

### **Process:**

Chart VIII-A presents the US federal process for designating a protected area on federal lands. The procedure used to develop proposals for creating protected areas in the Arctic region are the same as those employed for other regions of the country. In the United States, the initiative for establishing new protected nature areas often comes from non-governmental nature conservation groups. Proposals for organizing protected areas in Alaska, including the Arctic district, have always had the strong support of Alaskan environmental groups, which are in turn supported by other environmental organizations in the United States. Thus, the Alaska Coalition played an important role in bringing to the awareness of American citizens the desirability of reserving a large part of Alaska for parks, refuges, wildlife reserves, etc., and this subsequently found expression in the Alaska National Interest Land Conservation Act. The Coalition is currently represented by a network of over 100 organizations in the United States and Canada, including groups of environmentalists, native peoples and other citizens organizations.

To initiate the formal protection process a proposal to protect a site comes either from Congress or a request from the Department of the Interior. Studies are then conducted to

determine the significance of the resources to be protected, the status and effectiveness of existing protection of these resources, the effects of existing and projected land use trends on the resources and the feasibility of alternative types of management. These studies are governed by agency regulations and a National Parks Service System Plan. Completed studies for areas where the recommendation is to move the process of designation forward are sent to the Congress. While there are no standardized procedures applying exclusively to the Arctic, the National Environment Policy Act requires an environmental impact statement at this stage. A series of federal laws and regulations apply to notification procedures and public consultations.

As an illustration, a description of the process for designation which applies to the Bureau of Land Management (BLM) of the U.S. Interior Department follows. It is drawn from federal regulations and outlines the requirements for the Bureau to establish resource management plans for federal lands under its control. As such, it has wider application than areas protected for conservation purposes, but it is illustrative and a similar process applies to resource management under the U.S. Fish and Wildlife Service and the National Parks Service.

Areas under the jurisdiction of the BLM are mandated for multiple usage and the objectives of resource management planning are to maximize resource values for the public through a rational and consistent set of rules and principles promoting multiple use and ensuring participation by the public, state and local governments, and indigenous peoples. There are detailed requirements to inform affected members of the public about new land use plans or about alterations to existing ones and to provide for public input into the designation process from the original stage of plan preparation. Each year the Director of BLM is to publish a planning schedule advising the public on the status of each plan being prepared that year, major actions foreseen on each plan that year, and a schedule of anticipated new planning starts for the next three years. This schedule is published in official documents as well as in local media in the affected area. Public hearings and opportunities for public input on draft plans are then made. Under a special set of designation criteria, natural areas can be set aside as Areas of Critical Environmental Concern. These are areas which contain resources of significant historical, cultural or scenic value, or special fish or wildlife resources which are of greater than local importance. This designation allows more severe restriction on public uses of the area.

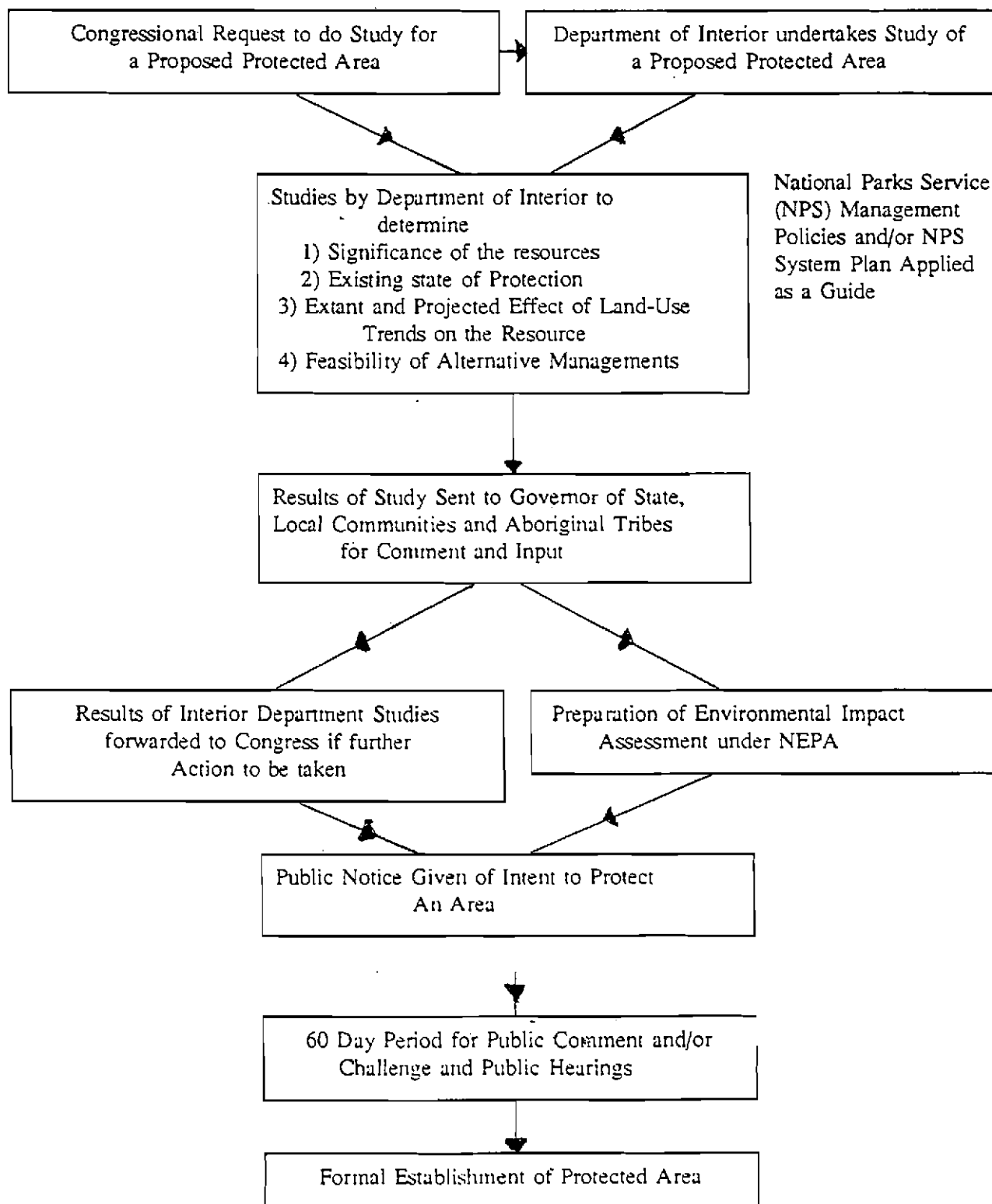
At the outset, the public, Federal Agencies, State and local governments and aboriginal peoples are given the opportunity to suggest concerns, needs and issues involved in preparation of the plan. Thus, a set of management issues is first identified and then studied via resource inventories and other relevant data prepared for this stage, under the direction of the District Manager for the area in question. There is also a requirement to prepare an analysis of several complete alternative scenarios to the proposed resource plan, including an assessment of the viability of taking no action, the effects of implementing the alternatives, along with the proposed course of action. All these are to be drafted along with an environmental impact statement which is to be filed with and approved by the U.S. Environmental Protection Agency. Copies of this are also to be forwarded to the Governor of the State and other interested parties where comments are solicited. The District Manager is responsible for evaluating these comments and making any

amendments upon which a revised management plan and final environmental impact statement is published. Provisions are made for legal protests of the plan which is then delayed until the protest is resolved. This method of imposing restrictions may also be cancelled administratively as a result of modifications to the plan. Consequently, such practices cannot guarantee a permanent land conservation regime.



### CHART VIII-A

#### U.S. FEDERAL PROCESS TO DESIGNATE PROTECTED AREAS



## **Alaska's Process for Designating Protected Areas**

The State of Alaska has three types of protected areas (Special Areas), namely state refuges, critical habitat areas and sanctuaries. All are multiple use areas established to protect productive fish and wildlife habitats, to conserve fish and wildlife populations and to promote public use and enjoyment. Special Areas are not part of a planned network but encompass a diversity of habitat types and are established on an individual basis to meet a wide variety of fish and wildlife habitat values. There are thirty-one Special Areas covering about 1.2 million hectares. The majority of them are for the protection of waterfowl and shorebirds. They include areas also designated as Ramsar sites and the Western Hemisphere Shorebird Reserve Network sites. These sites are managed through management plans and special area permits administered by the Alaska Department of Fish and Game.

**State Refuges** are established to ensure that wildlife continues to populate specific areas and to allow the public the continued use of these resources. They exist to maintain conditions which are essential for the existence of wildlife and their sustainable exploitation by the public. Refuges are rather large areas with many types of habitats suitable for waterfowl, larger game animals, coastal marine birds, and other species. One or more of the habitat elements needed by these populations is present within the refuge.

**State Sanctuaries** are established to give asylum to important wildlife populations. The wildlife in these cases normally uses the land in somewhat exclusive ways which other land uses impinge on. The criteria for removing lands from intensive exploitation and organizing sanctuaries is to create the conditions of cover and feeding that these wildlife populations require. In such cases, these populations usually use the area in some exceptional manner. Any given "sanctuary" can only protect the locality where a population spends a part of its annual cycle, for example, its period of feeding (grazing), nesting, or rookery formation, or a stage in its migration.

**State Critical Habitat Areas** are sites where protective emphasis is placed on the environment in which wildlife occurs. They are set aside to protect land and resources necessary to support essential life functions or large concentrations of one or more fish and wildlife populations. They can be complete biotic systems or well-defined areas specifically needed for certain functions such as nesting, spawning or overwintering.

### **Actors/Agencies:**

Alaska Department of Fish and Game: its goals in area protection are to manage, protect, maintain, improve and extend the fish, game and aquatic plant resources of the state. It works with local groups and legislators to establish protected areas and is the management authority for Alaska's Special Areas.

Alaska Board of Fisheries: manages fish harvest allocation issues and licenses fishing.

Alaska Board of Game: manages game harvest allocation issues and licenses hunting.

State Legislature: Enacts the statutes establishing Special Areas.

**Process:**

Chart VIII-B presents the State of Alaska's procedure to designate protected areas on state lands. Political consensus has been vital to the establishment of state protected areas, with local interest groups being key to prompting the Alaskan legislature to establish protected areas. In the 1970s and 1980s, citizen concern over protecting the most productive hunting and fishing areas and most popular wildlife viewing sites led to the creation of many of the state's protected areas. The development of discrete management plans for each area began in 1985. The Department of Fish and Game prepares management plans for each protected site using a year-long public planning process. One new plan is done every year. These plans are intended to provide consistent, long-range direction in managing the areas. They contain management goals for the area, its resources and policies to be used in deciding what types of activities are to be allowed within an area. They focus on identifying resource values and land use issues and to resolve any conflicts between them.

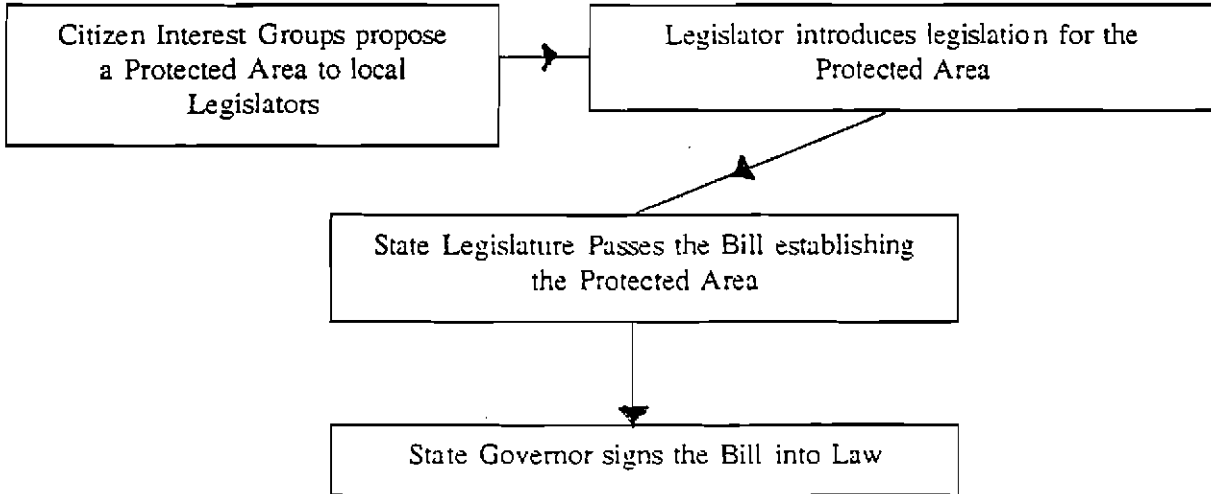
A new designation process begins with public hearings in local communities to identify the issues to be addressed in the plan. Typically these involve motorized vehicle use, land acquisition, habitat enhancement, natural resource extraction and structures and facilities to be provided. As Special Areas are for multiple use, a wide variety of uses must be reconciled with conservation objectives. At the same time, a resource inventory study is undertaken focusing on fish and wildlife resources, state of the habitat, public access and land use and land ownership. These deliberations also identify information gaps and recommend further studies to remedy them. After this a planning team assembled from state, federal and local governmental agencies drafts the area's management plan, a process which typically takes some nine months. Upon completion, it goes out for public review for a period of 45-60 days in which public hearings are held in effected communities. The final plan is then prepared, based on the consensus of the drafting team and comments received in the public hearings.

**Problems:**

The information base necessary for protected areas remains inadequate, particularly in regard to the condition of fish and wildlife populations and their habitats. Planning has so far been difficult for areas with significant gaps in basic resource information. Insufficient staff support resources have also been a management challenge. The planning and inventory process has been completed for only 10 of the 31 areas. Individual protected areas, e.g. Cook Inlet, permit activities related to oil and gas exploration and extraction. Roads pass through some protected areas. Commercial activities, including seasonal stays, camping, and organized excursions accompanied by guides, are rapidly increasing in certain protected areas. The appearance of such new forms of activity and resource exploitation make it necessary to introduce new regulations and restrictions.

**CHART VIII-B**

**ALASKA'S PROCESS OF CREATING PROTECTED AREAS**



## **Concluding Remarks:**

By way of conclusion, a few considerations come to mind. Several problems clearly emerge from an analysis of the questionnaire which are of particular relevance to the CAFF CPAN network in the Arctic. Firstly, we need to get more detailed information from Sweden. In particular, it would be useful to study in more detail how the Greenland system of moving zones of protection operates, as some variation of this approach might be highly useful as a protection scheme for marine migratory species. Such a solution might also help solve the thorny issue of protection in high seas areas outside of the boundaries of national sovereignties. The CAFF nations could work toward some mutual understanding to confer temporary zones of protection over key high seas areas used by marine species but currently unprotected.

The major feature of the Arctic ecosystem, is the Arctic Ocean itself, large parts of which are within international jurisdiction. A coordinated, circumpolar approach among the CAFF countries can have enough scope to cover most of this international territory and to take measures to protect it. The CPAN network will have to have a major marine focus to be effective. Perhaps a model to look at when considering the marine aspects of the program is the UNEP Regional Seas Program. While the most developed component is the Mediterranean Seas Program, comparative study of the regional seas agreements could be highly useful. Another useful model might be the Antarctic Treaty. Both of these, have of course, been mentioned at CAFF meetings from time to time, but their provisions may repay a closer analysis.

Once the CPAN network has been established either or both of the CPAN Consultative Body or the CPAN Experts Advisory Group should be kept in being (or some successor body be established). It/they could monitor progress on CPAN and perhaps do a yearly evaluation of the network and what remains to be done on it prior to the meeting of the International Working Group. The evaluation could then be considered by the CAFF International Working Group at its yearly meetings. This would have the virtue of keeping CPAN in the limelight and maintain continuity in the program.

Virtually every country's questionnaire response pointed to the lack of financial and trained personnel resources as major obstacles in going forward with the work of habitat protection. Several countries also pointed to problems within their own governments over competition between departments whose main mandate is conservation and others who are more heavily focused on industrial and resource development. The CPAN network is going to be one coordinated at an international, intergovernmental level, where the eight Arctic governments will have to take the lead. To do this they are going to have to be able to win some of the bureaucratic battles for competing uses of scarce resources within their own governments, in order to secure the political attention and resources required to complete this project.

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