

Session 3

***“Extension of Network of the Special Protected
Areas and Capacity Building”***

(Session 3)

Strengthen capability building of natural reserve and raise level of construction and management

Mr. Hongtao Yu

As the important content of sustainable development strategy, which is carried out in our province, the construction and management of natural reserve, has progressed rapidly. Under serious attention and wise leadership of all levels of government, and through the cooperation from all circles, great achievements have been gained: We have established natural protection net, with moderate size, complete type, rational distribution and relatively perfect management, which has performed important significance to the improvement of provincial ecological, and healthy development of economy and society as well.

1 Construction in nature reserve has been deeply developed

The nature reserve has gained great processes in recent 40 years since the first reserve Fenglin founded in 1958, by the end of 1999, the sum of all provincial nature reserve add up to 115, which covered 3 million hectares (6.60% of provincial territory), national 11, provincial 22, municipal 13, county 69. Among which, Zhalong nature reserve enters <<International main wetland namelist>>; Fenglin join in world human and ecology circle; Liangshui lists in national net. Different types of nature reserve are dispersed in Heilongjiang province, expect for ocean and desert, some particular types such as volcano ecology remaining in Wudalianchi, ancient biological fossil in Jiayin dinosaur, Xingkai lake pine in Xinkai lake, northeast black bee in Northeast black bee area, only existed in China. Others like Zhalong nature reserve, Honghe nature reserve has great influence on both inside and outside country. And the nature reserve's setting up make major ecological interests get better protection.

2 Management level in nature reserve has been improved continuously

This part will be divided into four points;

Firstly, management level becomes more scientific and rational. We finished the compilation of the development program for all provincial nature reserves (1998-2010). The program mainly focuses on construction and development of major ecological interests and nature reserve in key catchment. Also the nature reserve land plan has been entered in the provincial land general plan, which assure the reserve land usage.

At the mean time, the comprehensive management for the nature reserve has strengthened. With approval, provincial government nature reserve management office is established, which in charge of coordinating construction and management all over the province. Basically formed the new management system, i.e. government leaders take duty, all offices united control, and different departments coordinately manage.

And nature reserve building up has been gradually standard. First, according to relevant regulations, nature reserve's application and approval procedure has been specified. Second, the establishment of provincial nature reserve evaluation committee make it effective to create a new reserve or upgrade the reserve, their quality are correspondly improved. Third, the upgrade of reserve progresses rapidly,

national grade reserve up to 11 from 5 in 1995. Fourth, 2 inspection stations have been founded for capital construction, and "Sanjiang wetland propaganda and education center building" is put up. Last year, the EPB allocated 1.8 million RMB to Honghe, Wudalinachi, and northeast black bee nature reserve as construction subsidy fund. This year, the provincial government plan to allocate 1 million RMB as match funds to national investment, which is the first time in our province history.

Secondly, A good situation prevails on all circles participating the protection work. More and more social activities involved. Honghe nature reserve wouldn't widen it's areas without support of surrounding farms who correctly regard the protection work as key measures to keep the biology balance and guarantee the high production. Also this year, Jiansanjiang bureau issued documents to increase Honghe nature reserve area, which will reduce effect the outpace bring to.

Furthermore, the completion of GEF task i.e. <<Research for coordinately management in nature reserve>>, and being put into practice, also exerts a great influence in society. "Qiqihar red-crowned crane volunteer committee" founded in Zhalong nature reserve, making the action of protecting rare wild animals become the order of the day.

Thirdly, as the pilot project, the scientific research, propaganda and education has been spread. Nature reserve has been considered as scientific research base for both Heilongjiang and all the country. Lingshan nature reserve put stress on research work and become the scientific base of Northeast Forestry University; Fenglin nature reserve was appointed as UNDP pilot case: "China damp area forest sustainable manage zone" which has become the base of shenyang applied chemistry research building.

Nature reserve has great effect on society activity. As the laboratory base of Northeast Forestry University, Liangshui, maor mountain, sanjiang these three nature reserve are also live museum, wherethere people get close to nature, to learn it, to care about it, to love it. In 1998, students from 15 universities of Beijing areas constitute the observation group, specially paid visit to Honghe, Sanjiang nature reserve. After learning the relevant knowledge about wetland, they released investigation report, which has spread the influence of nature reserves.

Also, nature reserve has become pilot base for developing ecology tourism. For example, Zhalong nature reserve set the tourism scenery in test zone, which properly connected the ecology tourism with environment education. In Liangshui, Fenglin areas, professional tourism has been carried out. Ecology tourism's development not only benefit the reserves with income, and make up the shortage of operating expenses, moreover, it bring the nature's beauty to people, heighten our culture grade as well.

For the last point, legal system construction has made great progress. After <<Routines for China nature reserve>> was issued in 1994, <<Regulations for Heilongjiang nature reserve management >> also was released in 1996, which get <<routines>> more specific and feasible in our work. And our provincial government issued <<Decisions on enhancing wetland protection >> to specify the wetland type. All above documents will lay a foundation to manage the reserves in law way.

The level of executing the law has gradually upgraded, punish and correct some illegal cases, and involve the construction and management work in inspection activity of government. Besides, regular work was also reinforced.

Although we've achieved great gains with our work, there're still some problems needed to be resolved, such as: insufficient acknowledge of importance of nature reserve, investment channel not accessible, ineffective management and other bad influence on reserves etc.

3 Measurement to strengthen the capability building in nature reserve

First, organize and implement nature reserve program all over the province, then raise the level of construction and management. Second, go step further to deepen public's understanding of enterprises, put press on education, encourage people to join in nature reserve activity. Third, upgrade the degree of exerting law system, and enhance the nature reserve's management. Fourth, deepen the cooperation with international organization, as to the nature reserves, which is typical, representative, and notable abroad, try to get into international field. Thereby, we would play our active role in protecting global biology diversity.

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Policy on Nature Conservation and Special Protected Areas in Korea

*At the 9th Northeast Asian Conference on Environment Cooperation,
26-28 August 2000, Mongolia*

Mr. Chairman, Distinguished participants, ladies and gentlemen;

It gives me great pleasure to introduce the MOE's efforts for protecting and preserving the last remaining pockets of Green space and wetlands in Korea.

While the Republic of Korea has experienced rapid growth since its economic development started in the 1960s, its natural environment continues to deteriorate. High population density and urbanization are critical pressures on bio diversity. And industrialization and infrastructure(road and large dam, etc.) construction including land reclamation do serious damage to biodiversity.

In 1999, the amendment of Natural Environment Conservation act compelled to the MOE to establish the Basic Policy for Nature Conservation, which is the foundation of nature related policy of the country. It comprises the guidelines for government policies to conserve nature.

The protection of wildlife will be strengthened by designating ecosystem conservation areas, national parks, wetland conservation areas, protected islands and protection zones for birds. The purpose for designating these areas varies slightly according to the individual legal bases, however in general they are similar in that they function to conserve biodiversity and natural scenery.

1. Natural Conservation Strategy

In order to realize an environmentally sound Korean peninsula where humankind and nature coexist in harmony, the Ministry is implementing natural environment conservation policies under the following six principles: 1) conserve, manage, and

sustainable use nature to protect the public interest, 2) maintain harmony and balance between conservation and land use, 3) protect biodiversity, ecosystems, and beautiful natural scenery, 4) promote the participation of all citizens in conserving the natural environment as well as opportunities for sound use, 5) equitably distribute the expenses of conserving the natural environment, and 6) promote international cooperation for conserving the natural environment.

The Ministry of Environment, in consultation with related ministries, specialized institutions, and NGOs, established the National Strategy for the Conservation of Biological Diversity June 1999.

The chief contents of the National Strategy include measures for regular inspections and surveys of biodiversity, designation and management of protected areas, strengthening protection for protected species (those threatened with extinction, etc.), ex situ preservation, strengthening regulations on discharging toxic pollutants into the environment or damaging ecosystems, strengthening management of LMOs and alien species, and conserving and restoring damaged lands.

The strategy for the sustainable use of biodiversity illustrates the direction for conserving and sustainably using agricultural resources, mountain forest resources, marine resources, tourist and recreational resources, and genetic resources.

2. Protection of Wild Fauna and Flora

Following the Natural Environment Conservation Act, the Korean government has established and is currently implementing policies for the protection, designation, management, and conservation of wild fauna and flora. Penal regulations on illegal hunting and collection have also been strongly enforced.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international effort for the protection of endangered wildlife through

regulation of its trade. In line with this, the Korean government now requires a government certificate for customs clearance.

3. Managing Ecosystem Conservation Areas

Since the enactment of the Natural Environment Conservation Act, the Ministry of Environment is managing Natural Ecosystem Conservation Areas to protect them from land-intensive development projects.

To properly protect natural ecosystems that are being rapidly destroyed as a consequence of numerous development projects, the Ministry of Environment has designated and manages "Natural Ecosystem Conservation Areas." Target areas include: 1) grade 1 regions according to the ecosystem map, 2) areas of great scientific research value due to their untouched ecosystems or abundant biodiversity, 3) regions that require conservation for scientific research or to maintain scenery because of their geological or topographical characteristics, 4) regions that serve as habitats or visiting grounds for endangered species or protected wildlife and where the need for conservation is recognized, and 5) regions that represent a great variety of ecosystems or are good examples of particular ecosystems.

Natural Ecosystem Conservation Areas are broken down into three categories according to their characteristics: Special Wildlife Protection Areas, Special Natural Ecosystem Protection Areas, and Marine Ecosystem Protection Areas. The table below lists the standards for designation.

<Criteria for the Designation of the Natural Ecosystem Conservation Area Name>

Name	Designation Standards
Special Wildlife Protection Area	Areas that must be conserved in order to protect endangered or protected wildlife

Special Natural Ecosystem Protection Area	Areas with exceptional ecosystems or abundant biodiversity, or regions with fragile ecosystems that would be difficult to restore if they were damaged
Special Marine Ecosystem Protection Area	Areas with exceptional marine ecosystems or abundant biodiversity

Ecosystems designated as conservation areas cover a total area of about 100 §', a third of which is sea surface. Within these borders are an abundance of species. Nakdong River's estuary serves as visiting grounds for migratory birds. A virgin forest is located in Mt. Chiri's Simwon Valley.

The criteria for designating ecosystem conservation zones are as follows: I) zones classified as superior quality, ii) zones maintaining a primitive ecosystem, iii) zones that are unique in geology and geography, and are thus in need of natural conservation, iv) zones that are considered valuable as visiting grounds for endangered or protected wild life, and v) model zones that may represent biologically diverse ecosystems. Zones designated according to such criteria are shown in the table below.

<Current Status of Designated National Ecosystem Conservation Zones>

Designated Zones	Objectives	Location	Designation date
Estuary of the Nakdong River	Visiting grounds of migratory birds	Sa-ha-gu, Pusan (Ul-suk Island)	'89.3.10
Mt. Chiri	Virgin forest	Koo-rye County, Chollanam Province (Shim-won Valley)	'89.12.29
Mt. Tae-am	High moors	Inje County, Kangwon Province (Yong Marsh)	'89.12.29
Woopo Swamp	Wetlands	Changnyong County, Kyungsangnam Province	'97.7.26
Ulsan's Moojaechi Marsh	Marsh on Mt. Jungjok	Ulchu County, Ulsan	'98.12.31

4. National Parks

Natural parks were designated to protect ecosystems, beautiful natural scenery, cultural artifact, recreational resources, etc. They are classified into national parks, provincial parks, and county parks.

As of the end of 1998, there were a total of 71 natural parks in Korea covering an area of 7,528.830§', 7.5% of the total land area. This consists of 4,814.956§' of land (4.8% of the total land area) and 2,713.874§' of marine environment (2.7%). There are 20 national parks, 22 provincial parks, and 29 county parks.

Twenty areas in Korea have been designated as national parks since the national parks system was first introduced: one as a national historical park (Kyong Ju), three as marine parks, one as a peninsular park, and the remaining fifteen as their scenic beauty, the national park offer cultural and historical assets, including various national treasures and Buddhist temples. As a top priority, we Koreans are committed to preserving the ecosystems of the twenty national parks by effectively managing the parks' resources. In order to restore damaged areas and soundly and sustainably use the parks' natural and cultural resources, we plan to systematically promote education and public relations for visitors. We are currently developing eco-tourism programs that focus primarily on the national parks, including nature walks.

Furthermore, by stimulating exchanges with countries throughout the world, we will do our best to let the world know about Korea's national parks through diverse media, such as the internet and publications.

5. Wetland Conservation

Wetlands are treasure houses of biological diversity, providing habitats for diverse species of fauna and flora. They are extremely valuable natural assets that perform many environmental and socio-economic functions, including the purification of pollutants and flood mitigation.

In March 1997, Korea acceded to the international convention on protecting wetlands, the Ramsar Convention (Convention on Wetlands of International Importance, Especially as Waterfowl Habitats). Korea is participating in international efforts to preserve wetlands, e.g., designating wetlands in Yong on Mt. Taeam and Woopo Swamp as Ecosystem Conservation Areas and registering them as Ramsar sites as well as enacting the Wetlands Conservation Act in December 1998.

6. Preservation Measures for Uninhabited Islands

In order to manage ecosystems of uninhabited islands effectively, the Special Act relating to the Conservation of Island Ecosystems such as Tokdo was enacted in December 1997 for research and data collection on uninhabited islands.

Nationwide research on uninhabited island ecosystems has also been conducted since 1998. Expansion of the research programs on a yearly basis is expected. Based on these results, uninhabited islands with the healthiest ecosystems will be designated and managed as protected islands.

7. Protection and Management Policies for Habitats of Migratory Birds

It is essential that habitats are not damaged and natural ecosystems are appropriately conserved. Based on the nationwide yearly survey on the natural environment, the Ministry of Environment has been designating and managing ecosystem conservation areas that are considered valuable as visiting grounds for migratory birds.

Currently, the government has designated and managed 34.2§' of the lower area of the Nakdong River in Pusan, and 8.5§' of the Woopo Swamp in Kyungsangnam Province as visiting grounds for migratory birds. As for Seoul, the government has designated 0.24§' of the Bahm Island region and is in the process of implementing plans on ecosystem conservation.

As for major habitats of migratory birds, the government has designated protection zones in which, for example, people's entrance during the breeding season is limited. Currently 757 sites (1,340§) have been designated and managed as protection zones for birds.

Asia-Pacific countries have had many achievements, including the adoption of the Kushio Initiative in 1994, establishment of Conservation Strategies on Migratory Waterfowls of the Asia-Pacific Region in 1996, and the creation of networks for major waterfowl habitats as well as bilateral agreements.

In 1994, Korea and Russia signed the Agreement on the Protection of Migratory Birds in Korea and Russia. Japan and Korea have also been holding annual meetings since 1996 for cooperation on migratory birds.

Other efforts for protecting migratory birds within the Asia-Pacific region include Korea's accedence to the Ramsar Agreement in 1997 and participation in cooperative networks working to protect cranes, longbills and ducks.

The Hooded crane is one migratory bird found throughout northeast Asia, especially in Izumi, Japan. To increase the range of the bird's habitat and help preserve migrating routes, the city of Sunchon held an international symposium in February 2000 to develop measures for the protection of Hooded crane and its habitat, in part by expanding its habitat around Sunchon.

8. Strategy for protected Areas

As I mentioned before, there are many kinds of special protected areas in Korea. The protected areas include Ecosystem Conservation Areas, Natural Parks, Natural Monument Protection Areas, and Birds & Mammals Protection Areas, etc.

In other to expand the protected areas, the ministry has already spent around 4 million USD to nationalize some Ecosystem Conservation areas so Far. In addition to

acquiring protected areas, various economic incentive measures for the local residents will be introduced to lower the resistance for designating protected areas.

As all of you may be aware, the Demilitarized Zone between the South and the North Korea, and its neighboring areas have a unique ecosystem. Even though this areas are not legal protected areas, we are trying to conserve the ecosystem of these areas.

At the same time, the ministry is trying to strengthen the management of existing protected areas. The ministry has made a rule called *management agreement for biodiversity*. The rules applies to especially sensitive or important protected areas. For example, the ministry will contract with farmers to reduce their uses of pesticides and fertilizers or to follow traditional farming techniques in order to conserve the ecosystem of specific areas.

9. Korea's CASE : Actions to Preserve the Dong River

Along with related organizations, Kangwon Province and Youngwol, Chungsun and Pyoungchang Counties, the Ministry of Environment has prepared environmental preservation measures for the river to minimize the aesthetic and ecological impact of tourism on the area. These measures include the following.

A. Devise Protective Measures for wildlife

Regulate or ban the capture of fish, animals, and plants and prevent habitat damage by prohibiting tourist entry into some sensitive habitats of wild flora and fauna, especially those of endangered species.

B. Strengthen Pollution Prevention Activities

Create twenty-two local environmental groups to report illegal activities such as waste dumping and degrading the natural landscape. These groups will also carry out

environmental clean-up activities in zones designated appropriate for pollution prevention measures.

C. Prohibit Rafting in the Upper Dong River

Prohibit rafting within the water resources protection zone in Chungsun extending from Woonchi-Ri to Maha-Ri.

D. Formulate an Agency to Regulate Activities that Threaten the Natural Environment

Organize an agency consisting of 4-5 members to regulate activities that generate pollution or compromise the natural environment.

E. Close Some Sections of Mountain Paths, Extend Public Campaigns, and Prohibit Camping and Cooking within the Area

Current situation of protected areas and ecotourism development in protected areas

The 9th Northeast Asian Conference on Environmental Cooperation
July 26-28,2000/Ulaanbaatar, Mongolia

Katsuji Bansho

Planning Officer,
National Park Division,
Nature Conservation Bureau,
Environment Agency of Japan

1 INTRODUCTION

Japanese archipelago stretches from the sub-tropical to sub-arctic zone running parallel to the eastern rim of the Eurasian Continent consists of four main islands and more than 3,900 smaller islands whose area cover almost 378 thousand square kilometers.

Forest areas cover 67 percent of the total land areas and agricultural lands also cover 14 percent. Because of mountainous topographical nature of lands, a large part of Japan is still decorated with beautiful primitive and secondary forests. Brown bears, black bears, and Japanese deer trot in forests, and golden eagles, cranes and herons glide in blue sky.

Japanese flora is very abundant and more than 6,000 species of higher plants were identified due to diversity of climatic conditions and geographical features.

Due to diverse variety of flora and wildlife habitats, rather large number of mammals, birds, reptiles, insects, etc. are observed even in Japanese archipelago. 188 species (including subspecies) of mammals, 665 birds, 59 amphibians, 87 reptiles, 200 freshwater fish and more than 100 thousand of insect species were already identified.

For the conservation of the natural environment of Japan, there are four categories of Protected Areas in Japan, which are Natural Parks, Nature Conservation Areas, Wildlife Protection Areas and Natural Habitat Conservation Areas for Endangered Species.

2 PROTECTED AREAS IN JAPAN

2.1 Natural Parks

The legal basis of Natural Parks is the Natural Parks Law. The Law aims to conserve scenic areas and their ecosystems, to promote their utilization, and to contribute to the health, recreation and environmental education of the people. In compliance with this law, natural parks are categorized following 3 parks.

National Parks

The place of greatest and national-level natural scenic beauty and ecosystems, worthy of the names of the national scenic and out-standing ecosystems in Japan.

Quasi-National Parks

The place of great natural scenic beauty at the district-level and next to the National Parks.

Prefectural National Parks

The place of prefectural- level importance and designated by the prefectural governors concerned.

Type	No. of parks	Park area(ha)	Percentage to land area (%)
National Parks	28	2,047,408	5.42
Quasi-national Parks	55	1,339,347	3.54
Prefectural Natural Parks	304	1,948,687	5.16
Total	387	5,335,442	14.12

2.2 Nature Conservation Areas

Legal basis of Nature Conservation Areas is the Nature Conservation Law. The Law is a general law that stipulates basic policies of natural conservation. In compliance with this law, nature conservation areas are categorized following 3 areas.

Wilderness Areas

Area that preserves its original characteristics without any influence of human activities.

Nature Conservation Areas

Natural area that preserves its valuable natural environment, as:

- (a) alpine and sub-alpine vegetation
- (b) valuable natural forests
- (c) typical landscape, geology and natural phenomena
- (d) river, lake, marsh, and sea coast
- (e) marine area
- (f) habitats of plants and wildlife preserving a natural environment comparable (a)-(e)

Prefectural Nature Conservation Areas

Area that preserves a natural environment almost equivalent to a Nature Conservation Area, but does not include marine areas.

Type	No. of areas	Areas(ha)
Wilderness Areas	5	5,631
Nature Conservation Areas	10	21,593
Prefectural Nature Conservation Areas	516	73,413

2.3 Wildlife Protection Areas

Legal basis of Wildlife Protection Areas is the Wildlife Protection and Hunting Law. This Law aims to protect and increase wildlife, to control pest and prevent the danger caused by hunting, through the execution of wildlife protection projects and effectuation of hunting for the purpose of the improvement of living environment and contribution to the promotion of agriculture, forestry and fisheries.

The Director-General of the Environment Agency or the prefectural governor, when he deems it necessary for protection and reproduction of wildlife, may establish the Wildlife Protection Area for a duration not exceeding twenty years. Wildlife Protection Areas are established to protect and to promote the reproduction of birds and mammals, and the hunting of wildlife is prohibited within such areas.

54 National Wildlife Protection Areas (480,000ha) and 3,665 Prefectural Wildlife Protection Areas (2.96 million ha) had been established, giving a total of 3.44 million ha, accounting for 9% of the national land area.

2.4 Natural Habitat Conservation Areas for Endangered Species.

Legal basis of Natural Habitat Conservation Areas for Endangered

Species is the Law for Conservation of Endangered Species of Wild Fauna and Flora. Recognizing that species of wild fauna and flora are important components of ecosystems, as well as having essential value for humanity, the Laws for the Conservation of Endangered Species of Wild Fauna and Flora aims to ensure the conservation of natural surroundings for present and future generations.

For the purposes of ensuring the conservation of National Endangered Species, the natural habitats of National Endangered Species are designation by the Director-General of the Environment Agency as Natural Habitat Conservation Areas for Endangered Species.

5 Natural Habitat Conservation Areas have been designated, and are being managed through operations such as patrols and surveys on state of living and breeding.

3 MANAGEMENT OF NATIONAL PARKS

To conserve outstanding ecosystems and scenic beauty, many activities liable to deteriorate natural environment, are prohibited without prior permissions and licenses from the Director-General of the Environment Agency or the Prefectural Governor concerned. Permissions are issued in accordance with the "Guideline to Assess on Various Development Activities in National Parks Areas" elaborated by the Environment Agency.

To promote and encourage the beautification and cleaning-up in popular and major areas in the parks where many visitors visit, voluntary groups consisting of local governments, concessionaires, scientists, local peoples and others have been established and organized. In order to encourage various beautification activities undertaken by more than 40 groups established, one quarter of necessary budget for their programs has been subsidized by the Environment Agency, one quarter by prefectural government, and one quarter by municipality authorities concerned, and one quarter by local businesses concerned. Also some private funds help financially to conduct such activities. Especially to support non-governmental activities for the nature conservation, funds play very important role.

To promote the wise-use of National Parks, licenses and permissions for the provision of facilities for park visitors are allotted to local public bodies and private bodies in compliance with the utilization planning of the Parks. Public facilities can provided by the Environment Agency and Prefectural Governors with financial assistance of the Environment Agency. In accordance with Natural Parks Law, private bodies can get license from the Environment Agency in order to operate hotels, inns, skiing hills, and other facilities fir visitors in National Parks. This licensing scheme has contributed the local economic development and provided a authorities has also been issued in many National Parks.

To promote appropriate utilization of the natural resources in National Parks and meet increasing people's desire for communicating with nature, various interpretive services are provided based at interpretive facilities such as visitor centers.

To manage the Protected Areas appropriately, it is crucial to enhance the co-operation among the National Government, Prefectural Governor, Municipality Authorities, local people and private sectors. Especially in Japan, where protected areas can be established even on private-owned land, it is essential to gain public support and to maintain good public relationship.

4 ECOTOURISM DEVELOPMENT OF PROTECTED AREAS

4.1 The Thinking Behind Ecotourism

Conventional tourism, by involving traveling around, has utilized and used up natural resources. By bringing many people to a certain place, mass tourism has been good for local economies, but has in many cases been detrimental to the natural environment.

By contrast, the idea behind ecotourism is to make sustainable use of the natural environment, thereby leading to the continued economic development of localities. The purposes are summarized as follows.

- (1) Contribute to preserving the local natural environment and culture
- (2) Contribute to vitalizing the local economy
- (3) Bring a due measure of profit to tourism and other related industries
- (4) Raise the environmental consciousness of local citizens and tour participants

Following are some ecotour activities that people might engage in:

Type of activity	Specific activities
Interaction with wildlife	Watching wildlife, whale watching, flora and fauna study tours, flora observations, nature observations
Experiencing the environment	Spelunking; going to see waterfalls, volcanoes, and hot springs
Encounter with traditional culture	Visiting archeological sites, learning traditional crafts
Activities on land	Trekking, hiking, walking, mountain climbing,

	camping, photo tours
Activities at sea	Snorkeling, canoeing, scuba diving, rafting
Participatory experiences	Experiencing the life of traditional Tohoku mountaineers, agriculture, commercial fishing, or forestry; workshops

4.2 Ecotourism in Japan

Japan has some places that are ahead in ecotourism, such as Iriomote Island in Okinawa Prefecture, and Yakushima Island in Kagoshima Prefecture. Henceforth it will be important that the use of designated protected areas for tourism be changed to ecotours that do not use up the resources, and which at the same time bring about the sustainable use of resources.

Area	Ecotour activities
Kushiro wetland (Hokkaido)	Trekking, camping, canoeing
Ogasawara (Bonin) Islands (Metropolitan Tokyo)	Whale watching
Yakushima Island (Kagoshima Prefecture)	Trekking, learning natural history
Iriomote Island (Okinawa Prefecture)	Trekking, kayaking, observing wildlife

Yambaru region, which is being considered for designation as a new national park, in Okinawa Prefecture, there is an idea under consideration to provide for both local economic development and nature conservation by combining ecotourism and designation of protected areas.



9th Northeast Asian Conference on Environmental Cooperation

July 26-28, 2000

Ulaanbaatar, Mongolia

Session 3: Extension of Network of the Special Protected Areas and Capacity Building

The long tradition of nature conservation in Russia has produced a protected area system that is unique in the world. The state nature reserves and national parks form the basis of a network of specially protected nature areas of Russia.

Today this network comprises 99 zapovedniks* and 35 national parks, accounting for about 2% of the entire area of Russia. A developed network of specially protected areas is a guarantee of the preservation of Russia's nature diversity. Under Russian conditions such areas are primarily zapovedniks.

Zapovedniks

A zapovednik - this original Russian term is also used in technical English - is a strict nature reserve (IUCN Category I¹) organized as a giant open-air research institution.

The federal system of state zapovedniks has been developing over 80 years into the present globally unique and important network.

Zapovedniks is a Russian traditional form of territorial nature conservation, whereas the practice of the establishment of national parks has been derived from foreign experience.

Zapovedniks are established where representative samples of nature have been retained, and where there are specially vulnerable nature features, primarily rare species of plants and animals. Russian zapovedniks are fairly representative of the nature ecosystems of different landscape zones of the country and preserve the population and habitats of virtually all the rare plants and animals listed in the Red Data Book.

* 20% of which are located in the Far East. Out of the 35 wetlands protected under the Ramsar Convention, 7 are located in the FER.

** In protected areas of IUCN Category I, activities are prohibited, except for scientific and research activity. Regular research activities and monitoring are undertaken concerning wildlife, vegetation and ecosystems in all protected areas of IUCN Category I.

Hundreds of protected areas have been established in North-East Asian subregion for biodiversity and natural resources conservation. Russia, only in Primorskyi, Kamchatka, Sakhalin and Amur provinces, has established 330 protected areas (IUCN categories 1-4).

The main difference of Russian zapovedniks from specially protected areas of other countries lies in their having research departments and in totality forming a network research institutions of the same type, covering the entire territory of Russia according to a particular system. Systematic (annual) inventories and evaluations (so called Chronicles of Nature) allow follow up on the positive and negative changes occurring in protected areas. Research in zapovedniks is conducted throughout the year in accordance with co-ordinated programs, which make it possible to resolve various ecological problems.

Today an increasingly notable contribution to the conservation of nature diversity of Russia is made by national parks.

National parks

In the early 1980-ties when the international experience in nature conservation was thoroughly examined in the former USSR, the first national parks were created. The national parks combine protection of scenic landscapes and their wildlife with ecotourism and environmental education.

Apart from protecting landscape and biological diversity, they fulfilled an important mission of environmental education. The above-described categories of specially protected areas are subordinate to the federal government, have their own management and operate as nature conservation, scientific research and environmental enlightenment educational.

The most widespread categories among the regional reserves are preserves/refuges and natural monuments.

State Natural Game Reserves (Zakazniks) and Natural Monuments

In the period from 1960-ties to 1980-ties new categories of SPA's were actively developed including state natural game reserves (zakazniks) and natural monuments that are subordinate both to federal and regional authorities. These are the most numerous SPA's in Russia totalling 15,000 (according to VNIIPriroda data). Unlike zapovedniks and some parts of national parks (rest areas), economic activities usually continue in these protected areas. These activities are strictly regulated by legal acts adopted on the federal or regional level for an individual SPA's.

State natural game reserves (zakazniks) are created to protect both individual species (of flora and fauna) and ecosystems as a whole.

Natural monuments are established to protect primarily unique point objects of particular importance for protecting biodiversity, geological environment, environmental education purposes, etc.

Nature parks (Prirodny parks)

Upon the first Russia law on SPA's was adopted in 1995 a new category of territorial nature conservation appeared - *natural parks*. Unlike national parks they are owned by the subjects of the Russian Federation, they not necessarily carry out scientific and research functions, and their areas may be used for recreation purposes on a large scale. (Fig.1). Such parks have been established in the Bryansk and Kamchatka regions, in the Maritime Province and Sakha Republic.

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The most widespread categories among the regional reserves are preserves/refuges and natural monuments.

State Natural Game Reserves (Zakazniks) and Natural Monuments

In the period from 1960-ties to 1980-ties new categories of SPA's were actively developed including state natural game reserves (zakazniks) and natural monuments that are subordinate both to federal and regional authorities. These are the most numerous SPA's in Russia totalling 15,000 (according to VNIIPriroda data). Unlike zapovedniks and some parts of natural parks (rest areas), economic activities usually continue in these protected areas. These activities are strictly regulated by legal acts adopted on the federal or regional level for an individual SPA's.

State natural game reserves (zakazniks) are created to protect both individual species (of flora and fauna) and ecosystems as a whole.

Natural monuments are established to protect primarily unique point objects of particular importance for protecting biodiversity, geological environment, environmental education purposes, etc.

Nature parks (Prirodny parks)

Upon the first Russia law on SPA's was adopted in 1995 a new category of territorial nature conservation appeared - *natural parks*. Unlike national parks they are owned by the subjects of the Russian Federation, they not necessarily carry out scientific and research functions, and their areas may be used for recreation purposes on a large scale. (Fig.1). Such parks have been established in the Bryansk and Kamchatka regions, in the Maritime Province and Sakha Republic.

System plan for protected areas

The current prospective (up to the year 2005) scheme for siting and promoting the network of zapovedniks and national parks was adopted by the Russian Federation Government in 1994. It envisages creating over 100 zapovedniks and national parks.

State of the art

Maintaining and developing the system of specially protected areas (SPA's) is one of the priority trends of the state environmental policy in the Russian Federation. In accordance with the Russian Federation legislation the SPA's are considered as national heritage objects.

Protected areas in the Russia are established according to the Law of the Russian Federation "On Environmental Protection" (19.12.1991), and regulations about state nature reserves in the RSFSR (Governmental Act of 18.12.1991). Important legislation and regulatory acts on SPA's creation and operation have been adopted recently.

Adopted in 1995, the «Federal Law on the Particularly Strongly Protected Natural Territories» (PPNT) has given an impetus to the development of regional networks of protected areas. It has sanctioned the establishment of new PPNT types and categories of regional importance, including the protection of rivers, water bodies, shores, parklands, natural and historical landscapes, etc. This has strongly extended the potentials of the Federation's subjects for the organization of new protected areas of varying status.¹

The guidelines for promoting federal game reserves (zakazniks) were adopted and enforced by the Russian Federation State Committee for Environmental Protection.

The schemes for promoting SPA's in individual regions of the Russian Federation are developed and adopted by local administrations of the Russian Federation subjects independently from the federal schemes.

Under the current Russian practice of nature conservation the networks of federal and regional SPA's exist and develop largely autonomously.

According to the VNIIPriroda data the regional SPA's vary from 16 to 1.000 at an average of 170 SPA's per one subject of the Russian Federation

¹ This has demanded to perform a revision of the existing regional PPNT.

In 1996, the All-Russian Research Institute for Nature Conservation began to carry out a project for accumulation of complete and reliable regional information about protected natural areas as a part of the federal natural heritage. Together with the Department of Nature Reserve Management of the Federal State Committee for Ecology, the Institute has launched a contest for the best work concerning an inventory of the natural heritage protected in the regional subjects of the Russian Federation. The contest financed the work done in the regions as well as the winners' prizes. Here we gratefully acknowledge the financial support of the German Union for Environmental Protection, the «ESTI-MAP» Company, the «ECUR» Charity Environmental Fund, and the «Coca-Cola» Company. Certain support was also rendered by the BINA-RT Advertising Agency, the Actual Biology Fund, the Moscow Agency of the International Union for Nature Conservation, and the Center for Wildlife Protection.

Inventory of the regional and local PPNT has covered Russia's 81 regions (of 89) and it can be considered as acceptable for 66 regions. The results of the survey have allowed to incorporate in the database information on about 15,000 particularly strongly protected natural territories of regional and local importance. Their total area amounts to about 95 million ha.

Management

Regretfully the existing practice of state management of the SPA's of the federal importance - zapovedniks, national parks and natural game reserves (zakazniks) - is far from perfect in modern Russia.

The Zapovedniks (Strict Nature Reserves) are managed on a national level. Other Protected Areas have provincial management. Several sanctuaries are managed on the federal level.

A regional or local status of reserves is often vaguely delimited. Numerous standard juridic documents of the creation of a PPNT fail to conform to current legislation and are to be updated.

Financing of protected areas

In line with the existing legislation and practice of nature conservation Russian zapovedniks and national parks are financed from the following sources:

- 1) Federal budget of the Russian Federation including the Federal target-oriented program for government support of state zapovedniks and national parks (up to the year 2000);
- 2) Federal ecological foundation;
- 3) Budgets of the Russian Federation subjects;
- 4) Regional ecological foundations;
- 5) Local (regional, municipal) budgets and extra-budgetary sources;
- 6) Donations (grants) by organizations and private persons;
- 7) SPA's own funds (Fig.2).

The most reliable financial sources actually used by other categories of SPA's (excluding zapovedniks and national parks) are budgets of the Russian Federation subjects, regional ecological foundations, district and municipal budgets and extra-budgetary funds, grants and donations by Russian and foreign sponsors and own resources (product sales, fines, recreational activities, etc.).

Because of the overall crisis situation in Russian economy, SPA's financial situation is extremely difficult. For example, the state budgeting reduced over 20 fold in 1995 as compared to 1990. In October 1995 the President of the Russian Federation approved the Federal Target-oriented Program of Government Support to State Natural Zapovedniks and National Parks up to the year 2000. It contained an Action Plan on overcoming the crisis situation with SPA's. Regretfully the program is being partially fulfilled, and the SPA's network hardly operates without state support.

International experience shows that only full-scale state budgeting can uphold and maintain the areas similar to Russian zapovedniks. Irregular and insufficient financing of the unique network of Russian SPA's during the last seven years has damaged its foundation. Active use of extra budgetary sources could remedy the existing situation.

Financing of Zapovedniks

In 1990 the ratio of financing the zapovedniks network from the state budget was 90%. Since 1992 the inflation rate has become avalanche-like, and impoverishment of zapovedniks has reached the disastrous level. Starting from 1993 the money was allocated from the Federal and regional ecological funds. In 1994 this type of financing amounted to 9% of the total budgeting.

Adoption of the Federal target-oriented program has contributed to a more stable financing of zapovedniks. The program envisaged a broader network of zapovedniks and national parks, protecting the typical and unique natural ecosystems, preserving the natural and cultural heritage, a more effective social security of the zapovedniks and national parks employees. Upon the program completion a federal SPA's network shall cover all natural zones in Russia to promote fulfilling Russian obligations under the Convention on Biological Diversity.

Despite the program implementation financing zapovedniks from the state budget remains insufficient, and the budgets of individual zapovedniks are largely dependent on other sources. For example, in 1995 the ratio of extra budgetary sources in 30 zapovedniks varied from 34% to 79%, in 17 zapovedniks from 20% to 30%, and in 11 zapovedniks from 10% to 20%. Extra budgetary financing of other zapovedniks was less than 10%. It should be noted that some of the latter zapovedniks were recently created and could not find extra budgetary sources at such a short notice (Stepanitsky, Mazmanyants, 1997).

Financing of Natural Parks

The overall situation in financing the Russian natural parks was as follows:

Total expenditures - 72.13 million Rubles (~ US \$ 12.02 million) including:

- from the Federal budget - 48% (capital investments - 2%; operational costs - 98%);
- from the subjects of the Russian Federation - 10% (ecological funds - 18%; regional budgets - 82%);
- national parks' own funds - 42% (product sales - 33%; recreational activities - 14%; fines - 2%; other - 51%) (Fig.3).

Financing by the State Committee for Environmental Protection

The economic mechanism of regulating environmental protection is closely related to the system of payment for adverse impacts on the environment and operation of government ecological funds.

The principle authority in regulating environment protection activities in Russia is the State Committee of the Russian Federation for Environmental Protection (Goskomecologiya). Therefore analysis of its budgeting could reveal general economic trends in the field of SPA's.

In 1997 the Goskomecologiya coordinated 11 federal target-oriented programs in the field of environment protection and nature conservation, including the Federal target-oriented program to support zapovedniks and national parks (FCP).

The 1999 Federal budget allocations for "Environment Protection" total 105,30 million Rubles (~ US 1, 755 million) of capital investments for nature conservation activities to be covered by all sources of financing. This sum includes 342 million Rubles from the federal budget (federal investments) which is 30% of the 1998 total expenditures and 20% of the 1997 total expenditures. In 1997 the federal budget remained the major source of funding the zapovednik network that covered 70% of all operational costs.

A comparison of the 1999 federal budget with the 1997 and 1998 budgets shows positive trends in the environment protection domain, however the allocated funds are obviously insufficient to solve the current problems.

Given the deficit funding and a need to ensure a temporal ranging of investments, special attention is paid to a comprehensive environmental and economic substantiation of land allotment for specially protected natural areas. The most complicated methodological and practical aspect is the economic evaluation of the results of protecting biodiversity. The results of protecting biodiversity in SPO's could be classified as follows:

1. Supporting economic development through a sustainable use of natural resources, tourism, recreation and creating labor opportunities;
2. Maintaining the natural equilibrium by protecting genetic and biological diversity;
3. Providing the opportunities for scientific research, ecomonitoring and education.

The above classification underlies a qualitative assessment of the results of biodiversity protection, namely: benefits from the direct and indirect use of nature resources today and in future, and also the effect of biodiversity existence (Solovieva, 1995).

Summarized annual results of environmental activities in relation to relevant capital investments could be used as an indicator of the overall economic effectiveness of environmental capital investments. Statistical data do not often differentiate capital investments, but using some parameters allowed us to evaluate the effectiveness of the 1993 in kind expenditures in Russia as a whole and in individual protected natural areas (Fig.4).

Cost Effectiveness in Selected SPA's of Federal Subordination (1993)

Name of SPA	Area, ha	Costs, million Rubles	Effectiveness, million Ruble/ha
Baikalski	165 724	79.6	2 082
Taimyrski	1 348 708	8	168 559
Greater Arctic	4 169 222	8	521 153
Kurilsky	65 365	59.2	1 104

It is clear from the above Table that the indicators of cost effectiveness vary considerably in different Russian zapovedniks. The benefits per one unit of expenditures are largely dependent on natural conditions and geographical location the zapovedniks.

In summary, a far from complete analysis of financing and effectiveness of capital investments in Russian protected areas allows us to conclude that protecting natural ecosystems based on a territorial principle in the economic recession in Russia is impossible without assistance from the international community. The unique system of nature reserves - zapovedniks - created by several generations of Russian scientists and practical workers is a universal heritage and therefore should be a concern of environmentalists the world over.

Transboundary protected areas

Actively participating in the Convention on Biological Diversity, the Ramsar Convention and the bilateral Migratory Bird Agreements, the governments of the six countries developed national strategies and action plans, the integral part of which are bilateral and multilateral projects, which include transboundary nature reserves, national parks, landscape natural reserves, monuments of nature and other objects of ecological tourism. Creating a joint nature reserve on Lake Khanka has demonstrated the countries' desire to cooperate in this field.

As the example of Environmental Cooperation in the Northeast Asian Region we would like to consider the Project Profiles for the Tumen River Area Development Programme.

The Project Profiles for the Tumen River Area Development Programme prepared by the Tumen Secretariat on behalf of China, Democratic People's Republic of Korea, Mongolia, Republic of Korea and the Russian Federation in March 1999 and supported by the United Nations Development Programme. The project profiles draw from Sector Action Plans, formulated by Working Groups of the five member countries of the Tumen Programme. The project profiles have the following main topics: Investment Facilitation, Transportation, Tourism, Protection of the Environment, Other Sectors.

As to the Tourism Sector:

Tourism helps generate good will and understanding among neighbouring countries. The Tumen Programme supports a Working Group on Tourism. The Working Group includes representatives from National Tourism Organisations (NTOs) at both national and local levels. International agencies with an interest in tourism are also included in the Working Group: the World Tourism Organisation (WTO), the Pacific Asia Travel Association (PATA), and the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Commercial representatives from the tourism industry are invited to participate as observers.

The Tourism Action Plan comprises six programmes:

1. Identifying Tourism Resources and Joint Tourism Development Planning
2. Promoting International Investment in Tourism
3. Joint Tourism Marketing Project
4. Facilitating the Development of Tourism Products
5. Facilitation of Travel
6. Training and Technical Exchanges

In conclusion it can be stated that Russia actively supports the idea of expanding cooperation between the North Eastern Asian countries in the field of extension of network of the Special Protected Areas. We consider that co-operation of neighbouring states would help protect unique biological landscapes and bioresources of the Far East for future generations.

(Session 3)

FOR THE 9TH NORTH EAST ASIAN CONFERENCE ON ENVIRONMENTAL
COOPERATION

THE CURRENT SITUATION AND MAIN ISSUES IN PROTECTED AREAS OF
MONGOLIA

Dechinlkhundev MYAGMARSUREN

Director, Protected Area Bureau,
The Environmental Protection Agency of Mongolia

Enebish TUMURBAATAR

Officer, Department of Policy Coordination,
Ministry of Nature and the Environment of Mongolia

PROTECTED AREAS STATUS IN THE NORTH EAST ASIAN COUNTRIES

The number and extent of the North East Asian network of protected areas have increased rapidly. The countries of the region are now covered by 820 legislated protected areas. This network accounts for 5.1 % of the whole land surface of the North-East Asian countries (Table 1).

Table 1. Summary of the protected areas by the North East Asian Countries

Country	Area (km ²)	No.	Area protected (km ²)	% land area protected
China	9,597,000	463	580,665	6.05
D.P.R. of Korea	122,310	2	578	0.47
Japan	369,700	80	27,582	7.46
Mongolia	1,565,500	48*	205,305	13.1
R. of Korea	98,445	28	6,937	7.05
Russian Federation	17,075,400	199	655,367	3.84
Total	28,828,355	820	1,476,437	

Source: World Conservation Monitoring Centre, 1996

*Special Protected Areas of Mongolia, 2000

STATUS OF PROTECTED AREAS AND MAIN ISSUES EXISTING IN MONGOLIA

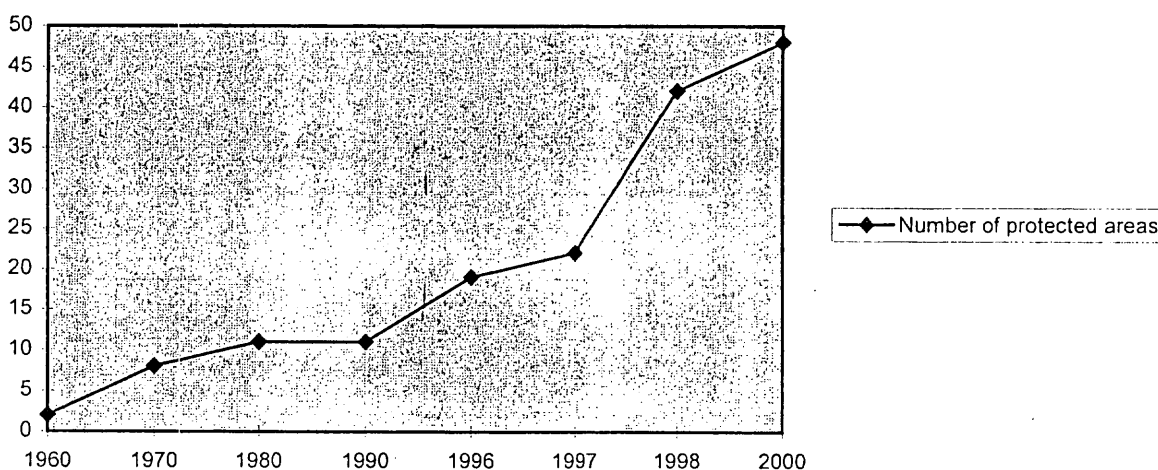
From ancient times to the present day, Mongolian people have followed an old and amazing tradition in the protection and worship of nature, pristine landscapes, wildlife and their habitats. A great example of Mongolians' respect for nature is reflected in the environmental regulations in the Code of Chinggis Kaan's "ikh

Zasag” and in many others laws and regulations of the 16th century such as the Code of Oirods and “Khalkha Regulation”. There were 14 mountains recognised as sacred including Bogdkhan Mountain, Khan Khentii, Khugnukhan, Jargaltkhaan, Bayan, Suman Ulaan and Tuvkhunkhaan, where hunting, cultivation and logging were completely restricted. This fact shows many early protected areas were established for aesthetic or customs reasons.

The Government of Mongolia has been implemented many measures in expanding its protected areas network and improving their management. For instance “ Law on Special Protected Areas” (1994) and “Law on Bufferzones of Special Protected Areas (1997), were adopted. The Parliament approved “ The National Program on Special Protected Areas” in 1998 and its Implementation Plan for 1998-2005 adopted by the Government in 1999.

Today, special protected areas of Mongolia encompass 20.5 million hectares covering 48 areas of 124 soums and districts of 19 aimags and the capital, roughly 13.1% of the whole country's territory. During the last 10 years the number of protected areas increased more than three times (Figure 1).

Figure 1: Trends of the growth of protected areas in Mongolia



According to the Mongolian Law on Special Protected Areas (1994), areas under protection are to be classified under the four categories:

- Strictly Protected Areas
- National Conservation Parks
- Nature Reserves
- Monuments

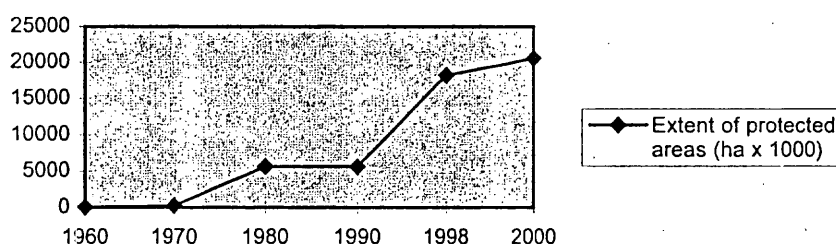
The number and extent of the protected areas of Mongolia are shown in Table 2.

Table 2. Network of Special Protected Areas of Mongolia

No.	Classification and name of state special protected areas	Area's size (ha)	Year of protection
Strictly Protected Areas 10,494,283 (51.1%)			
1	Great Cobi	5,311,730	1975
2	Hkukh Cerkhiin nuruu	65,920	1977
3	Bogdkhan uul	41,651	1978
4	Khasagt Khairkhan	27,448	1965
5	Khan Khentii	1,227,074	1992
6	Numrug	311,205	1992
7	Dornod Mongol	570,374	1992
8	Mongol Daguur	103,016	1992
9	Otgontenger	95,510	1992
10	Uvs nuur basin	712,545	1993
11	Small Gobi	1,839,176	1996
12	Khoridol Saridag	188,634	1997
National Conservation Parks 8,133,420 (39.6%)			
1	Khuvsgul	838,070	1992
2	Khorgo-Terkhiin tsagaan nuur	77,267	1995
3	Gobi Gurvansaikhan	2,694,737	1993
4	Gorkhi Terelj	293,168	1993
5	Altai tavan bogd	636,161	1996
6	Khangain nuruu	888,455	1996
7	Khar us nuur	850,272	1997
8	Noyon khangai	59,088	1998
9	Khustain nuruu	50,620	1993
10	Khan Khukhii Khayrgas nuur	553,350	2000
11	Sylkhemiiin nuruu	140,080	2000
12	Tsambagarav uul	110,960	2000
13	Tarvagatain nuruu	525,440	2000
14	Onon-Balj	415,752	2000
Nature Reserves 1,823,580 (8.9%)			
1	Nagalkhaan	3,076	1995
2	Batkhaan	218,501	1995
3	Lkhachinvandad	58,800	1995
4	Bulgangol	7,654	1995
5	Ugtam	46,160	1993
6	Sharga Mankhan	390,071	1993
7	Zagyn us	273,606	1996
8	Alagkhaikhain	36,400	1996
9	Burkhanbuudai uul	52,110	1996
10	Ergelyn zoo	60,910	1996
11	Ikh nart	43,740	1996
12	Khugnukhaan	46,990	1997

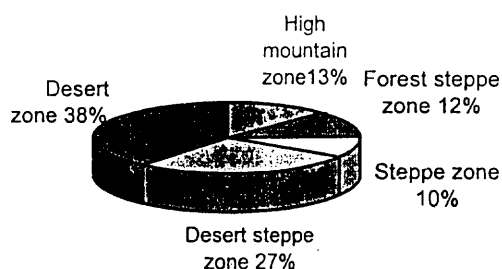
13	Toson khulstai	469,928	1998
14	Khar yamaat	50,594	1998
15	Yakhi nuur	251,388	1998
16	Develyn aral	10,300	2000
Monuments 79,305 (0.4%)			
1	Bulgan uul	1,840	1995
2	Uran Togoo Tulga uul	5,800	1995
3	Eej khairkhan	22,475	1995
4	Khuisyn naiman nuur	11,500	1992
5	Ganga nuur	32,860	1993
6	Suikhent	4,830	1996
Total size of protected areas 20,530,588 (100%)			

Figure 2: Coverage of protected areas in Mongolia



This information indicates that Mongolia has been made a major expansion of protected areas in the last 10 years.

Figure 3 Percentage of protected areas in natural zones



As shown above, the areas representing fragile and sensitive Gobi nature with extreme climate and rare wildlife and plant species have been taken under special protection.

The financing of Protected Areas consist of the sources: state central and local budget; income from traveling, tourism and other activities and services; donations and aid from citizens, economic entities and organizations; income from compensation for damage caused by persons who violate the law.

The annual budget of one park administration is approximately 10 million tugrigs or US\$12.2 thousand (Table 3).

Table 3. Budgeted expense

Year	1996	1997	1998	1999
All park administrations level				
In million tugrigs	61.9	92.6	119.9	139.5
In thousand US\$	115.7	116.2	143.1	139.5
Per park administrations				
In million tugrigs	6.2	9.3	10.9	12.7
In thousand US\$	11.6	11.6	13.0	12.7

With regard to taking areas under protection and maintaining their protection at the appropriate level, a requirement was raised to create zones with the purpose of providing sustainable socio-economic development, to show support in improving living conditions of local community, and to strengthen protection of a given area. Accordingly, in 1997 the Parliament passed a Law of Mongolia on Special Protected areas' Bufferzones.

The buffer zone council, which consists of representatives from the local government, local community, and protected area's administration are responsible for coordinating those activities carried out on the bufferzone territory.

Currently, bufferzones are established in 6 of those 12 strictly protected areas and 5 of 14 national parks, and cover 10 million hectares of area.

International cooperation in the field of protected areas has been widened and its scopes have been extended from year to year.

Protected areas with special natural, historical, cultural and scientific significance and which play an important role in providing the ecological balance of Mongolian and global regions have been included in the list of the World Heritage and MAB. For example The Great Gobi SPA in 1991, the Bogdkhan Uul SPA in 1996; and Uvs Lake Basin SPA in 1997 were respectively included in the list of the MAB of UNESCO. The orientation is to gradually include several areas in the list of the World Heritage. These included Uvs Lake basin, the ancient desert layer of Gobi Gurvan saikhan, part "A" of the Great Gobi Strictly Protected Area (SPA), Khuvsgul Lake together with the area of reindeer people of the shaman religious. Also some areas were recorded in the list of the Ramsar site. Examples are Mongol Daguur SPA, Terkhyn Tsagaan Lake, Ugii Lake, Lakes' valley, Khar Us Nuur, Airag lake.

Also, in cooperation with neighboring countries, there has been established the joint protected areas that cross two or three borders, and special attention has been paid to jointly protect migratory animals. An agreement was made between the ministries of three countries in 1994, including "Mongol Daguur" SPA of Mongolia, "Daurii" SPA of Russia, and "Dalai Nuur" SPA of China.

An agreement proposal regarding the joint protection of lake basin SPA and Khuvsgul NP together with the protected areas along the Russian border has been developed and discussed at the respective level of both sides.

Several projects have been implemented with technical assistance of foreign and international organizations in the field of protected areas. For examples, we can mention the project "Eastern Mongolian Biodiversity Conservation and Sustainable Livelihood Options" with financial support from the UNDP and GEF, "Nature Conservation and Bufferzone Development" of the German Technical Cooperation (GTZ), "Strengthening the Khuvsgul NP Management" with financial support of the USAID and the WWF project on surrounding area of the Altai Sayan mountain range.

Tourism is rapidly growing in many countries. In Costa Rica, about \$12 million is spent annually to maintain the national parks but foreign exchange generated in 1991 was more than \$330 million with 500,000 overseas visitors, park-generated tourism is the second largest industry in the country (IUCN, 1998).

In 1997 Mongolia received approximately 80 thousand frontier arrivals. Among those 23 thousand were leisure purpose, 60 thousand business purpose visits mainly from China (33 thousand) and Russia (9 thousand) (Table 4). About 11,000 Japanese tourists visited Mongolia in 1997 making up an increase of 30% in the number of Japanese tourists since 1990 (JICA, 1999).

Table 4. Frontier Arrivals in Mongolia

Country/Region	1990	1995	1996	1997
Americas	900	4,322	3,834	5,019
Japan	1,700	8,976	9,504	11,077
China	0	47,721	30,478	32,531
Korea of Rep	0	2,561	3,537	3,294
East Asia/Pacific	100	1,857	1,214	2,654
South Asia, Africa & Middle East	0	810	464	585
Russian fed	124,000	28,390	8,502	8,708
Central/East Europe	8,800	1,441	1,755	2,538
Germany	1,200	3,502	2,782	3,339
Other Europe	700	8,854	8,761	11,238
Total	137,400	108,434	70,831	80,983

Source: Japan International Cooperation Agency (JICA), 1999

Tourism in Mongolia is mainly concentrated in special protected areas, particularly in national parks. Currently, 47 tourist camps manage their activities inside protected area. 14 of those camps operate their activities in Bogd Khan SPA, 16 in Gorkhi-Terelj NP, 8 in Khuvsgul NP, 3 in Gobigurvansaikhan NP, 3 in Khangai Nuruu NP, and 3 in Khugnukhan NR.

Main challenges existing in Mongolia's protected areas are:

- **Expand protected areas network and establish more transboundary protected areas**

Mongolia needs to establish more protected areas in order to implement the international conventions which Mongolia has joined including the "Convention on Biological Diversity" and "Convention Ramsar".

According to the National Protected Areas Program, the coverage of special protected areas of Mongolia will be increased by 15% in 2000, 20% in 2005, and by 2020 years it will be increased no less than 30%.

The former President of Mongolia, Mr. P.Ochirbat supported the movement "Our Living World-2000" initiated by WWF by expressing in his essay and informing the whole 30% of the total area of Mongolia or 46.9 million hectares would be taken under state special protection.

Mongolia can be divided into 5 natural zones and belts: High mountain and taiga, Forest steppe, Steppe, Desert steppe and Desert zone. Currently, 16.7 % of protected areas belongs to the high mountain and taiga zone, 13% to the forest steppe zone, 6.8 % to the steppe zone, and 13.2% to the desert steppe zone and 50.3% belongs to the desert zone.

As shown above, the state protected area network generally includes those areas with extreme climate and particular fragile ecosystems such as the Gobi region.

As well as, it can be said that Mongolia still has gaps of protected area coverage in the grassland ecosystem.

According to the scientists, there is a data stating that about 40% of the endangered wildlife and plants of Mongolia have been taken under the state protection.

- **Changes needed for the current management system**

In Mongolia protected areas are generally managed by the Environmental Protection Agency of government. The other countries experiences have shown that private sector and NGO's play important role in the management of protected areas. For example, in Japan the company Amway Japan Limited (AJL) established the Amwya Nature Centre which has assisted a wide range of nature conservation projects in Japan (Matsukura,1996). Another example is an increasing number of protected areas are being managed by the private sector in South Africa. NGOs have made important contribution to protected areas management. For instance, the Wild Bird Society of Japan and the National Parks Association are active in managing of protected areas. Example of NGO involvement in Mongolia include the Khustainuruu National Conservation Park is being managed by the MACNE since 1998.

Therefore the current management system, mechanisms, laws and policies to the relevant to the protected areas should be reformed.

- **Encourage local community around the protected areas involvement in the natural resource management**

One of the major challenges facing protected areas in Mongolia is the effective involvement of local people in protected areas and buffer zone management. Community participation in the natural resource management is one of the effective solutions to this. The CAMPFIRE program in Zimbabwe provides such example. One of the key principles of CAMPFIRE is local participation by the benefiting communities. This principle accepts that decentralization and devolution are key policy instruments to enable local people to decide on what to do with their wildlife resources. They could for example determine the purchase prices of wildlife, participate in the selection of the safari operators and also contribute to sustainable quota setting.

One major constraint in the way of community based conservation is a weak policy base for it in the country.

- **Increase capacity building for protected areas managers**

The protected area management is quite new in Mongolia. Therefore, there is an urgent need to improve the skills of protected areas managers. 79.9% of specialists who work in special protected areas are people professionally qualified in the field of nature and ecology. However, protected area managers are needed communication, financial and tourism management skills.

- **Lack of funds**

The long existing problem of lack of funds has troubled the protected areas and it will be hopeless to ask state investments on the management of strictly protected areas in distant future. As the territory of protected areas has been widening, the amount of financing required for conducting management to improve their protection has been increasing from year to year. In 1999, the Protected Area Bureau has received a fund equal to \$US139.5 thousand from the state budget which was used to finance 11 park administrations responsible for protected areas.

Most of the above budget allotted to the Protected Areas park administrations by the state budget goes for paying employees' wages and is not enough to cover other operational expenses.

- **Strengthen international cooperation**

International cooperation is an important way to improve protected areas management of Mongolia in various aspects, by providing, for example experience in management, knowledge, skills, technologies and funds. Therefore wide range of international cooperation of protected areas should be encouraged.

- **Promote Public Awareness Program**

Ecological education is one of the key functions of protected areas. Protected areas are to be used for the improvement of knowledge and humanity's relationship with natural world, through popularization, information and educational programs.

In order to resolve the above mentioned problems of Mongolia's protected areas the following measures should be undertaken:

- To develop a national system plan for protected areas
- To establish transboundary protected areas
- To establish cooperation mechanism of protected areas at regional level
- To extend involvement private sector and NGOs in protected area management
- To develop and implement Community based Natural Resource Management Program
- To develop training program for protected area staff and managers within the region
- To establish exchange program between protected areas of the region
- To identify possible financial sources at national, regional and international
- To develop sustainable tourism in protected areas
- To create a regional ecological education center

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