MNE **GEF** **UNDP** **CBD** **MNEC**

MONGOLIAN THIRD NATIONAL REPORT ON IMPLEMENTATION OF CONVENTION ON BIOLOGICAL DIVERSITY

ULAANBAATAR
2006

FORWORD

The conservation and remediation of biological diversity and the sustainable utilisation of natural resources has become the most pressing policy issue for Mongolia. Mongolia is considered ecologically vulnerable on account of its location, extreme climate and climate change. In addition, the impact of human activities on environmental sustainability is intensifying due to population growth and industrialisation.

In 1993, Mongolia became the thirtieth country to ratify the Convention on Biological Diversity, with the Government of Mongolia further approving the National Action Programme on Biodiversity Conservation in 1996. Conservation efforts in Mongolia during the past ten years have included concrete actions such as improvements in the legislative environment, achievements in creating more favourable economic means for biodiversity conservation, ecological assessments of endangered animal and rare plants species, the limitation of their inappropriate utilisation, an increase in public awareness and participation in biodiversity conservation activities, the establishment of an information database, the expansion of the protected area network and the development of international and intergovernmental cooperation.

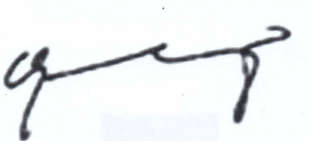
The Government of Mongolia strategically prioritises the creation of an appropriate legal and economic environment for biodiversity conservation, strengthening its management and administration capacity, improving information dissemination and public awareness activities, and compiling a comprehensive environmental information database. Furthermore, specific activities are supported in producing endangered species inventories, quantifying the values and benefits of biodiversity, and integrating biodiversity conservation and sustainable utilisation objectives into environmental and other sector's policy and planning frameworks. To cultivate a deeper appreciation of the importance of biodiversity conservation in society, the Government of Mongolia strives to support and cooperate with environmental non-governmental organisations, and encourage public participation in conservation efforts. The Government of Mongolia is successfully implementing several donor-funded biodiversity conservation projects instrumental in achieving its biodiversity conservation objectives.

It is my great pleasure to present the Third National Report on the implementation of the UN Convention on Biodiversity Conservation, developed in collaboration with the Mongolian Nature and Environment Consortium. Invaluable contributions from relevant line Ministries, non-government organisations and scientists and researchers from various professional and research institutions played a fundamental role in generating this report.

This National Report was produced following the set of guidelines developed by the CBD Secretariat, with responses being filled as per the requested template. The Third National Report stipulates measures that the country has undertaken to fulfil the provisions of the Convention. The Report provides information on the experience of implementing national biodiversity strategies and action plans, and identifies obstacles and impediments in meeting the objectives of this Convention. We believe this report will serve as good reference material for policy makers in the environment and other sectors, non-governmental organisations, private sectors and students.

I would like to take this opportunity to extend my appreciation to the Global Environmental Facility and United Nations Development Programme for the financial and technical support provided in producing this report.

Mr. Erdenebaatar,
Member of the Government,
Minister of Nature and Environment



CONTENTS

CONTENTS 3
A. REPORTING PARTY 5
Information on the preparation of the report 6
B. PRIORITY SETTING, TARGETS AND OBSTACLES 9
Priority Setting 12
Challenges and Obstacles to Implementation 13
2010 Target 15
Global Strategy for Plant Conservation (GSPC) 46
Ecosystem Approach 63
C. ARTICLES OF THE CONVENTION 65
Article 5 – Cooperation 65
Article 6 - General measures for conservation and sustainable use 69
Biodiversity and Climate Change 76
Article 7 - Identification and monitoring 79
Decisions on Taxonomy 84
Article 8 - *In-situ* conservation 89
[excluding paragraphs (a) to (e), (h) and (j)] 89
Programme of Work on Protected Areas (Article 8 (a) to (e)) 94
Article 8(h) - Alien species 102
Article 8(j) - Traditional knowledge and related provisions 107
GURTS 107
Status and Trends 108
Akwé:Kon Guidelines 108
Capacity Building and Participation of Indigenous and Local Communities 109
Support to implementation 110
Article 9 - *Ex-situ* conservation 113
Article 10 - Sustainable use of components of biological diversity 116
Biodiversity and Tourism 122
Article 11 - Incentive measures 125
Article 12 - Research and training 128
Article 13 - Public education and awareness 135
Article 14 - Impact assessment and minimizing adverse impacts 145
Article 15 - Access to genetic resources 153
Article 16 - Access to and transfer of technology 162
Programme of Work on transfer of technology and technology cooperation 163
Article 17 - Exchange of information 167
Article 18 - Technical and scientific cooperation 169
Article 19 - Handling of biotechnology and distribution of its benefits 172
Article 20 – Financial resources 175
D. THEMATIC AREAS 181
Inland water ecosystems 183
Agricultural biological diversity 193
Annex to decision V/5 - Programme of work on agricultural biodiversity 194
Forest Biological Diversity 201
Biological diversity of dry and sub-humid lands 213
Mountain Biodiversity 217
E. OPERATIONS OF THE CONVENTION 223
F. COMMENTS ON THE FORMAT 224
G. LIST OF PEOPLE PARTICIPATED IN DEVELOPMENT OF NATIONAL REPORT 225

ABBREVIATION

ADB	ASIAN DEVELOPMENT BANK
CITES	Convention on Intenational Trade in Endangered Species
DSS	DUST AND SANDSTORM
FAO	FOOD AND AGRICULTURE ORGANIZATION
GTZ	GERMAN TECHNICAL ASSISTANCE
GEF	GLOBAL ENVIRONMENT FACILITY
GIS	GEOGRAPHIC INFORMATION SYSTEM
GGSPA	Gobi of Great Gobi Strictly Protected Area
IUCN	INTERNATIONAL UNION FOR CONSERVATION OF NATURE
JICA	JAPAN INTERNATIONAL COOPERATION ORGANIZATION
MNE	MINISTRY OF NATURE AND ENVIRONMENT
MAS	MONGOLIAN ACADEMY OF SCIENCE
MFA	MINISTRY OF FOOD AND AGRICULTURE
MOSTEC	MINISTRY OF SCIENCE AND TECHNOLOGY AND CULTURE
MAP	MONGOLIAN ACTION PLAN
NUM	NATIONAL UNIVERSITY OF MONGOLIA
NGO	NON GOVERNMENT ORAGANIZATION
PRC	PEOPLE'S REPUBLIC OF CHINA
PAA	PROTECTED AREA ADMINISTRATION
TACIS	TECHNICAL AID TO THE COMMONWEALTH OF INDEPENDENT STATES
TA	TECHNICAL ASSISTANCE
TDA	TRANSBOUNDARY DIAGNOSTIC ANALYSIS
SDC	SWISS DEVELOPMENT AND COOPERATION AGENCY
SAP	STRATIC ACTION PLAN
SPIA	STATE PROFFESIONAL INSPECTION AGENCY
SPA	SPECIAL PROTECTED AREA
UB	ULAANBAATAR
UNEP	UNITED NATION ENVIRONMENT PROGRAM
UNESCAP	UNITED NATION'S ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND PACIFIC
UNCCD	CONVENTION ON COMBATING DESERTIFICATION
UNDP	UNITED NATIONAL DEVELOPMENT PROGRAM
WB	WORLD BANK
WWF	WORLD WIDE FUND
ZSL	ZOOLOGICAL SOCIETY OF LONDON

AIMAG	PROVINCE
SOUM	SUB-POVINCE

A. REPORTING PARTY

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SUBMISSION	
Signature of officer responsible for submitting national report	
Date of submission	

Information on the preparation of the report

Box I.

Please provide information on the preparation of this report, including information on stakeholders involved and material used as a basis for the report.
The preparation of the Third National Report on the Implementation of the Convention on Biological Diversity consists of the following stages: The National Committee on the Implementation of the CBD meeting met at Ministry of Nature and Environment on January 5, 2007. The committee approved a plan of action that included the involvement of different stakeholders. It was also agreed at the meeting an expert Expert group from various institutions was needed to prepare the report. Data necessary for the preparation of the report was collected from a range of information sources such as government policies on biodiversity conservation, the 2003 and 2005 State of Environment Reports,, the Second National Report on Biological Diversity in Mongolia, international and national project reports, research work and other relevant publications. Firstly, the expert group met on 15 January 2007 to discuss the general format of the report, abd the collection and analysis of relevant information for each article. The group also set the timetable for preparing the first draft report. Different meetings and focus group meetings were held by expert groups for obtaining information from different international and national biodiversity conservation related project reports for inclusion into the report. The second expert group met on the 10th of February to discuss and compile all relevant information. The first drafts of the National report was prepared and send to the Ministry of Nature and Environment, National Committee on CBD and other relevant organisations such as UNDP Mongolia and other research institutions. The expert group, based on comments and suggestions from various ministries and institutions, further revised and completed the Mongolian version of the report. The Third National Report was then submitted to the National Committee on CBD and official approval for translation and publication was obtained. The Third Country Report was then submitted to the CBD Secretariat and UNEP. In addition, the Third National Report was distributed to different ministries, research institutions, universities and the public.
Parties involved in the preparation of this report:
Ministry of Nature and Environment (MNE), Ministry of Food and Agriculture (MFA), Ministry of Education and Science and Technology (MOSTEC), Environment Department of State Professional Inspection Agency (ED SPIA), Custom office, UNDP Country office Mongolia and its projects such as Eatern Steppe Project, Altay Sayan Ecosystem Conservation Project, Great Gobi Conservation Project, Environment Education Project of Swiss Cooperation and Development Agency (SDC), Small Grant Programme of World Bank and Government of Netherlands and research instates such as Institute of Geo-ecology of Mongolian Academy of Science (MAS), Institute of Biology, Institute of Botany, Institute of Biotechnology, Ecology Faculty of Mongolian National University, Biology Department of State Education University, State of Agriculture and environmental non-government organisations. The MNE and National Committee for CBD supervised and monitored the production of this report. We express deep gratitude to the officials of the Ministry of Nature and Environment, researchers from various institutes of MAS, as well as international organisations such as the Global Environmental Facility (GEF), Regional Office of the UNDP and the Country Office of the UNDP for providing support and assistance in developing this report.

Following publications were referenced during the compilation of this report:

1. Government of Mongolia, *Medium-term economic and social development strategy* 1999-2002. Ulaanbaatar, 1999
2. Ministry for Nature and Environment, *National Environmental Action Plan,* Ulaanbaatar, 1998
3. Government of Mongolia, *Mongolian action Plan for 21st Century*, Ulaanbaatar, 1998
4. Ministry for Nature and Environment, National Committee to Combat Desertification *National Plan of Action to Combating Desertification in Mongolia*, Ulaanbaatar,1997
5. Ministry for Nature and Environment, National Committee to Combat Desertification *National Report on UN Convention to Combat Desertification*, Ulaanbaatar, 2000
6. Ministry for Nature and Environment, *Biodiversity Conservation Action Plan for Mongolia,* Ulaanbaatar, 1996
7. Ministry for Nature and Environment, *Biological Diversity of Mongolia, First National Report on Biological Diversity*, Ulaanbaatar, 1998
8. UNOPS/UNDP/GEF, *Independent Evaluation Report of Mongolian Biodiversity Project*, Ulaanbaatar, 1996
9. James R. Wingard, *Compendium of Environmental Law and Practice in Mongolia*, Ulaanbaatar, 2001
10. Hijaba Ykhanbai, *Economics of Environment and Sustainable Development*, Ulaanbaatar, 2001
11. Ministry for Nature and Environment, UNDP, *Environmental Public Awareness Handbook (Case studies and lessons learned in Mongolia)*
12. Government of Mongolia, UNDP, *Human Development Report of Mongolia - 2000,*Ulaanbaatar, 2000
13. National Agency for Meteorology and Hydrology and Environmental Monitoring *Mongolia's Initial National Communication,* Ulaanbaatar, 2001
14. Ch. Avdai, *Mongolian Science and Technology Policy and its implementation,* Ulaanbaatar, 2001
15. Ministry for Nature and Environment *Handbook on International Convention*, Ulaanbaatar, 1998
16. Proceedings of International Workshop on Wetland Conservation in Mongolia and North-East Asia, Ulaanbaatar, 1998
17. Ministry for Nature and Environment, UNEP/ EAP-AP, *"Draft review" Seminar on State of the Environment Report, Mongolia.* Ulaanbaatar, 2001
18. Ministry for Nature and Environment, *State of the Environment of Mongolia in 2000*, Ulaanbaatar, 2001
19. Ministry of Food and Agriculture, *Handbook on laws related to agriculture development*, Ulaanbaatar, 2000
20. Secretariat of Convention on Biological Diversity, *Handbook of the Convention on Biological Diversity*, 2001
21. UNDP/ GEF- Tumen River Strategic Action Program, Transboundary Diagnostic Analysis, Ulaanbaatar, 2002
22. J.Ocock, G.Baasanjav, J.E.M.Baillie, M.Erdenebat, M.Kottelat, B. Mendsaikhan and K.Smith, Mongolian Red List of fishes, 2006
23. E.L.Clark, J.Munkhbat, S.Dulamtseren, J.E.M.Bailie, N. Batsaikhan, S.R.B.King, R.Samiya and M.Stubbe, Summary Conservation Action Plans for Mongolian Mammals, 2006
24. Mongolian Environmental Monitor 2003, Land Resources and Their Nanagment, 2003
25. S.Dulamsuren, J.E.M.Baillie, N.Batsaikhan, R.Samiya and M.Stubbe, Mongolian Red List of Mammals, 2006
26. W.A.Laurie, A.Enkhbat, Draft Terminal Report, 1996
27. MNEC. The study on the impacts of the Onon and Kherlen river contaminants on Amur/Heilong River Basin, Ulaanbaatar,2006
28. Mongolian Acasemy of Sciences, 2003
29. Economic and Ecological Vulnerabilities and Human Security in Mongolia, Ulaan-

baatar,2005
30. Ministry of Food and Agriculture, The Country Report on Animal Genetic Resources, Ulaanbaatar, 2004
31. Ministry for Nature and Environment, Mongolia s Initial National Communication, Ulaanbaatar, 2001
32. Ministry for Nature and Environment, Climate Change and Its Impacts in Mongolia, Ulaanbaatar, 2000
33. Ministry for Nature and Environment, *State of Environment 2005*, Ulaanbaatar, 2006
34. Ministry for Nature and Environment, UNDP, Biodiversity nature resource of Altai Sayan Eco-rigion, 2006
35. Ministry for Nature and Environment, ARC, World Bank, Government of Netherlands, Northern Buddhist Conference on Ecology and Development, 2006

B. PRIORITY SETTING, TARGETS AND OBSTACLES

Box II.

Please provide an overview of the status and trends of various components of biological diversity in your country based on the information and data available.

General introduction of Biodiversity of Mongolia

The varied and isolated ecological zone of Mongolia make existence possible for varied types of animals and plants, which are rare in the world. Protection of the volume and diversity of biological system is of critical importance for sustainable development of Mongolia. Although research into the plants, insects, and animals of Mongolia is not yet completed, preliminary studies indicate that there are over 3000 different species of plants in Mongolia, out of which 845 are medicinal ones, 68 are soil-strengthening plants, 120 are edible plants. The mammals living in Mongolia include: 14 species are animal feeding on insects, 12 species are with wings, 4 species of rats, 3 species of hares, 65 species of rodents, 22 species of carnivorous animals and 14 species of hoofed animals. Of 426 different species of birds 108 are transitory birds, 74 species are non-migrant and 231 species are migratory birds, which are com from countries with hot climate, 13 species are birds which come from southward from Siberia in winter.

1.1 Agricultural biodiversity

Grasslands and arid grasslands are estimated to cover 125 million hectares (ca 80%) of Mongolia, and forest and scrubland fifteen million hectares (10%). About 122 million hectares of the country is devoted to nomadic pastoralism: 4.6 % of this lies in the alpine zone, 22.9% in the forest-steppe zone, 28 % in the steppe zone, 23.3% in the semi-desert zone and 16.2% in the desert. Grazing of livestock is the major form of land use in Mongolia and has been the traditional way of life for Mongolians for thousands of years. Grazing of large herds of yak, horses, cattle, sheep, goats and camels has played a large role in determining the vegetation cover and species composition of the grasslands.

There are a total of more than 30 million head of domestic livestock in Mongolia. This increase in livestock numbers is causing overgrazing in certain places and has led to a marked overall decline in adult fertility and survival of young stock. Overgrazing results in more bare ground, and lower species diversity

Crop land

From ancient times Mongolians have cultivated land, without irrigation in the Great Lakes Basin and in the Kharaa, Orkhon and Selenge river basins, and with irrigation systems in the Altai and South Gobi. There are records that in 1259 about existence of wheat, oat and millet crops in various parts of Mongolia. Relatively small areas were cultivated by hand and there was little impact on the natural environment. Since the 1960's however, increasing amounts of land were brought under cultivation, first for wheat, in the Selenge and Orkhon river basins, and then, in the 1970's, for fodder in the Gobi and western aimags. Heavy machinery was used to plow up grasslands, leading to soil erosion and. a decrease in species diversity. By 1990, 1.34 million hectares were being cultivated and yields had been increased through the use of herbicides and fertilizers and improved management. The years 1991-1994 saw a steady decrease in both the area of cultivated land and the crop yields per hectare, due to economic difficulties and the reorganization of farms. Additionally, soil protection programs were not in existence, and soil quality was seriously degraded as a result of poor agricultural practices. Mongolian soils are thin, light, and low in organic matter, and have poor fertility. Although the lands selected for agriculture were reasonably fertile, with relatively dense vegetation, when they were plowed up the natural vegetation was replaced with cultivated plants with weak root masses. Efforts to increase harvests as much as possible caused losses of soil by wind erosion. Efforts to increase harvests as much as possible caused losses of soil by wind erosion. In 1992, 113,300 hectares of land (including 8,500 hectares of irrigated land) were rendered uncultivatable as a result of soil erosion by wind and water. From 1990 to 1993, the Land Policy Institute surveyed 145 arable farms in twelve aimags and found that 46.5% of the land surveyed (561,500 hectares) was affected by erosion. Such widespread erosion has left areas of degraded land with reduced and altered biological diversity. The pre-

sent area under cultivation is more than 500.000 hectares.

1.2 Forest Biodiversity

The country's forest area estimated at only 11% of total territory. Unlike forest located in more temperate or tropical climates, the Mongolian forest rate of growth is slow because of the relatively harsh Central Asian climate with its dry and windy characteristics and short growing season.

Mongolia's forest resources consist of more than 140 species of trees and shrubs and bushes as such 81.2 % of the forest area is covered by natural coniferous forest, 15.8 % by saxauls (Haloxylon ammodendron), and 3.0 % by shrubs and bushes. These forest protect the land against erosion and desertification, and provide seasonal livestock fodder and fuel wood.

A long-term, cycle drying of Mongolia's climate is causing a slow norhtly retreat of its forest. However, much of the recent, rapid deforestation is primary due to fire, improper commercial and illegal logging, inadequate enforcement of forest rules and regulations, grazing and browsing of young trees by livestock and insect infestation.

1.3 Water Biodiversity

Mongolia has limited fresh water resources total approximately 22.3 thousand m^3. Mongolia has an estimated 3800 rivers, streams and brooks extending a total of 67 thousand km. 3500 lakes, 7000 springs, 120 mineral water resources and 187 glacial rivers cover over 500 square km.

The surface water network belongs to three big basins, namely Artic Ocean, Pacific Ocean and Enclosed Basin of Central Asia.

There are 75 species of fish belonging to 36 genera and 11 families living in Mongolia rivers and lakes of wich 10 species are of 5 families in the Enclosed Basin of Central Asia, 22 species of 11 families in the Arctic Basin and 43 species of 11 families in the Pacific Ocean.

There are 1000 species of aquatic inverterbrates also registered, which include 300 zooplanktons, 199 caddisfly, 72 mayflys, 85 stoneflys, 47 lees, 225 midge fly larvas, 35 molullusks, 5 cray-fishes and 60 horsfly pupae species.

1.4 Mountain Biodiversity

The Mongolian high mountain zones occupy 0.8% of Mongolian in mountain areas of Khubsgul, 0.9% of in the Khangai mountains and 1.9% in the Altai mountain. Together, high mountain zones occupy 3.6 % or 56,394.km2 in Mongolia. The high mountain areas in the Khangai mountains is represented mostly by mountain meadows, while Khubsgul, it is represented by tundra and in the Altai by ice. In the permanently windy and cold condition of the High mountain zoned live wild and rare species such as argali (*Ovis ammon*), rock ptarmigan (*Lagopus mutus*), Altai Snowcock (*Tetragallus altaicus*), and rare plants such as Japanese stone pine (*Pinus pumila*), Mongolian ptilagrostis (*Ptilagrostis mongolica*), white gentian (*Gentiana algaida*).

The mountain taiga zone spreads over southern Baikal's large mountain taiga forest regions including the Khentii, Khubsgul mountains the Zed-Buteel ranges in the easte prat of Khuvsgul and in areas where the moutnrains become lower and latitudinal zonation factors prevail. Mountain taiga zone comprises 4.5% of Mongolia. 3% belongs to Khubsgul region and 1.5% o the Khentii mountain range. Through its has a wet climate with an average yearly precipitation of 400-500 mm, the plant and vegetation found there have a short growing seasons. Taiga is a boreal coniferous forest, comprised primary of Siberian Larch (*Larix Siberica*), 70% is Siberian Pine (*Pinus siberica*), rich in mosses and lichen. The wildlife found in this zone includes red book species such as musk deer (*Moschus moschiferus*), moose (*Alces alces*), Eurasian lynex (*Lynex lynes*), and the Eurasian otter(*Lutra lutra*).

The key threats to biodiversity

Human activities have led to changes in ecosystems and number and distribution of species. Some of these activities are inside Mongolia; other threats originate in neighboring countries or even further afield.

(a) Grasslands

Grasslands account for 80% of Mongolia's territory and, although estimates vary, it is certain

that a significant proportion of these lands is overgrazed, causing loss of biological diversity, soil erosion and economic losses that could become very serious if present trends continue. (According to the Mongolian Academy of Sciences, 33.5% or 41.9 million ha is overgrazed.) Table 2 shows declines in numbers of pasture species and pasture yield in semi-arid and arid regions from 1970 to 1990.

Current livestock numbers and estimates of forage availability and an indicative feed balance have been made for all provinces of Mongolia. These show that many provinces are overstocked and those provinces with an apparent surplus of forage are usually those where water supply limits grazing. Furthermore, the annual yields of herbage are in most cases less than 500 kg of dry matter per hectare, and this is usually considered to be the optimum amount to be left after grazing to allow regrowth of palatable species and prevent desiccation of soils in dry environments. The current intensity of livestock grazing in Mongolia appears to be unsustainable. Additionally, grasslands are being degraded by multiple vehicle tracks, mining, cultivation, and pollution.

(b) Wetlands

Despite low rainfall, Mongolia is rich in water resources and its wetlands are extremely diverse. However, because of its rapidly growing population, and industrialization, including mineral exploitation, aquatic ecosystems are at threat from pollution. The rivers and lakes are also threatened by dams and diversions, and ground water is threatened by pollution and drawdowns. For example, groundwater resources are estimated to be 12.6 cu km, but in 1993 alone 283 million cu.m (2.25% of the total resource) were withdrawn for irrigation, livestock, human consumption and industrial processes.

(c) Desertification

Desertification is increasing, as shown by the growing frequency of dust storms. There were an average of sixteen days with dust storms per year from 1960-1969, twenty-three per year in 1970-1979 and forty one per year between 1980-1989. Land covered with sand increased by 38,000 hectares between 1941 and 1990.

(d) Forests

The small forested area of Mongolia, now 7% of the country, has been reduced and degraded by overexploitation and poor forestry and logging practices. Forest ecology is mostly ignored in forest management. Forest management practices focus on commercially exploitable species with little attention to forest ecology concerns.

(e) Climate change

Climate change has potentially serious consequences for Mongolia's biodiversity. Studies suggest that during the last fifty years there has been a significant rise in mean temperature of 0.7°C. Maximum temperature increases of nearly 3°C have been recorded in winter, but the annual precipitation, which decreased from the 1940's to the mid 1980's, has recently shown increases in most areas except the Gobi. Sustained trends in warming and drying could increase the area of arid lands and have significant effects on plant growing seasons and, in turn, on species diversity and distribution.

Priority Setting

1. Please indicate, by marking an "**X**" in the appropriate column below, the level of priority your country accords to the implementation of various articles, provisions and relevant programmes of the work of the Convention.

Article/Provision/Programme of Work	Level of Priority		
	High	**Medium**	**Low**
a) Article 5 – Cooperation	x		
b) Article 6 - General measures for conservation and sustainable use	x		
c) Article 7 - Identification and monitoring	x		
d) Article 8 – *In-situ* conservation	x		
e) Article 8(h) - Alien species	x		
f) Article 8(j) - Traditional knowledge and related provisions	x		
g) Article 9 – *Ex-situ* conservation	x		
h) Article 10 – Sustainable use of components of biological diversity	x		
i) Article 11 - Incentive measures	x		
j) Article 12 - Research and training	x		
k) Article 13 - Public education and awareness	x		
l) Article 14 - Impact assessment and minimizing adverse impacts	x		
m) Article 15 - Access to genetic resources	x		
n) Article 16 - Access to and transfer of technology	x		
o) Article 17 - Exchange of information	x		
p) Article 18 – Scientific and technical cooperation	x		
q) Article 19 - Handling of biotechnology and distribution of its benefits		x	
r) Article 20 - Financial resources	x		
s) Article 21 - Financial mechanism	x		
t) Agricultural biodiversity	x		

u) Forest biodiversity	x		
v) Inland water biodiversity	x		
w) Marine and coastal biodiversity	n/a		
x) Dryland and subhumid land biodiversity	x		
y) Mountain biodiversity	x		

Challenges and Obstacles to Implementation

2. Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the provisions of the Articles of the Convention (5, 6,7, 8, 8h, 8j, 9, 10, 11,12, 13, 14, 15,16, 17, 18, 19 and 20)

3 = High Challenge	1 = Low Challenge
2 = Medium Challenge	0 = Challenge has been successfully overcome
N/A = Not applicable	

Challenges	Articles																	
	5	6	7	8	8h	8j	9	10	11	12	13	14	15	16	17	18	19	20
a) Lack of political will and support	2	1	2	2	2	2	2	2	2	2	2	2	3	3	2	2	3	2
b) Limited public participation and stakeholder involvement	2	2	1	2	3	2	2	2	2	2	3	3	3	3	2	2	3	n/a
c) Lack of mainstreaming and integration of biodiversity issues into other sectors	3	3	3	2	3	2	2	2	2	3	2	2	3	3	3	2	3	3
d) Lack of precautionary and proactive measures	-	2	2	2	3	2	3	2	-	-	-	2	-	2	-	-	2	-
e) Inadequate capacity to act, caused by institutional weakness	2	2	3	2	3	2	2	2	3	1	2	2	1	3	2	2	3	
f) Lack of transfer of technology and expertise	3	2	3	3	3	1	3	2	1	2	2	2	3	3	1	2	3	-
g) Loss of	3	3	1	3	3	3	2	3	2	2	1	2		1	1	1	3	-

traditional knowledge																		
h) Lack of adequate scientific research capacities to support all the objectives	2	3	2	3	3	3	2	2	1	3	2	3	3	2	3	2	3	-
i) Lack of accessible knowledge and information	1	2	3	2	3	3	2	3	2	1	2	2	3	3	2	1	2	-
j) Lack of public education and awareness at all levels	2	1	2	1	3	2	2	3	1	2	1	1	2	3	1	1	3	-
k) Existing scientific and traditional knowledge not fully utilized	2	2	1		2	3	2	2	1	2	2	3	3	2	1	3	2	-
l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	1	2	3	3	3	2	3	2	1	2	2	3	3	3	1	1	3	-
m) Lack of financial, human, technical resources	2	3	2	3	3	3	2	2	1	1	2	3	3	2	1	1	3	
n) Lack of economic incentive measures	1	2	2	3	3	3	3	3	2	2	1	2	3	3	2	2	3	
o) Lack of benefit-sharing	1	1	3	2	3	3	2	1	1	3	2	3	3	3	1	2	3	
p) Lack of synergies at national and international levels	1	2	3	2	3	2	3	2	2	1	1	3	3	2	2	2	3	
q) Lack of horizontal cooperation among stakeholders	1	3	2	2	3	3	2	3	2	1	3	3	3	3	2	1	3	2
r) Lack of effective partnerships	1	2	2	2	3	3	1	2	2		2	2	3	2	2	2	3	-
s) Lack of engagement of scientific	1	3	2	2	2	1	1	2	1	1	2	3	2	3	2	2	3	2

community																		
t) Lack of appropriate policies and laws	1	2	2	2	3	3	2	2	2	3	2	2	2	2	1	2	3	-
u) Poverty	1	3	2	3	2	2	3	3	2	1	1	2	1	1	1	1	1	-
v) Population pressure	-	2	1	3	1	1	3	2	1	1	1	1	1	1	2	1	2	-
w) Unsustainable consumption and production patterns	3	3	2	3	2	2	3	1	2	1	1	3	2	2	1	1	2	-
x) Lack of capacities for local communities	1	1	2	3	1	1	2	2	3	1	1	1	1	1	2			
y) Lack of knowledge and practice of ecosystem-based approaches to management	1	2	2	3	2	3	2	2	2	2	2	2	3	2	2	3	2	
z) Weak law enforcement capacity	1	3	3	3	3	2	3	2	2	3	3	2	2	2	3	3	3	
aa) Natural disasters and environmental change	-	3	3	2	2	2	3	2	3	3	3	2	3	2	3	2	2	
bb) Others (please specify)																		

2010 Target

The Conference of the Parties, in decision VII/30, annex II, decided to establish a provisional framework for goals and targets in order to clarify the 2010 global target adopted by decision VI/26, help assess the progress towards the target, and promote coherence among the programmes of work of the Convention. Parties and Governments are invited to develop their own targets with this flexible framework. Please provide relevant information by responding to the questions and requests contained in the following tables.

Box III.

Goal 1	**Promote the conservation of the biological diversity of ecosystems, habitats and biomes.**
Target 1.1	**At least ten percent of each of the world's ecological regions effectively conserved**
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

Biodiversity Conservation Action Plan for Mongolia (1996) put forward the goal of "Mongolia requires the expansion of the Protected Areas System".

The Biodiversity Action Plan critically examines the status of biodiversity of Mongolia, the threats to the country's biodiversity and the status of conservation efforts. In addition the plan evaluates legal, financial and institutional measures necessary to ensure implementation of the specific action.

Mongolian Action Plan for 21 century stipulates that "*to extend the protected are network to no less than 30% of total territory of to maintain ecological balance".*

The Concept of National Security of Mongolia and in chapter X *The Ecological Security* says "*protected certain part of the country's territory, turning them into national reserves while gradually drawing the rest of the territory into economic circulation in line with policies and mechanisms designed to maintain ecological balance".*

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural		x	
b) Inland water	x		National Programme on Water
c) Marine and coastal			N/A
d) Dry and subhumid land	x		National Action Plan on Desertification set the objectives in regard this target.
e) Forest	x		The Forest National Action Plan set the various objectives in regard this target.
f) Mountain		x	

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

The conservation of biodiversity, particularly of endangered species, is stated in legislative documents such as, "Environmental law", "Law on Special protected area", "Law of buffer zone of special protected area", "Law on fauna" and "Law on plants," ratified by the Mongolian government and Parliament. Strategic documents, such as the National programme of biodiversity and the National programme of special protected area, have been prepared and implemented to ensure internationally significant species are conserved. Additionally, laws and programmes on forests and hydrology have been created and implemented in recognition that biodiversity is closely linked to the health of the physical environment.

IV) Please provide information on current status and trends in relation to this target.

According to Provision No 5 and 7 of the Government action programme, ratified by Order No 21 of 2004 of the Mongolian state parliament, and activities to broaden the net-work of SPA, a proposal based on research has been prepared to include Munhkhairkhan Mountain (at the border of Bayanolgii and Khovd aimag), and the Valley of Orkhon (at the border of Uburkhnagai and Arkhangai aimag) in the category of National park, Tes river

delta of Tes soum of Uvs aimag in the category of bio-reserve, Dayan deerh area of Tsagaanuur soum of Huvsgul in the category of National monuments and landmarks. The proposal was sent for comment from the Public Representatives' Committee and Ministries, and was discussed and approved at a Government meeting, then ratified by State parliament (Order No 26, 23 April 2006). By the end of 2006, the size of Mongolian SPAs was increased by 519 000 ha to reach a total 21.5 million ha. This is equal to 13.8% of Mongolia.

In 2006 the MNE appointed and funded a research team to prepare a proposal to reclaim some areas as under special protection. These areas include Goojuuriin waterfall area of Khovd soum of Uvs aimag under Strict nature reserve of Turgen, Bayanzurkh mountain area of Sagil soum under Strict nature reserve of Tsagaan shuvuut, Jiglegiin davaa and Darkhad's depression zone of Ulaanuul and RenchinIkhumbe soums of HUvsgul aimag under Strict nature reserve of Khoridol saridag, and nearby area of Ikh Bigd mountain (at the border of Jinst, Bogd, Bayanlig and Bayangobi soums of Bayankhongor aimag) under the category of National park. The proposal was discussed at the Government meeting on 27 December 2006, and became ready to be submitted to State parliament.

If this proposal is supported by parliament, the size of Mongolian SPAs would increase by 320 000 ha to reach 14% of the country's territory, a total of 842 000 ha.

A list of proposed sites for further inclusion under the category of special protected area over the periods of 2006-2008 and 2009-2015, along with related introduction documents, has been submitted and approved by the Standing committee for Environment and Food and Agriculture of Parliament.

A draft Government order to determine the boundaries of Dayan deerhiin National monuments and landmarks of Tsagaan-Uur soum of Huvsgul aimag and Tes river bio-reserve of Tes soum of Uvs aimag, newly given special protection status in 2006, have been prepared and submitted to Affairs office of Government along with related introductory documents and materials. In accordance with the Millennium Development Goal, Mongolia is working towards increasing SPA size from 13.3% in 2000 to 30% in 2015. This will ensure the task of assessing biodiversity and the virginity of nature and that research has been carried out.

V) Please provide information on indicators used in relation to this target.

Under the National Programme, a total of 58 different sites were and are proposed to be studied and assessed for taking under protection step by step. This includes 11 sites covering 5.4 millions ha in 1998-2000, 24 sites covering 7.1 millions ha in 2001-2005 and 9.4 ha for 2006-2015. There are a total of 86 areas listed for proposed Protected Areas.

VI) Please provide information on challenges in implementation of this target.

Constraints:

A constraint to broadening the SPA network, conserving rare species and protecting separate populations is the survey and utilization licenses, issued for 70% of the territory. As these utilization licenses are affecting the extension of the SPA network, rights to regulate at a local level should be allowed. To some extent some licenses operating organisations and entities should be suspended, with these groups involved in restoration and rehabilitation activities.

Future activities:

- Increase the budget and investment via the advancement of the financing system and an accurate estimation of economical benefits of SPAs;
- Propose amendments to the law about including protection expenditure of 2 types of SPA, namely, the Bio-reserve and Strict nature reserves, into the state budget;
- Form a legal environment for SPA administrations to handle fines and payments from contract based operations and resource utilisers in SPAs;
- The administration of SPAs should increase their income by developing eco-tourism (information centres for tourists, guest houses, camps, boat rentals, guide services

etc.);

- Participate in project and bid announcements in the field of nature conservation; and
- Prepare projects to strengthen biodiversity conservation and submit them to investor countries and international organisations.

VII) Please provide any other relevant information.

Box IV.

Target 1.2	**Areas of particular importance to biodiversity protected**

I) National target: Has a national target been established corresponding to the global target above?

a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

The Mongolian State Ecological Programme on Millennium Development of Mongolia states "to ensure ecological balance by expanding the network of Protected Areas established to protect, preserve and properly use natural, historical and cultural heritage and to take no less than 30 per cent of the country's territory under protection". In 1997 the Parliament of Mongolia adopted the State policy on Ecology that gave the provision on protection of natural plants and wild animals "*to protect genetic funds of natural plants and wild animals upon the consideration of important roles of wild flora and fauna species including rare and endangered species that are able to represent specific characteristics of different natural zones in the world in keeping ecological and biological species balance, and improve food supplies of the human population*".

Mongolian Law on Special Protected Areas (1994) adopted by Parliament with purpose to regulating the "use and procurement of land" for state protection, to preserve and conserve "original condition" to protected "specific traits, unique formation, rare and endangered plants and animals, historic and cultural monuments, natural beauty, and to foster scientific research". The MLSPA establishes four protected areas categories each managing land for a different purpose under a separate management directive. They include Strictly Protected Areas (SPA), National Parks (NP), Nature Reserves (NR) and National Monuments (NM).

As of 2005 total 65 different areas (covering 18 *aimags* out of 21) are being protected under this law.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water	x		National Water Program
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combating Desertification
e) Forest	x		National Forest Program

f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Action plan for Mongolian biodiversity conservation:

A major goal of this programme is to avoid possible degradation and to rehabilitate degraded land. The next goal is to expand protected area to more than 30% of total Mongolian territory. To achieve this goal, the programme proposes the new areas to be protected. This will enable the network of protected areas, that includes conservation of the previously unprotected rare plants, animals, microorganisms and ecosystems, to be enlarged.

The **National programme for conservation and appropriate exploitation of Mongolian rare animals and plants**" has been accepted by the Government and studies in several specific ecological regions were accomplished by national scientists and professionals. There are 145 species of relict plants in Mongolian territory and 22 of these are endangered. Reasons for their extinction will be determined for each species.

The distribution of endangered 127 Mongolian plant species was classified by the aimags that belong to 16 plant geographical regions and their biological resource assessment were determined. This information will be used as a basis for determining the appropriate implementation of conservation and exploitation activities.

National programme of Mongolian saker falcon conservation: Mongolia is a member of CITES. The conservation of the saker falcon, that was included in the second attachment of the convention, was identified in Government policy and the National programme of Mongolian saker falcon conservation was accepted. The objective of the programme is to prevent the degradation of number of falcon, eliminating the cause of degradation, improving the management related to increasing the number of falcon and identifying the state policy on conservation of falcon.

National Programme on Conservation of Snow Leopard: The objective of the programme is to preserve territory and maintain the number of snow leopards, improve conservation management and create legal and economic environments for the conservation of snow leopards. The snow leopard is registered as a rare species under the National Red Book and International Red Book. Currently, a total of 20% of the districbution areas of the snow leopard is under state protected area network.

National programme of Argali conservation: The purpose of the programme is to improve the legal environment on the Argali protection, management and creation of an appropriate economic base, and identifying the state policy on protection and sustainable use of resources.

National Programme on the protection of Elk. This programme has the basic goal to increase elk numbers both through natural and artificial means. Artificial means include the supplementation of limiting resources, protection of core population and hunting management.

IV) Please provide information on current status and trends in relation to this target.

Mongolia conducted its biodiversity assessment step by step under the Russian-Mongolian Joint Biological Expedition, ongoing since 1970. As a result of this work, the country strictly protects some animal and plants of national, local and international signifi-

cance. To protect key species in accordance with basic principles and sustainable development views of the 21st century, 70% of the habitat area of thirty endangered species of animal, and 40% of four hundred rare, very rare and endangered plant species, are fully taken under protection.

Ex situ conservation activities were begun during the end of the last century in Mongolia. These activities concentrated on the reintroduction of 'signature' endemic plants and animals back into their natural range. Ex situ conservation activities began with the reintroduction of wild horses back into their native range. The last known natural habitats of wild horses were in the southern Baitag Bogd mountain and Bulgan river area, Aj Bogd mountain in the east and through the south of the Altai mountain range - Huh Undur, Takhiin Shar nuruu, and Khonin us gobi. The reintroduction of wild horses began in 1992, when fifteen wild horses were transported to Hustai nuruu, and 6 horses to Bij River from European countries. Since then, 84 wild horses have been brought to Mongolia in five separate groups. These groups include seven wild horses in 1997, thirty seven in 1998, seven in 1999, four in 2001 and fourteen horses (six males and eight females) in 2002 from Germany and Switzerland. These horses were reintroduced in Hustai nuruu and in Bij River ("B" part of GGSPA), representing the steppe and gobi ecosystems of Mongolia. By the end of 2006, the wild horse population of Hustai nuruu reached one hundred and seventy one, showing that transported individuals have already adapted to their natural conditions.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Research results are showing the reduction, and even extinction, of Red deer, Forest sable, Musk deer, Mongolian marmot, Fox and Steppe fox. Economically beneficial plants, especially medicinal plants, for instance, *Glycyrrhiza, Sophora, Allium altaicum, Allium obliquum* and *Rhododendron*, are seeing a reduced habitat distribution. The majority of public income derived from natural resources including fuelwood and timber preparation, hay making, grazing, mining, hunting and fishing. Although rules and regulations have limited these activities in terms of space and time, there has been very little reduction in their effects observed since 1990. In this way, habitat areas of separate populations have been degraded due to mining, and grazing, with further negative impacts related to the repellent of wildlife from their habitat area, and the reduction of their population due to poaching etc.

Box V.

Goal 2	**Promote the conservation of species diversity**
Target 2.1	**Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

Strategic planning on the expansion of a network of Protected Areas in the country by taking no less than 30 per cent of the territory under protection is a part of Mongolia's strategic goals in biodiversity conservation. In order to enforce this strategic goal, the Biodiversity Conservation Action Plan for Mongolia proposed to take some areas under protection. This will result in a network of Protected Areas, including ecosystems and areas that support endangered natural plants, wild animals and other species that need immediate protection.

In order to restrict the loss of populations of target species in the country, a number of Actions Plans and Programmes have been developed and implemented at a national level in Mongolia.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		National Program on Wild Fruit and Programme on Fish
b) Inland water			
c) Marine and coastal	x		National Water programme
d) Dry and subhumid land	x		National Action Plan on Combating Desertification
e) Forest	x		National Forest Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Mongolia has developed 25 action programmes to regulate relations of biodiversity conservation and sustainable exploitation, reflecting the great attention that has been paid to this issue. For example, not only programmes covering specific biodiversity issues such as the Action plan for biodiversity conservation (1996), programme of protected areas (1998), "Green belt" national programme (2005), National water programme (1999), Programme of conservation and sustainable exploitation of Mongolian rare plants (2002) and the Action plan to combat with desertification (2003), but also forests. This includes the National action plan for forest (2006), Species that require special programmes are conserved under programmes such as the National red deer conservation programme (2000), National programme of Argali conservation (2002), National programme of Mongolian saker falcon conservation (2003) and the National programme of Mongolian snow leopard conservation, all currently implemented in Mongolia.

IV) Please provide information on current status and trends in relation to this target.

Further studies are being conducted in order to develop and implement action plans on protecting some other species. For instance, as part of the project *Conservation programme of Gobi bear,* researchers from the Ministry of Nature and Environment and JICA project observed the Gobi bear in its primary habitat (8 points: Khokh Ders, Khatuu

Bulag, Altan Tevsh, Suuj Bulag, Mukhar Zadgai, Tsagaan Burgas, Tsagaan Tokhoi, Khoshoot and Shar Khulsnii oases) during March 2002. They found two tracks of the species at the mouth of the Khatuu Bulag, and took pictures and videos of two adults grazing in the Tsagaan Burgas area. They also found tracks of 1 or 2 bears near grazing lands in the Tsagaan Tokhoi area.

Two Gobi Bears were tracked using radion collars/satellite to identify their summer and autumn range. Results of this work show that there are presently about 30 individuals of the Gobi bear recorded in Altai Uvur Gobi.

The mammal and fish biological diversity workshop was organized in 2006, in cooperation with the British Zoological society, and produced the Mongolian mammal and fish red list series (2007), and associated mammal and fish conservation plan.

Unsustainable and improper harvest of cedar nuts for export in recent years has resulted in a drastic reduction of its reserves. The GTZ project "Nature Conservation and Sustainable Natural Resource Management" has been conducted in the Batshireet Sum of Khentii Aimag and Mongon Morit Sum of Tov Aimag. Local governments of the Sums have supported project activities, and have been paying particular attention to the adequate enforcement of regulations and standards on cedar nut collection within their Sum territories over the last two years. To date, cedar nut processing enterprises have begun in Mongolia.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

People illegally harvesting pine nut often destroy trees, cause environmental pollution, start fires and poach wild species.

VII) Please provide any other relevant information.

Mongolia's ecosystem evolved from harsh continental climatic conditions over a transitional zone between South Siberia and Central Asia, far from Earth's oceans. Such an ecosystem has a limited ability to regenerate naturally, and is vulnerable to any human activitites. The Mongolian Government recognizes issues of biodiversity conservation as part of the Mongolian sustainable development policy. Thus, related strategic documentations have been created and adopted. Additionally, legislation of biodiversity conservation has been adopted.

In recent years, useful plant resources of Mongolia have been collected to illegally trade abroad or to use in industry. This has resulted in a decreased distribution and stock of the plants. Moreover, plant species have become endangered. Presently, rural private companies use about 200 plant species for commercial purposes, but it is difficult to control the taxa and quantitiy used.

Therefore, it is necessary to ecologically and economically evaluate plant taxa, strengthen their control and audit them.

The Ministry of Nature and Environment, the Institute of Botany under the Mongolian Academy of Sciences, and the Mongolian National University jointly developed a methodology of plant ecological and economic assessment. Ecological and economic assessments of plant species aims to identify their values in terms of their population dynamics and direct benefits for the human population. Under this methodology, 32 grouped questionnaire were used and their results were scored. The questionnaire sought to gain information on species origins, status, distributions, ranges, reserves, biology, ecology, restrotive capacity, usefulness/ usable reserve, purpose of use and kinds of consumptions of plants.

Box VI.

Target 2.2	**Status of threatened species improved**

I) National target: Has a national target been established corresponding to the global target above?

a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

The Mongolian Law on Fauna states *"rare and endangered fauna species will be protected and **their status will be upgraded** through including very rare and rare species into international and national Red Lists and respective Agreements and Conventions"*

The Mongolian Law on Natural Plants states *"Considering plant reserves and their restorative capacity, plants are classified into: very rare, rare and abundant" and **describes very rare plants as** "the plants with no natural restorative capacity a very restricted distribution, no usable reserves and are in danger of extinction".*

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

Improve ex-situ management for species conservation and conserving genetic resources

- Assess carefully the needs for captive breeding in Mongolia;
- Limit captive breeding and reintroduction programmes to Mongolian extant species or to those whose extinction is otherwise imminent;
- Carry out necessary research before embarking on captive breeding project;
- Monitor captive breeding programmes carefully; and
- Improve the facilities and work of the Ulaanbaatar Botanic Garden, focusing on educational programmes.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

Box VII.

Goal 3	**Promote the conservation of genetic diversity**
Target 3.1	**Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained**

I) National target: Has a national target been established corresponding to the global target above?

a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

The concept on national security gives provisions for the protection of the **genetic fund of wild species** "develop and implement policies on protection of genetic funds of worldwide and nationwide rare, endangered, threatened and nearly threatened micro species and protection of genefund of domestic animals/ livestock and types of grain crops planted and introduced".

The Law on Natural Plants requires that "*plant cultivation and introduction to protect the genefunds of very rare, endemic and relict plants shall be performed by Certified Organizations at request of the State Administrative Central Organizations*". Additionally, the **Law regulates the establishment of a plant reserve database and states that the Plant Reserve Database shall include**: *"plant distribution and size of reserve and their assessment; collection of plant samples, preparations, and seeds; reports and data on plant research; data on plant monitoring and measurement; and data on plant protection, use, and restoration measures".*

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural	x		The Government of Mongolia approved the National programme on "Improvement of Livestock Quality and Breeding Works", by resolution 105 of 1997; "Animal Health" programmes - by resolution 64 of 1999 and also approved a programme titled "Protecting Livestock from Natural Disaster - Dzud and Drought" by resolution 47 of 2001.
b) Inland water		x	
c) Marine and coastal			
d) Dry and subhumid land		x	
e) Forest		x	

f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Improve *ex-situ* management for species conservation and conserving genetic resources

- Assess carefully the needs for captive breeding in Mongolia;
- Limit captive breeding and reintroduction programmes to Mongolian extant species or to those whose extinction is otherwise imminent;
- Carry out necessary research before embarking on captive breeding project;
- Monitor captive breeding programmes carefully; and
- Improve the facilities and work of the Ulaanbaatar Botanic Garden, focusing on educational programs.

The Government of Mongolia established certain objectives through resolutions on "improving animal husbandry breeding works" in 1958, 1961, 1970, 1977 and 1984, and has achieved some success in the implementation of these resolutions. The Government of Mongolia approved the National programme on "Improvement of Livestock Quality and Breeding Works", by resolution 105 of 1997; "Animal Health" programme - by resolution 64 of 1999 and also approved a programme titled "Protecting Livestock from Natural Disaster - Dzud and Drought" by resolution 47 of 2001. The Parliament of Mongolia adopted the Law on "Protecting Livestock Gene Pool and Health" in 1993 and this law was further amended in 2001.

Follow up measures to improve biological and economic productivity of local animal breeds was attempted by developing "super strains" in the late 1960s. This work was directed at improving the productivity, quality and composition of livestock herds.

IV) Please provide information on current status and trends in relation to this target.

The Mongolian Laws on Environmental Protection, Forests, and Fauna are in force, and national programmes and action plans e.g. on the protection and sustainable use of rare and endangered plants, and establishment of maximum usable limits of natural plants to protect the genefund and reserves of plants are developed and appropriate conservation measures are undertaken in the country.

Status of law and legislation related to livestock and animal gene-pool protection and utilisation

Since 1990, legislative reform has been made to cover all social sectors to move Mongolia towards a market economy. Many changes have taken place in the structure, management and ownership of all levels of institutions, including those engaged in livestock gene-pool protection activities and services.

Local livestock breeding institutions previously served the big economic entities and were not able to operate under open market conditions. After the privatisation of livestock in 1992, 1300 livestock specialists were released from their positions within 3 years. This seriously affected the results of livestock breeding programmes in nucleus herds of highly productive breeds and locally selected animals.

Parliament approved the law on "Livestock Gene-pool and Health Protection" in 1993, and the implementation of this law has made a significant contribution to solving many issues

facing the livestock sector in its transitional period to a market economy. The law was amended in 2001 to reflect market conditions, and was a significant measure in ensuring the development of livestock production.

This law determines the rights of the State and local government organisations which protect the livestock gene-pool, inspection organisations, citizens and other economic entities. The law coordinates relations, livestock and domestic animals' gene-pool protection activities such as financing of the law implementation and fining those in contravention of the law.
"The main policy trends to be pursued by the State on rural development," approved by resolution 32 of the Parliament in 1996, has been directed towards the intensification of agricultural production by effectively utilising natural resources, ensuring proper utilisation of human, financial and natural resources and to develop intensive, sustainable and effective agricultural production by improving its productivity, quality and competitiveness

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box VIII.

Goal 4	**Promote sustainable use and consumption.**
Target 4.1	**Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

The **State policy on Ecology** aims "*to ensure ecologicial balance through running enterprises and services that are to use natural resources on sustainable basis in accordance with carrying capacities of environment*"

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural			
b) Inland water	x		National Water Programme
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combating Desertification

e) Forest	x		National Forest Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	X
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Main goal of the National Programme on Forests is to identify and implement the objectives of the state policy on the environment and forests through protection, restoration and sustainable use of forests in accordance with ecological balance and sustainable development requirements. Under this Programme, Objective 2 requires the following

a) Establish the types and sizes of trees to be harvested per year for each Aimag and Sum, and follow the standards and regulations established;

b) Illegal timbering will be stopped.

Following actions were described in the National Biodiversity Conservation Action Plan related to this goal:

Prevent pasture deterioration through overgrazing

- Determine the health of Mongolia's pastoral land;
- Establish, through research, grazing capacities; and
- Establish procedures to ensure that numbers and kinds of livestock are within the grazing capacity of the particular pasture, and that the best of traditional and modern grazing management are used.

Establish a public information program to improve people's knowledge of biodiversity and the importance of conserving it

- Evaluate and monitor nationally and regionally the public's perception of biodiversity and the importance of its conservation;
- Encourage through a competitive grant scheme the spread of information about biodiversity through all aspects of the media, from publication of environmental magazines and posters to production of television and radio programmes and the holding of public meetings and seminars; and
- Promote public awareness of biodiversity issues through regular publication by the Ministry for Nature and the Environment of periodic fact sheets and newsletters.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box IX.

Target 4.2	**Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	x
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box X.

Target 4.3	**No species of wild flora or fauna endangered by international trade**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural		x	
b) Inland water		x	
c) Marine and coastal			
d) Dry and subhumid land		x	
e) Forest		x	
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

The Programme on Protection and Sustainable use of Rare Plants in Mongolia states "*to develop the Law on Rare, Endangered and Nearly Threatened Species in accordance with the requirements of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XI.

Goal 5	**Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.**
Target 5.1	**Rate of loss and degradation of natural habitats decreased**

I) National target: Has a national target been established corresponding to the global target above?

a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

Under the State Policy on Ecology the immediate objectives of targeted activities are developed. For instance, "*to take land under State protection and supervision and properly use it for wellbeing of people without deterioration of its state and fertility*". **For the proper use of water reserve** *the ecological and economic assessment, quality monitoring and inventory shall be upgraded and the potential use, purpose and maximum limits of water resources will be established in regions in order to ensure sustainable use of water*.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water	x		National Water Programme
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combat Desertification
e) Forest	x		National Forest Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

National Programme on Water states "to establish and implement adequate water management structure/system in order to ensure the protection and sustainable use of water reserve."

National Action Plan on Combat Desertification gives provisions and plans on specific activities to restore degraded land "*identify and assess the introduction of advanced technologies of protection of soil and vegetation cover and reduction and elimination of sand movement into practice based on the incorporation of traditional methods into modern scientific research achievements*".

According to research results, a total of 121.7 million hectares has been degraded in Mongolia. Of this, 91.7 million hectares has been degraded by wind and water, 21.1 million hectares by water erosion only, 1.0 million hectares by direct human activities, and 7.9 million hectares has been covered by sand. Pastureland in the country has been intensively and continuously grazed, and

around 8.6 million hectares has been heavily overgrazed. In addition, 565.0 thousand hectares (out of a total of 1.3 million hectares) used for cultivation has been abandoned and turned into pastureland and other less productive forms of land-use. Soil erosion in cultivated areas has reduced soil fertility by around 20%, significantly decreasing crop yields.

Under work to conserve surface water resources in Mongolia, the increase of surface water reserves through restoration of water bodies is prioritised. In addition, priority is also given to the sustainable use of water resources and water supplies amongst the country's human population in the country.

IV) Please provide information on current status and trends in relation to this target.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

Box XII.

Goal 6	**Control threats from invasive alien species.**
Target 6.1	**Pathways for major potential alien invasive species controlled**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	
Please provide details below.	

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	x
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	
Please provide details below.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
VII) Please provide any other relevant information.	

Box XIII.

Target 6.2	**Management plans in place for major alien species that threaten ecosystems, habitats or species**
I) National target: Has a national target been established corresponding to the global target above?	
a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	
Please provide details below.	
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).	

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	x

b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	
Please provide details below.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
VII) Please provide any other relevant information.	

Box XIV.

Goal 7	**Address challenges to biodiversity from climate change, and pollution.**
Target 7.1	**Maintain and enhance resilience of the components of biodiversity to adapt to climate change**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X
Please provide details below.	

National Programme on Sustainable Development of Mongolia states "to identify and take responses and adaptive measures based on the future climatic conditions and tendency".

The **Mongolian Government adopted the National Programme on Changes to Climate** in 1998, and assessed adaptive measures and responses for each sector in accordance with specific criteria.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	Yes	No	Details
a) Agricultural			
b) Inland water	x		National Water Programme
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combating Desertification
e) Forest	x		Green belt National Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	X
c) Yes, into sectoral strategies, plans and programmes	
Please provide details below.	
Action Plan on Biodiversity includes "widely used environmentally friendly technologies of energy sources including renewable energy resources". Appropriate responses and measures are undertaken in this field.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
VII) Please provide any other relevant information.	

Box XV.

Target 7.2	**Reduce pollution and its impacts on biodiversity**
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X
Please provide details below.	
State Policy on Ecology aims to "reduce the use of radiation and hazardous chemicals that cause serious adverse impacts on human health, environment and animals and improve supervision and inspection of trade, use, transport, storage and import of some toxic substances".	
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).	

Programme of work	Yes	No	Details
a) Agricultural			
b) Inland water			
c) Marine and coastal	x		National Water Programme
d) Dry and subhumid land			
e) Forest			

f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	X
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

Action Plan on Biodiversity Conservation aims to "*establish the maximum permissible limits of of pollutants/ toxic substances and bacteria discharged into soil and air*".

The National Programme on Water includes measures and responses on "protection and prevention from potential loss and pollution of water by water utilisation and other natural negative impacts".

The Programme on Reduction and Elimination of Solid Waste Disposals was adopted in 1999. Its main purpose is to ensure secure and safe living conditions for populations, remove wastes in an environmentally safe manner, reduce amounts of wastes discharged through the use of recycling, and ensure increased participation of citizens, businesses and organisations in activities to reduce wastes.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XVI.

Goal 8	**Maintain capacity of ecosystems to deliver goods and services and support livelihoods.**
Target 8.1	**Capacity of ecosystems to deliver goods and services maintained**

I) National target: Has a national target been established corresponding to the global target above?

a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X

Please provide details below.

The **State Policy on Ecology** requires that "*the environmental policy shall focus on preservation of untouched natural conditions, protection of natural, historical and cultural values and sustainable use of natural resounces in accordance with ecological carrying capacity...*".

The Concept on Regional Development in Mongolia aims to "to identify and implement regional development policy and fields in accordance with ecological carrying capacity and capability".

The State Policy on Land Resources states that "*one of the prioritised State policy issues is to take land under State protection and supervise and properly use it for the well being of people without deterioration of its state and fertility*".

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water	x		National Water Programme
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combating Desertification
e) Forest	x		National Forest Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	x
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

The Action Plan for Biodiversity Conservation aims to "engage in cultivation with low ecological impacts".

National Programme on Water gives provisions "*to efficiently, regularly and properly regulate the proposed activities for the protection and sustainable use of water reserves*. Moreover, the **National Programme on Forests** aims "to take actions for development and enforcement of instructions and recommendations on the proper use of non-timber forest products e.g. cedar nuts, berries, mushrooms and medicinal plants".

IV) Please provide information on current status and trends in relation to this target.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

Box XVII.

Target 8.2	**Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.

The **State Policy on Land Resources** states "Considering that the protection and restoration of air, water, and soils from potential degradation and depletion on regular basis is very important for the preservation of untouched natural conditions and healthy and safe living conditions for human populations, state policies should deal with the protection and prevention of the environment from potential natural disasters, destructive human activities and running living styles and economic activities in accordance with ecological carrying capacity and capability".

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural		x	
b) Inland water	x		National Water Programme
c) Marine and coastal		x	
d) Dry and subhumid land		x	
e) Forest	x		National Forest Programme
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?	
a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.
National Programme on Water aims "to establish protection zones in drinking water sources and maintain records and ensure secure and reliable utilisation in centralised water supply sources"; the **National Programme on Forests** aims to "support and assist in household income generation through incomes from diversified processing of non-timbering forest products".
IV) Please provide information on current status and trends in relation to this target.
National programmes on Biodiversity Conservation and the Poverty Alievation Programme have been implemented. The first steps on the sustainable use of natural resource, including minor natural resources, has been undertaken within the framework of the national programme on rural development. However, no tangible actions and responses have been undertaken for the alleviation of poverty and unemployment - the main hindering factors for biodiversity conservation and sustainable use. Therefore, it is necessary to incorporate the programme on poverty reduction with other national programmes and to strengthen cooperation amongst intersectoral decision makers. It is necessary to prioritse and strengthen intersectorol partnership within the framework of the Action Plan of the Mongolian Government and update to the currently implemented national programmes in the future. Small, community-based, natural resource management projects are implemented with the support and funding of international organisations.
V) Please provide information on indicators used in relation to this target.
VI) Please provide information on challenges in implementation of this target.
VII) Please provide any other relevant information.

Box XVIII.

Goal 9	**Maintain socio-cultural diversity of indigenous and local communities.**
Target 9.1	**Protect traditional knowledge, innovations and practices**

I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	x

Please provide details below.
The **State Policy on Ecology** states that "*Practical appoaches to ensure ecological balance shall be supported and implemented by integrated environmental, economic, and social policies and coordination mechanisms by combining environmental conservation traditions with advanced technical and technological achievements*." The **Concept on National Security in Mongolia** aims "*to consider the restoration and dissemination of environmental conservation traditions and customs amongst the public at the State policy level*".
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**

a) Agricultural			
b) Inland water	x		National Water Programme has set some targets
c) Marine and coastal			
d) Dry and subhumid land	x		National Action Plan on Combating Desertification
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	x

Please provide details below.

National Programme on Water aims "*to study and integrate traditional practices on water use into advanced technological and innovative inititiatives and put them into practice in accordance with social development needs and requirements*."

IV) Please provide information on current status and trends in relation to this target.

The "Environmental Public Awareness" project was implemented with the support of the UNDP and the Governments of the Netherlands and Australia from 1997 – 1999.. The project dealt with the restoration and dissemination of traditional practices of nature conservation and sustainable use amongst the public.

Community based biodiversity conservation projects have been implemented to restore the use of traditional conservation practices. For example, a worshipped mountain "Altan Ovoo" is protected by traditional conservation practices. In 1999, the World Wide Fund for Nature (WWF) cooperated with the World Bank and the Mongolian Buddhist Centre to organise a conference titled "Roles of Religion in Nature Conservation". The conference participants highlighted the importance of respecting and worshipping the natural environment, including water sources and mountains not only in conservation but in their sustainable use. As part of this project, Buddhist icons were consecrated and placed on tops of worshipped mountains in different parts of the country.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XIX.

Target 9.2	**Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	x
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

Whilst natural resources have contributed to fulfilling household needs, Mongolians have focused on the economical use of resources in order to ensure natural regeneration of their resources and ecological balance. They have believed that the environment is alive, and must therefore be clean and pure. For example, a number of activities have been avoided, such as digging land, particularly in spring, when plants grow, cutting trees growing at the upper part of natural springs and mineral water bodies, destroying bird eggs and hunting wild species during their breeding seasons. In other words, the Mongolians have ensured the natural regeneration of biodiversity through traditional quarantine and prohibition approaches whilst utilising resources for household needs.

A culture of respecting and conserving the environment is one of the most valuable ecological features of nomadic Mongolians. It is worthy to highlight that Mongolians have used traditions of conservation of nature including mountains, water sources, fauna and flora for

their daily living and economic activities as well as in worship ceremonies. Traditionally, women got up early and made offerings of milk and milk tea to the environment, mountain, water sources and the rising sun. They also made special offerings of milk and milk tea to the environment, mountain and water sources on the first day of the Lunar calendar, again and during *ovoo* and mountain worship ceremonies, and during the hunting of some wild species.

Activities to be undertaken in the immediate future:

- Establish an environmental database on traditional nature conservation practices;
- Use traditional nature conservation traditions and cultures in biodiversity conservation;
- Restore and preserve traditional conservation practices and approaches and improve public awareness in this field;
- Conduct public awareness activities on traditional practices amongst the public and publish and distribute awareness materials, including brochures, pamphlets, documentaries, and radio and television programmes;

It is necessary to include traditional nature conservation practices in formal and informal training curriculum and provide teachers, instructors and professors with necessary training materials and teaching manuals in order to improve their skills and knowledge.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XX.

Goal 10	**Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources.**
Target 10.1	**All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	x
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XXI.

Target 10.2	**Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Box XXII.

Goal 11	**Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention.**
Target 11.1	**New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) lease provide any other relevant information.

Box XXIII.

Target 11.2	**Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4**

I) National target: Has a national target been established corresponding to the global target above?

a) No	x
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).

Programme of work	**Yes**	**No**	**Details**
a) Agricultural			
b) Inland water			
c) Marine and coastal			
d) Dry and subhumid land			
e) Forest			
f) Mountain			

III) Has the global or national target been incorporated into relevant plans, programmes and strategies?

a) No	
b) Yes, into national biodiversity strategy and action plan	
c) Yes, into sectoral strategies, plans and programmes	

Please provide details below.

IV) Please provide information on current status and trends in relation to this target.

V) Please provide information on indicators used in relation to this target.

VI) Please provide information on challenges in implementation of this target.

VII) Please provide any other relevant information.

Global Strategy for Plant Conservation (GSPC)

The Conference of the Parties, in decision VI/9, annex, adopted the Global Strategy for Plant Conservation. Parties and Governments are invited to develop their own targets with this flexible framework. The Conference of the Parties considered the Strategy as a pilot approach for the use of outcome oriented targets under the Convention. In decision VII/10, the Conference of the Parties decided to integrate the targets into the reporting framework for the Third National Reports. Please provide relevant information by responding to the questions and requests contained in the following tables.

Box XXIV.

Target 1. A widely accessible working list of known plant species, as a step towards a complete world flora.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
A complete list of higher plants, mosses, and algae, and preliminary list of lichens of Mongolia has been produced. An incomplete list of fungi, and soil microorganisms such as actinomycete, has been produced, however their species composition has not yet been estimated.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
It has been reflected in the programmes, laws and legislative documents related to the national aim about Mongolian plants.	
III) Current status (please indicate current status related to this target)	
Investigations of lower plants of Mongolia is at the survey stage, however the legislative environment has been formed for the conservation of rare, very rare and endangered plant species at each level (individual, population, species) at population and ecosystem level (in the range of special protected area).	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
The Action programme on the conservation and sustainable use of rare plants of Mongolia has been ratified by Order No 105, 2002 and is now implemented.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	

Expenditure is not included in state budget, therefore there are financial constraints to meeting this target.

VII) Any other relevant information

Box XXV.

Target 2. A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Expenditure is not included in state budget, therefore there are financial constraints to meet this target. The books "Red book" and "White book" of Mongolia about the status of rare and endangered (very rare) plants have been produced following the standard of international and Russian category. But useful plants have not been assessed on their benefits at the international level and their status has not determined. Also, the conservation issue of rare and endemic population has not been fulfilled.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
The programme of Mongolian-Russian joint biological expedition "Assessment of present status of animals and plants recorded in Mongolian red book", which aims to conserve Mongolian plant and animal resource, will be enforced from 2007 onwards.	
III) Current status (please indicate current status related to this target)	
Determine plant conservation status in "Red book" and law "About plant conservation". Further it is possible to fulfill national targets by broadening the extent of Special protected area.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Three statuses, namely, abundant, rare and very rare, their conservation and utilization have been legally approved.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Criteria: number of head, distribution, requirement, further trend of public consumption, mating biology, evolutionary stage.	

VI) Constraints to achieving progress towards the target
Laws and regulations are not implemented properly at the aimag and soum level. There is a no mechanism to obtain information about plant utilisation from rural from areas.
VII) Any other relevant information

Box XXVI.

Target 3. Development of models with protocols for plant conservation and sustainable use, based on research and practical experience.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Standards, recommendations and instructions regarding outdoor and indoor planting and breeding of medicinal, edible and decorative plants, such as, *Glycerrhiza uralensis*, *Saposhnikovia divaricata*, *Allium obliquum*, *Adonis mongolica*, *Tàmarix ramàsissima*, *Elaeagnus mîîrcroftii*, *Astragalus mongolica*, *Ephedra sinica*, *Populus diversifolia*, and *Haloxylon ammodendron* has been prepared.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
This issue has been reflected in the programmes and plans related to national targets, rules and regulations of Mongolia, and the Government action plan.	
III) Current status (please indicate current status related to this target)	
Amongst the above plants, the legal environment to plant *Glycerrhiza uralensis*, *Astragalus mongolica*, and *Ephedra sinica* in irrigated conditions for the production and semi-production purposes has created.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Project proposals and programmes have been prepared and experimental-tests have been performed with multiple frequency.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Yield, growth situation and process of growth have been taken as criteria.	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXVII.

Target 4. At least ten percent of each of the world's ecological regions effectively conserved.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Broadening special protected area network would be helpful in achieving the above target. Majority of the eco-zones of Altai Sayan and Mongol Daguur belong to Mongolian territory, and projects to conserve this natural resource, and improve local people's livelihood have been implemented.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
Programmes and plans suited to national targets have been prepared and approved.	
III) Current status (please indicate current status related to this target)	
At present, legal documents are being prepared to include around 30 percent of the Mongolian territory in the special protected area network. Independent projects will be implemented in the two regions from 2007 onwards.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Materials and size based on monitoring. Compiled previously conducted materials, and planned future activities.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Nature at certain localities has been conserved. Livelihoods of local people were improved.	
VI) Constraints to achieving progress towards the target	
Unemployment and poverty of local people is showing adverse effects on the nature conservation of the locality.	
VII) Any other relevant information	

Box XXVIII.

Target 5. Protection of fifty percent of the most important areas for plant diversity assured.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
Mongolia has set target to conserve only 50 percent of plant species.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
A list of plants with international significance has not yet been determined.	
III) Current status (please indicate current status related to this target)	
The Mongolian Red book is being renewed.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
International information dissemination about Mongolian plant diversity is very limited.	
VII) Any other relevant information	

Box XXIX.

Target 6. At least thirty percent of production lands managed consistent with the conservation of plant diversity.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
Research to conserve plants of production areas has not been conducted, and organized activities have not been implemented. In regards to mining, restoration and rehabilitation activities have just been initiated.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
There are provisions about bio-restoration and bio-rehabilitation in the laws about mineral deposit utilisation.	
III) Current status (please indicate current status related to this target)	
The selection procedure of enterprises to conduct rehabilitation and restoration activities has been planned. Further restoration and rehabilitation activities will be advanced.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Rules and regulations related to the law of mineral deposits have been renewed.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Restoration and rehabilitation activities progress the environment closer to its original state.	
VI) Constraints to achieving progress towards the target	
Mining industries do not implement Mongolians laws. Government and state control is very loose upon this.	
VII) Any other relevant information	

Box XXX.

Target 7. Sixty percent of the world's threatened species conserved *In-situ*.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
Future trend and head number of world level endangered species is not estimated in detail.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
Required to prepare plan and program at national level.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
The technical and economical condition for *in-situ* conservation has not yet been formed.	
VII) Any other relevant information	

Box XXXI.

Target 8. Sixty percent of threatened plant species in accessible *Ex-situ* collections, preferably in the country of origin, and 10 percent of them included in recovery and restoration programmes.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
World rare plants such as *Adonis mongolica*, *Gymnocàrpus przewalskii*, *Stellaria pulvinata*, *Thermopsis longicarpa*, and some species of *Orchridaceae* sp., are included in "CITES" and it enabled them to be freed from utilization (total 12 species).	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
Approved by "Red book" (1987, 1997, 2007), legal documents of Mongolia.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Mongolia has utilised criteria such as distribution and population size for the monitoring.	
VI) Constraints to achieving progress towards the target	
Local people are not involved in the conservation of the above named plants.	
VII) Any other relevant information	

Box XXXII.

Target 9. Seventy percent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
There is no national target corresponding to the above global target in Mongolia, but a complete list of local kinds of vegetables, and grains, sorts of wheat, barley, and garlic have been planted for semi-production purpose and seeds are beginning to be conserved for the gene pool.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
Targets are reflected in the research plan, programme and some strategic documents at a national level.	
III) Current status (please indicate current status related to this target)	
Zonation to plant grains has been determined, and at some region, Mongolia is working towards enhancing irrigated plantations.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXXIII.

Target 10. Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
Such plants have not yet been recorded in Mongolia. Internationally quarantined weed plants are present in non-arable, deserted plantation areas.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
Targets have been reflected in research plans and programmes at the national level.	
III) Current status (please indicate current status related to this target)	
Monitoring and control of plantation sites in central zonse has been implemented, and some agrotechniques to combat with alien species has been prepared.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Setting it as a main criterion for the selection of seeds for planting.	
VI) Constraints to achieving progress towards the target	
Technical conditions to have control over importing plants, plant raw materials and plant products are a major constraint	
VII) Any other relevant information	

Box XXXIV.

Target 11. No species of wild flora endangered by international trade.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
However there are no drug plants or internationally banned plants except wild growing *Cannabina ruderalis* and *Ephedra sinica*. These two plants are not traded according to law or international contracts.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
Targets have been integrated into releveant legal documents and special programmes of Mongolia.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
Experimental laboratory and equipment is not sufficient.	
VII) Any other relevant information	

Box XXXV.

Target 12. Thirty percent of plant-based products derived from sources that are sustainably managed.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Targets about plant derived pure eco-products are reflected in national programmes and plans.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
A legal environment to produce or withdraw not less than 70 percent food products derived from plants from plantation and natural plants in Mongolia has been created.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
The amount of products containing raw plant material and yield has been estimated.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXXVI.

Target 13. The decline of plant resources, and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
This issue is reflected in national target programmes and legislative documents.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
International projects are continuously implemented in this field.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXXVII.

Target 14. The importance of plant diversity and the need for its conservation incorporated into communication, educational and public-awareness programmes.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
The importance of plant diversity has been reflected to some extent in documents like the implementation programme of biodiversity conservation, Law about wild plants, and Programme of public ecological education.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
These are reflected in the programmes and plans at a national level.	
III) Current status (please indicate current status related to this target)	
Trainings, workshops and research activities are expanding.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
The legal environment to implement international projects has been formed. The syllabus and curriculum of Mongolian universities and colleges has been approved.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXXVIII.

Target 15. The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this Strategy.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
The Mongolia education sector has both private and public schools. At least 10-12 universities teach subjects on eco-tourism, ecology and plant conservation including forests and taxonomy.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
There are some government resolutions for preparing professionals in this field.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
There has been an increase in the number of students in the field of environmental education.	
VI) Constraints to achieving progress towards the target	
A lack of training materials and other field work equipment and tools/facilities is a major constraint, as is a shortage of trained trainers and teachers on plant conservation.	
VII) Any other relevant information	

Box XXXIX.

Target 16. Networks for plant conservation activities established or strengthened at national, regional and international levels.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	X
Please specify	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XL.

Please elaborate below on the implementation of this strategy specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

A scientific basis to rationally use rare, and endangered plant species and their populations has been prepared, and introduced more than 10 species of trees belonging to 4 genera, 81 species of shrubs and bushes belonging to 14 families, 45 species of herbaceous plants belonging to 35 genera and 17 families in Ulaanbaatar area for decorative and other purposes.

It is possible to include information, data and comparative parameters included in the various books, materials, project reports, maps and proposals about present status of plant resources, their distribution, stock and deficit.

During this report period, results and collaboration of projects and research works implemented in close relation with the country's socio-economics policy, environmental laws, "Green belt" programme, "Public ecological education" national programme, national programme on rare plant conservation, international programmes and convention on nature conservation have improved, and there has been a noticeable change in the knowledge, education, discipline and livelihood of the public. There have been positive effects on the environmental status and participation of governmental and non-governmental organisations, research and educational organisations, enterprises and investor countries as plant resource conservation participation has increased.

The implementation of environmental protection laws and regulations has improved, as has duties assigned by the international conventions of biodiversity conservation, mitigation of drought and zud hazards, watershed ecosystem research and desertification minimisation have been fulfilled. For instance, in 2004 a vegetation map of size of 32.5 thousand in the Ogii nuur area, a Ramsar site, has been produced by the project JAICA.

A complete survey of the species composition of flowering plants, pteridophytes, gymnosperms, algae, lichens and mosses in Mongolia has contributed to the 2010 international plant conservation target., proving the international significance of Mongolian vegetation.

Parks, gardens, shelterbelts, tree groves and the plant gene pool has been initiated in Mongolia, and plant diversity is now protected at a local, international and continental level.

Aiming to implement the Millennium target, tree and shrub plantations along the "Millennium road" network has begun, with green groves and oases are established in Gobi and desert zone.

It should be noted that there has been a lack of fruitful results and interrelationships amongst projects implemented in Mongolia, a part from budget constraints during achieving targets of world strategy on plant conservation. Also, there has been a lack of unique technology and scientific grounds suited to Mongolian natural and extreme climate condition, which is the main characteristic of conservation and the restoration of plant resources.

Ecosystem Approach

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Application of the ecosystem approach will help to reach a balance of the three objectives of the Convention. At its second meeting, the Conference of the Parties has affirmed that the ecosystem approach is the primary framework for action under the Convention (decision II/8). The Conference of the Parties, at its fifth meeting, endorsed the description of the ecosystem approach and operational guidance and recommended the application of the principles and other guidance on the ecosystem approach. The seventh meeting of the Conference of the Parties agreed that the priority at this time should be facilitating implementation of the ecosystem approach. Please provide relevant information by responding to the following questions.

3. ◇ [1] Is your country applying the ecosystem approach, taking into account the principles and guidance contained in the annex to decision V/6? (decision V/6)	
a) No	
b) No, but application is under consideration	
c) Yes, some aspects are being applied	X
d) Yes, substantially implemented	

4. ◇ Is your country developing practical expressions of the ecosystem approach for national policies and legislation and for implementation activities, with adaptation to local, national, and regional conditions? (decision V/6)	
a) No	
b) No, but development is under consideration	X
c) Yes, practical expressions have been developed for applying some principles of the ecosystem approach	
d) Yes, practical expressions have been developed for applying most principles of the ecosystem approach	

5. Is your country strengthening capacities for the application of the ecosystem approach, and providing technical and financial support for capacity-building to apply the ecosystem approach? (decision V/6)	
a) No	
b) Yes, within the country	X
c) Yes, including providing support to other Parties	

6. ◇ Has your country promoted regional cooperation in applying the ecosystem approach across national borders? (decision V/6)	
a) No	
b) Yes, informal cooperation (please provide details below)	X
c) Yes, formal cooperation (please provide details below)	
Further comments on regional cooperation in applying the ecosystem approach across national	

[1] Please note that all the questions marked with ◇ have been previously covered in the second national reports and some thematic reports.

borders.
Within regional cooperation (particularly in the transboundary aspect) the ecosystem approach is developed to a some areas such as transboudary water conservation, protected areas and migratory species.

7. Is your country facilitating the exchange of experiences, capacity building, technology transfer and awareness raising to assist with the implementation of the ecosystem approach? (decisions VI/12 and VII/11)	
a) No	
b) No, some programmes are under development	X
c) Yes, some programmes are being implemented (please provide details below)	
d) Yes, comprehensive programmes are being implemented (please provide details below)	
Further comments on facilitating the exchange of experiences, capacity building, technology transfer and awareness raising to assist with the implementation of the ecosystem approach.	

8. Is your country creating an enabling environment for the implementation of the ecosystem approach, including through development of appropriate institutional frameworks? (decision VII/11)	
a) No	
b) No, but relevant policies and programmes are under development	X
c) Yes, some policies and programmes are in place (please provide details below)	
d) Yes, comprehensive policies and programmes are in place (please provide details below)	
Further comments on the creation of an enabling environment for the implementation of the ecosystem approach.	
Since ecosystem approach requires involving a wide range of experts and local stakeholders to ensure balanced way of the actions planned, a open discussion process should be a part of the procedure thus avoiding dominance of narrow management approaches in the activities to be achieved.	

C. ARTICLES OF THE CONVENTION

Article 5 – Cooperation

9. ◇ Is your country actively cooperating with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biological diversity?	
a) No	
b) Yes, bilateral cooperation (please give details below)	x
c) Yes, multilateral cooperation (please give details below)	x
d) Yes, regional and/or subregional cooperation (please give details below)	x
e) Yes, other forms of cooperation (please give details below)	

Further comments on cooperation with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biodiversity.

Multilateral cooperation

Mongolia presently has seven inter-governmental agreements, including thirty bilateral co-operation agreements with foreign countries. These were established between 1990 and 1998. They serve as vitally important consensus documents that have great significance for the protection of the country's biological diversity, especially in border areas.

With the view to fostering regional cooperation, and cooperation with neighbouring countries, provisions on the joint proper use of biological reserves have been incorporated into several agreements. These include "Cooperation agreement in the environmental sector between the Governments of Mongolia and the People's Republic of China" (1990), "Cooperation agreement in the environmental sector between the Governments of Mongolia and Kyrgyzstan" (1993), "Cooperation agreement in the environmental sector between the Governments of Mongolia and Kazakstan" (1998), "Cooperation agreement in the environmental sector between the Governments of Mongolia and Russian Federation" (1994), "Mongolia-China Inter-Governmental Agreement on Protection of Transboundary Waters" (1994) and the "Mongolia-Russia Inter-Governmental Agreement on Protection of Transboundary Waters" (1995).

Regional Cooperation

The Kherlen and Khalkh Rivers of Eastern Mongolia belong to the Amar river watershed draining to the Pacific ocean. Because of this, Mongolia participates in the conservation of thr Tumen Gol river watershed in cooperation with China, Russia and Korea. Six sites in Mongolia, ranging in size from 2500 to 321000 ha, are listed under the Ramsar Convention.. A further five locations are proposed for Ramsar listing. The Mongol Daurian protected area of Dornod aimag has a territory of 210,000 ha, and is a transboundary protected area of Mongolia, Russia and China. Most of the protected areas, especially strictly protected areas areas, are located along the boundary of Mongolia with Russia and China. Rivers that are located in the northern part of the country flow through Russian territory to the Arctic Ocean. Some of Mongolian rivers flow through China to the Pacific Ocean.

Activities towards strengthening cooperation with Kazakhstan and Russia are conducted as part of the conservation of the Altai Soyon eco-territory of Western Mongolia. Representatives of the three countries meet every year to discuss ways in which to improve cooperation. Some programmemes or activities have been organised based on this cooperation.

The inter-governmental agreement of transboundary water conservation was signed by Mongolia and Russia, with subsequent studies of water resources in transboundary areas.. Due to financial limitations, however, no further activities have been organised. The

implementation of a water quality monitoring programme of the Altan River, flowing from Russia through Mongolian and back to Russia, has not been completely successful.

Large scale mining activities at the upper part of the river where the Altan River crosses the boundary of Mongolia has caused water pollution. Similar to this, agreements to cooperate with Russia to prevent Gypsy moth outbreaks and steppe and forest fire were signed but their implementation has been weak. Although the study of these areas was successfully implemented (with the Russian side providing satellite imagery), both sides had limited financial resources and as such could not implement any on-ground activities. In consideration of this, there is a strong need to improve cooperation with Russia and China to conserve river water resources and natural resources, and to improve management of protected areas. Likewise, there is a strong need to improve cooperation with Kazakhstan to conserve the Altai-Soyon eco-region of western Mongolia. Regional cooperation development will improve of natural resource and environmental management.

Mongolia initiated cooperation with UNEP and the East Asian Acid Control Network in 1998, attending three meetings with the Ministries of Environment with Russia and China.

10. Is your country working with other Parties to develop regional, subregional or bioregional mechanisms and networks to support implementation of the Convention? (decision VI/27 A)	
a) No	
b) No, but consultations are under way	
c) Yes, some mechanisms and networks have been established (please provide details below)	X
d) Yes, existing mechanisms have been strengthened (please provide details below)	

Further comments on development of regional, subregional or bioregional mechanisms and networks to support implementation of the Convention.

The inter-governmental Russian and Mongolian agreement on boundary water conservation and exploitation has been implemented successfully, with meetings and seminars of work teams and Governmental representatives organised every year.

Mongolia cooperates with officials of Inner Mongolia to combat desertification, to improve land and pasture management, to conserve migratory wild and/or rare animals, such as the gazelle, and to exchange environmental data.

Within the framework of East Asian environmental cooperation, Mongolia works to actively implement the "Tumen River Biodiversity Conservation" project, and to establish a regional and national information system of the social and economic status of biodiversity and water. In addition, a world standard environmental impact assessment framework was developed. Participant countries of the Tumen River SAP project introduced their interest to cooperate with each other and with international funding organisations, and signed memorandums of understanding.

North East Asian environmental ministers, scientists and professionals met in Seoul, Beijing and Manilla to discuss ways to prevent yellow dust and sand storms, to reduce its damage and to remediate its underlying cause. All parties agreed that "yellow dust and sand storms are a regional disaster," and to implement a detailed study of sand storms.

Representatives of the Khan-Khentii protected area in Mongolia and the Sokhond nature reserve of Chita in Russia visited each other to study possibilities to establish transboundary protected areas and sign agreements of cooperation. In addition, the MNE and the Russian Natural resource ministry prepared the agreement proposal to establish Lake Uvs national park. The joint Russian, Chinese and Mongolian Mongol Daurian strictly protected area was established and sufficiently administered. The Mongolian and Chinese Academy of Sciences agreed to establish a joint steppe ecosystem study centre.

The Eurasian temperate grassland spans around 1000km from east to west, a significant feature amongst Earth's terrestrial ecosystem. Mongolian and Inner Mongolian steppe is a significant part of the Eurasian grassland. A networked, long-term, ecological study of the Eurasian grassland will be established. The primary mechanism for this work will stem from the establishment of a research centre and set of steppe ecosystem study stations and connected with those of China. As a result, steppe structure, function, adaptive abilities and management studies will become more comprehensive.

Scientific studies to reveal the impacts of worldwide climate change, biodiversity loss and desertification on humanity, and to predict the effects the negative consequences of these ecological problems, are important. The establishment of joint steppe ecosystem study stations will involve the following:

1. The international grassland study network will be established by connecting the Mongolian steppe ecosystem study centre with neighbouring country steppe study stations. The Institute of Botany of the Chinese Academy of Sciences has seven steppe study stations in Inner Mongolia. The Mongolian steppe study centre can be connected with these and related Russian Daurian steppe study stations to create a complex East Asian grassland study network. Long term Eurasian temperate grassland ecological studies will be carried out as part of this network;
2. Joint management, world standard studies will be conducted using established infrastructure. Studies could cover issues of changes in the structure and function of grassland ecosystems due to global climate change, adaptations of the ecosystem to changed conditions, conservation of biodiversity, ecosystem rehabilitation and potential solutions of management problems;
3. Study subjects and methodologies will be determined in detail. With the proposed integrated research network, scientific studies of Eurasian grassland will be carried out through areas Russia, Mongolia and China;
4. One or two international steppe ecosystem study meetings will be organised and high level, globally important scientific publications will be produced. In addition, Eurasian ecosystem and local level environmental database s will be created; and
5. The Mongolian steppe ecosystem study centre will enable cooperation with international scientists.

Through participating in Ramsar project of wetland area conservation and in joint Mongolian-Russian biological expeditions, the composition of algal species was determined in wetlands of the Huder river, Orhon river valley, Telee river valley, and Tes river valley. As a result, 96 species or subspecies belonging to 5 orders, 29 families and 42 genera were listed in these areas.

In 2003, a 1:32.5 scale vegetation map of riparian and boggy plains of the of Ugii nuur wetland area, listed in the Ramsar convention, was produced with funding from JICA. This material could serve as base material to inform wetland monitoring and evaluation criteria.

The National University of Mongolia organised a biodiversity study of particular regions in in cooperation with foreign universities. For example, according to a contract with the Nature Conservation Centre at the Gottingen University of Germany, studies of forest steppe ecosystems and their biodiversity have been studied from the base of the Honin nuga station of West Khentii for more than 10 years.

An agreement of cooperation between environmental sectors of Mongolia and the People's Republic of Turkey was signed. Within the frame of the "Green belt" national programme, the MNE and Forest Authority of South Korea signed a memorandum of of understanding for long term financial support of the programme.

The MNE and the Development Cooperation Ministry of Netherlands signed memorandum of understanding to implement environmental projects such as "Integrated

water management" and "National Geo-information centre" and other programmes that will be of annual total cost of 2 million USD, starting from 2007. The Government of Netherlands provides this funding as non-repayable support to Mongolia. With the support of the UN and other financial organisations, 23 long, mid and short term projects have been implemented. From 2007, several projects with the aim of intensifying forest resource restoration work, such as "Community Forestry Management" will be implemented.

11. Is your country taking steps to harmonize national policies and programmes, with a view to optimizing policy coherence, synergies and efficiency in the implementation of various multilateral environment agreements (MEAs) and relevant regional initiatives at the national level? (decision VI/20)	
a) No	
b) No, but steps are under consideration	
c) Yes, some steps are being taken (please specify below)	x
d) Yes, comprehensive steps are being taken (please specify below)	
Further comments on the harmonization of policies and programmes at the national level.	

Box XLI.

Please elaborate below on the implementation of this strategy specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Environmental issues have become a key concern with globalisation as environmental issues cannot be solved with the efforts of a single country. Natural resource degradation and pollution do not respect geographical boundaries, making international cooperation very important. The Government of Mongolia places great importance on, and is active in bilateral, multilateral and non-governmental cooperation in environmental protection, especially in the field of biological diversity.

Since 1990, Mongolia's international cooperation on environmental issues has reached a high level. Projects with international organisations like GEF, UNDP, UNEP and WWF, and countries such as Germany, the Netherlands, Japan and the USA have been jointly implemented. Due to limited financial resources, obligations undertaken under agreements cannot be fulfilled. There is therefore a need to coordinate and harmonise the implementation of the Convention on Biological Diversity at a national level with related UN and other international conventions and agreements. The above conventions are aimed at the conservation of complementary and interdependent parts of the ecosystem, so the need to foster cooperation between conventions arises as an urgent issue. National coordinators should especially jointly plan and harmonise their works and cooperate and exchange information.

Article 6 - General measures for conservation and sustainable use

12. Has your country put in place effective national strategies, plans and programmes to provide a national framework for implementing the three objectives of the Convention? (Goal 3.1 of the Strategic Plan)	
a) No	
b) No, but relevant strategies, plans and programmes are under development	
c) Yes, some strategies, plans and programmes are in place (please provide details below)	X
d) Yes, comprehensive strategies, plans and programmes are in place (please provide details below)	

Further comments on the strategies, plans and programmes for implementing the three objectives of the Convention.

The ecosystem of Mongolia that established on the harsh continental climatic conditions of transitional location between South Siberia and Central Asia and far from Earth oceans, have limited abilities to regenerate naturally and vulnerable to any human induced negative influences. Mongolian Government recognize the issues of biodiversity conservation as part of the Mongolian sustainable development policy. Thus, related strategic documentations were adopted and is being implemented. Additionally, legislation of biodiversity conservation was adopted.

In last years, useful plant resources of Mongolia is collected with the purpose to illegally trade abroad or to use for industry. This results to decrease of distribution and resources of the plants. Moreover, the plants become endangered. Presently, rural private companies use about 200 plant species for industrial purposes, but it is difficult to control the taxa and amount used.

In past years, collection and export of raw pine seeds have been increased that resulted in decrease of pine resources.

13. ◇ Has your country set measurable targets within its national strategies and action plans? (decisions II/7 and III/9)	
a) No	
b) No, measurable targets are still in early stages of development	
c) No, but measurable targets are in advanced stages of development	
d) Yes, relevant targets are in place (please provide details below)	X
e) Yes, reports on implementation of relevant targets available (please provide details below)	

Further comments on targets set within national biodiversity strategies and action plans.

Mongolia has developed 25 action programs to regulate relations of biodiversity conservation and sustainable exploitation which indicate the great attention that paid to this issue. For example: not only the programs that cover specific biodiversity issues such as Action plan for biodiversity conservation (1996), program of protected areas (1998), "Green belt" national program (2005), National water program (1999), Program of conservation and sustainable exploitation of Mongolian rare plants (2002), Action plan to combat with desertification (2003) but also in terms forest issues- National action plan for forest (2006) and in terms of species that require special conservation programs such as National red deer conservation program (2000), National program of Argali conservation

(2002) National program of Mongolian saker falcon conservation (2003), National program of Mongolian snow leopard conservation are implemented in Mongolia. Extensive information can be obtained from www.mne.mn \ www.mne.pmis.gov.mn sites.

The implementation of the programs of biodiversity consists of several stages of activities and here we provide result indicators for each program:

Action plan for Mongolian biodiversity conservation:

Major goal of this program is to avoid possible damages and to rehabilitate degraded land cover. Next goal is to expand protected area until >30% of total Mongolian territory. To achieve this goal, the program proposes the new areas to be protected. This will enable to enlarge network of protected areas that include conservation of the previously unprotected rare plants, animals, microorganisms and ecosystems.

Within the frame of **"Green wall"** national program, it is aimed to cultivate 250.0 thousand hectare of land with trees and plants and the document included structure, scheme, expenditure, activities plan of main and auxiliary strips.

"**National program for conservation and appropriate exploitation of Mongolian rare animals and plants**" were accepted by the Government and studies in several specific ecological regions were accomplished by national scientists and professionals. There are 145 species of relict plants in Mongolian territory and 22 of these are endangered. Reasons for their extinction will be determined for each species.

Distribution of endangered 127 Mongolian plant species were classified by the aimags that belong to 16 plant geographical regions and their biological resource assessment were determined. Based on this, basis to appropriate implementation of conservation and exploitation activities will be determined.

National program of Mongolian saker falcon conservation: Mongolia as a member of CITES, conservation of saker falcon that included in the second attachment of the convention were identified in Government policy and National program of Mongolian saker falcon conservation were accepted. As a results, the resources and distribution of saker falcon is determined every year and based on such study results, number of saker falcon that can be hunted were determined. In last 5 years, 1620 saker falcon were exported which gave profit of 7.3 million USD to Mongolia. The program will have following outputs.

1. Conservation and sustainable exploitation of saker falcon will be improved, suitable reproduction conditions for saker falcon will be provided and ecological balance will be kept.
2. Implementation of legacies on saker falcon conservation will be improved and responsibilities of Mongolia in relation to international conventions will be implemented.
3. Activities for artificial reproduction of saker falcon will be initiated.
4. Saker falcon information database, related books, brochures, manuals, recommendations, methodologies, and other public awareness materials will be developed

National program of Mongolian snow leopard conservation: This species is one of the rare species that registered in the Mongolian red book and in the International red book. Almost twenty percent of the snow leopard distribution area is currently lies within the boundary of special protected areas. This endangered species that included in the first attachment of CITES and protected by international convention are legally protected since 1972, hunting on this species were restricted for the foreign hunters since 1992. In past years, International snow leopard conservation foundation and Program office of WWF in Mongolia jointly implement project on conservation and research study of Mongolian snow leopard. This program goes through following indicator criteria:

1. Distribution area of snow leopard is constant and number of the species have increased
2. Contribution of the local community in conservation of snow leopard and conserva-

tion of nature have regulated and enhanced

3. Support from international and foreign organizations that dedicated to conserve biodiversity have increased

National program of Argali conservation: Altai-Soyon mountain ecosystem included in the list "Global 200 ecoregion" as a Eurasian core natural area. This list involves the sites or ecoregions of the world that kept its natural phenomena. The Altai-Soyon Mountains have beautiful natural structure with cool temperate climate conditions. Because this mountain cover large territory spanning from desert to summit of mountains of the Central Asian to Siberian fauna region, one could find rich diversity of fauna. Mammals such as argali, Siberian ibex are considered as a symbol of this ecoregion. Mongolian Government accepted the "*National program of Argali conservation*" by the 269th resolution of 2002 and developed general plan for the implementation of the program and particular activities are currently in progress. The program includes following criteria:

1. Legal conditions of the argali conservation were developed and basis for the economical and social ethics is established
2. Distribution area of argali and major areas with hunting resources of argali is owned by the individuals and organizations with special conditions which enable increase of argali number through sustainable exploitation.
3. Involvement and interests of local community in conservation of argali is increased, conservation is improved, profit from the hunting for the countryside is increased and poaching will be reduced.

Within the frame of **National red deer conservation program**, activities toward increasing the number of this endangered red deer species by farm reproduction are organized through the GTZ program "Nature conservation and sustainable management of natural resources" jointly with "Erdene sogoo" cooperative in Mungunmorit soum of Tuv aimag. This farm was established with local community initiatives and not only have purpose to reproduce number of red deer but also have purpose to keep the genetic fund, to exploit the red deer originated raw materials appropately and at the end have sufficient resources to export the raw materials. GTZ support this farm by giving methodological and management advices. "Erdene sogoo" cooperative started their activities in 2002 with ten juvenile red deer individuals. Today they have around 30 adult red deers. This cooperative include 13 families.

Although the afore-mentioned national programs have included major part of the action plans, activities and methods toward implementing the indicators of biodiversity convention, the implementation is in a poor level.

14. Has your country identified priority actions in its national biodiversity strategy and action plan? (decision VI/27 A)	
a) No	
b) No, but priority actions are being identified	
c) Yes, priority actions identified (please provide details below)	X

Further comments on priority actions identified in the national biodiversity strategy and action plan.

National Biodiversity Action Plan of Mongolia (1996) identified following objectives:

Objective 1: Establish complete protected area system representative of all ecosystem and protecting endangered species

- Continue evaluation of protected area system
- Improve public support for protected areas, and the buffer zones surrounding them;
- Aggressively protect and manage protected areas using ecologically sound principles;

- Undertake research and monitoring in protected areas;
- Develop ecologically sound guidelines for delineating protected area zones;

Objective 2: Establish effective population control measures to limit human impact on the nation's biodiversity

- Determine the country's carrying capacity based on the availablity of renewable natural resources (soil, water, forest, grassland, renewable energy etc.), and the requirement to protect the environment and conserve biodiversity, achieving a quality standard of living for its citizens while maintaining the country's most important cultural traditions;
- Review government policies about population distribution and discourage schemes to promote settlements in and around protected areas.

Objective 3: Implement an effective environmental impact assessment program to understand the effects of proposed actions on biodiversity

- Establish procedures to ensure that EIA analyses are considered throughout the decision making process on proposed actions, train staff at national and local level, and establish processes for resolution of conflicts including determination of who adjudicates in the last resort;
- Improve public understanding of EIA and encourage participation of the public in providing information, inquiries and appeals.

Objective 4: Establish a research program that improves knowledge of biodiversity and relevant threats

- Initiate a research program to improve understanding of the functioning of Mongolia's ecosystems and processes and the factors affecting their health and the most udrgent threats;
- Develop accurate population and distribution information for animal plant species with priority given to threatened and endangered species, endemic species and species that are hunted or fished;
- Develop a genetic conservation research program;

Objective 5: Establish nationwide information and monitoring system for biodiversity conservation

- Improve the coordination and use of various information and monitoring networks;
- Improve biological information, especially occurrence and distribution data for all taxa.
- Improve monitoring of trends through use of advanced technologies such as remote sensing;

Objective 6: Establish national education and training programs for biodiversity conservation

- Establish ecology and nature protection classes and quiz competitions for school children and include the courses into the official curriculum of the Ministry of Science and Education.
- Render assistance to aimag and city schools in obtaining books, magazines, slides, videos, and other audio-visual material.
- Institute a college level degree program in ecology.
- Train teachers how to teach ecology classes while they are doing their own teacher training courses.
- As part of executive training programs provide local leaders with training in basic ecological concepts tied to applied conservation.

Objective 7: Establish a public information program to improve people's knowledge of biodiversity and the importance of conserving it

- Evaluate and monitor nationally and regionally the public's perception of
- biodiversity and the importance of its conservation.
- Encourage through a competitive grant scheme the spread of information about

biodiversity through all aspects of the media, from publication of environmental magazines and posters to production of television and radio programs and the holding of public meetings and seminars.
- Promote public awareness of biodiversity issues through regular publication by the Ministry for Nature and the Environment of periodic fact sheets and newsletters.

Objective 8: Control pollution of air, water and soil

Objective 9: Control hunting and fishing

Objective 10: Prevent pasture deterioration through overgrazing
- Determine health of Mongolia's pasture land.
- Establish, through research, grazing capacities.
- Establish procedures to ensure that numbers and kinds of livestock are within the grazing capacity of the particular pasture and that the best of traditional and modern grazing management are used.

Objective 11:Establish effective land-use planning control and transportation policy

Objective 12: Develop strong regulations to protect biodiversity from effects of mining.

Objective 13: Support tourism while developing sensible regulations to protect biodiversity
- Include special consideration for tourism in protected areas in the National Development Plan.
- Establish clear mechanisms for assessment of environmental impacts of tourism activities and for decisions to be made on whether they should be permitted and with what conditions. Include tourism in the National Program for Protected Areas. Tourism activities in protected areas should be consistent with the National Program and permitted by approved protected area master plans.

Objective 14: Improve ex-situ management for species conservation and conserving genetic resources
- Assess carefully the needs for captive breeding in Mongolia.
- Limit captive breeding and reintroduction programs to Mongolian extant species or to those whose extinction is otherwise imminent.
- Carry out necessary research before embarking on captive breeding project.
- Monitor captive breeding programs carefully.
- Improve the facilities and work of the Ulaanbaatar Botanic Garden, focusing on educational programs.

Objective 15: Adopt legislation and policies to ensure the conservation of biological diversity that require the integration of conservation and environmental protection into sustainable development.

15. Has your country integrated the conservation and sustainable use of biodiversity as well as benefit sharing into relevant sectoral or cross-sectoral plans, programmes and policies? (decision VI/27 A)	
a) No	
b) Yes, in some sectors (please provide details below)	X
c) Yes, in major sectors (please provide details below)	
d) Yes, in all sectors (please provide details below)	

Further information on integration of the conservation and sustainable use of biodiversity and benefit-sharing into relevant sectoral or cross-sectoral plans, programmes and policies.

Within the frame of Action plan to combat with desertification it is indicated "to reduce the negative influence of desertification caused by climate change and inappropriate human activities, to identify methods of adaptation to such conditions, to conserve the natural environment within its carrying capacity, and to plan and implement social and economical development policy and actions with several stages adapting to regional specific situations". In conjunction with this purpose, it is planned to organize activities toward improving legal conditions to combat with desertification and economical organization, toward developing the policy of sustainable exploitation and conservation of pasture and natural resources of areas that suffer from desertification.

Although one of the planned activities in the "National program of biodiversity conservation" is about paying attention to economically important and rare and endangered plant species, the legal conditions and its implementations of this issue is still weak.

The mammal and fish biological diversity workshop was organized in 2006, in cooperation with British Zoological society and produced series of Mongolian mammals and fish red list (2007) and mammal and fish conservation plan.

Conservation and sustainable exploitation of endangered plants, and experiece of sharing the profit have not shaped yet.

16. Are migratory species and their habitats addressed by your country's national biodiversity strategy or action plan (NBSAP)? (decision VI/20)	
a) Yes	x
b) No	

I) If **YES**, please briefly describe the extent to which it addresses	
(a) Conservation, sustainable use and/or restoration of migratory species	Complete studies of migrating taxa have not been accomplished in Mongolia. However, there are many on-going studies of particular migrating taxa in the scietific institutions and universitites. For example, within the frame of the "Conservation of Great Gobi and its Umbrella Species" project of GEF, it has been conducted research on behavior and reproduction rate of wild bactrian camels and showed that reproduction rate of wild camels is normal. Historical ditribution area of wild bactrian camels covered Central Asia and Mediterranian, including Mongolia. However, due to reduction of their number and habitat area, current distribution include only four

	separate populations each having few individuals. These populations are: Transaltai Gobi of Great Gobi Strictly Protected Area (GGSPA), Lake Lob area, Gansu region of Peoples Republic of China, and Taklaman desert. The project croganized joint field research expeditions of Mongolia and China with the support of British camel conservation association in areas of GGSPA and Lake Lob and initiated transboundary cooperation on conservation and research of migrating taxa.
(b) Conservation, sustainable use and/or restoration of migratory species' habitats, including protected areas	There is a strong need to analyze information about population and distribution of diversity of endangered, rare, endemic and hunting plant and animal species
(c) Minimizing or eliminating barriers or obstacles to migration	Research studies of endangered Mongolian species –argali is now on going.
(d) Research and monitoring for migratory species	Trainings of field research study methods and of conservation of ecosystem that compose biodiversity have been organized among the specialists of protected areas, rangers and military staff of the border. Furthermore, the rangers are involved in professional license tranings. In addition, within the frame of the project it was surveyed the fauna of the protected area.
(e) Transboundary movement	
II) If **NO**, please briefly indicate below	
(a) The extent to which your country addresses migratory species at national level	
(b) Cooperation with other Range States since 2000	

Biodiversity and Climate Change

17. Has your country implemented projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use? (decision VII/15)	
a) No	
b) No, but some projects or programs are under development	
c) Yes, some projects have been implemented (please provide details below)	X

Further comments on the projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use.

Due to climate changes and destructive human activities the growth of pastureland plants has been reduced, the composition of plant species has been modified, and consequently the weights and fatness of some species of livestock i.e. sheep, goats and cattle have been reduced. According to the reports on plant growth rates (observations and measures on plant growth were reported once every ten days) provided by over 60 meteorological stations in different natural zones in the country, the plant sprouting period in the areas other than alpine zones has started earlier in springs and the highest amount of pastureland plant growth rates has been reduced by 20-30 % throughout the country.

Climate changes are easily observed with changes to vegetation covers in the natural zones. However, it is impossible to preliminarily identify with how many kilometers the natural zone boundaries/edges would be changed within several decades. As a precaution, areas of alpine forest taiga zone are intended to be expanded, but the Gobi and desert region to be stretched into steppe region and the steppe region into the forest steppe.

According to the results of modeling of potential impacts of climate changes on pastureland state the plant growing conditions in alpine zone and Gobi/desert region are likely to be improved, but they are to be reduced in forest steppe and steppe regions due to warming process. The highest rate of summer pastureland plant growth is expected to be reduced by 1.0-0.4 % in forest steppe and steppe regions in 2010-2039, increased by 5.0 % and reduced by 11.9 % in 2040-2069, and by **7.1-37.2** % within the last 30 years of this century. In general, dryness is getting increased, so that ratio of carbon and nitrogen and content of proteins in plants are likely to be increased.

Many projects, programs and activities of climate change and of reducing desertification are implemented. According to Mongolian specific characteristics, local level activities to improve pasture exploitation, to establish green sites and groves and to produce green constructions in settlements of dry arid areas were planned and implemented.

"**Green gold**" Pasture Management Program funded by Swiss Development and Cooperation Agency (SDC) with main goal to strengthening the self-reliance of poor and vulnerable herders and to improve their livelihoods through more productive and sustainable use of pastures in Mongolia. The project will (i) test new pasture improvement technology and forage production to be adapted by herders, (ii) introducing co-management schemes for managing pasture with involvement herders, local government and other relevant stakeholders and (iii) to demonstrate on enabling legal environment for pasture, improvement and co-management.

"**Rural Poverty Reduction Program"** by International Fund for Agriculture Development (IFAD) is working in following areas: (i) Livestock and Natural Resource Management including establishment of Rangeland Management Monitoring Committee (RMMC); introduction ecologically based management of rodents pests; experiments and demonstration on hay improvement, cultivating green fodder; improvement of veterinary

medicinal services with purpose to help maintaining sustainable growth of livestock and improve livestock productivity.

"**Agriculture Sector Development Program**" by Asian Development Bank (ADB) with goal to develop amore market oriented, efficient and sustainable agriculture sector and reduce poverty by providing increased income opportunity. One of the main component of this program is rehabilitation of well in rural areas. As year 2007 total 400 wells were rehabilitated and it contributed to improvement of pasture management.

"Strategy of pasture risk management" The goal of the project is to improve herder livelihoods and food safety and to develop the planning of national, aimag, and soum level organizational capacity, livestock pasture risk and distrurbance management. Further the project will propose to broaden and include this strategy in the national and aimag plannings. It is been given great effort to produce experienced strategy and plan that could contribute to successful implementation of Governmental strategy and projects of other donor organizations.

With the purpose to help the families that suffered from zud (extreme cold/snow), the disturbance project provided funding for medical supplies and forage for those families' livestock. This way the families' livestock production capacity could be enhanced. In some areas where this project is implemented, it is been tested the activities to provide the herders with livestock within the relative/colleague cooperatives.

"**Sustainable pasture management**" project goal is to improve herder family livelihoods through developing sustainable pasture management in Mongolia. Major method to reach the goal is to strengthen the traditional herding system and to involve the herders into official adiministration structure and to connect the herders with private organizations.

Energy Efficient Housing project goal is to protect the environment through reducing CO2 emissions that are a direct result of the coal and wood that is burned in Mongolia. As an alternative, this project promotes the use of straw-bale building and other energy efficient technologies as a commercially viable alternative. For more information: http://www.un-mongolia.mn/undp

18. Has your country facilitated coordination to ensure that climate change mitigation and adaptation projects are in line with commitments made under the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification? (decision VII/15)	
a) No	
b) No, but relevant mechanisms are under development	
c) Yes, relevant mechanisms are in place (please provide details below)	X

Further comments on the coordination to ensure that climate change mitigation and adaptation projects are in line with commitments made under the UNFCCC and the UNCCD.

One initial conditions to implement the biodiversity convention is to improve conditions of degraded or altered habitats by concentrating on issues of desertification, forest program, integrated water management and initiatives to conserve wetlands. Such activities will play key role in establishing initial conditions for full range of biodiversity (habitat diversity, species diversity) conservation actions and to reduce the climate change effects. Unfortunately, all these activities and initiatives are implemented separately thus are strongly critiqued by the wide range of people. Coordination and harmonization of these

activities implemented weakly in Mongolia.

Box XLII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

List of rare and endangered plant species were produced in 1995 as an attchment for the Mongolian environmental law. Even though, plants and animals that included in Mongolian red book are protected legally, it is necessary to pay attention to implementation of the law and to renew the list.

There are many activities organized within the general frame of biodiversity conservation and sustainable exploitation of resources. Efficient strategy for sustainable biological resource exploitation is necessary in Mongolia. For example: activities such as to collect pine nuts, to determine amount of resources of medical plants and collect them, illegal exploitation of some materials from poaching with the purpose to gain profit, reduce current resources of animals that have high profits and alter the habitats while using the resources could have harmfull effects. This is connected with lack of efficient policy and strategy about sustainable exploitation of natural resources and mechanisms to implement the policy and strategy were not formulated or conditions for implementation have not been shaped. Steps toward implementing the action plan for biodiversity conservation have made but it still need to be broadened.

Further, the environmental issues need to be considered as complex biological phenomena of the whole ecosystem from one side or as a consequence and factor for the social development from the other hand and all the initiatives and activities related to this direction need to be harmonized to such principles.

Millenium development goals were intensively implemented by the Mongolian Government and Prime Minister lead the team to develop "National development complex policy of Mongolia". Planned activities to implement the Millenium development goals were developed involving every ministries of Mongolia and Ministry of Finance is calculating all of the expenditure for this goal.

According to implementation of goals of environmental sector, complex methods to reduce sources of the air pollution were considered and intervention expenditure for establishing network and controlling system of air pollution, and improving the capacity, providing new gas and liqued fuel technology, establishing industry to emit coal gas and to coke the coal, increasing use of regenerative energy, reducing smoke and poisonous gas from autotechniques, and improving the road system of Ulaanbaatar were calculated following the regional recommendations.

Article 7 - Identification and monitoring

19. ◇ On Article 7(a), does your country have an ongoing programme to identify components of biological diversity at the genetic, species, ecosystem level?

a) No	
b) Yes, selected/partial programmes at the genetic, species and/or ecosystem level only (please specify and provide details below)	X
c) Yes, complete programmes at ecosystem level and selected/partial inventories at the genetic and/or species level (please specify and provide details below)	

Further comments on ongoing programmes to identify components of biodiversity at the genetic, species and ecosystem level.

a. On ecosystem level:

The Mongolian ecosystem map (1:1000000) was published in 1995. Displayed in this map, Mongolia has 429 types of mid level ecosystems.

The Institute of Botany at the MAS conduct long term ecosystem monitoring studies throughout the major zones of Mongolia. Forest ecosystem study sites were established in Khyalganat of Bulgan aimag in 1991 and in Shariin gol of Selenge aimag in 2001. A steppe ecosystem site was established in 1982 in the Tumentsog soum of Sukhbaatar aimag, with a dry steppe study site established in Bayan-onjuul soum of Tuv aimag in 1973-1976, and reopened in 1999. A desert steppe site, located in the Bulgan soum of Umnugobi aimag, was studied in 1970-1977, and then reopened in 1999. Flora and fauna monitoring, soil, climate and vegetation dynamic studies are conducted in these study sites. These studies are also included in the joint Mongolian-Russian biological expedition programme. The compositions of fauna and flora, and major ecosystem types, have been determined in these areas .

The Institute of Biology at the MAS monitors selected rare and threatened animals in at both a population and ecosystem level.

Development of the Red List and associated action plan for the conservation of rare species using integrated biodiversity assessment methods was initiated in 2005. As part of this work, all vertebrates were assessed by the new IUCN criteria with the first red list being published with financial support by the Netherland's Goverment. "

The Red List of Mongolian fish serves as the basis of fish conservation material. It therefore assists in the assessment of population changes in game fish. Such information then informs the development of policy, management activities and ranger programmes.

A complete wetland inventory was accomplished in 2003. Results of this stufy show that wetlands cover approximately 6% of Mongolia. Presently, a further evaluation of the wetlands is planned, with an emphasis on IUCN criteria and bird conservation. This study will be conducted in conjunction with an international bird conservation organization (BirdLife).

20. ◇ On Article 7(b), which components of biological diversity identified in accordance with Annex I of the Convention, have ongoing, systematic monitoring programmes?

a) at ecosystem level (please provide percentage based on area covered)	x
b) at species level (please provide number of species per taxonomic group and percentage of total known number of species in each group)	x
c) at genetic level (please indicate number and focus of monitoring programmes)	x

Further comments on ongoing monitoring programmes at the genetic, species and ecosystem level.

b. At a species level

A number of animal species, including gazelle (*Procapra gutturosa*), wild bactrian camel (*Camelus ferus*), saiga (*Saiga tatarica mongolica*), Gobi bear *(Ursus arctos lsabellinus)* and beaver (*Castor fiber*) have an incomplete record of scientific research.

c. At a genetic level

Economically, scientifically and socially important genomes and genes:

- "Cytochrome b gene study of Mongolian horses (*Equus caballus*)"
    1. While nucleotid order of mitochondrial cytochrome b gene was determined,, it was found that a high frequency of point transverse mutation occurs amongst Mongolian horses (*Equus caballus*)
    2. The Mongolian horse population has 8 gaplotype with a 1-24 site difference in their cytochrome b gene. From these gaplotypes, B is dominant and A, G and H gaplotypes have a low frequency.

Genetic studies of wild horses (*Equus przewalskii*) that were reintroduced in Mongolia have revealed that individuals with more than F=0.2 inbriding coefficient compose 21% of the Hustai population while such individuals compose 7% in Takhiin tal. Therefore, it is more appropriate to breed Homiin tal wild horses with Takhiin tal wild horses.

21. ◇ On Article 7(c), does your country have ongoing, systematic monitoring programmes on any of the following key threats to biodiversity?

a) No	
b) Yes, invasive alien species (please provide details below)	
c) Yes, climate change (please provide details below)	x
d) Yes, pollution/eutrophication (please provide details below)	
e) Yes, land use change/land degradation (please provide details below)	x
f) Yes, overexploitation or unsustainable use (please provide details below)	x

Further comments on monitoring programmes on key threats to biodiversity.

The Institute of Botany of MAS conduct research on changes in vegetation dynamics and biodiversity due to climate change and negative human influences. This research is primarily conducted through the projects "Vegetation dynamics and monitoring of Mongolia" and "Mongolian forest reproduction, development and long term monitoring study". These projects focus on the impacts of pastoral overgrazing, forest fires, deforestation and vegetative community change due to technically induced erosion, and rehabilitation techniques.

One of the Institute's primary themes involves conducting research toward developing biological rehabilitation techniques in mine sites, and in the technically degraded lands of different zones of Mongolia.

A study focussing on climate change was conducted through the research project titled "Impacts of climate change on ecosystems and livestock husbandary and their adaptations." This study was conducted at the Institute of Hydrometeorology with the support of GEF, UNEP, START and AIACC. Complete research results have been published as four series of books.

Mongolian flora diversity and composition is unique and most of the plant taxa are representatives of Central Asia. Intensive exploitation of some plant species, especially useful plants, has resulted in a decline in their density and extent. For example, human

available resources from the following plants have declined significantly: *Glycyrrhiza uralensis Fisch.*, *Adonis mongolica Simonovich*, *Allium altaicum Pall.*, *Sophora alopecuroides L.*, *Sambucus manshurica Kitag.*, *Allium lineare L.*, *Carum L.*, Rosa laxa Retz., *Elaeagnus L.*, *Tamarix L.*, *Populus diversifolia Schrenk*, *Haloxylon ammodendron C.A.Mey. Bge.*, *Abies sibirica Ldb.*, and *Picea obovata Ltd.*

According to the 153rd resolution of Mongolian Government, the list of rare Mongolian plants include 355 species of vascular plants, 11 species of lichens, 5 species of algae, 4 species of mosses, and 5 species of fungi.

The main anthropogenic factors impacting on the biodiversity and ecosystems of Mongolia are grazing pressures, deforestation, forest fires, ploughing of the soil and the exploitation of land for settlement areas and mining purposes.

Eighty percent of Mongolian pastureland has changed in some level, and 3.2 million hectares of pasture have been overgrazed. In addition, large areas of pastureland have affected by the movement of sand, water and the installation of road networks. Pests have also caused widespread damage on pastoral resources. For example, Brandt's vole is currently distributed throughout 25 000 000 hectares in Mongolia with grasshoppers distributed throughout 30 000 000 hectares of Hovd, Gobi-Altai, Bayan-olgii, Hovsgol, Uvurhangai and Bulgan. Human utilisation of wild animals, including for traditional hunting, is resulting in reductions in population number.

Currently, the Mongolian Red Book (1997) includes 30 species of rare and endangered mammals. According to Mongolian Government resolutions (2001),thirteen endangered and twelve rare mammals are found in Mongolia. Eleven species of mammals are reported in the International red book of conservation of nature and natural resources as being either extinct or endangered.

22. ◇ On Article 7 (d), does your country have a mechanism to maintain and organize data derived from inventories and monitoring programmes and coordinate information collection and management at the national level?

a) No	
b) No, but some mechanisms or systems are being considered	
c) Yes, some mechanisms or systems are being established	
d) Yes, some mechanisms or systems are in place (please provide details below)	X
e) Yes, a relatively complete system is in place (please provide details below)	

Further information on the coordination of data and information collection and management.

Environmental data collection and manipulation are an important tool in managing environmental issues. Statistics are usual for informing biodiversity conservation, the sustainable exploitation of natural resources and the development of government policies and laws. Additionally, the rehabilitation of overexploited natural resources, the implementation of sustainable practises, the maintenance of an ecological balance, the intensification of technological processes, increased economic efficiencies, ongoing research, improved environmental assessments and linkages with international cooperations can be improved by an efficient data and informatino collection and management system. The following data and information activities are organised in Mongolia with the aim of accomplishing the above.

a. State of Environment Report

The primary goal of Mongolia's environmental sector, as stated in the Mongolian Environmental Law, is to regularly monitor the status of the environment and its natural

resources, and to provide safe and healthy conditions for people by maintaining environmental conditions within an appropriate range, and to provide a stable basis for the social and economical development of the country.

According to 9th provision of the 12th article of Mongolian Environmental Law, the results of environmental research , with the "State of Environment" report to the State Great Hural, provide the basis of governmental natural resource management policies and resolutions.

We used data and information from MNE and subordinate MNE agencies, including the National Agency for Meteorology and Hydrology and Environmental Monitoring, Insitute of Hydrometeorology, Mongolian Government implemetation agency - Water Authority, Center of Forest and Water Survey, Central laboratory of Environment and Meterology, Ministry of Food and Agriculture, Ministry of Fuel and Energy, Ministry of Health, Ministry of Construction & Urban Development, the subordinate agency of Ministry of Construction & Urban Development-Office of Mineral resources and Petroleum Authority of Mongolia and Environmental sector of Office of Mineral resources and Petroleum Authority, Institute of Biology and Institute of Botany of Mongolian Academy of Sciences to provide the scientific basis for this report.

b. Environmental Statistics of Mongolia (2002). In general all statistics are governed by the Law on Statistics. Article 6.2 of Law on Statistics indicates that relevant ministries and agencies are responsible for their own statistics. In this regard, the Ministry of Nature and Environment is responsible for all environmental statistics. Environmental statistical information includes the following:

- Land degradation ;
- Inventory of drinking water, water utilisation, waterway pollution, water treatment and water wastage;
- Air pollution;
- Forest conservation and reforestation;
- Numbers of protected wild animals; and
- Hunting figures.

With the aim of improving the quality of environmental statistics, the National Statistical Office cooperated with the Ministry of Nature and Environment to revise data collection forms so they conform with International Standards, to improve the data collection and processing framework, to avoid data duplication, remove inapplicable fields and add necessary fields.

Environmental Database: The Law on Environmental Protection clearly describes the establishment of an Environmental Database. This database will be three-tiered, divided into a *soum, aimag* and national database. Information for this database will be derived from scientific studies conducted by central government organisations and other research institutes and will include data on soil characteristics and related resources, and the results of research on forest dynamics, hydrology, fauna, flora and air. Data on environmental impact assessments will be included in the *soum* and *aimag* environmental databases.

An integrated database of biodiversity does not exist in Mongolia, access to data and the exchange of data is limited, and cooperation among organisations is still poor. The Mongolian Academy of Sciences will begin to establish an integrated database of environment and natural resources from 2007 to enhance data and information exchange amongst the organisations. Mongolian flora fund data exists at the Institute of Botany at the MAS, and the Institute of Biology of at the MAS has integrated data on some mammal species' population dynamics. Due to financial shortage, however, not all of the mammals have been included. The MNE has information on "economically important" species whose hunting licenses could be sold (argali, red deer, fish, falcon etc). The integration of databases is at its infancy, is conducted by different projects and is poorly regulated.. It is necessary that the government and research institions urgently develop agreed procedures

and protocols for the creation of an integrated environmental database. The project titled "Geographical information center of natural resources management " is currently implemented at the MNE with the support of Netherland Government.

23. ◇ Does your country use indicators for national-level monitoring of biodiversity? (decision III/10)	
a) No	
b) No, but identification of potential indicators is under way (please describe)	
c) Yes, some indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented)	x
d) Yes, a relatively complete set of indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented	

Further comments on the indicators identified and in use.

National Action Plan on Conservation and Sustainable Use of Rare Plants (2002) sets the following indicators:

- Increase in habitat area, population number is increased;
- Approved relevant policy and programmes on conserving rare plants;
- Number and size of nurseries and botanic gardens for conserving rare plants;
- The affect of rehabilitation measures on rare plant species (size area and agro-technology used);
- The inclusion of areas with rare plant species into the state and local level protected area network; and
- Increase in the number of projects, research reports and results on the conservation and sustainable use of rare plant species.

National Forest Programme (2001) sets the following indicators:

- Income generation, assure food security and increased household income through non-timber forest product use;
- Participation by the community in forest management is increased, employment has been created and household income has increased; and
- Up to 15% of the total forest area damaged by pest invasion, forest fires and previously deforested areas is reforested.

Box XLIII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

The following research studies are conducted within the "Seeds, seed morphology, cytology, embriology, and physiology studies of Mongolian useful plants" project of the Institute of Botany of MAS. This project seeks to increase appropriately use of biological resources and minimise human-influenced threats to biodiversity.:

Natural distribution, resources and biological and ecological study of useful plants

The "Database of Mongolian rare and useful plants" has been preparing. Currently, this database include 86 plant species' nomenclature, phenology, distribution, resources, environment, other important (parts and organs that are useful, compounds within that part or organ, medicinal use) information. These plant species are abundant in the mountain steppe zone. Most of them belong to the mesophytic ecological grouping. By life form they are perennial grass species with many of them having biologically active compounds such as vitamins, flavonoid and cumarin.

The Botanical garden of the Institute of Botany has a collection of Mongolian trees, shrubs, ornamentals and rare plants, and is currently organising activities to collect and reproduce species.

The Botanical garden, founded in 1970, currently has 112 species of coniferous and broadleaved trees and shrubs, seeds, seedlings, and vegetative branches of 50 species of ornamental plants. The survival rate, climatic preference , biology, reproducion, development and reintroduction of these species has been studied and now can be used for horticultural purposes.

Additionally, 18 rare species of 6 families, including, *Tulipa uniflora (L.) Bess, Adonis mongolica Simonovicz, Paeonia anomala L., P.lactiflora Pall., Lilium bushianum Lodd., L.dahuricum Ker-Gawl., Allium altaicum Pall.* Have been reintroduced.

- The seeds of 70 plant species have been eexchanged with foreign countries, with some of these being planted locally. Most of those planted were ornamentals, including 7 species of shrubs such as *Armenica manshurica (Maxim.)* and *Skvort., Lonicera maakii Rupr.*
- Tissue culture studies of plant species whose seed sources are rare or have low the capability of regenerating through sexual or asexual reproduction have been conducted.

Highly valued plants, such as *Saposhnikovia divaricata (Turcz.), Schischk., Haplophyllum dauricum (L.)* G.Don and *Glycyrrhiza uralensis Fisch*., whose natural range and/or density has decreased, are studied at the Botanical garden. Poopulation dynamics and the reproductive capacity of useful plants are important from the view of biodiversity conservation.

Decisions on Taxonomy

24. ◇ Has your country developed a plan to implement the suggested actions as annexed to decision IV/1? (decision IV/1)	
a) No	X
b) No, but a plan is under development	
c) Yes, a plan is in place (please provide details below)	
d) Yes, reports on implementation available (please provide details below)	

Further information on a plan to implement the suggested actions as annexed to decision IV/1.

Activities that proposed in the attachment of the resolutions IV/1 have not planned yet. However, some proposed activities, for example preparation of professionals, cooperation research projects and expeditions are implemented. Thus it is necessary to integrate following activities and develop plan of further activities.

25. ◇ Is your country investing on a long-term basis in the development of appropriate infrastructure for your national taxonomic collections? (decision IV/1)	
a) No	
b) Yes (please provide details below)	X

Further information on investment on a long-term basis in the development of appropriate infrastructure for your national taxonomic collections.

The Institute of Botany has about 80000 specimens of 2739 native, vascular plant species belonging to 610 genus and 105 families. The Institute also has 16500 specimens of moss, 10000 specimens of lichens, 40000 specimens of algae and 3000 specimens of fungi. The work to establish a digital database of these specimens using 30 criteria questions is being implemented successfully. The criteria questions cover information including taxonomic units, scientific and Mongolian names, habitat, ecology, abundance, and distribution, and photos from both the field and the herbarium. Additionally, the collection and storage of Mongolian vascular seeds to create a seedbank is being established, and a digital database establishment study of these seeds is ongoing. Currently, seeds of 338 species of vascular plants of 56 families have been collected. This collection include rare, very rare, and endangered species' seeds and is therefore important for the conservation of the species.

The Institute of Biology and Botany, other research institutions, NUM, other universities, and museums have rich collections of wild animals, plants, microorganisms and soil specimens/samples. Unfortunately, most of these institutions have poor storage and preservation conditions that do not meet minimum taxonomic requirements and are not being managed in a systematic network. Whilst the Institute of Biology of MAS is a member of the "EASIANET" of "BioNet International", the international taxonomy organisation of the Biodiversity Convention, the national Government does not pay sufficient attention to taxonomic storage and collection in the form of policies and management. It is therefore difficult to receive funding from international organisations. A national seminar of taxonomists that include representatives from different institutions, determine current state and future trends, develop long and short term programmes and solve funding problems is therefore necessary.

A collection cabinet and database of animals, plants and microorganisms has been established at the Biology faculty of NUM and the herbarium collection and storage conditions have been improved with the help of the Institute of Botany of MAS and the Institute of Botany of the Chinese Academy of Sciences. The Institute of Biology of MAS invited an expert from Russia with the purpose of improving storage conditions of stuffed specimens. The expert evaluated current conditions of the collections, determined future activities and organised training. The Institute of Biology planned to improve storage conditions of its microorganism collection and asked for support and co-operation from Japan's Technology and Assessment National Park. By the 2004 resolutions of the Ministry of Education, Culture and Science, specimen storage of the industrially useful families of microorganisms will be concentrated at the Microbial synthesis laboratory of the Institute of Biology.

These ongoing improvements show that long-term funding is being provided to strengthen taxonomic collections, improve infrastructure and increase efficiency of their use.

26. ◇ Does your country provide training programmes in taxonomy and work to increase its capacity of taxonomic research? (decision IV/1)	
a) No	
b) Yes (please provide details below)	X
Further information on training programmes in taxonomy and efforts to increase the capacity of taxonomic research.	
A Memorandum of Understanding between the Mongolian Academy of Sciences and Japan's Technology and Assessment National Park was signed in June 2006, and a joint project titled "Mongolian microorganism taxonomy, ecology and usage" has been implemented at the Institute of Biology. Within the context of this project, activities to strengthen taxonomic capacity through the improvement of laboratory capacity and the training of professionals in new identification methods was organised. Additionally, 6 professonals from the NUM, the Institute of Plant Protection, the Professional Control Agency, and the Institute of Biology were involved in the training organised by EASIANET, ASEANET of Bionet-INTERNATIONAL. During this training, methods of identifying microfungi that produce plant desease and insects and modern microorganism taxonomy and storage method were covereed. The GEF/UNDP funded project "Conservation of Great Gobi and its umbrella species" sought to clarify the taxonomic status of the wild bactrian camel and the Gobi bear. Several other research projects funded from the Mongolian Science and Technology fund covered issues of taxonomy. For example, the project titled "Microorganism ecology, taxonomy and biologically active compounds" worked with microbial taxonomy issues.	

27. ◇ Has your country taken steps to ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable? (decision IV/1)	
a) No	
b) No, but steps are being considered	
c) Yes, for some institutions	
d) Yes, for all major institutions	X

28.* [2] Is your country collaborating with the existing regional, subregional and global initiatives, partnerships and institutions in carrying out the programme of work, including assessing regional taxonomic needs and identifying regional-level priorities? (decision VI/8)	
a) No	
b) No, but collaborative programmes are under development	X
c) Yes, some collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessments)	

[2] The questions marked with * in this section on Taxonomy are similar to some questions contained in the format for a report on the implementation of the programme of work on the Global Taxonomy Initiative. Those countries that have submitted such a report do not need to answer these questions unless they have updated information to provide.

d) Yes, comprehensive collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessment and priority identification)	

Further information on the collaboration your country is carrying out to implement the programme of work for the GTI, including regional needs assessment and priority identification.

Mongolia is a member of the EASIANET of Bionet-International with the Institute of Biology of MAS acting as a host regulating institution. In 2002, Mongolia participated in the regional seminar of the World Taxonomic Initiative in Malaysia, presented Mongolian taxonomic needs, presented on the status of national research and future trends and contributed to evaluations of taxonomic needs. The evaluation determined that the primary knowledge/skills gaps in the region are limited funds available for taxonomic education and a lack of professional taxonomists.

29. * Has your country made an assessment of taxonomic needs and capacities at the national level for the implementation of the Convention? (annex to decision VI/8)

a) No	
b) Yes, basic assessment made (please provide below a list of needs and capacities identified)	X
c) Yes, thorough assessment made (please provide below a list of needs and capacities identified)	

Further comments on national assessment of taxonomic needs and capacities.

During 2005, the Microbiology laboratory of the Institute of Biology evaluated the taxonomic demand, requirements, and capacity of universities, research institutions and other organisations requiring taxonomic services and determined that laboratory capacity of taxonomic research and training organisations do not meet Biodiversity convention requirements. The laboratory identified the need to improve the professional level of taxonomists, establish modern taxonomy laboratories and train younger generation of taxonomists.

The workshop titled "Mongolian and transboundary area biodiversity: natural resources, biodiversity and future ecological trends," held in Ulaanbaatar during 200,5 recognised the importance of identifying poorly studied species, microorganisms that are difficult to identify, primitive plants and soil micro- and mesofauna.

Taxonomic studies have shown that four species of forest insects, the Siberian silkworm, Gypsy moth, Jacobson looper and Larch bud moth, play major roles in forest degradation. Grasshopper studies have recorded forty eight species or subspecies of three families of grasshoppers in the area of of Dornod and Sukhbaatar aimags. Forest steppe, steppe and mountain steppe zones each have two dominant species of grasshoppers. Taxonomic research into water beetles have identified forty seven species of five sub families, eight tribes and twelve genus. Twenty of these forty seven species were first recorded in Mongolia and one species, *Oreodytes shorti,* was first recorded in the literature. Scientific knowledge on Mongolian Coleoptera: Dytiscidae fauna has been enriched by the discovery of twenty one species, the total known richness now reaching eighty four species. Mongolian insect fauna knowledge was enriched when species *Acheta domesticà* (*Orthoptera: Gryllidae*) and *Actias selene* (*Lepidoptera: Saturniidae*) were first collected and stored.

Work conducted in protected areas such as Mongol Daurian Strictly protected area and listed 171 species of birds in Hustai, 134 species in Gurvansaihan, 223 species in Onon-Balj, 89 species in Ikh Bogd and 219 species in Darhad valley. The recommendations to strengthen conservation and to implement appropriate tourist policies, and management plan were produced.

30. * Is your country working on regional or global capacity building to support access to, and generation of, taxonomic information in collaboration with other Parties? (annex to decision VI/8)	
a) No	
b) Yes, relevant programmes are under development	
c) Yes, some activities are being undertaken for this purpose (please provide details below)	X
d) Yes, many activities are being undertaken for this purpose (please provide details below)	
Further comments on regional or global capacity-building to support access to, and generation of, taxonomic information in collaboration with other Parties.	
The project titled "Mongolian biodiversity database" was initiated in September 2005 at the environmental reform dedicated Steppe Forward Programme of ZSL, as supported by the Netherland Government Trust Fund and the World Bank. Mongolian mammal, fish, amphibians and reptiles database is currently developed. These databases include taxonomic information of each species, regional conservation levels, evaluation background, conservation status, world and regional distribution, major reasons of extinction according to IUCN regional red list classification and criteria. The databases enable international level open access to the information of Mongolian biodiversity, especially to information of biodiversity taxonomy. Additionally, within the context of the Asian consortium, activities to to establish a microorganism database to assist with their conservation and sustainable usage initiated. Mongolians particiated to AO 2000 species program workshops and presented information Mongolian biodiversity.	

31. * Has your country developed taxonomic support for the implementation of the programmes of work under the Convention as called upon in decision VI/8? (annex to decision VI/8)	
a) No	X
b) Yes, for forest biodiversity (please provide details below)	
c) Yes, for marine and coastal biodiversity (please provide details below)	
d) Yes, for dry and sub-humid lands (please provide details below)	
e) Yes, for inland waters biodiversity (please provide details below)	
f) Yes, for mountain biodiversity (please provide details below)	
g) Yes, for protected areas (please provide details below)	
h) Yes, for agricultural biodiversity (please provide details below)	
i) Yes, for island biodiversity (please provide details below)	
Further comments on the development of taxonomic support for the implementation of the programmes of work under the Convention.	

Particular taxonomic work to support the topic sectors have not been accomplished. Training of taxonomic specialists and the establishment of databases have been accomplished, however (see answers 1 - 3).

In terms of forest and agricultural biodiversity, related environmental legislations, resolutions and conventions (IY/7, YI/8) emphasises soil organism taxonomy.

The taxonomy of arid and desertified areas' soil lichens, algae, and invertebrates will be emphasised (YI/8)

32. * Has your country developed taxonomic support for the implementation of the cross-cutting issues under the Convention as called upon in decision VI/8?	
a) No	X
b) Yes, for access and benefit-sharing (please provide details below)	
c) Yes, for Article 8(j) (please provide details below)	
d) Yes, for the ecosystem approach (please provide details below)	
e) Yes, for impact assessment, monitoring and indicators (please provide details below)	
f) Yes, for invasive alien species (please provide details below)	
g) Yes, for others (please provide details below)	

Further comments on the development of taxonomic support for the implementation of the cross-cutting issues under the Convention.

Any taxonomic work have not been accomplished to implement inter-sectoral issues but preparation of taxonomic specialists, and establishment of database have accomplished (see above)

Article 8 - *In-situ* conservation [excluding paragraphs (a) to (e), (h) and (j)]

33. ◇ On Article 8(i), has your country endeavored to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components?	
a) No	
b) No, but potential measures are being identified	
c) Yes, some measures undertaken (please provide details below)	X
d) Yes, comprehensive measures undertaken (please provide details below)	

Further comments on the measures taken to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components.

The Law of local Protected areas Buffer Zone has been ratified and implemented in order to conserve biodiversity and natural habitats, and to develop current resource utilisation in harmony with conservation. This law stated that it is possible to implement activities to support local people's livelihood to a certain level without harm to biodiversity and natural habitats.

The project "Eastern Mongolian biodiversity conservation" sought to prepare advanced land management techniques in the territory of special protected area aimings to assist in the development of biodiversity conservation, especially of protected areas, and

human utilized areas around these areas. Rising out of this project is an acknowledgement that the protected area network should be expanded to cover a greater proportion of of key species' distribution This work is still at the evaluation state, though areas covered in the preliminary research will be feed into the plan of reclaiming areas for the protected area network.

The project "Biodiversity conservation by involving the public in Altai-Sayan eco-zone" will implement biodiversity conservation on the basis of land management utilizing principles of landscape ecology. Zonal development having the least effect on the biodiversity habitat will be examined in this project. A pilot study assessing natural resource utilization by local people and the improvement of current natural resource management is planned.

As part of a programme of the German technical cooperation association, a wildlife census was conducted to feed into management plan on wildlife conservationin thein Mungunmorit soum of Tuv aimag and Batshireet soum of Khentii aimag. As a result of this work, fifty hectares of land in each soum has been taken under local protection for the conservation of wildlife habitat. This implementation of conservation activities in cooperation with local administrative and people will ultimately increase the total population of wildlife, and enable future utilisation through sport hunting.

In each soum, a total of twelve (twenty four in total) people are selected by competition to work as rangers in locally special protected areas. Training of these rangers is provided, and in 2006 a total of eight rangers were trained at Institute "Eco-Asia" staff. In this way, the involvement of local people in nature conservation and training of natural resource utilisation have been constantly encouraged.

In 2006, a location, distribution, and resource survey of hunting wildlife was carried out in the Nature reserve of the Khangai mountain range.

34. ◇ On Article 8(k), has your country developed or maintained the necessary legislation and/or other regulatory provisions for the protection of threatened species and populations?

a) No	
b) No, but legislation is being developed	
c) Yes, legislation or other measures are in place (please provide details below)	X

Further information on the legislation and/or regulations for the protection of threatened species and populations.

The Mongolian laws on "Environment Protection", "Special protected area", "Buffer zone of special protected area", "Natural plants", "Fauna" and "Plant protection" are ratified by the State parliament, and enforced. A list of very rare plants is also ratified by State parliament.

In 1994, the Mongolian government established the "National committee to conserve Mongolian rare animals", and began work on rare animal conservation, including the improvement of relationships between foreign and domestic projects.

The conservation of biodiversity, particularly of endangered species, is statedin legislative documents such as, "Environmental law", "Law on Special protected area", "Law of buffer zone of special protected area", "Law on fauna" and "Law on plants," ratified by the Mongolian government and Parliament. Strategic documents, such as the National programme of biodiversity and the National programme of special protected area, have been prepared and implemented to ensure internationally significant species are conserved., Additionally, laws and programmes on forests and hydrology have been created and implemented in recognition that biodiversity is closely linked to the health of the physical environment.

With the aim of conserving rare and very rare plant diversity, the "List of rare and very rare plants" was produced in 1995, with associated conservation activities being rolled

out in a step-wise fashion. The "Mongolian red book," published in 1997, defined around thirty mammals, such as *Camelus bactrianus*, *Ursus arctos gobensis, Equus przewalskii* and *Saiga tatarica mongolica,* as endangered, and declared seventy percent of habitat area of rare animals such as *Uncia uncia, Ovis ammona* and *Capra sibirica* under protection.

In order to conserve about thirty species of birds categorised in the Red book, Huvsgul, Uvs, khar us, Khorgon, Terkhiin tsagaan, Dayan etc. lakes have been declared fully or partially protected, with an additional improvement in the conservation of migratory and stationary birds. According to researchers, this system of lake protection has also significantly changed population numbers of fish.

Further, one hundred and thirty three types of higher and lower order plants are to be protected with one hundred and twenty eight of them to be included in Red book, which will have a positive effect on their natural regeneration. In this way, until now, 40% of growth habitat of more than 400 rare, very rare and endangered species of plants are taken under full protection.

Within the framework of endangered animal conservation, national programmes have been prepared and an action plan is being implemented. The programmes "Conservation of Red deer", "Conservation of Musk deer", "Conservation of Saker falcon" and "Conservation of Wild sheep" could be mentioned here.

35. ◇ On Article 8(l), does your country regulate or manage processes and categories of activities identified under Article 7 as having significant adverse effects on biological diversity?	
a) No	
b) No, but relevant processes and categories of activities being identified	
c) Yes, to a limited extent (please provide details below)	x
d) Yes, to a significant extent (please provide details below)	
Further comments on the regulation or management of the processes and categories of activities identified by Article 7 as having significant adverse effects on biodiversity.	

The main economic industry of Mongolia is grazing of pasture by domestic stock and this tradition, passed down for centuries, has had an adverse effect on biodiversity, especially on plants. Because of this, provisions to free or limit special protected areas from grazing are stated under natural resource rules and regulations. Apart from this, it is also prohibited to mine or establish of factories and settlements in special protected areas.

The overlap of livestock pastures and wild animal habitats is becoming increasingly risky in recent years. For this reason, the first stage of advanced land management based on landscape-ecological assessment of certain species' habitat has been over a limited area (Altai-Sayan ecozone). As part of this work, the land management plan of the relevant aimag and soum has been revised to adjust with biodiversity conservation.. In doing so,, problems such as overlapping pastures and pasture degradation should be minimised,and, in addition, the use of tangible and intangible natural resources should be rationalized.,

Hunting is included in activities that have adverse effects on biodiversity, and this activity is regulated and limited by the Law of wildlife, a tax imposition on the valuable fur and skin, and the seasonal limitation of hunting. Cooperative conservation activities (such as Snow leopard team) between local administration and the public to conserve some species like Snow leopard also seek to minimize the impact of hunting.

Order #1, 6 January, 2005, by the Minister of Nature and Environment, describes the government's view on the "Upper limit of number of hunting, and capturing animals for household and industrial purpose". This order allowed the hunting of 4850 Mongolian antelope, 40550 fish, 365 wild boar, 460 spotted deer, 2470 water, marsh, forest and steppe birds, 250 fox and steppe fox at a national level, hence contributing to regulation of hunting.

Amongst this total number,500 water, marsh, forest and steppe birds, and 250 fox and steppe fox from Bayan-Olgii aimag, 1600 fish, 100 wild boar, 80 spotted deer, and 300 water, marsh, forest and steppe birds from Bulgan aimag, 200 Mongolian antelope from Dornogobi aimag, 2500 Mongolian antelope and 70 fish from Dornof aimag, 400 fish, 15 wild boar and 50 spotted deer from Zavkhan aimag, 2000 fish from Uburkhangai aimag, 1100 Mongolian antelope from Sukhbaatar aimag, 3850 fish, 65 wild boar, 50 spotted deer and 1500 water, marsh, forest and steppe birds from Selenge aimag, 14000 fish from Khovd aimag, 3500 fish, 70 wild boar, 60 spotted deer from Huvsgul aimag, 2200 fish, 950 Mongolian antelope, 40 wild boar and 60 spotted deer from Khentii aimag, 1000 fish from Darkhanuul aimag, and 100 Mongolian antelope from Gobisumber aimag are allocated for hunting.

In 2005, the upper quantity allowed for a commercial catch of fish was set as ten tons from Achit lake and fifteen tons from Tolbo lake in Bayanolgii aimag, two hundred tons from Buir lake in Dornod aimag, ten tons from Khar lake and ten tons from Bayannuur of Ulaagchin in Zavkhan aimag, thirty tons from Uureg lake and twenty tons from Achit lake in Uvs aimag, and thirty tons from Tsagaan lake in Huvsgul aimag, in total three hundred and twenty five for the nation.

Box XLIV.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation

Mongolia conducted its biodiversity assessment step by step under the Russian-Mongolian Joint Biological Expedition, ongoing since 1970. As a result of this work, the country strictly protects some animal and plants with national, local and international significance.

To protect key species in accordance with basic principles and sustainable development views of the 21st century, 70% of the habitat area of thirty endangered species of animal, and 40% of four hundred rare, very rare and endangered plant species, are fully taken under protection.

As stated in the strategic plan of the convention, Mongolia provides a legislative environment for biodiversity conservation. However there has not been a significant improvement in the implementation of this law. This is due to continuing transitional period of political and economic system, and ubiquitious poverty and unemployment. The majority of public income derived from natural resources including fuelwood and timber preparation, hay making, grazing, mining, hunting and fishing. Although rules and regulations have limited these activities in terms of space and time, there has been very little reduction in their effects observed since 1990. In this way, habitat areas of separate populations have been degraded due to mining, and grazing, with further negative impacts related to the repellent of wildlife from their habitat area, and the reduction of their population due to poaching etc.. Research results are showing the reduction, and even extinction, of Red deer, Forest sable, Musk deer, Mongolian marmot, Fox and Steppe fox. Economically beneficial plants, especially medicinal plants, for instance, *Glycyrrhiza, Sophora, Allium altaicum, Allium obliquum* and *Rhododendron*, are seeing a reduced habitat distribution. However, the biggest achievement of this time will be the preparation of a conservation management plan
adjusted to certain species, and the implementation of national programmes conservating of rare and very rare animal and plant resources.

Aiming to reduce the above negative impacts on biodiversity, many experimental studies (Eastern Mongolian biodiversity conservation project, Snow leopard national programme, GTZ implemented project in Gobi Gurvan Saikhan bio-reserve etc) investigate the possibilities of civil centred biodiversity conservation and opportunities have been carried out under national and international programmes. Today, more attention needs to be
paid on the advantages and achievements of these projects and programmes in other areas and experiences between them need to be exchanged.

The following issues have to be addressed in future activities to conserve biodiversity
and its habitat in-situ:

- Revise mechanisms of law implementation, and the constitutional system of support;;
- Implement professional guidance, training and experiments in order to strengthen local capacity in nature conservation;
- Pay attention to raising public awareness and knowledge about natural resource and by-product utilisation, especially in regards to using renewable energy sources;
- Determine hunting restrictions in local areas, for instance, prohibit hunting during mating and hibernation; and
- Limit domestic consumption by determining distributions of separate population area and taking them under protection.

Programme of Work on Protected Areas (Article 8 (a) to (e))

36. Has your country established suitable time bound and measurable national-level protected areas targets and indicators? (decision VII/28)	
a) No (please specify reasons)	
b) No, but relevant work is under way	
c) Yes, some targets and indicators established (please provide details below)	
d) Yes, comprehensive targets and indicators established (please provide details below)	x

Further comments on targets and indicators for protected areas.

Following the National programme of special protected areas implemented by the Mongolian government, the target to develop a network of special protected areas in accordance with unique features of local conditions and international trends and standard was set. The second stage of of this programme will be implemented from 2005 to 2015, with the following aims

- Special protected areas to occupy up to 30% of territory;
- Develop a network of special protected areas, with its administration, organisation, human resources, techniques and equipments, up to modern requirements; and;
- Develop infrastructure and service orientation to utilise recreational resource and monuments of special protected areas.

The inclusion of these tasks into the Millennium development goals added to their significance.
Criteria to reclaim areas under special categorisation are set by the Institute of Geography of Mongolian Academy of Sciences with progess to take an area under protection assessed according to these criteria. These criteria emphasos the assessment of unique features, and the low level of interference by humans in certain geographical areas. Criteria have to be related to issues of biodiversity conservation, such as:

- o Criteria should be oriented towards the conservation of rare and very rare species or of certain populations whose size has rapidly decreased in recent years, and/or distribution has been reduced; and

Broadening research activities to assess opportunities to restore, rehabilitate, multiply and introduce biodiversity.

37. Has your country taken action to establish or expand protected areas in any large or relatively unfragmented natural area or areas under high threat, including securing threatened species? (decision VII/28)	
a) No	
b) No, but relevant programmes are under development	
c) Yes, limited actions taken (please provide details below)	X
d) Yes, significant actions taken (please provide details below)	

Further comments on actions taken to establish or expand protected areas.

The National Programme on Special Protected Areas, approved by Parliament Resolution No: 29, 1998, states in Chapter 4 "expand the Protected Area network that includes specifically significant areas representing different natural zones in order to ensure ecological balance, preserve natural conditions, restore natural resources and protect natural, historical and cultural heritages by taking not less than 30 per cent of total territory of the country". Under the National Programme, a total of 58 different sites were and are proposed to be studied and assessed for taking under

protection step by step. This includes 11 sites covering 5.4 millions ha in 1998-2000, 24 sites covering 7.1 millions ha in 2001-2005 and 9.4 ha for 2006-2015. There are totally 86 areas listed for proposed Protected Areas.

As mentioned above, the proposed Protected Areas have been studied and assessed step by step. In addition to this, responses for the improvement of established Protected Area management and the expansion of Protected Area territories has been undertaken. The following recommendations have therefore been developed:

- Assess research and scientific studies conducted for biodiversity conservation, and list the proposed PAs in terms of their significance for biodiversity conservation;
- Expand and update the established database on biodiversity with recent research findings and results, and introduce modern advanced technologies;
- Introduce advanced methods and technologies on the preservation of the genefund of biological species;
- Provide Protected Area Administrations (PAA) with professionals and ensure cooperation with respective scientific institutions and universities;
- Assess the economic efficiencies of PAA budgets and funding, seek for alternative funding sources and potential investment and increase and upgrade the current investment system;
- Develop ecological and cognitive eco-tourism activities in order to increase funding for PAs, participation of communities in conservation activities and public awareness; and
- Establish a communication network amongst the established Protected Areas.

38. Has your country taken any action to address the under representation of marine and inland water ecosystems in the existing national or regional systems of protected areas? (decision VII/28)	
a) No	X
b) Not applicable	
c) No, but relevant actions are being considered	
d) Yes, limited actions taken (please provide details below)	
e) Yes, significant actions taken (please provide details below)	

Further comments on actions taken to address the under representation of marine and inland water ecosystems in the existing national or regional systems of protected areas.

Mongolia ratified the Ramsar convention in 1997. In 1997 Mongol daguur, in 1998e Terkhiin tsagaan nuur, Ogii nuur, Nuuruudin hondiin group lakes (Boon tsagaan, Adgiin tsagaan, Taatsiin tsagaan and Orog), in 1999 Bioreserve of Kharus lake (Kharus, Khar and Dorgon) and Airag nuur, in 2004 Achit, Ubs, Buir and Ganga lakes and lakes of Khurh-Huitnii river valley, became registered under the Ramsar Conventions. In total these 11 sites make up 1396.00 thous.ha. A total of 45 species birds which are categorised under Red books of Mongolia and Asia exist in these areas. Broken into aimags, rare bird figures are Uvs (26 species), Ogii (22 species), Khar us (21 species), Buir (20 species) lakes and the Strict nature reserve of Mongol daguur (21 species).

For the protection and conservation of water and marsh birds, the inclusion of areas into Ramsar categories is significant. But, so far, protection activities are not up an expected level. For instance, in the Khar us lake, 60 - 70 tons of the endemic Mongolian *Oreoleuciscus pewzowi* is caught during winter and exported to China and Russia. Also in the market of Khovd town, it has become common to see different species of Ducks for sale at 5000 tugrik each. Foreign tourists participate in the hunting of water birds, as well. There are no enforcement officers for the protection and/or control of areas like lakes Adgiin tsagaan, Taatsiin tsagaan, Orog and the Boontsagaan of valley of lakes and Buir Lake. Such areas are not under special protection and should be taken for state care and protection.

The status of Uvs lake and Ulz river delta as Strict nature reserves, and lakes Khyar-

gas and Khar us as bioreserves, raises the issue of responsibilities for the protection of these areas.

Apart from these, it is required to conduct research regarding conservation and protection of ecosystems of water surfaces, marshes and watershed areas under other existing SPA, and this should address the following research areas:

- Biodiversity of marshland and watershed ecosystems;
- Effects of climate change on watershed ecosystems;
- Dynamics of watershed ecosystems; and

The implementation of conservation and protection management activities recognized as influencing all components of biodiversity, not only limited for SPA territory.

39. Has your country identified and implemented practical steps for improving the integration of protected areas into broader land and seascapes, including policy, planning and other measures? (decision VII/28)

a) No	
b) No, but some programmes are under development	
c) Yes, some steps identified and implemented (please provide details below)	X
d) Yes, many steps identified and implemented (please provide details below)	

Further comments on practical steps for improving integration of protected areas into broader land and seascapes, including policy, planning and other measures.

According to Provision No 5 and 7 of the Government action programme, ratified by Order No 21 of 2004 of the Mongolian state parliament, and activities to broaden the network of SPA, a proposal based on research has been prepared to include Munhkhairkhan Mountain (at the border of Bayanolgii and Khovd aimag), and the Valley of Orkhon (at the border of Uburkhnagai and Arkhangai aimag) in the category of National park, Tes river delta of Tes soum of Uvs aimag in the category of bio-reserve, Dayan deerh area of Tsagaanuur soum of Huvsgul in the category of National monuments and landmarks. The proposal was sent for comment from the Public Representatives' Committee and Ministries, and was discussed and approved at a Government meeting, then ratified by State parliament (Order No 26, 23 April 2006). By the end of 2006, the size of Mongolian SPAs was increased by 519 000 ha to reach a total 21.5 million ha. This is equal to 13.8% of Mongolia.

In 2006 the MNE appointed and funded a research team to prepare a proposal to reclaim some areas as under special protection. These areas include Goojuuriin waterfall area of Khovd soum of Uvs aimag under Strict nature reserve of Turgen, Bayanzurkh mountain area of Sagil soum under Strict nature reserve of Tsagaan shuvuut, Jiglegiin davaa and Darkhad's depression zone of Ulaanuul and Renchinlkhumbe soums of HUvsgul aimag under Strict nature reserve of Khoridol saridag, and nearby area of Ikh Bigd mountain (at the border of Jinst, Bogd, Bayanlig and Bayangobi soums of Bayankhongor aimag) under the category of National park. The proposal was discussed at the Government meeting on 27 December 2006, and became ready to be submitted to State parliament. If this proposal is supported by parliament, the, size of Mongolian SPAs would increase by 320 000 ha to reach 14% of the country's territory, a total of 842.000 ha.

A list of proposed sites for further inclusion under the category of special protected area over the periods of 2006-2008 and 2009-2015, along with related introduction documents, has been submitted and approved by the Standing committee for Environment and Food and Agriculture of Parliament.

A draft Government order to determinine the boundaries of Dayan deerhiin National monuments and landmarks of Tsagaan-Uur soum of Huvsgul aimag and Tes river bio-

reserve of Tes soum of Uvs aimag, newly given special protection status in 2006, have been prepared and submitted to Affairs office of Government along with related introductory documents and materials.

40. Is your country applying environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas? (decision VII/28)	
a) No	
b) No, but relevant EIA guidelines are under development	
c) Yes, EIA guidelines are applied to some projects or plans (please provide details below)	X
d) Yes, EIA guidelines are applied to all relevant projects or plans (please provide details below)	

Further comments on application of environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas.

The Law of Special protected areas states that it is possible to allow use of buffer zones of Strict nature reserves, National parks, Bio-reservess National monuments and landmarks area by Mongolian citizens, enterprises and organisations. This use must be for for certain purposes, must be of a duration and condition that it does not harm the environment based on contract. It is prohibited to allow foreign citizens,
enterprises, organisations, people without citizenship and enterprises of foreign investment to operate in the territory of Special protected areas. This does not aplyI to cases of the operation of activities allowed by law for foreign and international organisations within certain territory of SPA. The duration of land utilisation must not exceed 5 years, and it can only be extended up to 5 years per one time.

It is stated that when implementing an industrial activity, service, project or plan in the SPA, it is compulsory to carry out an environmental impact assessment, as pointed in Environmental protection law. When conducting environmental impact assessments for projects on SPA, the assessment of impact on the SPA specifically is required. However, until now, there have been no rules, regulations and principles regarding the assessment of ecological and environmental impacts in Mongolia's SPAs.. As a result, there have been increased negative environmental impacts associated with activities like mining and excessive tourism in nearby areas or buffer zones of SPAs. There is therefore a requirement to prepare management plans in SPAs, and to set principles to distinguish biodiversity into zones based on their ecological and habitat landscape features.

41. Has your country identified legislative and institutional gaps and barriers that impede effective establishment and management of protected areas? (decision VII/28)	
a) No	X
b) No, but relevant work is under way	
c) Yes, some gaps and barriers identified (please provide details below))	
d) Yes, many gaps and barriers identified (please provide details below)	

Further comments on identification of legislative and institutional gaps and barriers that impede effective establishment and management of protected areas.

In relation with amendment to Environmental law, based on the Provision No7 of Version 26 of this law, draft of Mongolian Government order about determining extent of area for protection by one ranger in Strict nature reserve and National park, has been prepared and discussed in the Government meeting, and further approved by producing Order

No47 of Mongolian government. Under these amendments the number of rangers would increase by 30 to improve the protection regime of SPAs would be improved. Budgetary provisions for this number of rangers has been included in some SPA administrations..

The Law of SPA contains a hierarchical system of administration. The main constraint for the present administration is a lack of on-ground ranger responsibilities as stipulated by law. For this reason it is important to improve the legislative understanding of rangers and to supply rangers with professional supervision.

Additionally there is a need to shift to a more flexible system of administration to overcome constraints in improving the interrelation and interconnection between vertical administrative structures of the SPA and local administrative units.

The political environment has changed significantly in the last 8 years, and as a result the administration and organisation of the SPA turned to be post under political parties, allowing non-professional people to enter the administration. Hence, roles and responsibilities stated in Law of SPA, and responsibilities for society and the nation, have become gridlocked. Paying attention to these matters should be prioritised for the Government, especially for MNE.

42. Has your country undertaken national protected-area capacity needs assessments and established capacity building programmes? (decision VII/28)	
a) No	
b) No, but assessments are under way	
c) Yes, a basic assessment undertaken and some programmes established (please provide details below)	X
d) Yes, a thorough assessment undertaken and comprehensive programmes established (please provide details below)	

Further comments on protected-area capacity needs assessment and establishment of capacity building programmes.

An assessment of SPA capacity was conducted in 2003 to identify areas where it could be strengthened., Nevertheless, certain activities to actually resolve these issues and to strengthen capacity are implemented under international programmes and projects, and activities like the eradication of legislative contradictions, the supply of techniques and equipments and the training of human resources are implemented at a national level. However, such activities cannot fully cover Special protected areas, and the introduction of learning activities in the SPA system is required.

The Mongolian programme office of the WWF investigated activities in around 30 SPAs, and determined that there is a requirement to assess and define the ecological vulnerability of 12 Strict nature reserves and 19 National parks. This assessment should use the "RAPPAM" methodology of the World committee of special protected areas, which gives intensive assessment of SPA land management and conducts monitoring to define priorities.

Questionnaire surveys and discussion workshops involving staff of central and local offices have been conducted three times. These forums have discussed amendments to the laws "About special protected area" and "About buffer zones of special protected area" in cooperation with project "Environmental reform." Drafts of reformed variants of these two laws have been prepared. Further, the preparation, approval and submission to State parliament of the amendments of these two laws is planned for 2007

43. Is your country implementing country-level sustainable financing plans that support national systems of protected areas? (decision VII/28)	
a) No	
b) No, but relevant plan is under development	
c) Yes, relevant plan is in place (please provide details below)	X
d) Yes, relevant plan is being implemented (please provide details below)	

Further comments on implementation of country-level sustainable financing plans that support national systems of protected areas.

The financial capacity of the SPA - In the last ten years Mongolia has paid significant attention to broadening the network of SPA, and improving its financial and material basis.

For the SPA, the state budget has been allocating finances of 2 types:

1. Planned budget scheduled for financing flow expenditure of that year\
2. budget in the form of investment

The amount of money budgeted to the SPA is increasing year by year. In 1996, the figure allocated was 61.6 million tugrik. In 2002 it was increased by three times 203.3 million tugrik.

According to the law of Special protected area, protection of Bio-reserves and Strict nature reserves is appointed to aimags and capital cities with financing be allocated from local budget. There is nothing visible done in this regards, however, except for one or two rangers with an occasional salary in the Gobi-Altai, Tuv and Bulgan aimags.

Apart from the state budget, own income of SPA administrations has much significance in further shifting SPAs towards a self-financing system. About 30% of the financing of SPA administrations in 2001 consisted of their own income.

The increasing trend of SPA administration income in recent years could be explained on one hand by their activated efforts, initiations and resource utilisation due a to market oriented economic system. For instance, income generation by a variety of activities, such as, information centres, eco-houses, eco-tourism, trade and the exhibition of handicrafts and entrance fees etc. On the other hand, increased income could be attributed to the increased amount of fines imposed due to increased conflicts between environmental laws and regulations.

Although budget allocations are uncertain, strategic marketing would bring financial investments to the SPAs.

The expenditure inventory of SPA administrations shows that the majority of funds go towards capital expenditure (salaries, office rent, heating and water etc). Very little of the total budget is spent on biotechnical conservation activities, rehabilitation, training and marketing.

Biodiversity conservation oriented projects are generally implemented with the help of international technical assistance and investor countries. Such project are mainly operated in State Special protected areas, contributing in the strengthening of their financial capacity. Among these external and international organisations, programmes and projects, the Germany Technical cooperation Association (GTZ), and Worldwide fund have thhe most influence. The GTZ and Environmental fund have further broadened their status by supporting the SPA administration with funding, supervision and technical support leading to the stabilisation of investment activities. Furthermore, the participation of organisations, like the Association of wildlife protection, hasincreased, and it could be concluded that there has been an improvement in the investment strategy.

44. Is your country implementing appropriate methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance? (decision VII/28)	
a) No	
b) No, but relevant methods, standards, criteria and indicators are under development	X
c) Yes, some national methods, standards, criteria and indicators developed and in use (please provide details below)	
d) Yes, some national methods, standards, criteria and indicators developed and in use and some international methods, standards, criteria and indicators in use (please provide details below)	

Further comments on methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance.

Taking action on the improvement of SPA management, especially for the assessment of biodiversity conservation activities, is required. The following actions have to be urgently implemented:

- Regulate problems of bio-safety, and to improve the exchange of information about plants, animals and their gene pool between all participatory sides (including the Ministry of Food and Agriculture, Ministry of Nature and Environment, research centres and other bodies);
- Define duties and responsibilities of national regulation Committees, prepare an action plan and broaden their cooperation;
- Improve the cooperation and interrelation between the Administration of SPA and SPAs;
- Cooperate and strengthen capacity to introduce advanced methods, and exchange experiences amongst SPAs; and
- Regulate the supply of specialised staff at every level.

Box XLV.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Outputs:

1. Preparation of Mongolian laws about the SPA and the buffer zone of the SPA to upgrade its legal environment;
2. Implementation of a national programme to produce a legal party to implement activities and plans in SPAs;
3. In the SPA range, administrative units have been organised for a total of fifteen sites, and operate by posting rangers depending on the natural zones of certain SPAs and their size; and
4. The occupancy of a relatively vast area and coverage of natural zones to add to the extent of biodiversity activities.

In accordance with the Millennium Development Goal, Mongolia is working towards increasing SPA size from 13.3% in 2000 to 30% in 2015. This will ensure the task of assessing bio-

diversity and the virginity of nature and that research has been carried out.

Regarding the establishment of a trans-boundary SPA, a meeting was organised with the administration of the Forest agency of the Republic of China. A survey team was appointed by both sides for the proposal of transferring the Great Gobi Strict nature reserve and Altai Tavan Bogd Bio-reserve into trans-boundary SPA zones. A workshop was organised in Ulaangom for parties from both Mongolia and Russia to discuss the matter of establishing a trans-boundary Strict nature reserve of the Lake Uvs depression, including the Strict nature reserve of Uvs lake basin which is a world heritage site. From the workshop the two parties determined their planning direction.

The Valley of Orkhon is included in the world heritage list, with the Dornod Mongolian steppe included in the World biosphere network. To meet the requirements for the List of world heritage sites for the Valley of Orkhon, a world heritage site, the Administration of the Khangai nuruu national park had to be transferred to the Kharhorin soum. Preliminary research to nominate the Gobiin Ih Strict nature reserve as a world natural heritage site is being conducted by experts of the SPA administration and researchers of some institutes of Mongolian Academy of Sciences. The proposal will be prepared for submission to international organisations. A new cooperative plan of protection administration is prepared regarding the establishment of a trans-boundary SPA of Onon Balj and Sohont, and an official letter has been delivered to the Ministry of natural resource of Russia. Opinions have been exchanged on these matters.. The fourth meeting of the collaborative committee of the trilateral contract between MNE, Russian Ministry of natural resource and Environmental conservation service of China, was held to establish the International trans-boundary SPA of Mongol Daguur, with cooperative action negotiated to include Mongol Daguur in the World human and biosphere programme of UNESCO and the international trans-boundary SPA of Mongol Daguur in the internationally significant Ramsar convention and to produce combined status of human and biosphere. The next trilateral meeting will be held in Mongolia, in 2008.

Constraints:

A constraint to broadening the SPA network, conserving rare species and protecting of separate populations is the survey and utilization licenses, issued for 70% of the territory. As these utilization licences are affecting the extension of the SPA network, rights to regulate at a local level should be allowed. To some extent some licences operating organisations and entities should be suspended, with these groups involved in restoration and rehabilitation activities.

Future activities:

- Increase the budget and investment via the advancement of the financing system and an accurate estimation of economical benefits of SPAs;
- Propose amendments to the law about including protection expenditure of 2 types of SPA, namely, the Bio-reserve and Strict nature reserves, into the state budget;
- Form a legal environment for SPA administrations to handle fines and payments from contract based operations and resource utilisers in SPAs;
- The administration of SPAs should increase their income by developing eco-tourism (information centres for tourists, guest houses, camps, boat rentals, guide services etc.); and
- Participation in project and bid announcements in the field of nature conservation, prepare projects to strengthen biodiversity conservation and submit them to investor countries and international organisations.

Article 8(h) - Alien species

45. Has your country identified alien species introduced into its territory and established a system for tracking the introduction of alien species?	
a) No	
b) Yes, some alien species identified but a tracking system not yet established	
c) Yes, some alien species identified and tracking system in place	
d) Yes, alien species of major concern identified and tracking system in place	x
In grazing, agricultural and forested areas land of Mongolia, about 300 species of diseases and 700 species of insect pests have been recorded.	

46. ◇ Has your country assessed the risks posed to ecosystems, habitats or species by the introduction of these alien species?	
a) No	
b) Yes, but only for some alien species of concern (please provide details below)	x
c) Yes, for most alien species (please provide details below)	
Further information on the assessment of the risks posed to ecosystems, habitats or species by the introduction of these alien species.	
At a state level, exotic types of diseases and pests has not been properly assessed. Thisis making it difficult to manage such alien species. Information and research data, especially in regards to microorganisms, insect pests and rodents, has been lacking. As a result, a variety of infectious diseases, such as,foot-and-mouth disease, has beens transmitted to the country, causing adverse effects on the country's development. Quarantine services at the border ports have some controls and checks, but their investigative infrastructure, material basis, and capacity is still poor. A favourable climate combined with and anthropogenic activities, have produced suitable conditions for the multiplication of forest tree diseases and insect pests, causing significant levels of tree death and a lost capacity to regenerate naturally.	

47. ◇ Has your country undertaken measures to prevent the introduction of, control or eradicate, those alien species which threaten ecosystems, habitats or species?	
a) No	
b) No, but potential measures are under consideration	X
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further information on the measures to prevent the introduction of, control or eradicate those alien species that threaten ecosystems, habitats or species.	
The "List of internationally and domestically quarantined plants," enforced over the last 10 years, was revised and ratified this year. Ratification of the "List of plant disease, insect pests, crab louse and weeds, whose importation is banned in Mongolia and domestically quarantined within a limited distribution" enabled the implementation of Provision 5.1.3 and 5.1.4 of Law "About quarantine checks of the transfer of animal, plant and their	

products via border ports" and Provision 4.2.3 and 4.3.3 of Law "About plant protection". The ratification of these laws wll significantly advance quarantine measures in Mongolia.,.In addition, this list makes provision for plant quarantine matters in cooperation with foreign countries. Planning to state criteria to define dangerous exotic types, conduct national assessment, and establish information network of their number, distribution, and peculiarities.

48. ◇ In dealing with the issue of invasive species, has your country developed, or involved itself in, mechanisms for international cooperation, including the exchange of best practices? (decision V/8)

a) No	
b) Yes, bilateral cooperation	
c) Yes, regional and/or subregional cooperation	X
d) Yes, multilateral cooperation	

Being a member of the World Animal Health Organisation (OIE), Mongolia has prepared an inventory of all international, severely infectious diseases in cattle found in the country. Foot-and-mouth disease, cattle plague, chicken pox of sheep and goats, pig selective plague and cattle infectious chest disease are registered in this inventory. Among these, foot-and-mouth disease brought great loss in the economy of the country. For instance, in 2001 this disease spread in some aimags of the country, causing a loss of 1.3 billion MNT. This fund was spent on vaccination and other activities to stop the distribution of foot-and-mouth disease. Apart from economic loss, an uncountable loss occured to livelihood of herders. With the loss of stock came a loss of an income sourceto herder families. As a result, poverty increased throughout the countryside. Unfortunately, this type of animal disease is transferred at border due to carelessness.

49. ◇ Is your country using the ecosystem approach and precautionary and bio-geographical approaches as appropriate in its work on alien invasive species? (decision V/8)

a) No	
b) Yes (please provide details below)	X

Further comments on the use of the ecosystem approach and precautionary and bio-geographical approaches in work on alien invasive species.

Diseases like potato smut, potato brown rot, dwarf smut of wheat, ergot of cereals have been added, and kernel smut of barley and fruit rot have been removed from the previously followed list of internationally quarantined plant diseases. However nine insect pests have been newly added to the internationally quarantined insect list. *Avena fatua*, *Acroptilon repens, Lappula intermedia* have been removed from, and two species of Cuscuta have been added to weed list. From the list of domestically quarantined diseases, clubroot of cabbage, mucous bacterial rot, and bacterial rot of vein have been removed, and eight diseases, namely, loose and kernel smut of wheat, kernel smut of barley, common smut of millet, loose smut of oat, potato wet rot, potato ring rot, common pine needle shed have been added, and *Ocneria dispar* has been added to insect pest quarantine list in Mongolia.

In the revised international quarantine list, there is now a total of twenty three stock diseases, thirty four insect species, twelve weed species, six round worms and two species of rodents.are registed. Twelve plant diseases, nine insect species and four species of weeds domestically quarantined have been registered. This list provides the basis of quarantine activities during importing to or trespassing upon Mongolian territory, exchange between organisations and citizens, and the trading of plants, their products, plant seeds, and seedlings. In 2006, according to "Forest law", the Mongolian Ministry of Nature and Environ-

ment organised a disease and insect pest survey on six hundred thousand hectares of forest area. The results of the survey show that about 40-45% of leaf and needle insect pest distribution is through the larval outbreak of moths and

their epicentric multiplication, namely of *Errannis Jacobsoni* Diak, *Dendrolimus sibiricus* TSchw, *Ocneria dispar* L, *Orgyia antiqua* L, *Stilpnotia salicis* L, and Siberian larch defoliator, and their distribution is affecting agriculture crop too. In the last 30 years, state budget show that one billion tugrik has beeen spent on the eradication of insect and rodent pests, but with very little success. Research institutes continue to study methods of preventing and combating methods alien management.

50. Has your country identified national needs and priorities for the implementation of the Guiding Principles? (decision VI/23)	
a) No	
b) No, but needs and priorities are being identified	X
c) Yes, national needs and priorities have been identified (please provide below a list of needs and priorities identified)	
Further comments on the identification of national needs and priorities for the implementation of the Guiding Principles.	

51. Has your country created mechanisms to coordinate national programmes for applying the Guiding Principles? (decision VI/23)	
a) No	
b) No, but mechanisms are under development	X
c) Yes, mechanisms are in place (please provide details below)	
Further comments on the mechanisms created to coordinate national programmes for implementing the Guiding Principles.	

52. Has your country reviewed relevant policies, legislation and institutions in the light of the Guiding Principles, and adjusted or developed policies, legislation and institutions? (decision VI/23)	
a) No	
b) No, but review under way	X
c) Yes, review completed and adjustment proposed (please provide details below)	
d) Yes, adjustment and development ongoing	
e) Yes, some adjustments and development completed (please provide details below)	
Further information on the review, adjustment or development of policies, legislation and institutions in light of the Guiding Principles.	

53. Is your country enhancing cooperation between various sectors in order to improve prevention, early detection, eradication and/or control of invasive alien species? (decision VI/23)	
a) No	
b) No, but potential coordination mechanisms are under consideration	X
c) Yes, mechanisms are in place (please provide details below)	
Further comments on cooperation between various sectors.	

54. Is your country collaborating with trading partners and neighboring countries to address threats of invasive alien species to biodiversity in ecosystems that cross international boundaries? (decision VI/23)	
a) No	
b) Yes, relevant collaborative programmes are under development	X
c) Yes, relevant programmes are in place (please specify below the measures taken for this purpose)	
Further comments on collaboration with trading partners and neighboring countries.	

- The project "Strengthening control on food import" is underway in cooperation with FAO, with international experts working in the headquarters and local offices of the State professional monitoring service, United central laboratory, and laboratories at the ports of Zamiin-Uud and Altanbulag as part of this project;
- Activities to conserve biodiversity and combat poaching have been organised in co-operation with the representative office of WWF. For instance, teams have been sent to patrol poaching activities, and to increase local capacity and resources in this area;
- Working in collaboration with the Centre of Hygiene and Infection study of the Buriat republic of Russia has led to professionals of the United Central Laboratory have been sent for training;
- Collaborative work on the export and import of animal products and raw materials has been instigated with the Veterinary department of the Russian Ministry of Agriculture;
- Cooperation has been established with the Labor security service and trained officers of the State professional monitoring service in Korea;
- As part of the Government Technical cooperation programme of China, forty five state service officers have been given specialised training;
- A request for cooperation with the Quarantine service of quality control in China was sent via the Embassy. A visit from Minister of Quarantine service of quality control of China, and other representatives, and the production of a memorandum document was the subsequent result;
- Officers of the State professional monitoring service are included in the "Turik's help organization," an international cooperation organisation in Turk: and
- A request from the Control and check service of Hungary for cooperation led to , representatives of the State professional monitoring service visiting Hungary as part of a skill sharing exercise.

55. Is your country developing capacity to use risk assessment to address threats of invasive alien species to biodiversity and incorporate such methodologies in environmental impact assessment (EIA) and strategic environmental assessment (SEA)? (decision VI/23)	
a) No	X
b) No, but programmes for this purpose are under development	
c) Yes, some activities for developing capacity in this field are being undertaken (please provide details below)	
d) Yes, comprehensive activities are being undertaken (please provide details below)	
Further information on capacity development to address threats of invasive alien species.	

56. Has your country developed financial measures and other policies and tools to promote activities to reduce the threats of invasive species? (decision VI/23)	
a) No	
b) No, but relevant measures and policies are under development	X
c) Yes, some measures, policies and tools are in place (please provide details below)	
d) Yes, comprehensive measures and tools are in place (please provide details below)	
Further comments on the development of financial measures and other policies and tools for the promotion of activities to reduce the threats of invasive species.	

Box XLVI.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.
In 2002, order 58 and 162 of the Mongolian Parliament and Government, respectively, in, established the State professional monitoring service. This Government regulatedy agency was formed by a change in the status of previously operated quarantine and control oriented organisations and services, such as, Quality standard, Health, Veterinary, Plant protection and quarantine service of subordinate Ministries. The agency is responsible for preventing the transfer of internationally quarantined diseases, insect pests, rodents and weeds via Mongolian borders, and controlling the safety and quality of products under the legislation of related rules and regulations of Mongolia and interna-tional contracts. The State professional monitoring service is operated by combining five laboratories aimed with determineing chemical, physical and biological factors that may have a negative effect

on human health and nature, to monitor food staff, cosmetics products, medicines, bio-preparatives, vaccines, and seeds of plants, and to ensure that these meet standard stated at the international and/or domestic level. This laboratory conducts analysis and sampling according to International standards (ISO), International pharmacopoeia and Mongolian standard (MNS). The United central laboratory is also responsible for training staff, teaching methodology and supplying indicator substances to laboratories under the Professional monitoring services of 21 aimags.

Laboratory of seeds and quarantine of domesticated plants:
The Laboratory of seeds of domesticated plants, Laboratory of plant quarantine and the Laboratory of toxicology were established in 1947, 1962 and 2002, respectively. The function of these institutions is to conduct tests at the state level to check the effects of weeds, insect pests and diseases affecting the quality of seeds of domesticated plants, technological quality of wheat and seed selection, plant originated food staff, and raw materials, and estimate residual concentrations of toxic substances in soils.

The Laboratory of virology of the external environment works to detect chronic substances in soil, water and cosmetic products.

Future activities:

- Prepare a national strategy on measures to improve and enhance prevention and protection management of potentially threatening biota;
- Improve and strengthen controlling and testing laboratories, reduce and control possible dangers;
- Raise the public's awareness of potentially threatening biota, provide detailed information via media; and
- Strengthen technical capacity, and train staff.

Article 8(j) - Traditional knowledge and related provisions

GURTS

57. Has your country created and developed capacity-building programmes to involve and enable smallholder farmers, indigenous and local communities, and other relevant stakeholders to effectively participate in decision-making processes related to genetic use restriction technologies?	
a) No	
b) No, but some programmes are under development	
c) Yes, some programmes are in place (please provide details below)	x
d) Yes, comprehensive programmes are in place (please provide details below)	

Further comments on capacity-building programmes to involve and enable smallholder farmers, indigenous and local communities and other relevant stakeholders to effectively participate in decision-making processes related to GURTs.

Mongolians have considerable, highly valuable traditions on nature conservation and preservation. Our ancestors have generated and followed valuable traditions, habits and worship cultures in terms of nature conservation, preservation and use of natural resources.
Natural conservation traditions and habits are incorporated into goals and objectives of over thirty laws, over two hundred legislative acts/regulatory documents and about twenty eight programmes implemented in the country in recent years.

Biodiversity conservation programmes that focus on the increased participation and empowerment of local communities in conservation activities, including herders, farmers, and other community groups, are implemented in the country.

Status and Trends

58. Has your country supported indigenous and local communities in undertaking field studies to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities? (decision VII/16)	
a) No	
b) No, but support to relevant studies is being considered	X
c) Yes (please provide information on the studies undertaken)	
Further information on the studies undertaken to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities, and priority actions identified.	

Akwé:Kon Guidelines

59. Has your country initiated a legal and institutional review of matters related to cultural, environmental and social impact assessment, with a view to incorporating the Akwé:Kon Guidelines into national legislation, policies, and procedures?	
a) No	X
b) No, but review is under way	
c) Yes, a review undertaken (please provide details on the review)	
Further information on the review.	

60. Has your country used the Akwé:Kon Guidelines in any project proposed to take place on sacred sites and/or land and waters traditionally occupied by indigenous and local communities? (decision VII/16)	
a) No	
b) No, but a review of the Akwé: Kon guidelines is under way	X
c) Yes, to some extent (please provide details below)	
d) Yes, to a significant extent (please provide details below)	
Further information on the projects where the Akwé:Kon Guidelines are applied.	

Capacity Building and Participation of Indigenous and Local Communities

61. Has your country undertaken any measures to enhance and strengthen the capacity of indigenous and local communities to be effectively involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biodiversity? (decision V/16)	
a) No	
b) No, but some programmes being developed	X
c) Yes, some measures taken (please provide details below)	
d) Yes, comprehensive measures taken (please provide details below)	

Further information on the measures to enhance and strengthen the capacity of indigenous and local communities.

In cooperation with the Asian Buddhists' Association, government and non-government organisations organised an international conference on "Religion and Environment." This conference discussed potential cooperation between environmental groups and religious organisations in terms of nature conservation. In order to link and incorporate traditional nature conservation practices into State policies, appropriate responses and actions are taken with participation of the monasteries "Gandantegchlen" and "Dashchoilon".

Training for college and university ecological professors was organized by the Ecological Centre at the Mongolian National University in cooperation with the Ministry of Education, Culture and Science. A brochure/hand book "Gobi in Mongolia" for public ecological education training was published with support of the international project "Research in Great Gobi".

Professional and policy recommendations and consultations on ecological and nature conservation training standards were given to some colleges and universities. .Public awareness and training materials in these fields were developed and submitted to a number of international organisations. Additionally, there has also been input into the studio "Ecological Binoculars" at Mongolian radio.

62. Has your country developed appropriate mechanisms, guidelines, legislation or other initiatives to foster and promote the effective participation of indigenous and local communities in decision making, policy planning and development and implementation of the conservation and sustainable use of biodiversity at international, regional, subregional, national and local levels? (decision V/16)	
a) No	
b) No, but relevant mechanisms, guidelines and legislation are under development	x
c) Yes, some mechanisms, guidelines and legislation are in place (please provide details below)	

Further information on the mechanisms, guidelines and legislation developed.

Environmental laws give legal provisions for the active participation of local communities in the biodiversity conservation at local, national, sub-regional, regional and international levels. Participation of local communities in biodiversity conservation and sustainable use at local and national levels has increased, and has been encouraged by forest co-management groups, herder communities of pastureland management and Taimen Conservation Groups in different parts of the country.

As part of GTZ, GEF and UNDP supported projects and programmes, local communities have widely participate in biodiversity conservation and sustainable use at regional and international levels.

63. Has your country developed mechanisms for promoting the full and effective participation of indigenous and local communities with specific provisions for the full, active and effective participation of women in all elements of the programme of work? (decision V/16, annex)	
a) No	
b) No, but relevant mechanisms are being developed	X
c) Yes, mechanisms are in place (please provide details below)	
Further comments on the mechanisms for promoting the full and effective participation of women of indigenous and local communities in all elements of the programme of work.	
In order to protect and ensure the natural regeneration of medicinal plants, replanting programmes have been developed. For example, the medicinal plant "licorice" was planted in the Bogd and Baatsagaan Sums of Bayankhongor Aimag and Guulin Sum of Govi-Altai Aimag, and Khovd Aimag. This activity generated over one hundred and fifty employment opportunities. A community group of over one hundred members (most of them women) was established in Khuree Maral Sum of Bayankhongor Aimag for the protection, restoration and planting of natural plants. The group members were provided with training on planting and taking care of over twenty species of plants. This has provided good opportunity to make contributions to revenue generation and poverty reduction at a local level.	

Support to implementation

64. Has your country established national, subregional and/or regional indigenous and local community biodiversity advisory committees?	
a) No	X
b) No, but relevant work is under way	
c) Yes	

65. Has your country assisted indigenous and local community organizations to hold regional meetings to discuss the outcomes of the decisions of the Conference of the Parties and to prepare for meetings under the Convention?	
a) No	X
b) Yes (please provide details about the outcome of meetings)	
Further information on the outcome of regional meetings.	

66. Has your country supported, financially and otherwise, indigenous and local communities in formulating their own community development and biodiversity conservation plans that will enable such communities to adopt a culturally appropriate strategic, integrated and phased approach to their development needs in line with community goals and objectives?	
a) No	X
b) Yes, to some extent (please provide details below)	
c) Yes, to a significant extent (please provide details below)	
Further information on the support provided.	

Box XLVII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Under a project titled "Integrated Management of Combating Desertification," funded by the Federation of Germany, twelve herder communities have been established at a local levelI in order to preserve traditional nature conservation practices. For instance, a herder community "Ireedui" that involves thirty six households is established in Umnugovi aimag to protect pastureland based on traditional conservation practice of rotational use of grazing areas. As a result the negative impacts on pastureland have been reduced, and vegetation has slowly regenerating naturally. Additionally, community members have also used methods that promote the protection and sustainable use of rare fauna and flora species, including medicinal plants.

The "Environmental Public Awareness" project was implemented with the support of the UNDP and the Governments of the Netherlands and Australia from 1997 – 1999.. The project dealt with the restoration and dissemination of traditional practices of nature conservation and sustainable use amongst the public.

Community based biodiversity conservation projects have been implemented to restore the use of traditional conservation practices. For example, a worshipped mountain "Altan Ovoo" is protected by traditional conservation practices. In 1999, the World Wide Fund for Nature (WWF) cooperated with the World Bank and the Mongolian Buddhist Centre to organise a conference titled "Roles of Religion in Nature Conservation". The conference participants highlighted the importance of respecting and worshipping the natural environment, including water sources and mountains not only in conservation but in their sustainable use. As part of this project, Buddhist icons were consecrated and placed on tops of worshipped mountains in different parts of the country.

The nomadic lifestyle and daily economic activities were/are highly dependent on natural and climatic conditions and so in turn climatic conditions have been important factors for the creation of traditions and a heritage of nature conservation.

In terms of approaches, contents, principles and symbols, the traditions and cultures of nature conservation are divided into the following five categories:

Compassion and respecting tradition: Primarily teaches how to protect mountains, water sources, forests, fauna and flora and properly (on a sustainable basis), with their usage restricted to household needs only.

Quarantine and prohibition tradition: A large number of quarantined and prohibited actions to ensure the natural regeneration has been passed from one generation to the next, following the compassion and respecting tradition.

Doctrine and teaching tradition: Involves traditions and cultures that provide the generations with teachings such as "if humans recognise well the natural evolution process and respect nature through following the quarantine and prohibition tradition, and avoiding adverse impacts on the environment, they will be able to run successful enterprises and organisations. If humans act against, and cause adverse impacts on, the environment and its re-

sources, they will experience great suffering". This teaching has been transferred from generation to generation. The doctrine and teaching tradition has been based on beliefs of mysterious forces. This means that the environment's compomemts of mountains, water sources, forests and taiga, wild species, and avian species all have their own 'spiritual hosts.' If humans,even say bad things about them or act against them, they will be blamed by the nymph. Such beliefs are disseminated amongst the public through tradition.

Observation and cognitive tradition: This is the tradition in which the Mongols have been recognising and explaining natural phenomenons and weather conditions, including changes to the natural condition and natural disasters. Such information has been used not only in astrological ways, but also in their daily lives, with people making predictions for the running of livestock husbandry and other economic activities since ancient times. The Mongols have gained considerable cognitive experiences in the recognition and prediction of changes to natural phenomena during their nomadic life style, and have used these assumptions and predictions in their daily household economic activities.

The Mongols have also kept lunar calendars, and predicted the weather conditions in seasons. They have also gained considerable knowledge on their mountains, water sources, and their biodiversity, having linked their changes to celestial evolution. The Mongols belief that if yaks are grazed on mountain tops and horses at the foothills or valleys, weather conditions will be pleasant. If the cuckoo begins to sing earlier than usual, the summer will shorted and autumn will start earlier. Moreover, the Mongols have gained considerable knowledge on fauna and flora diversity, and experiences in traditional medicine for curing diseases of either humans or animals. For instance, they use meat of Snowcock for curing broken bones and other bone injuries. Whilst natural resources have contributed to fulfilling household need, Mongols have focused on the economical use of resources in order to ensure natural regeneration of their resources and ecological balance. They have believed that the environment is alive, and must therefore be clean and pure. For example, a number of activities have been avoided, such as digging land, particularly in spring, when plants grow, cutting trees growing at the upper part of natural springs and mineral water bodies, to destroying bird eggs and hunt wild species during their breeding seasons. In other words, the Mongols have ensured the natural regeneration of biodiversity through traditional quarantine and prohibition approaches whilst utilising resources for household needs.

A culture of respecting and conserving the environment is one of the most valuable ecological features of the nomadic Mongols. It is worthy to highlight that the Mongols have used traditions of conservation of nature including mountains, water sources, fauna and flora for their daily living and economic activities as well as in worship ceremonies. Traditionally, women got up early and made offerings of milk and milk tea to the environment, mountain, water sources and the rising sun. They also made special offerings of milk and milk tea to the environment, mountain and water sources on the first day of the Lunar calendar, again and during *ovoo* and mountain worship ceremonies, and during the hunting of some wild species.

Although the country is dealing with the biodiversity conservation based on traditions of nature conservation, it is inevitably necessary to develop and implement special State policies on biodiversity conservation thoughout the country.

Activities to be undertaken in the immediate future:

- Establish an environmental database on traditional nature conservation practices;
- Use traditional nature conservation traditions and cultures in biodiversity conservation;
- Restore and preserve traditional conservation practices and approaches and improve public awareness in this field;
- Conduct public awareness activities on traditional practices amongst the public and publish and distribute awareness materials, including brochures, pamphlets,

documentaries, and radio and television programmes;

- It is necessary to include traditional nature conservation practices in formal and informal training curriculum and provide teachers, instructors and professors with necessary training materials and teaching manuals in order to improve their skills and knowledge.

Article 9 - *Ex-situ* conservation

67. ◇ On Article 9(a) and (b), has your country adopted measures for the *ex-situ* conservation of components of biological diversity native to your country and originating outside your country?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures adopted for the *ex-situ* conservation of components of biodiversity native to your country and originating outside your country.

Ex situ conservation activities were begun during the end of the last century in Mongolia. These activities concentrated on the reintroduction of 'signature' endemic plants and animals back into their natural range. Ex situ conservation activities began with the reintroduction of wild horses back into their native range. The last known natural habitats of wild horses were in the southern Baitag Bogd mountain and Bulgan river area, Aj Bogd mountain in the east and through the south of the Altai mountain range - Huh Undur, Takhiin Shar nuruu, and Khonin us gobi. The reintroduction of wild horses began in 1992, when fifteen wild horses were transported to Hustai nuruu, and 6 horses to Bij River from European countries. Since then, 84 wild horses have been brought to Mongolia in five separate groups. These groups include seven wild horses in 1997, thirty seven in 1998, seven in 1999, four in 2001 and fourteen horses (six males and eight females) in 2002 from Germany and Switzerland. These horses were reintroduced in Hustai nuruu and in Bij River ("B" part of GGSPA), representing the steppe and gobi ecosystems of Mongolia. By the end of 2006, the wild horse population of Hustai nuruu reached one hundred and seventy one, showing that transported individuals have already adapted to their natural conditions.

Surveys show that the wild horse population size from has changed from fifteen wild horses in 1995 to five in 1997, thirty seven in 1998, one hundred and forty in 1999, one hundred and seventy in 2000, one hundred and eighty in 2001, one hundred and ninety eight in 2002 and one hundred and thirty seven in Hustai and seventy in Takhiin tal in 2003. As a result of these reintroduction activities, today the number of wild horses has reached more than 300 in Mongolia, with fifty eight percent adapted to open pasture.

Artificial reproduction of Wild Bactrian camels, endemic species of Central Asia, and the Gobi bear, has begun. Twenty nine red deer caught from Hustai National Park have been reintroduced to Mungunmorit soum of Tuv aimag. The Red deer farm currently has 38 deer.

The Botanical garden of the Institute of Botany represents ex situ conservation of national and foreign species in an area of 1000 m^2 .

In the garden of cultivated and natural trees and shrubs there are implemented ex situ conservation of the species since 1961. Currently there are 140 species of trees and

shrubs.

Black locust (Robinia pseudoacacia) that was transported from North Korea was successfully cultivated with in vitro technique using clone methods. The in vitro cultivated samples of black locust were reproduced (20000 micro plants) and then transferred to ex vitro (greenhouse) conditions.

68. ◇ On Article 9(c), has your country adopted measures for the reintroduction of threatened species into their natural habitats under appropriate conditions?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures for the reintroduction of threatened species into their natural habitats under appropriate conditions.

Cultivated plants, shrubs and trees from the Institute of Botany's Botanical garden were exchanged with botanical garden specimens of various countries through the index seminum programme. Rare and endangered species, including species included in the Mongolian red book, have been collected. This plants are primarily from the genus *Iris* and *Paeonia*.

Other methods of ex-situ conservation have included work on reversing the trend of species population decline within their natural range. One such successful programme involves the central asian beaver population. Hunting of this species has been restricted since 1930, and the species has been included in the Mongolian red book. The natural habitat of this species had been reduced due to agriculture and other human influences. The Central Asian beaver was caught in its last natural habitat in the Mongolia-Bulgan river and was introduced to the Hovd and Tes rivers, which flow within the closed Central Asian watershed. . The species was therefore were reintroduced to other appropriate areas with support from Germany. 64 individuals were successfully reintroduced to Tes River of Uvs aimag and Hovd River of Hovd aimag between 1973-1978 and 1985-1989. This work, began in 1973, was completed in 2002.

Gazelles have also been successfully reintroduced into some areas. Musk deer are another species that have become rare due to negative human influence, with their population number decreasing by 90% since 1990. This species is included in a list of species whose populations have declined due to human influence. The Institute of Biology tests artificial reproduction of such species. This aims not only to increase the number of musk deer, but also seeks economically significant opportunities to use the species for medical purposes.

Wild camels, the Mongolian saiga and the Gobi bear are all species considered to be in decline. With the purpose of conserving species within their native range, work has been conducted on reproduce the species within their natural range or and rehabilitating the species' habitat inside the protected areas using a staged approach. Additionally, work on expanding the range of rare species through assisted reproduction or restricting human exploitation of the population has been completed. As part of thiswork, an experimental and cultivation stations thhe in Bogd soum of Bayanhongor aimag (to reproduce *Glyzzyrhiza uralensis*), in Bayantooroi soum of Gobi-Altai aimag (to reproduce rare trees and shrubs) and Ehiin gol oasis of Shinejinst soum of Bayanhongor aimag (to reproduce fruit shrubs) were established. These stations have been in decline since 1990 with

Mongolia's transistion to a market-based economy and the associated movement of the rural community into settlement areas. However, with rural community initiative and with rural administration support, these stations have now begun recovering.

69. ◇ On Article 9(d), has your country taken measures to regulate and manage the collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species?

a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to regulate and manage the collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species.

As the Institute of Botany of MAS developed ex situ conservation methods, it became possible to transfer individuals of priority species to an in situ conservation method,. This in turn allowed the establishment of a 'living' gene bank, an important part of biodiversity conservation.

As the exploitation of natural resources, including minerals, has intensified in recent years, it has become important to preserve biodiversity in situ. This is because conservation and rehabilitation activities organised within the protected areas is not suffificent to maintain biodiversity, and there is a strong need to conserve fragmented populations in neighbouring areas to enlarge the habitat of rare species. To assist this process it is therefore necessary to revisit the current land management plan, and update it using best practise science.

The conservation of habitats adjacent to protected areas has become a cross-disciplinary concern. There is therefore a need to develop a management plan to facilitate cooperation amongst and between the MNE, the Ministry of industry and trade, the Ministry of food and agriculture and the Government Implementating Agency on Mineral Resource and Oil..

This issue is relevant to not only within Mongolia but also within the East Asian region as a whole. Support is therefore required from all relevant countries.

Box XLVIII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Mongolia has implemented the ex situ conservation of rare and endangered species at a limited level. There has been localised success where ex situ conservation management methods have been implemented, however. For example, the numbers of the Asian beaver, muskrat, Mongolian saiga, wild horse and other species have increased. Additionally, population numbers of *Glyzzyrhiza uralensis, Haloxylon ammodendron, Elaeagnus moorcroftii,* and *Populus diversifolia* have increased within the protected areas. The Institute

of Botany of the MAS has organised expeditions collecting rare and useful plant seeds. With this work, the reintroduction of rare and endangered species has become possible.

A special license from the Mongolian government is required for trapping rare fauna, and licenses are restricted to research purposes only.

The ecology, biology and habitat adaptation of particular species have been studied with the development of subsequent conservation and rehabilitation techniques utilising information gained during this research.. The information gained through such research of rare and endangered species also forms a strong scientific basis for alternative uses in the future. In. Mongolian Environmental law acknowledges the need to involve the community in biosivdity conservation, and that such community invovlement will be increased in the future..

With international support, Mongolia has worked to ensure the conservation of rare and endangered species such as the wild bactrian camel and the Gobi umbrella. This is a major contribution by Mongolia to internation biodiveristy conservation activities. Other internationally significant conservation work has included the protection of Gobi bear habitat, and the rehabilitation of degraded areas of habitat. This work began in 1995 and results of the success of this programme are now beginning to emerge.

With increasing anthropogenic pressures and the potential impacts of global warming, Mongolia faces environmental problems such as the degradation of key species' habitats and a subsequent decrease in species' distributions. The impacts of these problems can be minismised by implementint the following:

- Establish a network of scientific and experimental stations with the aim of breeding rare and endangered species;
- Develop a system of encouraging or providing economic incentives to the local community to broaden the breeding actitivies;
- Develop and improve breeding and habitat rehabilitation techniques through cooperation with various scientific organisations;
- Train professionals;
- Conduct detailed ecological and biological studies and strengthen the capacity of research stations; and
- Maintain the genetic fund of rare, very rare, and endangered fauna and maintain the seed bank of rare and endangered species.

Article 10 - Sustainable use of components of biological diversity

70. ◇ On Article 10(a), has your country integrated consideration of the conservation and sustainable use of biological resources into national decision-making?	
a) No	
b) No, but steps are being taken	
c) Yes, in some relevant sectors (please provide details below)	x
d) Yes, in most relevant sectors (please provide details below)	

Further information on integrating consideration of conservation and sustainable use of biological resources into national decision-making.

An inventory of plants, including plants endemic to Mongolia, rare and medicinal plants was developed and the "live" collection of these plants has been completed.

For the last 36 years, the Mongolian and Russian joint biological expedition has conducted comphrehensive research on the flora of Mongolia, including plant reserves and diversity,

and the protection and sustainable use of plants in the country.
Once the conservation and sustainable use of biological resources is contingent to other economic activities i.e. agriculture, mining, and tourism development in the country, particular attentions have been paid to the interrelation of legal provisions in the environmental laws and other sector laws. For the use of land for economic purposes it is necessary to follow provisions of the Law on Environmental Impact Assessment. The Law clearly gives provisions for the use of biological resources, how to restore them following their use and, when necessary, how to protect biodiversity during the use of natural resources. Additionally, the State Specialised Inspectorate Agency oversees the enforcement of the Law on Environmental Impact Assessment, and ensures a monitoring system within the legislative frawework.

To date, about 30 national programmes, including the Sustainable Development for the 21st century, State Policy on Ecology, and Protection of Very Rare and Rare Plants have been implemented in the country. 25 environmental laws give legal provisions for biodiversity conservation and sustainable use. In order to ensure the sustainable use of animals, hunting and trapping permits for special, household and commercial purposes are issued with hunting quotas annually determined by the Government. For instance, in 2005 special permits were issued for the hunting of 80 male wild sheep, 280 male mountain goats, 60 black-tailed gazelles, 40 roe deer, 100 Mongolian gazelles, 10 wild pigs, 150 grey wolves, 8 lynxes and 1200 wetland forest and steppe birds. For household and commercial purposes, permits were issued for the hunting of 4850 Mongolian gazelles, 40,550 fish, 365 wild pigs, 460 roe deer, 2470 wetland, forest and steppe birds, and 250 red and corsac foxes. Despite these restrictions illegal hunting has been ubiquitious since since 1990. Due to a lack of funding, monitoring and inspection equipment and personnel, no adequate monitoring or inspection has been conducted over most of Mongolia.

71. ◇ On Article 10(b), has your country adopted measures relating to the use of biological resources that avoid or minimize adverse impacts on biological diversity?	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures adopted relating to the use of biological resources that avoid or minimize adverse impacts on biological diversity.

The Mongolian Law on Environmental Impact Assessment states that mining and infrastructure activities must have both a generalised and detailed Impact Assessments prior activity instigation. The economic sectors that intensively exploit biodiversity values are industry and trade (hunting & trades of products of biological origin or wildlife products), agriculture, farming/ cultivation and tourism. These activities are regulated with relevant legislation, with some activities limited and/or restricted through of quantities/quotas and periods of time/ seasons. For instance:

- Hunting is limited by seasons and quotas;
- Seasons of some biological resources e.g. fish, are established;
- An annual census of some wild species is conducted with hunting quotas established based on these results. Under such regulations, marmot hunting has been prohibited for the next three years in the country in order to preserve their population;
- Some game species have been protected with annual hunting quotas only given to the tourism sector; and

In order to reduce and eliminate illegal hunting and deforestation, the Government monitors and inspects activities at a local level and imposes administrative and criminal penalties to violators.

72. ◇ On Article 10(c), has your country put in place measures that protect and encourage customary use of biological resources that is compatible with conservation or sustainable use requirements?	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures that protect and encourage customary use of biological resources that is compatible with conservation or sustainable use requirements.

The curriculum of all colleges and universities includes "Traditions of Nature Conservation" and students and youths learn about considerable practices and traditions in nature conservation. There are a number of books and references on nature conservation traditions published and distributed in the country. For instance, in 2006 the book "Traditional Nature Conservation Practices" was published under the project "City Sacred/Holy Site" by the Religion and Nature Conservation Association, funded by the World Bank. This book contains parts of ancient nature conservation traditions, religious teachings and habits stated in ancient codes of laws, religious scriptures, folk verbal and written literatures.

Mongolians have kept considerable traditions regarding the environment and its resource conservation since ancient times. Nature conservation traditions have been developed through respecting nature, the sustainable use of natural resources, the use of religious teachings and a heritage of traditions from generation to generation. Since ancient times Mongolians have enriched and followed traditions through the use of their intelligience. In recent years much attention has been given to the dissemination and practical implementation of this information at a national level.. Thus, a national programme on Ecological Education was developed in 2005 with many awareness and conservation activities subsequently undertaken through distance learning and formal training under the national programme. Additionally, the subject "Ecology and Nature Conservation" has become a compulsory subject of the educational system, enabling students to learn about the relationship between biotic and abiotic entities. The subject encourages students to pay attention to overcoming the constraints, obstacles and threats to ecology through public participation and conservation efforts, and the dissemination of environmentally friendly livestyles.

Today, some important traditions e.g. worship ovoo, not to hunt and trap wild species during their breeding and hibernating seasons, and not to repel them from their natural habitat, are followed by the rural population. It is important, however, to conduct public awareness amongst the new generation for a strong understanding on the reasons and , meanings of these practises, and how to properly use and adhere to them in practice.

73. ◇ On Article 10(d), has your country put in place measures that help local populations develop and implement remedial action in degraded areas where biological diversity has been reduced?	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures that help local populations develop and implement remedial action in degraded areas where biodiversity has been reduced.

Mongolian Environmental law supports any activities and ideas of the local community towards environmental conservation and gives provisions to to provide it with economical, technical and administrative help. Therefore, local communities are intensively supported when they are involved in the rehabilitation of medical plants, reforestation and forest fire prevention. Activities such as local community based forest management, briquette fuel production to reduce wood consumption in the Gobi region and the exploitation of renewal power have been supported. In addition, the involvement of the local community in to distributing information towards reducing poaching and illegal forest cutting, and motivate them to such activities have also been supported.

These activities have been implemented on a small scale, primarily within the framework of international projects and programmes. The recovery of natural habitats and natural reproduction activities has not been fully accomplished in Mongolia. This is partially connected with poor socio-economic conditions and the dependence of local people's livelihood on natural resources. In addition, poor environmental knowledge of the community limits broad scale activities. However initiatives, such as the reproduction of the rare red deer and musk deer by the local groups, are supported, and special attention is paid to spreading such initiatives.

74. ◇ Has your country identified indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity? (decision V/24)	
a) No	
b) No, but assessment of potential indicators and incentive measures is under way	X
c) Yes, indicators and incentive measures identified (please describe below)	

Further comments on the identification of indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity.

The MNE, Institute of Botany and NUM is developing assessment criteria and implementing activities for enhancing the conservation and sustainable exploitation of biodiversity. Issues of biodiversity, especially related to the appropriate exploitation of natural resources, are implemented in every sector of development and industry. Current natural resources exploitation issues are developed considering such things as harmonising development of at any sector with issues of social needs and poverty reduction.

Additionally, within the framework of strengthening local capacity, activities such as the production of briquette fuel, the sustainable exploitation of forest resources, developing small scale industry through involving the local community, encouraging the local community to get involved in tourism activities have been supported and reproduced

through environmental projects and programmes.

75. ◇ Has your country implemented sustainable use practices, programmes and policies for the sustainable use of biological diversity, especially in pursuit of poverty alleviation? (decision V/24)	
a) No	
b) No, but potential practices, programmes and policies are under review	
c) Yes, some policies and programmes are in place (please provide details below)	X
d) Yes, comprehensive policies and programmes are in place (please provide details below)	

Further information on sustainable use programmes and policies.

National programmes on Biodiversity Conservation and Poverty Alievation Programme have been implemented with the first steps on the sustainable use of natural resource, including minor natural resources, has been undertaken within the framework of the national programme on rural development. However, no tangible actions and responses have been undertaken for the alleviation of poverty and unemployment - the main hindering factors for biodiversity conservation and sustainable use. Therefore, it is necessary to incorporate the programme on poverty reduction with other national programmes and to strengthen cooperation amongst intersectoral decision makers. It is necessary to prioritse and strengthen intersectoral partnership within the frawework of the Action Plan of the Mongolian Government and update to the currently implemented national programmes in the future.

Small, community-based, natural resource management projects are implemented with the support and funding of international organisations. The UNDP/GEF supports small project grants for community initiatives and the efforts of nature conservation. They are also supportive of the implementation of state policies on ithe mprovement of livelihoods in local communities. For instance, households in some Soums of Selenge, Darkhan Uul and Tov Aimags have had their fruit farms enclosed to claim ownership over that land for their families. Moreover, small project grants are spent for public awareness on the importance of fruit farms and practical methods of running them (for more information please refer to www.undp.mn.org).

A programme on Environmental Reform was implemented with grants from the Government of Netherlands and the World Bank. Small projects programme (US$ 50,000 each) were implemented in 2006. In total, 50 small projects were selected and about 30 of them were dealt with organisation of partnerships between the poor and the sustainable use of natural resources (For more information on the programme please refer to www.forum.mn).

Under the Regional Technical Cooperation Programme of the Asian Development Bank (ADB) a small project was announced and implemented by non-governmental organisations. Under the programme the Lake "Airag" in Dornod Aimag was taken under local protection and eco-tourism activities have begun. Under the ADB small project the Mongolian Environmental Consortuim implemented a smal project creating a nursery of woody plants in participation with the poor to assist them improve their livelihood.

Over 80 small projects were implemented through the Australian and Mongolian Small Project Support Programme, and 30 of them dealt directly with the reduction of unemployment and poverty through the sustainable use of natural resources and

sustainable income generation.

76. ◇ Has your country developed or explored mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity? (decision V/24)	
a) No	
b) No, but mechanisms are under development	X
c) Yes, mechanisms are in place (please describe below)	

Further comments on the development of mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity.

Within the framework of the Rural Development Support Programme long and short term soft loans have been issued to small enterpreneurs in rural areas. These loans have been supported by the World Bacnk and Japanese Government since 2006.. The programme assisted with thediversification of income sources of households and communities through the sustainable use of natural resources and the restoration of deteriorated land. Under the programme a total of 56 individuals and economic entities were issued with soft loans. The individuals and economic entities issued with the loans have engaged in restoration, farming and cultivation. Since 2003, the project community forestry management has been implemented with the support of the UNDP Food and Agricultural Organisation. In total 25 community groups have established in three Aimags. These community groups have made indirect investments to nature conservation through preventing forest ecosystem deterioration, preservation and protection of biodiversity, and use the of non-timber forest products. NGOs, with community participation, have carried out other conservation activities. As part of the project "Community based Conservation of Biodiversity" in the Altai Sayan Eco-Region, implemented since 2007, scientific justifications for pilot projects community based land conservation have been developed and the scope of activities has been identified.

77. Has your country initiated a process to apply the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity? (decision VII/12)	
a) No	
b) No, but the principles and guidelines are under review	
c) Yes, a process is being planned	X
d) Yes, a process has been initiated (please provide detailed information)	

Further information on the process to apply the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

The 2001 members' meeting recommended flexible institutional structures and organisations for the sustainable use of biological resources within the Convention on Biodiversity. The members' meeting held May 6 - 8, 2003 approved the principles of sustainable use of biodiversity and its components. The Addis Ababa principle has 14 articles, and Convention members were requested to consider and follow up on the statements in the principle for their programmes and plans. Mongolia has developed a plan on implementation of principles of biodiversity preservation and conservation through the sustainable use of biodiversity as stated in the national programme on Biodiversity Conservation. Under the principles mentioned above, setting up a flexible legislative environment, taking legal and organisational responses to reduce potential impacts of industries on biodiversity and developing international cooperation are considered and actioned. However, Mongolia has had little success setting up inter-sectoral cooperation and management, partnerships and flexible political management. Moreover, little work

has been undertaken in the establishment of a long term evaluation and monitoring system and assessment criteria for the sustainability of businesses. This is contingent to that the no legal entity(ies) are identified and empowered to conduct monitoring within the implementation of national programme. Apart from this, there has been little development of partnerships at the international and regional level, with regards to biodiversity sustainable use and management. Recent statistics on biodiversity many parts of species have moved to neighboring countries, Russia and China and other countries. No definite steps have been made towards economic partnership agreements with these countries inh regards to nature conservation, particularly the conservation of biodiversity, the protection of their genetic funds, capturing and reintroduction of biological species and the development of economic activities.

78. Has your country taken any initiative or action to develop and transfer technologies and provide financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity? (decision VII/12)	
a) No	X
b) No, but relevant programmes are under development	
c) Yes, some technologies developed and transferred and limited financial resources provided (please provide details below)	
d) Yes, many technologies developed and transferred and significant financial resources provided (please provide details below)	

Further comments on the development and transfer of technologies and provision of financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

Until now, "biodiversity conservation" has been iunderstood to mean the same as "conservation." Laws and regulations on the sustainable and restricted use of biological resources have been inadequately enforced though the legal environment established. Therefore, the following actions need to be implemented phase by phase to conform with Addis Ababa principles:

- Set up flexible inter-sectoral cooperation and management;
- Consider the conservation of biodiversity gene fund at international and regional levels, and cooperate with neighbouring countries based on agreements within the Convention on Biodiversity;
- Expand cooperation amongst biodiversity resource users, coordinate parties and establish and follow up on evaluating and monitoring the legislative environment;; and
- Strengthen stakeholder capacity at all institutional levels with regards to biodiversity conservation.

Biodiversity and Tourism

79. ◇ Has your country established mechanisms to assess, monitor and measure the impact of tourism on biodiversity?	
a) No	
b) No, but mechanisms are under development	x
c) Yes, mechanisms are in place (please specify below)	
d) Yes, existing mechanisms are under review	

Further comments on the establishment of mechanisms to assess, monitor and measure the impact

of tourism on biodiversity.
Tourism is one of new sectors in the country and foreign tourists and visitors are interested mostly in history, culture, and specific lifestyle features. However, during last 2-3 years some tourists and visitors have visited the country for bird, butterfly, plant, and wild species watching. Additionally, hunting tourism has become one of attractive activities for foreign tourists and visitors and the Government of Mongolia is in favor of this type of tourism. Researchers identified that tourism has high impacts on biodiversity mostly technical impacts i.e. increased noises shying wild species and off driving new tracks that are negatively impact on wild species habitats and ranges. Although the individuals, economic entities, and companies engaging in tourism activities must have EIA for their businesses and are allowed to conduct their tourism activities within the areas designated by local governments for tourism activities, some provisions of Laws are mutually contradicted. Therefore, it needs to intensify the cooperation between the Ministry of Nature and Environment and Ministry of Road, Transport and Tourism.

80. ◇ Has your country provided educational and training programmes to the tourism operators so as to increase their awareness of the impacts of tourism on biodiversity and upgrade the technical capacity at the local level to minimize the impacts? (decision V/25)	
a) No	
b) No, but programmes are under development	x
c) Yes, programmes are in place (please describe below)	

Further comments on educational and training programmes provided to tourism operators.
Phase-by-phase measures are taken in terms of capacity building and training for personnel of the tourism sector. In 2004 the Ministry of Road, Transport and Tourism was newly established; 2006 was announced as "Year of Visit Mongolia" and the tourism has become one of economically important sectors in the country. Since 2003 professional training has been conducted for personnel at the tourism sector and to date, over 40 colleges and universities provides professional training on tourism. Professional training and schools in the country deal with only tourism management, but not the management approaches on nature and biodiversity conservation and reduction of negative impacts. On one hand, tourists and visitors coming to Mongolia are interested to enjoy untouched natural conditions and nomadic living conditions. At the moment, it is considered that this type of tourism has less negative impacts on biodiversity. On other hand, rare and very rare wild species are found in remote mountainous areas so that these areas are not so easily accessible for the tourists and visitors.

81. Does your country provide indigenous and local communities with capacity-building and financial resources to support their participation in tourism policy-making, development planning, product development and management? (decision VII/14)	
a) No	
b) No, but relevant programmes are being considered	x
c) Yes, some programmes are in place (please provide details below)	
d) Yes, comprehensive programmes are in place (please provide details below)	

Further comments in the capacity-building and financial resources provided to indigenous and local communities to support their participation in tourism policy-making, development planning, product development and management.

In 2004 a Master Plan on Tourism Development that focused on rural development was developed and adopted. As a result, there were many tourist camps and centers established in rural areas particularly near Protected Areas. The tourist centers and camps have recruited local people and conducted awareness on tourism activities. In other words, they make contribution to the local economic development. As tour camps and ger camps are established and run at local level, projects and programs on improvement of livelihood of local communities have been implemented and local people also initiated small businesses that play an important role in tourism development. Unfortunately, some negative impacts i.e. environment deterioration and pushing away wild species from their habitats and ranges are observed and no any efforts and initiatives have been taken by local governments, institutions and economic entities.

82. Watching biological species i.e. fish, butterfly, plants, and birds and hunting tourism has started in the country. Therefore, these types of tourism are studied in their geographical locations and route intensity and researches on potential interrelations of the sectors and management options have commenced.

82. Has your country integrated the Guidelines on Biodiversity and Tourism Development in the development or review of national strategies and plans for tourism development, national biodiversity strategies and actions plans, and other related sectoral strategies? (decision VII/14)	
a) No, but the guidelines are under review	
b) No, but a plan is under consideration to integrate some principles of the guidelines into relevant strategies	x
c) Yes, a few principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector)	
d) Yes, many principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector)	

Further information on the sectors where the principles of the Guidelines on Biodiversity and Tourism Development are integrated.

Watching biological species i.e. fish, butterfly, plants, and birds and hunting tourism has started in the country. Therefore, these types of tourism are studied in their geographical locations and route intensity and researches on potential interrelations of the sectors and management options have commenced.

Box XLIX.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Sustainable use of natural resources particularly biodiversity has become one of important justifications for the future sustainable development of the country. Therefore, the Government of Mongolia prioritises the development of legal environment on use of nature and its resources that is resulted from the scientific based sustainable development concepts. The concept of sustainable uses is clearly stated in the environmental Laws i.e. on Plants, Fauna, Environmental Protection, and Land. Nevertheless, the current country's development phase is still dependant on the nature and natural resources and their

utilisation and conservation is not reached the level, where the country's economic recovery is taken place.

Since certain parts of biodiversity in Mongolia are protected within the established Protected areas and the national program on universal ecological education is implemented throughout the country, it is considered that this is good start for integrated approach to the issue.

The Milluenuem Development Goals state to support rural development and to reduce poverty and unemployment and a number of small projects are implemented with supports of international organizations for improvement of livelihood of rural population and environmentally friendly socio-economic developement in the country.

In order to ensure sustainable use of natural resources and heritage of best practices to the next generation, the following aspects that would help the establishment of socio-economic particularly favorable legal environment need to be considered for the development of Action Plans:

- Ensure inter-sectoral cooperation and coordination, while establishing legal environment for support of rural community development and building local capacities;
- Amend some of the sectoral Laws in force with provisions on concepts of nature and biodiversity and
- Concepts on their components and types;
- Ecological Impact Assessment and monitoring need to be conducted in detail for some economic activities i.e. tourism, road and transportation and mining in order to identify their negative impacts on biodiversity and potential methods and options to reduce and eliminate the impacts.

Article 11 - Incentive measures

83. ◇ Has your country established programmes to identify and adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity?

a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes are in place (please provide details below)	x
d) Yes, comprehensive programmes are in place (please provide details below)	

Further comments on the programmes to identify and adopt incentives for the conservation and sustainable use of biodiversity.

In order to intensify biodiversity conservation and the sustainable use of natural resources, the Government of Mongolia uses an incentive system. In a country like Mongolia, with its rich biological resources, implementing socio-economic incentives increase the success of implementing obligations under the Convention. Incentive measures can be given through different economic and social motivations like tax and credit policies, rewards and honorary awards. The legal basis for using economic incentives in Mongolia is already determined in laws on "Environmental Protection" and "Natural Resource Payment". For instance, Articles 19 and 34 of the law on "Environmental Protection" allows the state to give incentive measures to people, businesses and organisations for their contributions to conservation activities, the sustainable use and restoration of natural resources, and in adopting different kinds of environmentally friendly modern technologies.

In the "Law on Hunting" it states that the person who discovers an illegal act and who

informs relevant authorities will be rewarded with 15% of the fine of the violation. Similar articles can be found in "The Law of Forest" and "The Law of Water". Also, Government Resolution No 95 of 1998 issued "A rule of using incentive measures for the people, economic entities and organisations that adopt environmentally friendly technologies".

84. ◇ Has your country developed the mechanisms or approaches to ensure adequate incorporation of both market and non-market values of biological diversity into relevant plans, policies and programmes and other relevant areas? (decisions III/18 and IV/10)	
a) No	
b) No, but relevant mechanisms are under development	x
c) Yes, mechanisms are in place (please provide details below)	
d) Yes, review of impact of mechanisms available (please provide details below)	
Further comments on the mechanism or approaches to incorporate market and non-market values of biodiversity into relevant plans, policies and programmes.	

85. ◇ Has your country developed training and capacity-building programmes to implement incentive measures and promote private-sector initiatives? (decision III/18)	
a) No	
b) No, but relevant programmes are under development	x
c) Yes, some programmes are in place	
d) Yes, many programmes are in place	

86. Does your country take into consideration the proposals for the design and implementation of incentive measures as contained in Annex I to decision VI/15 when designing and implementing incentive measures for the conservation and sustainable use of biodiversity? (decision VI/15)	
a) No	x
b) Yes (please provide details below)	
Further information on the proposals considered when designing and implementing the incentive measures for the conservation and sustainable use of biodiversity.	

87. Has your country made any progress in removing or mitigating policies or practices that generate perverse incentives for the conservation and sustainable use of biological diversity? (decision VII/18)	
a) No	
b) No, but identification of such policies and practices is under way	x
c) Yes, relevant policies and practices identified but not entirely removed or mitigated (please provide details below)	
d) Yes, relevant policies and practices identified and removed or mitigated (please provide details below)	

Further information on perverse incentives identified and/or removed or mitigated.

Box L.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Legal framework

The legal base for using economic incentives is already determined in the law on "Environmental Protection" and law on "Natural Resource Payment".

Based on the Mongolian Law on Forest, the Government made a resolution that a community or business enterprises can lease forestted areas for a forty year period from the State. As part of the lease agreement, the lessee has an obligation to protect the forest resources from illegal cutting and wild fire, regenerate the forest areas through establishing nurseries, and using forest resources to improve the living standards of local people. In return, Local government will provide tax exemptions for the use of timber or fodder collecting. The Government also has a fund for reforestation, and communities can obtain a grant to carry out reforestation activities. A total of nineteen community forestry units have been established in four provinces.

Incentive measures

Every year the Ministry of Nature and Environment selects an "Environmentally friendly technology user" and "Ecologically clean product" and awards certificates and prizes. The Ministry also announces a "Governor-Best friend of the environment" contest each year and grants an "Annual Prize for the Environment" – up to one million MNT is awarded to people who make a significant contribution to nature protection activities. The Government always promotes and co-operates with environmental NGOs.

In 2005 the Minister of Nature and Environment approved a regulation on the recruitment of volunteer rangers and paid them according to their performances. Since then, the volunteer rangers have assisted in the inspection and monitoring on nature conservation, and the restoration and sustainable use of natural resources at a local level. The regulation states the requirements for volunteer rangers, including selection criteria, certification and termination of their rights, amounts of areas under their responsibilities, plenary rights and their fixed appointment period, and incentives. For the issance of incentives to the volunteer rangers according to their performances the Sum/District Governmnents use the following statements: volunteer rangers are paid 15% of the fines and penalities imposed on environmental violators who illegally harvest, hunt and/or collect natural resources. In addition, 15% of the revenue in the local budget derived from cases of arresting and informing on environmental violators is awarded to volunteers. In addition, the Sum/District Governors will annually issue incentives (named after the Sum Governor) to a volunteer ranger who successfully carried out his/her duties, with Aimag/Capital City Governorsissuing incentives (named after Aimag/ District Governor) for up to three volunteer rangers per year.

Despite these economic incentives and stimulation mechanisms for environmental protection, restoration and appropriate natural resource management, the provision for such incentives in Mongolian Environmental Legislation are not strong enough. The current level of

fines is not an effective incentive for individuals and businesses to comply with the law.

Underlying incentive requirements for effective biodiversity conservation:

- Strengthen the legal base to create a flexible economic incentive system for the sustainable use and restoration of natural resources;
- Provide incentive measures through a reduction or exemption from different kinds of fees and taxes;
- Establish incentive funds through the support of state and local budgets, donations and funding from economic entities and local and international organisations;
- Promote economic entities using environment-friendly technologies by foreign aid, loans and investment;
- Set a realistic amount for the fines incurred for polluting the environment and use a certain percentage of this income for rewarding businesses engaged in ecologically-clean production;
- Improve financial methods of fees and taxes for the conservation, regeneration and use of natural resources, relating to aspects of ownership and contracting; and
- Raise public awareness on environmental incentives.
- It is essential to study and adopt the experiences of other countries to establish a sound incentive system in Mongolia.

Article 12 - Research and training

88. ◇ On Article 12(a), has your country established programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components?

a) No	
b) No, but programmes are under development	
c) Yes, programmes are in place (please provide details below)	X

Further information on the programmes for scientific and technical education and training in the measures for identification, conservation and sustainable use of biodiversity.

The National Programme on Public Ecological Education (1997) has been successfully implemented in the country. As part of this programme, biodiversity conservation related subjects are taught at all school levels including secondary schools, colleges and universities. An Action Plan on Mongolian Biodiversity Conservation points out the importance of public education and awareness on conservation activities. To date, there are over 3000 researchers working at institutes under the Mongolian Academy of Sciences, universities and research laboratories. A number of students at the Mongolian Pedagogical University, Medical University and Agricultural University are specialised in over twenty natural science fields. Additionally, students at over ten private colleges and universities in the country are trained in eco-tourism and ecological education. An Ecological Centre (2001) organises training and re-training for teachers and instructors at secondary schools, colleges and universities in order to improve their environmental knowledge and education.

Since 2003, the National University of Mongolia in cooperation with the Zoological Society of London in Great Britain has implemented a programme "Step Forward" under a cooperation agreement. The programme "Step Forward" was designed for young environmental specialists and researchers who deal with biodiversity conservation. Ithas been successfully implemented from 2003 to 2006 with funding from the Darwin Initiative Institution of the British Goverment. As part of this programme, nine lots of summer training have been organised for students at departments of Biology, Ecology,Nature Conservation, Biotechnology and Forestry at the National Univeristy of Mongolia (NUM).

About 200 students attended the summer training were trained in developing research project propsals on wildlife population assessment, ecological studies, analysing research data and methodologies of carrying out wild species inventories. About 20 professors and scientists from universities in Great Britain and United States of America and other international research institutions were invited to give lessons on training. Each student attending training developed small research project proposals on particular cosnservation issues, and identified the most appropriate solutions for the probems. Additionally, students learned how to develop scientific papers and reports.

The programme, "Step Forward," in cooperation with the Centre for Ecological Education at the NUM organised mid career training for teachers of Ecology in secondary schools of Umnu-govi Aimag. In addition, the department of Biology the NUM has run a a department of Ecology-Nature Conservation since 1996. The two departments at the NUM provide students with scientific knowledge on flora and fauna diversity, their taxanomic states, and conservation issues through their professional training process. Conservation biology is taught to the students studying for their Master Degrees at the department of Biology at the university.

Similar training, particularly on the sustainable use of natural resources and conservation, is conducted at other colleges and universities such as the Mongolian Pedogagical University, Eco-Asia Institute and University of Agriculture.

The GTZ project "Nature Conservation and Sustainable Management of Natural Resources" conducted forest inventory/census in 479,000 ha within the region, where the project is implemented, by using satellite images and GIS. Moreover, the project organised training for national researchers and college and university students, jointly conducted summer field studies, and sent four specialists to training on GIS in Germany.

89. ◇ On Article 12(b), does your country promote and encourage research which contributes to the conservation and sustainable use of biological diversity?	
a) No	
b) Yes (please provide details below)	X

Further information on the research which contributes to the conservation and sustainable use of biodiversity.

In order to improve the management of scientific institutional structures, the state policy on Science and Techinology was developed according to the Law on Science and Technology. A national scientific committee was established and is run on a part time basis to assist in the regulation of state policy enforcement and to make recommendations on development of science and technology in the country.

The state policy on Science and Technology, approved by Parliament Resolution (1998), has an objective "to develop science and technology that play a significant role in the in establishment and running of an export oriented market economy and democratic and humane society and ensure the sustainable development in the country". In order to achieve this objective and to ensure the enforcement of state policy on Science and Technology, a national programme on the Development of Science and Technology up to 2010 was developed and approved. The programme was developed by national researchers and scientists upon the consideration of the current state of scientific and technological development in the country. The national programme states three main objectives. Objective 1 is "to use intellectual resources and development advantages for the successful development of national production that aims to expand the export, replace the import and produce advanced technology and new products through taking national advantages i.e. richness in minerals and raw materials of wild species (fauna and flora) origins, vast land to be used for agricultural purposes, and a high level of educational background amongst the population based on traditional practices and modern scientific achievements, and the efficient transfer and use of know how and technology from foreign countries in consistant

with the natural and economic conditions of the country".

The **Scientific and Technological Fund** (1998) has been established. The Fund, a state institution, implements and supports nationwide research, pilot projects and inventions with grants and funds. Additionally, the Fund retains and spends financial sources for state ordered scientific and technological projects, baseline and applied researches and oversees the use of funding and financial resources allocated. The Fund allocates and spends grants (non-repayable funds) from the state budget for prioritised theoretical baseline research and state ordered scientific and technological projecst. As of 2006 there were 50 research projects funded in total. 20% of these projects dealt with biodiviersity conservation.. The amount of funding or grants per project varied, but this figure was on average up to MNT 30,000,000 with projects lasting up to 3 years.

In cooperation with the Academy of Sciences, fund allowed for a NUM workshop for over 80 national researchers and scientists that do and did long-term biodiversity and ecological monitoring in January 2007. Participants of the workshop developed a policy proposal on long term biodiversity and ecological monitoring and proposals on the selection and establishment of monitoring and research plots and strengthen inter-sectoral cooperation. During the workshop a working group of researchers and scientists was set up. At present the working group develops proposals to support long-term ecological monitoring, and biodiversity conservation and sustainable use for submission of proposals to relevant upper state administrative organisations.

90. ◇ On Article 12(c), does your country promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources?

a) No	
b) Yes (please provide details below)	X

Further information on the use of scientific advances in biodiversity research in developing methods for conservation and sustainable use of biodiversity.

A Prize named after the President of Mongolia is annually issued to a young scientific researcher, who makes the greatest contributions to nationwide and worldwide scientific development. The prize is issued in order to support and encourage young talanted researcher,s and involve them in scientific research. The prize includes a Certificate of Honour signed by the President of Mongolia and MNT 500,000-1,000,000 ,or valuable items equal to these amounts of money. Research and scientific institutions and univirsities in the country nominate their best candidates for the prize, with relevant papers and documents of the candidates being sent to the President's Office for consideration and final selection.

Procedure of selection of the Best Scientific Researchers: in order to support and encourage young talanted researchers who make contributions to socio-economic development, scientific and technological progress, intellectual resources and become the most skillful and progressive researchers of the upcoming generation, a prize named after the Mongolian Academy of Sciences is issued to the best researcher every two years. The prize includes a Diploma, a Certificate of Honour and MNT 500,000 – 1,000,000.

Scientific research on biodiversity is conducted by scientific research institutions such as the the Institute of Biology, Botany, Geo-ecology, NUM, and Mongolian Pedogogical University. Governmental policy on biodiversity conservation and sustainable use is justified by the scientific research results and recommendations. Scientific research fields on biodiversity conservation and sustainable use to be conducted every year are announced and selected under bidding. The Institute of Biology carry out researches on

mammals, birds, fish, and insects particularly forest insects i.e. Siberian silkworm (*Dendrolimus superans sibiricus Tschetv*), Gypsy moth (*Lymantria dispar dispar*), Jacobson's looper (*Erannis jacobsoni Djac),* and weevils and jewels (*Curculionidae, Buprestidae*) that cause serious damage to forests. Studies on grasshoppers in eastern Aimags identified 48 species and sub-species of 3 families within territories of Dornod and Sukhbaatar Aimags. 2 species were found to be dominant in forest steppe, 2 species in steppe and 2 species in mountain steppe. Due to frequent spring fires eggs of grasshoppers in the soil have been damaged and due to lack of precipitation, plant growth has been reduced. These conditions have resulted in the reduction on grasshopper populations and a loss of soil structure. As a result, the numbers of *Orthoptera* have not increased. This has become one of the limiting factors of grasshopper populations in the region, according to research results. Swimmer beetle samples concluded there were 47 species of 5 sub-families, 8 orders, and 12 genera. Among the species, there were 20 species newly recorded in Mongolia and *Oreodytes shorti* was newly identified. As a result knowledge of swimmer beetles in Mongolia has been increased by 21 species and at present there are 84 species recorded in the country. *Acheta domesticà* (*Orthoptera: Gryllidae*) was newly recorded in Mongolia and *Actias selene* (*Lepidoptera: Saturniidae*) was identified and recorded.

As of June-July 2006, bactrian camel were distributed over 17063.3 km^2 in Altai Uvur Gobi, khulan in over 26961.2 km^2, black-tailed gazelle over 28587.1 km^2, and gobi bear over 4747.3 km^2. In terms of individuals per 100 km^2 , there was one individual of bactrian camel, 0.2 individuals of khulan, 0.1 individuals of black-tailed gazelle and 0.1 individuals of gobi bear recorded.

The mean density of signs of snow leopard evidence on the Altan Khohii mountain was 21.4 signs/km. In comparison to the density of individuals per 1 km across Mongolia, this density represents a mean density. In Umnu-govi aimag there were 6.86 signs per 1 km. This was three to four times less than the long term average. Research foundthat the individuals recorded in this area have been reduced due to a lack of precipitation during the last two years and deteriorated in rangeland condition. It is likely that mountain animals, including the snow leopard, have moved to a different rangeland to find a greater food supply. Statistics showed that 26 - 33000 male musk deer were illegally hunted for smuggling musk during the eleven years between 1993 and 2004. This poaching has resulted in a lack of reproductive capacity of an equal number of female musk deer and the resulting loss of the same number of offsprings to be newly born in the taiga region of Mongolia. The musk deer, one of very rare species in the country, is close to extinction.

Lately, results of scientific research has been known by the public. However, state policy to support scientific research has been still lacking, and some actions have been taken without any final research results and recommendations. For instance, conservation actions taken for the Gobi bear are implemented without any recommendations by relevant scientific institutions and researchers.

There were 2,938 head of Siberian marmot recorded per 13169 km^2 (2.23 individuals per 1000 ha or 10 km^2) within 18 soum territories in the central and southern parts of Tov Aimag regarded as abundant in marmots; and 5,102 individuals in 13187 km^2 (3.8 individuals per 1000 ha) within 14 Sums of Bayankhongor Aimag; and 12,500-14,000 individuals in 14101.8 km^2 (1.2 individuals per 1000 ha) in the north, north east, and east of Uvurkhangai Aimag. These data show a decrease in the number of game species in the main distribution areas and ranges of Siberian marmot in the country. Research results show that if Tov, Uvurkhangai, and Bayankhongor Aimags are to have as abundant a distribution of Siberian marmot as they had in the past, adequate conservation for at least for 8-10 years is required.

As part of the project "Step Forward," the NUM and Zoological Socitry of London have

been implementing the project "Biodiversity Database" with funding from the Mongolian & Netherlands Trust Fund and World Bank since 2005. Under this project, all data on vertebrate species in Mongolia have been entered into the database. Moreover, a workshop on the assessment of mammal species' scarcity was organised in November 2005. Over 70 national and international researchers attended the one week workshop to discuss the current status of mammals (128 species) endemic to Mongolia and identify the causes of their decrease in poplation, threats and conservation status according to IUCN methodologies and criteria. Experts and researchers at the IUCN were invited and taught methodologies on the assessment of endangered, critically endangered species and threatened species at the beginning of the workshop. Mammal researchers and biologists attending the workshop published pamphlets "Red List of Mammals in Mongolia" and "Conservation Plans for Mammals in Mongolia" based on their research data (published and unpublished) and assessment results and findings of the 2006 workshop. The pamphlets were highly appreciated by the Ministry of Nature and Environment. Similarly, national and international ichthyologists attended a workshop where they discussed the current situation of fish in Mongolia and identified the causes, threats and conservation status of the fish species according to IUCN methodologies and criteria. The workshop participants also published the pamphlets "Red List of Fish in Mongolia" and "Conservation Plan for Fish in Mongolia" based on their research data (published and unpublished) and assessment results and findings of the workshop.

As part of the project "Biodiversity Database" national and international researchers and experts who studied reptiles and amphibians in Mongolia gathered in September 2006. They discussed the current status of reptiles and amphibeans in Mongolia, and identified the causes, threats and conservation status of the species. At present, these researchers and experts are preparing to publish the pamphlets "Red List of Reptiles and Amphibeans in Mongolia" and "Conservation Plan for Reptiles and Amphibeans in Mongolia".

Participation and tangible contributions by profesionals, experts and researchers are vitally significant for the enforcement of the Convention on Biodiversity. Some groups of flora and fauna species in the country are still not well studied. Therefore, priorities are given to train researchers and experts to conduct research on the flora and fauna species that are not studied, and guide staff members of the National Historical Musuem, Collection centres under the Institutes of MAS and universities to maitain and restore exhibits and showpieces at their centres.

Box LI.

Please elaborate below on the implementation of this article specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Protected Area Administrations need to recruit biodiversity specialists and researchers. This will provide a good opportunity to set up and run long term biodiversity monitoring within their PAs. A policy to expand the network needs to be followed.

Mongolian Laws on Environmental Protection and Hunting state that Aimags will have biodiversity reserves within their territories assessed, and hunting management conducted by certified professional organisations every four years. They will plan the conservation and sustainable use of game species based on such assessment results and findingss. The establishment of reserves and the distribution of very rare species and species hunted with special permits will be conducted by certified professional organisations. Funds for this work

will come from the state central budget. Based on assessment results, they will establish the maximum limits of animals to be hunted and trapped.

The Institute of Biology conducted a marmot reserve assessment in the Tov, Uvurkhangai and Bayankhongor Aimags in 2006, and identified that its range has been reduced by 40 - 60% and its population has declined by 60 - 70 % within the last 5 years. The Government of Mongolia has made a decision not to hunt marmot at national level during the next 3 years.

The history of the Mongolian Academy of Sciences includes the establishment of the Institute of Sutra in 1921 and the Academy of Sciences in 1961. In only a short period of time since establishment, a number of works and papers by national researchers and experts have become well known not only at a national level, but also at an international level. For instance, the Mongolian national atlas, over 90 works and papers compiling geological, geographical, biological and botanical research results and findings, and the Mongolian Red Book have become well known by the public. Works, papers and books containing important data and solutions on new breeds of livestock, the sorts of plants that are consistent to the natural and ecological conditions and specific technical and technological solutions are a some achievements of the contemporary Academy of Sciences.

Although a number of scientific fields and specialised research institutions have been successfully established and developed in the country, industrial, technical and technological solutions have been left behind in the scientific and technical progress of the era. In 1998 Mongolian Laws on Science and Technology and Transfer Technology were first adopted in the country and with these Laws being amended in 2007.

To date, research is conducted by the MAS and its Institutes and universities according to project funding. A technological policy is to efficiently use scientific principles and achievements in actions practical and productive to the population. Sustainable development of the country will be ensured through the processing of raw materials, natural resources, running of export oriented industries and the production of high quality products for worldwide markets. In order to achieve this objective it is important to restore and develop traditional national technologies, produce and use advanced technologies in production, and transfer know-how in accordance with global technological development.

Participation and tangible contributions from profesionals, experts and researchers are vital for applying the Convention on Biodiversity. In addition, some groups of flora and fauna species in the country are still not well studied. Therefore, priorities are given to train researchers and experts to conduct research on the flora and fauna species that are not studied, and guide staff members of the National Historical Musuem, Collection centres under the Institutes of MAS and universities to maitain and restore exhibits and showpieces at their centres.

For the efficient conservation and sustainable use of biodiversity it is necessary to identify the current status, causes of decline and impacts of human activities to prioritise research justifying the protection and restoration of fauna and flora species, and to consider these issue as a basis for state policy. Therefore, training and re-training on biodiversity conservation and sustainable usage is urgently needed for national specialists and researchers.

The cost of research is high, however, and advanced techniques and technologies are needed for good quality research. For developing countries like Mongolia it is necessarry to to cooperate with developed countries and international organisations for financial, technical and technological assistance. Accordingly, it is very important to train and re-train national professionals in terms of biodiversity conservation and the introduction of modern conservation approaches.

Protected Area Administrations need to invite international biodiversity experts and researchers to visit. This would provide a good opportunity to set up and run long term biodiversity monitoring within their PAs. A policy to expand the network needs to be

followed.

The Mongolian Action Plan for the 21st Century (1999) has given specific actions for the in development of science and technology.

Objectives

To establish an effective national system for the application of the modern achievements of science and technology to the intellect based production.

Activities

- Strengthen state organisations responsible for the study of the future trends and needs of scientific and technological development, assessments and evaluations, the transfer and introduction of scientific achievements and technology;
- Determine priority directions for scientific developments, strengthen the research and experimental basis;
- Establish the rules of loans to research organisations from the Government, Mongol Bank and commercial banks;
- Give a priority to experimental and research works in compliance with new socioeconomic conditions, market requirements and new advanced technology, develop the fundamental sciences;
- Update production technology according to the country's industrialisation policy through the transfer and adaptation of advanced technologies from abroad, and introduce new technologies developed by Mongolian scientists and researchers;
- Create the capability to assess technological standards and characteristics;
- Strongly encourage initiatives of the private sector in regards to scientific and technological development;
- Involve university faculty members and students in research, provide government support to talented youth;
- Integrate educational and scientific organisations and industries through establishing training/ research and training/research/ industrial complexes based on the skills andl and physical capabilities of universities, institutes, research organisations and industrial enterprises;
- Improve the management structure of scientific organisations and gradually transfer some research institutes towards a self-financing structure;
- Improve the safety and working conditions of employees in the science and technology sector;
- Utilise the "Sustainable Development Information Network programme" for linking scientific and technological information companies, libraries and institutes with the world information and inquiry base; and
- Re-train engineers, technologists and scientists already working in the industrial fields by sending them to developed countries.

Article 13 - Public education and awareness

91. Is your country implementing a communication, education and public awareness strategy and promoting public participation in support of the Convention? (Goal 4.1 of the Strategic Plan)

a) No	
b) No, but a CEPA strategy is under development	
c) Yes, a CEPA strategy developed and public participation promoted to a limited extent (please provide details below)	x
d) Yes, a CEPA strategy developed and public participation promoted to a significant extent (please provide details below)	

Further comments on the implementation of a CEPA strategy and the promotion of public participation in support of the Convention.

Mongolia is a signatory to ten conventions and international environmental documents and papers, including Sustainable Development for the 21st century issued by the world-wide UN summit "Environment and Development", Rio Declaration, Espy Convention on Trans-boundary Environmental Impact Assessment, and "European Cooperation Society Guidance on Free Exchange of Information on Environment." These international environmental papers and documents include statements regarding public access to the decision making process, and the free exchange of information on environmental issues. Mongolia has such obligations under these international conventions, declarations and guidances.

National programmes on the implementation of the State policy on ecology and environmental legislation in Mongolia include information regarding public awareness activities and their legislative environment. Additionally, public awareness activities play an important, tangible role in the enforcement of provisions of the Mongolian Constitution, namely "each citizen shall have the obligations to protect the environment" and "citizens shall exercise the rights to live in a healthy and safe environment and to be protected from environmental pollution and ecological imbalance". Although the initiatives and efforts on environmental conservation and sustainable use of natural resources have been intensified, public awareness activities and the delivery of the public to the State still lacks. As a result, the enforcement of State policies and legislations is inadequate. Due to the immediate necessity of planning environmental public awareness activities at the State policy level, the National Programme on Environmental Public Awareness was developed, identifying State policy areas and the implementation of activities over the next seven years.

The Goal of the National Programme is to increase public ecological awareness and education, as well as public participation in the enforcement of State policy and legislation. The initial stages of the programme has been successfully implemented, and priority has been given to ensuring the programme continues to be rolled out. Based on this, a working group consisting of representatives from the Ministry of Nature and Environment, the Ministry of Education, Culture and Science and non-governmental organisations was developed to submit a proposal on a National Programme of Sustainable Development – Public Ecological Education to the Government.

An objective of the programme is to strengthen the basis for sustainable development in the country through the development of phase-by-phase public education campaign on sustainable development and the environment. This will in turn build a new culture of sustainably using natural resources based on the country's considerable traditions of nature conservation.

92. Is your country undertaking any activities to facilitate the implementation of the programme of work on Communication, Education and Public Awareness as contained in the annex to decision VI/19? (decision VI/19)

a) No	
b) No, but some programmes are under development	
c) Yes, some activities are being undertaken (please provide details below)	X
d) Yes, many activities are being undertaken (please provide details below)	

Further comments on the activities to facilitate the implementation of the programme of work on CEPA.

The National Programme on Public Environmental Awareness was developed by the Government and approved by Parliament. The Programme includes the State policy on public awareness and its enforcement over the next seven years. *The programme goal is to increase the public awareness and ecological education on the environment, and public participation in the enforcement of State policy and legislations.* The programme includes the following objectives:

- Conduct public awareness activities on biodiversity conservation policies and legislation, and mechanisms for their enforcement;
- Provide the public with access to policy information on biodiversity conservation, and increase public awareness on this;
- Reflect public feedback and comments to the policies and decisions made by government and non-government organisations, and encourage public participation in biodiversity conservation;
- Restore traditional biodiversity protection practices; and
- Improve the ecological education of the younger generation.

A number of projects and programmes on biodiversity conservation, sustainable use and restoration have been implemented by many different organisations and institutions in the country. For instance, the Swiss Agency for Development and Cooperation Mongolia developed the worksheet "Ecology and Nature Conservation" for school children from grade five to nine at secondary schools in Mongolia. This is a good initiative aimed to stimulate young children's involvement in nature conservation activities. WWF Mongolia, in cooperation with England's Bloomberg Association, implemented a project "Environmental School" to help guide secondary school ecology teachers in rural areas. A project on renewable energy sources for secondary schools in rural areas, and the development of an electronic database on the Khar Us Nuur Protected Area was implemented with funding from the Canadian Foundation. The project has an important role in the delivery of awareness on biodiversity conservation and restoration among school children in rural areas. Since 2002 the UNDP Mongolia has been implementing small project grants through the Global Environment Facility.

93. Is your country strongly and effectively promoting biodiversity-related issues through the press, the various media and public relations and communications networks at national level? (decision VI/19)	
a) No	
b) No, but some programmes are under development	
c) Yes, to a limited extent (please provide details below)	X
d) Yes, to a significant extent (please provide details below)	

Further comments on the promotion of biodiversity-related issues through the press, the various media and public relations and communications networks at national level.

An important function of international and national governmental and non-governmental organisations in the biodiversity research and conservation sector is raising public awareness. Utilising a diverse range of public awareness mechanisms increases information dissemination and uptake. Newsletters, radio and TV programmes on biodiversity and its conservation will be funded with grants, with detailed formal data and information on biodiversity provided by the Ministry of Nature and Environment.

Further research into public perceptions of biodiversity and development projects, and knowledge of environmental management techniques will be undertaken Mongolians have considerable traditions of living and adapting to natural conditions, and there are sources of information that can be integrated with these traditions to enrich environmental management. Research will follow the following steps:

Activity 1
Identify the level of public awareness and understanding of the importance of biodiversity and its conservation amongst rural and urban people;

Activity 2
Run mass public awareness activities on biodiversity to ensure strong linkages amongst the mass media, and support them to produce and distribute environmental newsletters, posters, radio segments and TV programmes, and support their fundraising and grant application efforts;

Activity 3
Increase the public's awareness of biodiversity through newsletters, radio segments and TV programmes prepared by the Ministry of Nature and Environment; and

Activity 4
Organise drawing, composition and poster contests on biodiversity conservation amongst school children.

Activity 5

A project entitled "Ecological Education through the Mongolian mass media" (EEMP) aims to facilitate the airing of programmes on priority environmental and sustainable development issues, and to assist the national media produce good quality programmes to raise for public awareness of such issues. The EEMP project in Mongolia, with the support of UNDP Mongolia, the Government of the Netherlands and a TV Foundation for Nature will select 156 BBC World Channel documentaries from the serials "Life" and "Awareness on the World." These documentaries will then be translated into Mongolian to be used by Mongolian radio and television on a regular basis. Weekly television programmes on the Milluenum Development Goals, and other environmental and sustainability issues will be aired. These programmes and documentaries will also be recorded and distributed through educational centres as resource material.

94. Does your country promote the communication, education and public awareness of biodiversity at the local level? (decision VI/19)	
a) No	
b) Yes (please provide details below)	X

Further information on the efforts to promote the communication, education and public awareness of biodiversity at the local level.

The Mongolian Law on Environmental Protection (1995) states that environmental assessments should be used for the development of project proposals, and in the implementation of environmental conservation, prevention from ecological imbalance and natural resource management projects. Individuals and economic entities who intend to engage in running businesses and services that could cause negative impacts on the environment must have an Environmental Impact Assessment completed by a certified institution/organisation prior to commencement or expansion of their business. Costs associated with Environmental Impact Assessments are covered by the proponent.

According to the regulations of Environmental Impact Assessments, proposed projects are divided into 12 categories. The twelth catergory includes fishing, hunting, forestry, the introduction of wild species into different habitats for commercial purposes, the use of chemicals and radiation, and other business activities to be conducted near Protected Areas.

Under the project GTZ "Nature Conservation and Natural Resource Management" support has been provided to information centres established in rural areas through the provision of environmental awareness materials. These materials have included books to libraries, brochures and hand books for school teachers and educators, and organised training and workshops for information center officers and secondary school teachers. This has occurred on a regular basis for the last 10 years.

Most of the Protected Areas are environmentally intact, and are rich in non-timber forest resources such as berries, mushrooms and cedar cones. There is some harvesting of cedarnuts in forested areas by individuals, and some wild species, such as deer, are poached. Violators usually start forest fires in Protected Areas, causing a significant loss in wild species and their habitat. In the Gobi region, Saxaul is widely harvested for firemaking causing localised deforestation and associated problems. Local communities also use different natural resources for their household needs on a regular basis, some of which are taken to the border ports and/or central areas for illegal sale. This also causes a variety of impacts on the local environment.

1. To date, the awareness and understanding of newly approved environmental legislations is still inadequate among the public, including some public servants.
2. The issuance of necessary regulations and procedures is timeconsuming, and law enforcement measures are not interlinked and inadequate.
3. The consequences of illegal actions are poorly understood amongst the public. Environmental violators are rarely imposed with severe penalties and/or fines. This needs to chnage, with violators needing to be arrested, fined and imposed with penalties by the courts, according to relevant laws.
4. The environment tends to be protected legally but not in practise. There is a conflict between the wild species harvest industry and nature conservation efforts.s. The illegal harvesting of natural resources is increasing, and is occasionally corrupt.

It is also important that economic and environmental legislation (laws and regulations) are interlinked, and that their enforcement is appropriate.

95. Is your country supporting national, regional and international activities prioritized by the Global Initiative on Education and Public Awareness? (decision VI/19)	
a) No	
b) No, but some programmes are under development	
c) Yes, some activities supported (please provide details below)	X
d) Yes, many activities supported (please provide details below)	

Further comments on the support of national, regional and international activities prioritized by the Global Initiative on Education and Public Awareness.

With the financial support of the Japan's international cooperation agency "JICA," and the participation of professors and researchers at the Mongolian National University, a guide book on "286 useful plant species identification" has been produced.

The subject "Ecology" is taught in secondary schools and "Ecology and Nature Conservation" is taught at colleges and universities in the country, according to the curriculum.

In cooperation with the studio, "Education," at the Mongolian National Television, the tele-lesson "Earth is my home" was shown for a month, with the radio lesson "Living Environment" aired for 2 months in cooperation with the Mongolian radio study "Khurd".

Over 10 contests, including the tele-contest "Ecology", drawn from "Nature conservation is the public effort," a three month campaign "Let's protect the environment" and a a presentation on "Untouched Nature" was announced and organised amongst secondary school children.

In order to improve the public's awareness on environmental law enforcement and to regularise awareness activities, cooperation agreements were made with media outlets,including the Mongolian National Television channel, Mongolian radio, newspapers "Zuunii Medee" and "Unen". In cooperation with the Mongolian radio,an NGO has prepared a ten minute programme entitled "Ecological Binoculars," aired weekly.

According to cooperation agreements with newspaper "Zuunii Medee" and "Unen," news on environmental issues and public awareness material is published every two weeks.

Since the second half of 2003 special programmes (20-40 minutes) on topics such as forest pests, environmental pollution and water reform have been aired monthly by the Mongolian National Television channel.

Rural populations, such as residents in the Gobi region, are provided with environmental awareness materials. For example, a newsletter is issued by the project "Conservation of Great Gobi Ecosystem and its Umbrella Species" quarterly. In addition, the project has established five information centres in the region. There are also six nature conservation clubs run by children and youths. Club members design annual plans to carry out different kinds of environmental awareness activities in their local areas.

Short documentaries on the Gobi bear and bactrian camels in the Gobi region have been prepared and shown on national television channels. Moreover, this project has also produced brochures, pamphlets, posters and other training and awareness materials, and distributed these to target groups.

For members of the media, a roundtable discussion "Environment – Journalists" was organised to facilitate the sharing of feedback on environmental issues, and a workshop on prioritised environmental issues was organised. Positive feedback was received by the

participants.

A public awareness and press department was opened at the Ministry of Nature and Environment.

96. Has your country developed adequate capacity to deliver initiatives on communication, education and public awareness?	
a) No	
b) No, but some programmes are under development	
c) Yes, some programmes are being implemented (please provide details below)	X
d) Yes, comprehensive programmes are being implemented (please provide details below)	

Further comments on the development of adequate capacity to deliver initiatives on communication, education and public awareness.

Public awareness activities organised with the support of GTZ, GEF, the Government of the Netherlands, UNDP Mongolia, and the International cooperation agency of Japan has made a great contribution to increased public awareness amongst the population, particularly at the local level. Additonally, these projects and programmes have established information centres for biodiversity conservation under the Protected Area administration. These information centres are open for local communities, and make a contribution to public environmental awareness at a local level.

Specialists of the Protected Area administration are sent for overseas training in biodiversity conservation under agreements made with international organisations and other client countries.

Projects and programmes implemented with the support of international organisations, invite relevant national non-governmental organisations to participate in their project activites on biodiversity conservation.

97. Does your country promote cooperation and exchange programmes for biodiversity education and awareness at the national, regional and international levels? (decisions IV /10 and VI/19)	
a) No	
b) Yes (please provide details below)	X

Further comments on the promotion of cooperation and exchange programmes for biodiversity education and awareness, at the national, regional and international levels.

Mongolia regularly participates in international days e.g. World Environmental Day and World Water Day. For example, for World Environment Day 2006 the MNEC, in cooperation with the Ministry of Nature and Environment, placed the article "Minimising desertification in arid areas" in a daily newspaper. In order to publise it, the newspaper article was also put on the UNDP website.

98. Is your country undertaking some CEPA activities for implementation of cross-cutting issues and thematic programmes of work adopted under the Convention?	
a) No (please specify reasons below)	X
b) Yes, some activities undertaken for some issues and thematic areas (please provide details below)	
c) Yes, many activities undertaken for most issues and thematic areas (please provide details below)	
d) Yes, comprehensive activities undertaken for all issues and thematic areas (please provide details below)	
Further comments on the CEPA activities for implementation of cross-cutting issues and thematic programmes of work adopted under the Convention.	

99. ◇ Does your country support initiatives by major groups, key actors and stakeholders that integrate biological diversity conservation matters in their practice and education programmes as well as into their relevant sectoral and cross-sectoral plans, programmes and policies? (decision IV/10 and Goal 4.4 of the Strategic Plan)	
a) No	X
b) Yes (please provide details below)	
Further comments on the initiatives by major groups, key actors and stakeholders that integrate biodiversity conservation in their practice and education programmes as well as their relevant sectoral and cross-sectoral plans, programmes and policies.	

100. Is your country communicating the various elements of the 2010 biodiversity target and establishing appropriate linkages to the Decade on Education for Sustainable Development in the implementation of your national CEPA programmes and activities? (decision VII/24)	
a) No	
b) No, but some programmes are under development	
c) Yes, some programmes developed and activities undertaken for this purpose (please provide details below)	X
d) Yes, comprehensive programmes developed and many activities undertaken for this purpose (please provide details below)	
Further comments on the communication of the various elements of the 2010 biodiversity target and the establishment of linkages to the Decade on Education for Sustainable Development.	

Ecological education has been one of the most important component of the sustainable development concept, both nationally and internationally. Importance has been placed on education because a cultural change towards the sustainable use of natural resources for intergenerational equity is required.

In 1997, the Government of Mongolia approved a national committee to implement the National Programme on Public Ecological Education. Objectives of the programmes include the proper use, protection and restoration of the environment, teaching safe and healthy

living practices, the sustainable use of natural resources and encouraging appreciation of the environment to help build environmental respect amongst the population.

The first phase objectives of this national programme, environmental and ecological education, have been closely linked with the objectives of environment and sustainable development concept according to, for example, the UNDP Sustainable Development Education Action plan (2005-2014).

Because a cultural change towards the sustainable use of natural resources for intergenerational equity is required, the public should have input into environmental management. In order to achieve this, public education and awareness on sustainable development and ecology is a first required. It is also inevitably necessary to develop and implement a programme that seriously considers the integration of obligations and responsibilities of individuals, economic entities, governmental and non-governmental organisations. Such a programme will extend from the national programme on Public Ecological Eduction with its content and objectives focused on the implementation of a sustainable development strategy through public awareness, training and legislation. In 2006, a document for the second phase of the National Programme on Public Ecological Education was developed.

A major objective of the national programme is to develop sustainable development education and ultimately a culture of sustainable natural resource management amongst the population based on the considerable traditions on nature conservation in the country.

The public ecological education programme aims to build capacity, use the sustainable development concepts and principles in daily operations, set up a rational institutional structure, ensure integration and networks amongst environmental and sustainable development projects and programs implemented in the country, reflect the sustainable development education contents in curriculums at all school levels, provide formal and informal training and ensure adequate public education on ecology and sustainable development.

The scope of the programme includes the identification and implementation of overall directions and strategies for public education for central and local administrations, individuals, households, formal and informal educational organisations at all levels, the mass media (press), and other institutions.

The capital and aimag educational and cultural organisations, informal training centres, public training and research centres will conduct surveys on sustainable development education contents and methodologies, and will provide education specialists (individuals and organisations) with relevant methodologies.

A system in which the policy making, regulatory and supervisory agencies and organisations cooperate and have joint responsibilities and liabilities on the protection, restoration and sustainable use of natural resources,is established.

Tthe Government supported project "Environmental Reform" has been implemented. Within the project framework, researchers from government and non-government organisations, research institutions, colleges and universities conducted targetted research on environmental degradation, conservation management, participation of local authorities and communities in conservation activities, public environmental and ecological education, knowledge and education on environmental conservation amongst the population, sustainable development, the current ecological educational status and the potential future status based on legislation and the participation of local governments and communities.

In order to deliver sustainable development education via formal and informal training activities, textbooks, brochures, hand books and pamphlets are disseminated, information and communication technology is used for distance education. The participation of law and decision makers, environmentalists, teachers, educators, researchers and scientists has subsequently increased.

The institutional structure and legislative environment will be updated for adequate public ecological education. A national committee from the programme will be responsible for the management, supervision, monitoring, evaluation, and reporting of the programme. The committee will also organise and implement relevant training and awareness activiites, as well as fundraising in the country.

Overall action plan of the program will be developed in terms of content, objectives and timelines. As the programme is rolled out a number of tangible results, such as an improved legal environment, increased education on sustainable development,, an increased culture of ecological concern amongst the population, improved environmental states, and the introduction of environmentally friendly technologies is expected.

Box LII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Regulation on the recruitment of volunteer rangers was developed and approved. In order to to support capacity building in the environmental field, grants are issued to students at in the ecological and nature conservation departments of universities. There are currently over ten students studying at colleges and universities with grants by international programs and projects in the country.

With support from the Global Environment Facility and the Government of the Netherlands the project titled "Community based Conservation of Biodiversity in Altai Sayan Eco-region in Mongol Altai Region" is implemented in 18 Sums of Khovd, Uvs, Bayan-Ulgii and Khovsgol Aimags. Within the framework of co-management activities at the Sum level, seven herder community groups were established by fifteen to thirty seven households in each of the following areas - Bayanzurkh, hujir river, Tsagaan Uul, Arzattovoo, Bayanburgaltai in Khotont Sum, and Khangai and Deluun in Lun Sum to encourage the sustainable management of natural resources. The communities were provided with training and established a total of 25 community groups.

With GTZ financial support, pilot projects on community based wild species conservation under consensus agreements have been implemented in the Mongon Morit Sum (40,000 ha) of Tov Aimag and Batshireet Sum (70 ha) of Khentii Aimag. In addition, the basis of potential support has been laid down for the regional development strategy (programmes on forest) developed under agreements and decisions by local (Aimag and Sum) administrations and governments. For this, some forms of institutional structures (e.g. forest co-management) at a local level have been established, and the first steps of community based conservation of natural resources and sustainable management have begun in some Aimags and Protected Areas. As part of this work a forest census was undertaken over an area of 504,500 ha with a wild species census and inventory completed in an area of 1,200,000 ha in the regions toto be used under the consensus agreements. A management plan was developed for the use of 160, 000 ha for foresty purposes. Moreover, a management plan was developed for the use of 90,000 ha under a hunting consensus agreement.

In order to reduce and eliminate the illegal deforestation of trees, a schedules of inspection and monitoring of illegal deforestation in August, September, November and December was approved by Order of the Minister of Nature and Environment. The inspection and monitoring of its enforcement is undertaken by inspection agencies. Environmental

inspection and monitoring was jointly conducted by the Ministry of Industry and Trade and State Specialised Inspectorate Agency in the following fields:

- Enterprices and economic entities engaged in timbering, forest cleaning and maintainance, and processing in Tov, Selenge, Darkhan Uul, Orkhon, Bulgan, Arkhangai, Uvurkhangai, Khentii, and Dornod Aimags were inspected;
- Ecological restoration and the proper use of water resources was conducted in about 60 mining companies and economic entities in Arkhangai, Uvurkhangai, Bayankhongor, Selenge, Darkhan Uul, Bulgan, Tov, Dornod and Khentii Aimags was inspected and assessed.
- Long term campaigns against environmental violations, including the illegal use of forest resources, were/are conducted. Products sourced from the illegal use of forest resources of wood illegally harvested was confiscated and a total of MNT 40 millions was retained in the state budget.

In order to protect and restore the medicinal plant "licorice," the species was planted in the Bogd and Baatsagaan Sums of Bayankhongor Aiamg, Guulin Sum of Govi-Altai Aimag and some areas of Khovd Aimag. Over 150 people were provided with employment. Additionally, community groups to protect and restore natural plants were established in Khuree-Maral Sums of Bayankhongor Aimag. In total over 100 individuals were provided with training on the protection, restoration and management of over 20 natural plants. In addition to providing environmental benefits, the project contributed to increased household income generation and poverty reduction in these rural areas.

Article 14 - Impact assessment and minimizing adverse impacts

101. ◇ On Article 14.1(a), has your country developed legislation requiring an environmental impact assessment of proposed projects likely to have adverse effects on biological diversity?

a) No	
b) No, legislation is still in early stages of development	
c) No, but legislation is in advanced stages of development	
d) Yes, legislation is in place (please provide details below)	X
e) Yes, review of implementation available (please provide details below)	

Further information on the legislation requiring EIA of proposed projects likely to have adverse effects on biodiversity.

The enforcement of twenty seven laws, over twenty regulations and rules and thirteen international Conventions has been monitored. This ensures environmental laws including Environmental Impact Assessment, Protected Areas, Forestation and conservation and sustainable use of natural resources i.e. forests, water sources, fauna and flora species, and underground resources, are adequately enforced. In 1995, Parliament adopted the "Law on Environmental Impact Assessment". This Law provides the legal basis for the assessment of commercial activity impacts on biodiversity. Under this Law, activity impacts are assessed, potential impacts are identified, and mitigation measures are proposed and implemented prior to commencement of any type of business activity.

Parliament Resolution #20 on measures and responses on the implementation of the Law on Environmental Impact Assessment stipulated how to conduct impact assessments on economic entities and companies that had already started their business without any environmental impact assessment. As a result, impact assessment was conducted among about 90% of the companies and economic entities that had no environmental impact assessment prior to their business commencement. These companies and economic entities were mostly companies engaged in gold mining and tourism, as well as petrol stations. Amendments to the "Law on Hunting Reserve Use Payments" and on "Hunting and Trapping Authorisation Fees", and "on Environmental Protection", and international Conventions such as the Convention on Whale Management, Cartegin Protocol on Bio Safety of the Convention on Biodiversity, Convention on International Trading of Endangered Species (CITES) and Appendices I & II were adopted by the Parliament tothey provide the legal environment for the conservation, restoration and sustainable use of biodiversity.

Prior to the approval of permits for the use of biological reserves, it is necessary to develop a environmental impact assessment scheme. It is important to do this task prior to the approval of management plans and programmes for Protected Areas. The "Law on Environmental Impact Assessment" was adopted and has been enforced in the country. Simultaneously, the number of environmental consultancy companies, both state and privately owned, has increased. However, assessments they have conducted are not yet at a professional level, and assessments are likely to be guided by the interests and requests of project proponents. As a result, the enforcement of the Law is inadequate.

102. ◇ On Article 14.1(b), has your country developed mechanisms to ensure that due consideration is given to the environmental consequences of national programmes and policies that are likely to have significant adverse impacts on biological diversity?	
a) No	
b) No, mechanisms are still in early stages of development	X
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place (please provide details below)	
Further comments on the mechanisms developed to ensure that due consideration is given to the environmental consequences of national programmes and policies that are likely to have significant adverse impacts on biodiversity.	

The Mongolian Law on Environmental Protection (1995) states the purpose of environmental impact assessments are to develop and implement adequate measures to mitigate against the proposal's adverse effects, to minimise ecological imbalance and to regulate the use of natural resources. Individuals, economic entities, and organisations intending to run business activities that could cause adverse and hazardous effects on the environment, or to run new businesses including the production and services and/or business expansion, shall have environmental impact assessments when they make agreements for their projects and programmes. The assessment cost shall be covered by its proponent.

Based on the areas subject to Environmental Impact Assessment, projects and programmes are classified into twelve. The latest of the classification includes fishing, hunting, timbering, introduction of animals and plants in different habitats, and the use of chemicals, hazardous and radioactive substances for commercial purposes, and business activities to be undertaken near Protected Areas. All these activities shall have individual assessments. Most of the Protected Areas are unique level of environmental intactness, and richness in non-timber forest products, such as berries, nuts and mushrooms. In forested areas, human activities cause various adverse effects through illegal actions such as the harvest of cedar nuts, the hunting of deer, deforestation and the starting of fires. In the gobi region, Saxaul has been widely harvested for fire fuel and degradation of the aera has increased. Non-timber forest products illegally harvested in Protected Areas are transported to sell at markets near the central areas and state border ports.

Issues affecting biodiversity conservation efforts:

1. Awareness on legislations newly approved is inadequate among the public, particularly among relevant governmental officials;
2. Development of required laws and regulations takes time and the responses and measures taken for law enforcement are not interlinked and integrated, and are also timeconsuming;
3. Due to a lack of awareness on laws and regulations, the public does not recognise the consequences of human impacts on the environment. Where environmentalal violators are arrested, penalties are rarely imposed. Attention therefore needs to be paid to arresting and prosecutin g violators.
4. The enforcement of environmental laws is poor in practice. Conservation activities are undermined by illegal hunting and harvesting businesses. Illegal use of natural resources has been increased and in some cases corruption has been found.
5. Economic and environmental laws should be linked and their enforcement should interrelated.
6. In places where natural resources are used, environmental impact assessment should be conducted. Assessment should be based on quantitative indicators of potential impact.

In relation to the implementation of any projects and programmes, the public voice is heard through, for example, discussions and criticisms conducted through the mass media. Unfortunately, it is not so secret that final decisions are likely to be guided by economic and political interests. Examples include the Dorgon hydro-power station, and the construction of the bridge over Nomrog River. Although public hearings and discussions about these projects were organised by environmental projects and non-governmental organisations

103. ◇ On Article 14.1(c), is your country implementing bilateral, regional and/or multilateral agreements on activities likely to significantly affect biological diversity outside your country's jurisdiction?	
a) No	
b) No, but assessment of options is in progress	X
c) Yes, some completed, others in progress (please provide details below)	
d) Yes (please provide details below)	

Further information on the bilateral, regional and/or multilateral agreements on activities likely to significantly affect biodiversity outside your country's jurisdiction.

For the conservation of the Lake Baikal ecosystem, it is imperative that the Selenge river basin be protected. A substantial part of the Lake Baikal water reserve is fed by water of Selenge river. In order to protect the uniqueness of the World Heritage listed Lake Baikal,, it is therefore necessary to protect the water quality of the Selenge and Kherlen rivers. To adequately implement this measure, Mongolian and Russian cooperative agreements and efforts are inevitably essential. In order to protect and exchange data and reports on trans-boundary wild species such as the Bactrian camel, Khulan, Takhi and Black tailed gazelle in the gobi region, there is a need to establish a legal environment for joint conservation efforts with China. In this field some initial steps have been taken.

104. ◇ On Article 14.1(d), has your country put mechanisms in place to prevent or minimize danger or damage originating in your territory to biological diversity in the territory of other Parties or in areas beyond the limits of national jurisdiction?	
a) No	x
b) No, mechanisms are still in early stages of development	
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place based on current scientific knowledge	

105. ◇ On Article 14.1(e), has your country established national mechanisms for emergency response to activities or events which present a grave and imminent danger to biological diversity?	
a) No	x
b) No, mechanisms are still in early stages of development	
c) No, but mechanisms are in advanced stages of development	
d) Yes, mechanisms are in place (please provide details below)	

Further information on national mechanisms for emergency response to the activities or events which present a grave and imminent danger to biodiversity.

106. Is your country applying the Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact-Assessment Legislation or Processes and in Strategic Impact Assessment as contained in the annex to decision VI/7 in the context of the implementation of paragraph 1 of Article 14? (decision VI/7)	
a) No	
b) No, but application of the guidelines under consideration	x
c) Yes, some aspects being applied (please specify below)	
d) Yes, major aspects being applied (please specify below)	
Further comments on application of the guidelines.	

107. On Article 14 (2), has your country put in place national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity? (decision VI/11)	
a) No	
b) Yes (please specify the measures)	X

Further comments on national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity.

The cooperation of NGOs has been increased by the establishment of a volunteer conservation network to help reduce illegal exploitation of the environment. For instance, a mobile inspection team was developed with formalised procedures, budgetting and monitoring to combact the illegal use of natural resources.

Non-governmental organisations actively participate in conservation activities against illegal activities, and volunteer conservation groups and their network have been established and run at a local level. For instance, in order to arrest and eliminate the illegal use of natural resources, an Order No: 187 (October 28, 2004) on Establishment and Running of Mobile Inspection Teams was issued by the Minister of Nature and Environment. The operational procedures and budgets were approved, and the activities were inspected and supervised.

Inspection teams to organise the campaign "against illegal actions and violations" was established in all Aimags, and eighteen Protected Area Administrations. These teams conducted efficient inspections in conjunction with law and inspection organisations.. Inspection teams revealed 71 trucks transporting logs, confiscated illegally harvested wood and wooden materials including 1005 logs, 630 cubic metres of fire wood logs, and over 20 cubic metre logs prepared for house building. During the inspection by the General Police Office, a total of 3242 cubic metres of fire wood logs, 2059 pieces of logs prepared for house building, and 169 cubic metres of boards were confiscated, with a total value of MNT 499,000 collected as fines.

Inspection teams led by Heads of Departments (six) at the MNE were appointed for the inspection of the enforcement of the Law of Forests and the teams in cooperation with representatives from a Case Registration Department of the General Police Office, Traffic Police office, mass media, and Khan Khentii and Bogd Khaan PAAs conducted inspection.

108. Has your country put in place any measures to prevent damage to biological diversity?	
a) No	
b) No, but some measures are being developed	
c) Yes, some measures are in place (please provide details below)	x
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures in place to prevent damage to biological diversity.

Amendments to the Laws on Customs Tariffs and Value Added Taxes were developed and adopted in 2005. The amendments were made to exempt all imported logs, boards, tree and bushy seeds and seedlings from customs and value added taxes.

A proposal on updated rates and fees for cutting trees for household purposes, including firewood, was developed and approved by the Governmental Resolution No: 147 of 2005 and subsequently instigated. According to the Resolution the average amount of fees of tree cutting for household purpose have been increased by 2 times.

The overharvesting of birch has had significant impacts on the type and total overall forest resource, and has restricted rates of natural regeneration in immature species. Upon the consideration of these impacts on forest ecology and resources, the Ministry of Nature and Environment has banned birch cutting for the next two years with the Order 2005 by the Minister of Nature and Environment.
In order to reduce and eliminate illegal tree cutting in the country, a proposal /draft on the Endorsement of an ecological and economic assessment of damages and losses of forest resources was developed and was approved.

Since a procedure on the Control and Regulation of Issuance of Permits for timbering and transporting of timber products for household needs was updated and approved by the Order No: 203 on (November 15 2004) by the Minister of Nature and Environment, timbering and logging have been regulated at Aimag and Sum levels. An updated procedure for timbering standards were simultaneously updated. For instance, a former standard on fuel wood for household needs (less than 0.50 m^3) was updated and approved by the National Office of State Standards and Measurements.

Inspection was carried out in cooperation with the SPIA in timber material markets (7 in UB) in order to review the follow-up actions of the standard "MNS 51623" (2002). During the inspection some timber product markets, such as TSAIZ, DONOI, TSOLMON BADRAKH, KHYALGANT, KHANGAI, and "41-iin" were closed down. Additionally, the Minister of Nature and Environment sent an official letter to the Mayor of the Capital City in which "to force and require the existing timber product markets in UB to have their Ecological Responsibility Contracts with the Forest and Water Resource Authorities at the MNE and to cease their operations in cases of breaching and failure of their obligations in the Contract".
There are about 400 species of pests and harmful insects recorded in Mongolia and about 40 species e.g. Siberian silkworm (*Dendrolimus superans sibiricus Tschetv*), gypsy moth, tussock moth (*Orgyia antique L)*, Jacobson's looper (*Erannis jacobsoni Djac),* and weevil and jewels (*Curculionidae, Buprestidae*) cause serious damage to forests.

The Forest Pest and Harmful Insect Control section of the Forest and Water Exploration Centre manages research, manages World Food and Agricultural Organisation and Agricultural Organisation project funds and implements practices to eradicate pests with the support of the Ministry of Nature and Environment and local governments. This section works

to make contributions to scientifically based research on forest pests and diseases in forested areas, the eradication of widely distributed pests, the improvement of technologies for controlling the outbreaks of pests and diseases, the involvement of local communities in eradication of pests and to ensure ecosystem balance.

The Action Plan on Conservation and Sustainable Use of Rare Plants in Mongolia was approved by Governmental Decision No: 105 (2002). Under this plan, conservation of the rare plant gene fund, reclaiming distribution areas of rare plants for conservation purposes, and opportunities for ensuring the natural regeneration and planting of rare species have been studied.

Marmot hunting management conforms with Laws on Fauna and Hunting (2000), with maximum quotas of hunting and trapping being established by Governmental Resolutions. The establishment of maximum quotas for marmot hunting is based on proposals by the Aimags. A tagging system (tags with special serial numbers) is used for controlling of illegal hunting and trading of marmot products.

The MNE issued hunting quotas of 83,000 marmots for household purposes, and 88,000 for commercial purposes in 2002. No quotas were issued for commercial hunting in 2003,

A quota of 104,000 marmots was issued across 16 Aimags for household purposes, however. No household or commercial hunting of marmots was allowed in Uvurkhangai Aimag.

109. Is your country cooperating with other Parties to strengthen capacities at the national level for the prevention of damage to biodiversity, establishment and implementation of national legislative regimes, policy and administrative measures on liability and redress? (decision VI/11)

a) No	
b) No, but cooperation is under consideration	
c) No, but cooperative programmes are under development	x
d) Yes, some cooperative activities being undertaken (please provide details below)	
e) Yes, comprehensive cooperative activities being undertaken (please provide details below)	

Further comments on cooperation with other Parties to strengthen capacities for the prevention of damage to biodiversity.

Researchers consider that the bird flu virus A (H5N1) that are spread in some European and Asian countries is likely to spread all over the world. In the summer of 2005, samples were taken from ten dead migratory birds near Erkhel Lake in Khovsgol and Khunt Lake in Bulgan Aimag. Samples were sent to an international veterinary and zoological health laboratory for diagnosis (in Hokkaido). In order to prevent from transmission of the bird flu to the human population, and to ensure a sufficient response to a bird flu pandemic,be the Minister of Health issued an Order No: 45 (2004) that specifies lists of emergency service kits and items, including with lists of appropriate medicines and protective clothes in its attachment.

Box LIII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

The adequate asserssment of environmental impacts is one of Mongolia's priorities. To enable this to happen, immediate measures such as building capacities of specialisti,s, creating specialised assessment agencies, inviting foreign experts to Mongolia and conduct independent assessments is required.

Short and mid term policy proposals on the prevention of forest and steppe fires has beene developed. Individuals and staff of governmental and non-governmental organisations are trained in how to prevent from fires, and are involved in fire extinguishing activities in order to protect their own and others' properties. Additionally, the civil servants are trained on methods to extinguish fires so that local capacity in fire prevention and extinguishment is built.

In order to carry out community based forest co-management in Khan Khentii and other areas, over twenty forest co-management teams that occupy forest reserves under Agreements were established. With support (fund of MNT 20,000,000) from GTZ and UNDP, an enterprise to produce small scaled fire extinguishment equipment was established in Bugant Sum of Selenge Aimag.

In order to restore Tuji pine stands that have been severly affected by fires and illegal deforestation, the Governmental Resolution "Some measures and responses for restoration of Tuji pine stand" was issued in 2002. AS part of works associated with this resolutaion,over 1000 individuals from over 40 organisations in urban and rural areas participated in reforestation of 107 ha, at their own expenses. In total, 1257 ha area was forested with central and local budgets.

In order to reduce and eliminate the consequences of natural disasters, the participation of local communities, volunteer groups and units has been increased. Public awareness activities have also been widely conducted to help support governmental and non-governmental organisations. There are 31 community groups and teams organised by the South Gobi Protected Area Administration within its territory, with most of them dealling with planting bushes and shrubs.

With the support of UNDP/GEF a project titled "Great Gobi SPA Protection" has been impelemented since July 2006. The overall objective of this project is the long term conservation of the Greater Gobi ecosystem and umbrella species. The objective is to be achieved by building the capacity of the park's management authority, improving local community participation in Special Protected Area management and supporting research and environmental monitoring activities through the development of model conservation programme using the wild Bactrian camel as an "umbrella species". This project, in cooperation with the Great Gobi SPA Administration, conducted inventories and monitoring of some wild species e.g. Bactrian camel, Gobi bear and Khulan. Additionally, some data and samples required for research on grey wolf prey was gathered. The project, in cooperation with some researchers from the Institute of Biology (Mongolia) and Zoological Institute in Denver (USA), placed satelite image colours on a number of Bactrian camel in order to identify their locations and migration routes.

As part of the research project "Sustainable Natural Resource Management," the community based conservation management needs were developed and piloted, directed by a sustainable resource management principles. In 2003 the Aimag Governor issued a Directive # 173 to consider ecological and socio-economic issues on an integrated basis, and to improve the livelihood of local communities. A working group to monitor the distribution of forest pests was established, and a study on forest pests was conducted.

An agreement states that the Forest and Water Exploration Centre is responsible for identifying the areas where economic entities and companies are able to log for commercial reasons. Companies and economic entities should carry out reforestation in 1.5 ha of every 100 cubic metre area.

Some recommendation of this project are to conduct environmental impact assessment to eight sectors that make major contributions to the economic development of the country and organise professional training and workshops for environmental assessment organisations and environmental inspectors starting from January 2007.

Article 15 - Access to genetic resources

110. ◇ Has your country endeavored to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms, in accordance with paragraphs 2, 4 and 5 of Article 15?	
a) No	
b) Yes (please provide details below)	X
Further information on the efforts taken by your country to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms.	

The Cartagena Protocol on Biosafety was discussed by the State Great Hural in 2002, with Mongolia agreeing to the Protocol. Presently, the Law on Biosafety is under development and will be discussed by the State Great Hural. Mongolia also participated in the "Information network of international genetic fund" and "Information network of South-East Asia genetic fund." These projects are international and two sided projects related to the genetic fund, and the "Terrestrial biodiversity project" (2000-2003). Currently, the joint Japan and Mongolian project "Microorganism ecology and taxonomy" (2006-2008) is in force.

The protection of animal genetic resources using a scientific approach began with the foundation of the "Department for Treatment and Processing Livestock Items" in 1923, according to a Government regulation. Since 1924, highly productive, exotic animal have been brought from abroad for the purpose of raising livestock production. Starting in 1930, state owned farms initiated cross breeding between local animals and imported, purebreds.

Artificial insemination was first introduced in 1945, with 36 breeding stations established between 1958 and 1962. The creation of the Animal Husbandry Research Institute was in 1963, was an important step for the development of animal breeding and selection work in Mongolia.

The Government of Mongolia established certain objectives through resolutions on "improving animal husbandry breeding works" in 1958, 1961, 1970, 1977 and 1984, and has achieved some success in the implementation of these resolutions. The Government of Mongolia approved the National programme on "Improvement of Livestock Quality and Breeding Works", by resolution 105 of 1997; "Animal Health" programme - by resolution 64 of 1999 and also approved a programme titled "Protecting Livestock from Natural Disaster - Dzud and Drought" by resolution 47 of 2001. The Parliament of Mongolia adopted the Law on "Protecting Livestock Gene Pool and Health" in 1993 and this law was further amended in 2001.

Follow up measures to improve biological and economic productivity of local animal breeds was attempted by developing "super strains" in the late 1960s. This work was directed at improving the productivity, quality and composition of livestock herds.

National researchers' efforts with selection and breeding work based on scientific theory, consequently produced highly productive breeds and breeding groups of livestock adapted to the country's natural conditions.

111. ◇ Has your country taken measures to ensure that any scientific research based on genetic resources provided by other Parties is developed and carried out with the full participation of such Parties, in accordance with Article 15(6)?

a) No	
b) No, but potential measures are under review	x
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to ensure that any scientific research based on genetic resources provided by other Contracting Parties is developed and carried out with the full participation of such Contracting Parties.

Within the framework of the "Environmental renovation" project, implemented by the MNE with funding from the World Bank Trust Fund of the Netherlands Government, the project titled "Bio-safety and the Modern world" studied biosafety issues within a context of conserving biological and genetic funds and resources. Additionally, Mongolia was involved in a Biotechnology information network project that covered issues of genetic funds and inbreeding organisms of Asian countries. Public meetings of biotechnology and biosafety were held four times. Such meetings are important in involving the public in the exploitation of genetic resources, and provide the public with information about genetic resources.

112. ◇ Has your country taken measures to ensure the fair and equitable sharing of the results of research and development and of the benefits arising from the commercial and other use of genetic resources with any Contracting Party providing such resources, in accordance with Article 15(7)?

a) No	
b) No, but potential measures are under review	X
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive legislation is in place (please provide details below)	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place (please provide details below)	
f) Yes, comprehensive policy and administrative measures are in place (please provide details below)	

Further information on the type of measures taken.

Documents related to the equal exploitation of genetic resources, such as Mongolian environmental law, Law on forest, Law on wild animals and resolutions of the Minister of MNE in determining natural plant exploitation level, were developed with subsequent management activities implemented.

113. ◇ In developing national measures to address access to genetic resources and benefit-sharing, has your country taken into account the multilateral system of access and benefit-sharing set out in the International Treaty on Plant Genetic Resources for Food and Agriculture?

a) No	
b) Yes (please provide details below)	X

Further information on national measures taken which consider the multilateral system of access and benefit-sharing as set out in the International Treaty on Plant Genetic Resources for Food and Agriculture.

According to the 258th resolution of the Mongolian Government, live breeding organisms and products need to be registered and licensed according to regulation. The granting of licenses is dependent on analysis results from the Plant protection and restriction authority or from Veterinary sanitary laboratory, and is given by Professional control authorities. The Association of Biotechnology is organising a national seminar in 2007 to cover this issue. Non-governmental organisations, such as the Biotechnology Association and Biotechnology methods and information centre, are involved with this activity.

114. Is your country using the Bonn Guidelines when developing and drafting legislative, administrative or policy measures on access and benefit-sharing and/or when negotiating contracts and other arrangements under mutually agreed terms for access and benefit-sharing? (decision VII/19A)	
a) No	X
b) No, but steps being taken to do so (please provide details below)	
c) Yes (please provide details below)	
Please provide details and specify successes and constraints in the implementation of the Bonn Guidelines.	

115. Has your country adopted national policies or measures, including legislation, which address the role of intellectual property rights in access and benefit-sharing arrangements (i.e. the issue of disclosure of origin/source/legal provenance of genetic resources in applications for intellectual property rights where the subject matter of the application concerns, or makes use of, genetic resources in its development)?	
a) No	
b) No, but potential policies or measures have been identified (please specify below)	
c) No, but relevant policies or measures are under development (please specify below)	
d) Yes, some policies or measures are in place (please specify below)	X
e) Yes, comprehensive policies or measures adopted (please specify below)	
Further information on policies or measures that address the role of IPR in access and benefit-sharing arrangements.	
The **Law on Intellectual property** was adopted by Parliament in 1993. The purpose of this law was to protect intellectual property and regulate actions relating to the use of intellectual property. According to law, the established office for intellectual property is the Government Implementing Agency, under the Minster of Justice and Internal Affairs. The role of the Agency is to receive and register intellectual property; certification; the establishment of an intellectual property database; and to assist in protecting intellectual property at the national and international level. The law has a total of 6 chapters and 26 articles. The **Law on Patents** was adopted by Parliament in 1993 with some additional amendments made in 1999. The purpose of this law is to protect and regulate new products, new models,the inventor of profitable products and patient owner rights. According to law, the new production means "the *product or the explored the fundamentals of any production based on natural law, which is created firstly"* The law has a total of 6 chapters and 29 articles.	

116. Has your country been involved in capacity-building activities related to access and benefit-sharing?	
a) Yes (please provide details below)	x
b) No	

Please provide further information on capacity-building activities (your involvement as donor or recipient, key actors involved, target audience, time period, goals and objectives of the capacity-building activities, main capacity-building areas covered, nature of activities). Please also specify whether these activities took into account the Action Plan on capacity-building for access and benefit-sharing adopted at COP VII and available in annex to decision VII/19F.

Mongolia is regularly included in the activities of international organisations of plant genetic resources, and in projects, seminars and workshops that aim to enhance the capacity of related projects. The establishment of the Central professional control laboratory in 2006 is aimed to enhance capacity of issues related to regulations of permissions. However, we have not been involved in activities related to the development of capacity that regulate permissions.

The 2002 seminar titled "Sharing the genetic resources and the profit from the genetic resources, traditional knowledge and biosafety," dedicated for Mongolia and other Central Asian countries, was organised in Ulaanbaatar with the support of UNU/IAS Tokyo office.

Box LIV.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Status of law and legislation related to livestock and animal gene-pool protection and utilisation

Since 1990, legislative reform has been made to cover all social sectors to move Mongolia towards a market economy. Many changes have taken place in the structure, management and ownership of all levels of institutions, including those engaged in livestock gene-pool protection activities and services.

Local livestock breeding institutions previously served the big economic entities and wree not able to operate under open market conditions. After the privatisation of livestock in 1992, 1300 livestock specialists were released from their positions within 3 years. This seriouslyly affected the results of livestock breeding programmes in nucleus herds of highly productive breeds and locally selected animals.

Parliament approved the law on "Livestock Gene-pool and Health Protection" in 1993, and the implementation of this law has made a significant contribution to solving many issues facing the livestock sector in its transitional period to a market economy. The law was amended in 2001 to reflect market conditions, and was a significant measure in ensuring the development of livestock production.

This law determines the rights of the State and local government organisations which protect the livestock gene-pool, inspection organisations, citizens and other economic entities. The law coordinates relations, livestock and domestic animals' gene-pool protection activities such as financing of the law implementation and fining those in contravention of the law.
"The main policy trends to be pursued by the State on rural development," approved by resolution 32 of the Parliament in 1996, has been directed towards the intensification of agricultural production by effectively utilising natural resources, ensuring proper utilisation of human, financial and natural resources and to develop intensive, sustainable and effective agricultural production by improving its productivity, quality and competitiveness.

Structure and management of livestock genetic resources

The first initiative in developing the Mongolian livestock sector was taken in 1923, by establishing the Livestock Treatment /vet service/ and Quality Improvement Board in in accordance with a decision made at a thirty second meeting of the Government. Crossbreeding activities began when highly productive breeds of livestock were imported into the country in 1924. Moreover, the traditional methods of selecting good quality animals from among local breeds were continued whilst pure breeds of highly productive livestock were raised since 1930. Piggery and poultry breeding and selection activities started in 1940.
In 1950, artificial insemination methods were tested and introduced over about 1 million head of animals. Since 1960, the total livestock population has been raised in areas recognised as having superior genetic livestock according to measurable criteria.

In accordance with Resolution 18 on "Improvement of Livestock Breeding Programme", passed by the Central Committee of the Mongolian Revolutionary Party and Ministers' Council of the People's Republic of Mongolia in 1984, the livestock breeding service was established at national, aimag and soum levels and on breeding farms with a number of highly productive livestock. This was equal to 30% of the breeding female animals in each soum.

Livestock Production and Breeding Technology Divisions were established within the structure of the Ministry of Food and Agriculture. The head of Livestock Breeding Division was the State Chief Livestock Breeding Inspector, and specialists of the division, heads of the breeding units and breeding and selection stations became the state livestock breeding inspectors.

In 1984, the office for marketing breeding animals was expanded to form the State Livestock Breeding Collective and was incorporated into the structure of the collective livestock breeding, including the selection stations. Following this restructuring, the Livestock Breeding Division of the Ministry of Food and Agriculture was committed to developing the national livestock breeding policy, supervising the implementation of legislation and policies and managing breeding and selection activities in accordance with sound scientific criteria.

Simultaneously, the central artificial insemination station joined the State Livestock Breeding Collective, and the Collective started to providing technical support and training to breeding technicians. As a result of this work, the following was produced:

- 1400 litres of milk from each cow annually by crossbreeding at least 40% of the total cow population in 33 of the butter processing soums;
- Not less than 2000 tons of fine and semi-fine wool by raising fine and semi-fine wool sheep in 26 soums;
- More than 40 000 skins by raising the karakul breed of sheep in 5 soums; and
- 2700 litres of milk from each cow on 33 dairy farms that supply fresh milk to cities and urban settlements.

As a result of these measures, the population of pure bred livestock reached 767000 head, 295800 sheep goats, 404500 pigs, 48600 chickens, - 184000 chickens 3200 reindeer, 3200 reindeers and 1500 beehives. Moreover production of main staples (meat, milk and wool) increased by 15-25%, and new raw materials and products such as fine and semi-fine wool, curly skin, pork and chicken meat, eggs and honey were produced in increased quantities.

In 1989-1991, many NGOs such as "Mongol Horse", "Mongol Camel", "Mongol Yak", "Mongol Dog", "Mongol Goat" and "Mongol Bee" were established to analyse, research data and collect information relating to each species of livestock. Currently, very few of these NGOs remain in operation. The Mongolian Union of Livestock Breeders and specialists and the Mongolian Union of Veterinarians have run intensive operations in developing branches at national, aimag, capital, soum and district levels.

Formulating recommendations for enhanced international cooperation in the field of farm animal biodiversity.

For climatic, natural and social reasons, the commercial livestock population has decreased dramatically and come to the brink of extinction. The inexistence of new mechanisms to to substitute for the previous agricultural system combined with a poor financial situations has caused many problems to semi-intensive and intensive livestock production. Livestock currently require greater fodder and nutritious feed items, and specialist livestock management technology. The majority of herders running extensive livestock production have not been able to survive natural disasters such as Dzud and drought.

The last three years' of drought and dzud combined with infectious diseases in animals, contributed to by climatic changes have surprised Mongolian society. An increase in the population of the privately owned, lowly productive livestock of horses, goats and sheep in the first years of a social and economic transitional period to a market system has degraded pasture areas rich in water resources. As a result of the implementation of many projects, being financed by FAO, UN, World Bank, Asian Development Bank, International Fund,for Agricultural Development, TACIS and USAID, a significant contribution and investmenthas been made to provide animals to herders who have lost all their animals in natural disaster. Foodstuff to disaster affected people has also been provided. The Government has approved several programmes for raising highly productive meat and dairy cattle, developing goat and sheep farms and protecting the livestock gene pool, but these programmes have not been implemented successfully due to financial problems.

The government of Mongolia could not utilise opportunities for utilising foreign assistance and loan projects for implementing the above programmes and there is a lack of coordination in this field.

Cooperation and equitable sharing of burden and benefits in conservation, characterisation, evaluation and in genetic development.

The issue of protecting and improving the livestock gene-pool is drawing the attention of not only one country's government, but the whole world. As far as Mongolia is concerned, the gene-pool of meat and dairy cattle, sheep with semi fine wool, pigs and chicken needs to be certified, and the gene-pool of local two humped camels needs to be protected. Of particularly concern is the population of pure and hybrid of animals, camels and reindeers is that have decreased over the last 3 years' drought and dzud. In conclusion, the following are required to solve outstanding issues with regard to livestock production increase and quality improvement:

- Although the legal environment for protecting livestock genetic resources has been created in Mongolia, protection activities have not been undertaken satisfactorily due to financial problems. Therefore there is need for developing cooperation with foreign countries and international organizations for the below;
- Nucleus herds, registered in terms of provenance and productivity based on highly productive breeds of livestock produced through selection and breeding measures, and imported breeding animals, semen and tools and equipment need to be created. Direct loans and TA projects need to be implemented by ADB, FAO, WB and TACIS to protect and recreate livestock gene-pool;
- Regional research centres for genetic characteristics of Mongol breed of animals for the use on pastures at a molecular level, and a model animal husbandry economic entity needs to be established; and
- A National Livestock gene pool committee with non-staff members at the Ministry of Food and Agriculture needs to be established, and cooperation with foreign countries and international organisations needs to be expanded.

Co-operation in basic research and appropriate biotechnology development and transfer

- Basic surveys need to be made on using molecular and genetic marker technology for revealing animal's resistant ability to parasites and other diseases and natural disasters. Moreover, surveys, analysis and the wider use of selection, genetic and biotechnological findings in improving fertility and yields of fodder plants, and increasing productivity of livestock in a short period is required. Semen and embryo of livestock, resistanse to disease, drought, Dzud and those of highly productive and rare animals should be produced and conserved; and
- Results of foreign and domestic surveys and scientific works on livestock and fodder production and pasture utilisation should be put into practice by creating closer linkage between researchers and extension staff.

Co-operation in the development of information systems and communication networks

- Breeding livestock provenance and productivity information has been put into a database in many countries of the world for the international exchange of information regarding highly productive breeding livestock, their semen and embryos. For example, several European countries have established a sharable database of the productivity and origin of sheep with fine and semi-fine wool, cashmere and wool goats. A programme for improving the productivity of livestock has been implemented through the whole continent, rather than at a national level only. In this period of globalization, Mongolia needs to join this development trend; and
- There is a need to create an information fund of the origin and productivity of nuclear herds of Mongol breeds of livestock, and to connect different Mongolian institutions initially before making international connections.

International principles and modalities for the safe international movement, storage, access, fair exchange and trade of AnGR material.

- Become a signatory to international conventions on the conservation of animal genetic resources;
- Exchange information and other materials of highly productive animals and breeding activities in accordance with proper procedures;
- Organise regional and international exhibitions and auctions of very productive breeds of animals; and
- Improve the monitoring on both the conservation and safety of animal genetic resources.

Article 16 - Access to and transfer of technology

117. ◇ On Article 16(1), has your country taken measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment?	
a) No	X
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biodiversity or make use of genetic resources and do not cause significant damage to the environment.

Issues related to obtaining and transferring technology is covered in the 'Law of science and technology' and the 'Law of technology transfer'. Biosafety issues during genetic resource exploitation related technology transfer is considered in the proposed 'Law of Biosafety'. The 'Law on technology transfer' was adopted in 1998, and an edited proposal of the Law is currently being discussed in the State Great Hural. The objective of the law is to determine principles of technology transfer, evaluate technological status, identify requirements for technology transfer and regulate relations of technology transfer. Moreover, the programme of Mongolian Government activities emphasises the importance of technology transfer on Mongolian development thus enables the sustainable exploitation of biodiversity resources and genetic resources.

118. ◇ On Article 16(3), has your country taken measures so that Parties which provide genetic resources are provided access to and transfer of technology which make use of those resources, on mutually agreed terms?	
a) No	
b) No, but potential measures are under review	X
c) Yes, some measures are in place	
d) Yes, comprehensive legislation is in place	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place	
f) Yes, comprehensive policy and administrative arrangements are in place	
g) Not applicable	

119. ◇ On Article 16(4), has your country taken measures so that the private sector facilitates access to joint development and transfer of relevant technology for the benefit of Government institutions and the private sector of developing countries?	
a) No	X
b) No, but potential measures are under review	
c) Yes, some policies and measures are in place (please provide details below)	
d) Yes, comprehensive policies and measures are in place (please provide	

details below)	
e) Not applicable	

Further information on the measures taken.

Mongolia has agreements with Russia, China, Korea and Japan about the transfer of of environmentally friendly technology, the cooperative development of technologies and mutual support.

Box LV.

Please elaborate below on the implementation of this article specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

A major goal of current Mongolian technology trasfer is the implementing of the results of technology studies in environmental conservaton activities, and to increase the social and economical efficiency of technology transfer.

Programme of Work on transfer of technology and technology cooperation

120. Has your country provided financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation? (decision VII/29)

a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes being implemented (please provide details below)	X
d) Yes, comprehensive programmes being implemented (please provide details below)	

Further comments on the provision of financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation.

The Mongolian technology transfer centre is found near the MAS. Mongolia is a member of the Asia Pacific technology transfer centre of UNESCAP, and actively participates in its activities. Mongolia participate in the medical plant information networks of Asian countries, information networks of biotechnology and its innovation, and assists specialists obtain information. Mongolia has identified biotechnology as one of the primary sectors of science and technology in 1986, and has supported twenty international and national projects and programmes.

The Government of Mongolia has given financial and technical support to assist specialists of related organisations implement programme of technology transfer and technical cooperation. In addition, the Government has expanded cooperation with foreign countries in order to implement the work programme of technology transfer and technical cooperation. The capacity of scientists to identify strategic policies for developing an appropriate system of science, technology and innovation in Mongolia, and to enhance foreign relations in the technology transfer sector is considered important. Methodologies

of evaluation has been developed to strengthen technology transfer capacity.

121. Is your country taking any measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation? (decision VII/29)	
a) No	x
b) No, but some measures being considered	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further comments on the measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation.	

122. Has your country made any technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building? (annex to decision VII/29)	
a) No	
b) No, but assessments are under way	x
c) Yes, basic assessments undertaken (please provide details below)	
d) Yes, thorough assessments undertaken (please provide details below)	
Further comments on technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building.	
The Mongolian technology transfer centre is responsible for evaluating technological levels, and such activities are beginning in related sectors. Additionally, the study programme of institutions and universities needs to be improved to meet international level science and technology development requirements. The science and technology study centre needs to be strengthened, modern laboratories need to be established and young specialists need to be prepared in the universities of foreign developed countries.	

123. Has your country made any assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies? (annex to decision VII/29)	
a) No	
b) No, but assessments are under way	x
c) Yes, some assessments undertaken (please provide details below)	
d) Yes, comprehensive assessments undertaken (please provide details below)	
Further comments on the assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies.	
The introduction of new technology monitoring and evaluation is only at an early stage.	

124. Has your country identified and implemented any measures to develop or strengthen appropriate information systems for technology transfer and cooperation, including assessing capacity building needs? (annex to decision VII/29)	
a) No	
b) No, but some programmes are under development	x
c) Yes, some programmes are in place and being implemented (please provide details below)	
d) Yes, comprehensive programmes are being implemented (please provide details below)	

Further comments on measures to develop or strengthen appropriate information systems for technology transfer and cooperation.

According to the technolgy transfer law of Mongolia, adopted in 1998, the Technology transfer centre buillt the capacity of technology transfer, and established a technology information system in cooperation with other organisations. The improvement of biotechnolgy sector studies, and the establishment of related databases indicates a rapid development of the sector. The use of national capacity to technology transfer and technological cooperation is anticipated.

125. Has your country taken any of the measures specified under Target 3.2 of the programme of work as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention? (annex to decision VII/29)	
a) No	
b) No, but a few measures being considered	x
c) Yes, some measures taken (please specify below)	
d) Yes, many measures taken (please specify below)	

Further comments on the measures taken as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention.

The Parliament of Mongolia adopted a **Law on Technology Transfer** on 1998. This law is the main legal document regulating issues in regards to technology transfer. The purpose of this law is to identify the principles of technology transfer, the assessment of technological level, criteria on technology transfer activities and the regulation of all relations with regards to technology transfer. According to law, the transfer of technology means "owner of technology transferring its license to other individuals, legal entity based on the agreement".

The law sets the following principles in technology transfer:

1. The process of technology transfer is guided by the State Policy on Science and Technology;
2. State participation and free competition both will be anticipated in transfer of technology;
3. Technology transfer will not have any negative impact on nature, or human or animal health;
4. Targeted towards the use of modern technical solutions; and

Equal participation by individuals and legal entities and other organizations

The Law on Science and Technology (1998) aims to identify the rights and obligations of parties involved in science and technology, and regulates relation with regard of

administration, principles and financing issues in science and technology. The law clearly identifies the roles of institutionsat administrative level (government, central administration for science and technology, national committee on science and technology and Mongolian Academy of Science) and implementation level (Science and Technology Fund, Research Institutions, Centres and Laboratories and Science, Technology and Production Corporations).

The development of important technologies such as nanotechnology, biotechnology, information technology and industrial technology will be developed to assist research, and such technologies will be implemented in practice to introduce new, progressive foreign technologies to Mongolian conditions.

Box LVI.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

In the modern social and financial globalization period, each country strive to have sustainable development in every sector and determine own specific development ways by improving the science and industrial technology. The establishment of legal conditions of science and technology activities, development of appropriate system, and forecast of global development trend are the key to Mongolian economical developement.

Information about best technology and their sources do not reach its customers by itself. Therefore it is necessary to regularly organize industrial technology exhibitions and seminars in Mongolia and to distribute information of foreign seminars and exhibitions in order to distribute technology source information. There is need to have complex policy of technology transfer to support national producers which will provide the producers with effecient and appropriate technologies, expand their selection and enable to transfer technology.

Following the resolutions of the Mongolian president, the work team that aimed to produce complex policy of national development unitl 2021, have established. Additionally, 2005-2009 policy and activities program of the Mongolian President noted about using science and technology development results as a basic factor for sustainable economical and social development of the country and to pay particular attention to primary science and technology trends. Moreover, it is planned to establish innovation park to implement science and technology achievements to practice, produce new products and services and to motivate industrial organizations that implement progressive technologies.

The pack of legislative science and technology documents include Mongolian science and technology law and 2007-2020 master plan of Mongolian science and technology development were adopted last year which enable to improve this sector development, to fit with modern market economy pace, to select best development practices and to identify appropriate policy.

Current major objectives of the Mongolian technology transfer development are to implement technology study results in practice and to improve social and economical efficiency. These need to solved according to budget allocations dedicated for technology transfer.

Complete and uncomplete production of products with scientific basis need to be implemented and small and medium sized industry that based on new techniques and technologies need to be developed in Mongolia. Due to lack of financial sources that dedicated for science and technology, mechanism that link business and industrial sector with scientists and non-governmental funding for technology transfer, the progress on

efficient technology transfer is very weak.

Ecologists think that Mongolian ecological conditions are at the edge of the catastrophe and widespread desertification, forest fire, water pollution and pasture loss connected with human negative influences. For example: activities to control technology of mining industry, to motivate industry that have environmentally friendly technologies and to relieve such industry from tax have to be implemented. Regular organization of seminars and exhbitions of environmentally friendly technologies will definitely help small and meduim industry development.

Article 17 - Exchange of information

126. ◇ On Article 17(1), has your country taken measures to facilitate the exchange of information from publicly available sources with a view to assist with the implementation of the Convention and promote technical and scientific cooperation?

a) No	
b) No, but potential measures are under review	X
c) Yes, some measures are in place	
d) Yes, comprehensive measures are in place	

Positive environmental outcomes are increased when the exchange of biodiversity conservation information, rehabilitation and sustainable exploitation is efficient at a national and international level. According to Mongolian Environmental Law, an environmental database needs to be created. This database will be composed of three sections. The National database is composed of data and reports of studies on land, land resources, forest, water, animal, plant studies that implemented by State organizations and research institutions, reports of environmental impact assessments and of aimag and soum databases. The state database is implemented by Central state administration organizations. The following resources can be considered as open and accessible environmental data and information resources for public.

a. MNE website (www.mne.org): This page gives an introduction of the MNE's, organisational structure, responsibilities of each MNE sections, environmental legislation, and information of biodiversity conservation;.
b. Environmental database based at the Information and Calculation Center of MNE. This database include plant, forest, water and environmental pollution information. www.icc.org.mn
c. National Agency for Meteorology and Hydrology and Environmental Monitoring of MNE provides the Government, organisations, private companies, and public with climatic information at a global standard, receives and analyses climatic data, examine, archive and manages a database. Climatic information is distributed for free or at a charge dependent on data type. Extensive information can be obtained from www.pmis.gov.mn/Meteoins

Research institutions keep their own research data, results and reports. For example: the web page of Institute of Botany of MAS is www.mas.as.mn/botany/en.

The three year project **"National geoinformation centre of natural resources management"** has been implemented at the MNE with non-repayable support from Netherland Government since December 2006. The project is composed of four sections, one of which is biodiversity. As the project is implemented, macro level environmental resolutions and policy development will be at a higher stage,modern techniques and technologies to control natural and pastural conditions and to minimise impacts associated with natural disasters will be implemented, highly skilled environmental geographical

information system professionals will be used, the management of sustainable exploitation, conservation, assessment and rehabilitation of natural resources will be reorganised in a more efficient manner such that the end result will be a better quality of natural resource regulations and resolutions at a national and local level.

Due to poor legal conditions and restrained financial and professional resources, work to to integrate separate databases across different organisations has not yet been organised.
The **National information and technology park** was founded in 2003. The main goal of the park is to be major national organisation supporting information and technology development, supporting novel ideas to become highly efficient products and/or services, and establishing a scientific and technological database. The park's library contains rich science and technology materials and services, including the following databases:

- Scientific report database;
- Database of dissertations; and
- Database "Scientist".

The park's library has scientific reports funded by the Government since 1975. A summary of these science and technology projects and theoretical studies have been converted into electronic form, and integrated into the "Scientific report database". The "Scientific report database" includes a list of 2252 Government funded scientific works, 310 of which is considered classified. Within the frame of the "Electronic library of science and technology information" project, 1100 full scientific reports have been converted into electronic form. Information on these scientific reports such as title of the scientific work, summary, goals of the work, objects of the work, expected outputs, results, implementing agency, leader of science project, names of implementers and key words can be obtained from "Scientific report database". More extensive information on ths database can be found at in www.itpark.mn.

The following question (127) is for DEVELOPED COUNTRIES

127. ◇ On Article 17(1), do these measures take into account the special needs of developing countries and include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on?	
a) No	
b) Yes, but they do not include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on	
c) Yes, and they include categories of information listed in Article 17 (2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on	

Box LVII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.
The Government of Mongolia, especially its related Ministries and research institutes, places great importance on the exchange of biodiversity information at both a national and international level. Establishing a biodiversity exchange information network at national and international levels would increase institutional and individual's level of knowledge about biodiversity conservation and its sustainable use by promoting scientific, technological and technical exchanges of information at all levels. Exchange of information plays a significant role in effective biodiversity conservation, especially in the conservation of transboundary migratory species. Although a national information monitoring system for biodiversity conservation is already established, its activities and capacities still need to be strengthened and expanded. Once again, the regular operation of an environmental information system is restricted by Mongolia's financial situation, particularly, at a local level where the establishment of the information system and the availability of equipment, software and professional staff are very poor. These further measures need to be taken to increase the system's efficiency: • Strengthen the management and legal framework of the environmental information system; • Establish information databases at a provincial level to provide the information to all users; • Strengthen cooperation with research organisations to develop an internal information collection form and schedule so as to provide regular collection and update of information; • Improve standards and quality of information and reporting. Strengthen information entering, processing and analysis capacity; and • Enhance international cooperation so that biodiversity Information is shared, and seek more financial support from international communities.

Article 18 - Technical and scientific cooperation

128. ◇ On Article 18(1), has your country taken measures to promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity?	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further information on the measures to promote international technical and scientific cooperation.
In order to improve the management of science and its institutional structure, the state policy on science and techinology was developed according to the Law on Science and

Technology. A national scientific committee was established and is run on a part time basis to assist with the regulation of state policies, and to make recommendations about the development of science and technology in the country.

The state policy on Science and technology, approved by a Parliament Resolution (1998), states its objective as "to develop science and technology that plays a significant role in establishment and running of an export oriented market economy and democratic and humane society and ensure the sustainable development in the country". In order to achieve this objective, and ensure the enforcement of state policy on science and technology, a national programme on the Development of Science and Technology to 2010 was developed and approved. This national programme was developed by national researchers and scientists upon the consideration of the current state of scientific and technological development in the country. The national programme gives three main objectives. Objective 1 is "to use intellectual resources and development advantages for the successful development of national production that aims to expand exports, replacee imports and produce advanced technology and new products through captialising on national resources, for example. the richness of minerals and raw materials of wild species (fauna and flora), vast land available for agricultural purposes and the high educational background amongst the population, all based on traditional practices and modern scientific achievements, and the transfer and efficient use of skills and technology from foreign countries, consistant with natural and economic conditions in the country".

There are some joint projects were implemented with support of international organizations:

(1) Landscape level research for the conservation of Asiatic wild ass in Mongolia (International Takhi Group (ITG, Switzerland & Mongolia) & University of Veterinary Medicine, Vienna (Austria) in cooperation with the National University of Mongolia (NUM). www.takhi.org

(2) Impact of human intrusion on Impacts of Well Rehabilitation and Human Intrusion on Khulan (Wild Ass) and Other Threatened Species in the Gobi Desert (International Centre for the Advancement of Pastoral Systems (ICAPS, USA), University of Freiburg (Germany), University of Veterinary Medicine, Vienna, University of Oregon in cooperation with the National University of Mongolia (NUM)financed through the World Bank. www.khulan.org

(3) Re-introduction of Przewalski's horses in the Great Gobi B SPA (International Takhi Group (ITG, Switzerland & Mongolia) & University of Veterinary Medicine, Vienna (Austria) in cooperation with the National University of Mongolia (NUM) and The Mongolian Commission for Endangered Species).

Outputs of the project:

- data collection on ecology, social- and spatial organization of wild equids and their interaction with other wildlife and humans
- risk assessment for long-term survival of far-ranging gobi ungulates (focus on: fragmentation, competition with humans and livestock, poaching)
- public attitude towards gobi wildlife (focus on: wild ass, wolves)
- public awareness of wildlife issues (1 film on Przewalski's re-introduction, 1 film on Asiatic wild ass for the national TV of Mongolia)

129. ◇ On Article 18(4), has your country encouraged and developed methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention?	
a) No	
b) No, but relevant methods are under development	X
c) Yes, methods are in place	

130. ◇ On Article 18(5), has your country promoted the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention?	
a) No	X
b) Yes (please provide some examples below)	
Examples for the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention.	

131. Has your country established links to non-governmental organizations, private sector and other institutions holding important databases or undertaking significant work on biological diversity through the CHM? (decision V/14)	
a) No	
b) No, but coordination with relevant NGOs, private sector and other institutions under way	
c) Yes, links established with relevant NGOs, private sector and institutions	X

The following question (132) is for DEVELOPED COUNTRIES

132. Has your country further developed the CHM to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation? (decision V/14)	
a) No	
b) Yes, by using funding opportunities	
c) Yes, by means of access to, and transfer of technology	
d) Yes, by using research cooperation facilities	
e) Yes, by using repatriation of information	
f) Yes, by using training opportunities	
g) Yes, by using promotion of contacts with relevant institutions, organizations and the private sector	
h) Yes, by using other means (please specify below)	
Further comments on CHM developments to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation.	

133. Has your country used CHM to make information available more useful for researchers and decision-makers? (decision V/14)	
a) No	
b) No, but relevant initiatives under consideration	X
c) Yes (please provide details below)	
Further comments on development of relevant initiatives.	

134. Has your country developed, provided and shared services and tools to enhance and facilitate the implementation of the CHM and further improve synergies among biodiversity-related Conventions? (decision V/14)	
a) No	X
b) Yes (please specify services and tools below)	
Further comments on services and tools to enhance and facilitate the implementation of CHM and further improve synergies among biodiversity-related Conventions.	

Box LVIII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.

Article 19 - Handling of biotechnology and distribution of its benefits

135. ◇ On Article 19(1), has your country taken measures to provide for the effective participation in biotechnological research activities by those Contracting Parties which provide the genetic resources for such research?	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place	X
d) Yes, comprehensive legislation are in place	
e) Yes, comprehensive statutory policy and subsidiary legislation are in place	
f) Yes, comprehensive policy and administrative measures are in place	

Actions to identify genetical resources in Mongolia, and their equal and efficient exploitation, have been organised. According to the biotechnological programme adopted in 1998, biotechnological studies need to be intensified to increase genetic resources. Currently, two biotechnological programmes have been completed with a third programme under the development. As part of this work, laboratories of gene engineering, plant tissue and cell cultivation and genetic resources were established at the Institute of Biology of MAS. The workshop titled "Biosafety: national capacity of genetic resource exploitation, benefits from biosafety in Central Asia and Mongolia" was organised in 2002 in Ulaanbaatar, in cooperation with the UN university in Tokyo. Representatives from 7 countries such as Kazakstan, Turkmenistan and of international organisations participated in the workshop, giving a total of 20 presentations on genetic resources and enhancing capacity of genetic resource exploitation. Issues of genetic resources are included in Mongolian environmental law, the Law on Forest, the Law on hunting animals, the programme of conservation and exploitation of rare plants, and the resolution of Minister of MNE on determining the natural plant exploitation level.

136. ◇ On Article 19(2), has your country taken all practicable measures to promote and advance priority access by Parties, on a fair and equitable basis, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Parties?

a) No	
b) No, but potential measures are under review	
c) Yes, some measures are in place	
d) Yes, comprehensive measures are in place	

In 2002, Mongolia adhered to the Cartagen protocol of biosafety proceeding from the Biodiversity convention. In order to implement the Biodiversity convention and Cartagen convention of biosafety, the Mongolian Government adopted the 258th resolution regarding regulations of registering, analysing and controlling live, inbreeding organisms and their products. The Law on Biosafety has been proposed to the State Great Hural. These actions are important to ensure the equal exploitation of biotechnological results, and profit and to ensure biosafety.

Box LIX.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Traditional methods of fermenting airag, preparing yoghurt, making cheese, and tanning skin are classical forms of biotechnology. Large amounts of microorganism taxa live in the soil, water, air, animal and plant environments, thus helping to regulate ecological balance. They therefore play an important role in life. Microindividuals with peculiar reproductive, nutritional and rehabilitation characters of Mongolia are known as good resources of biotechnology development.

By the early 1990s, 482 bacterial, 74 viral, 90 fungal, 401 Actinobacterial, and 177 yeast tribes (total of 1224 tribes) were known, with 1140 of these tribes known from components of Mongolian nature. There are many resources of different types of by-products such as by-products of alcohol and beer, milk, plant residues, and straw. Easily accessible,

and cheap resources can be obtained with a low amount. Produce needs to be processed using biotechnological methods thus can produce ecologically pure products for increased exports and decreased imports.

A system of cooperation towards interrelated activities amongst Government, scientific organisations and private organisations needs to be developed to establish a knowledge based development system.

Biotechnology is a primary science, and technology sectors have developed in in Mongolia over a long period. However there is a lack of financial resources, private organisations do not participate and highly educated professionals are missing. Due to these problems, the level of biotechnological research is poor and conditions to obtain new foreign echnologies have not yet been formed. There is a need to pay attention to appropriately implement human resource policies, to attract highly educated professionals, and enhance link between scientific organisations and private sector. In addition, there is a strong need to identify peculiar and profitable characters of animal, plant, livestock and microorganism raw materials, and extract them, conduct detailed studies of their profitability, important characteristics, prove the importance of such characteristics, obtain copyright, seek for possibilities to implement such technologies in practice and estimate economical efficiency, and to implement them in Mongolian conditions. However, most of the Mongolian research organisations today send samples of animal, plant, livestock and microorganism raw materials away in order to determine profitable characters of the materials. Cooperation to enable the training of professionals over the short and long term, finding research funding, conducting research using modern sophisticated techniques and publishing research results in acredited international journals is required.

The MAP 21 has put decided upon the following objectives and actions in relation to biotechnology development in Mongolia.

Objectives

- To provide a safe biotechnological environment, produce ecologically clean products meeting world standards, create conditions for conducting biotechnological studies, experiments, and production;
- To maintain ecological balance, prevent dangerous diseases, improve breeds of animals and plants and develop biotechnological production to ensure sustainable development.

Activities

- Develop and implement a national biotechnological programme;
- Develop new vaccines, diagnoses, and medicines that result in healthier people, improved livestock, and to better protect them from contracting infectious diseases;
- Increase the production of vitamin supplemented and more nutritious and healthy food products through biotechnological methods;
- Transfer embryos of developing plants with transferred genes to create desired characteristics, and increase the proportion of livestock raised through improved production methods, and by intensifying the reproduction of stocks and developing new breeds;
- Develop new types of plants with selected genes in order to produce cultivated plants and edible plants that are more durable against diseases, drought and cold and that allow earlier and higher yield harvesting;
- Produce bacteria-based fertilizers in order to replace chemical fertilizers and increase harvest yields;
- Protect plants and forests from diseases and insects, and develop methods and technologies to better protect people, livestock, and wild animals from disease;
- Develop new cosmetics based upon biotechnology;
- Develop close international co-operation in the field of biotechnology, facilitate education of professionals abroad;
- Provide biotechnological actions by professional guides, methodology and related in-

formation;

- Create a specific collection of micro-organism, cellular cultures or their genotype database at the related research institutes and improve it's reservation and protection process; and
- Develop a centralised database, and strengthen its staff, industry and laboratory research basis.

Article 20 – Financial resources

Box LX.

Please describe for each of the following items the quantity of financial resources, both internal and external, that have been utilized, received or provided, as applicable, to implement the Convention on Biological Diversity, on an annual basis, since your country became a Party to the Convention.	
a) Budgetary allocations by national and local Governments as well as different sectoral ministries	In 2006, the state budget resources covered nature protection and restoration expenses. 40.6% of the total budget of 2.6 billion MNT, approved for the environment sector, was spent on hydrometeorology and environmental monitoring activities while 14.2% was spent on environmental sector staff costs. 1.4% was spent on nature protection and restoration activities. From the 2006 budget approved by the Ministry of Finance and Economy, 670 million MNT was spent on forestation and forest activities, 511.2 million MNT on protected area administration costs and 544 million MNT on general environmental events. Compared to the previous years figures this was an increase in all areas. Particularly, the budget for forestation and forest activities was considerably increased.
b) Extra-budgetary resources (identified by donor agencies)	1. Biodiversity Conservation Project (1993-1997), 1.5 million USD. With UNDP financial Support 2. Protected Areas Project I (1994-1997) and II (1998-2000), Total SF 224.000, WWF 3. Eastern Steppe and Sustainabale Livelihood Project, (1998-2003), 6.2 million USD.UNDP; 4. Improved Stove Project (2001-2003), 750.000 USD. GEF/WB 5. Community based Conservation of Biological Diversity in the Mountain Landscapes of Mongolia's Altai-Sayan Eco-region GEF/UNDP 6. Conservation of the Great Gobi and Its Umbrella Species Project. Funded by GEF/UNDP 1,4 million USD. With financial support of WB/ Government of Netherlands totaling 6 million USD a varied program of activities was implemented. For example, 1 million USD were used for a Small Grants Program strengthening local environmental initiatives by civil society, while other topics funded were urban greening, Buddhism and environment, toxics law reform, illegal wildlife trade, forest management, wild ass conservation, and impacts of mining.

c) Bilateral channels (identified by donor agencies)	Environment Conservation and Natural Resource Management funded by GTZ. Total budget is 5,8 million USD.
d) Regional channels (identified by donor agencies)	PDF B project on the Integrated Management of the Amur/Heilong River. Funded by GEF/UNEP. 750.000 USD
e) Multilateral channels (identified by donor agencies)	Sustainable Pasture Management Project (2002- 2007). Funded by Government of Nethrlands and UNDP. Total budget is 3.2 million USD.
f) Private sources (identified by donor agencies)	
g) Resources generated through financial instruments, such as charges for use of biodiversity	In order to provide secured funding sources for environmental conservation and natural resource restoration, the Mongolian Law on "Allocation of Portions of Incomes from Natural Resource Use Payments for Restoration" has been applied. As the Law is in force, it ensures secured financial sources for sustainable management and restoration of natural resources in local areas.It will therefore provide the basis for sustainable development in the country. Within the enforcement of this Law in the country, over MNT 100 million has been spent on biodiversity conservation.

Box LXI.

Please describe in detail below any major financing programmes, such as biodiversity trust funds or specific programmes that have been established in your country.
The major financing source for biodiversity conservation of Mongolia include: a) state budget b) bilateral assistance; c) multilateral assistance; d) fees collected from use of natural resources and e) funding generated from compensation and penalties

137. ◇ On Article 20(1), has your country provided financial support and incentives to those national activities that are intended to achieve the objectives of the Convention?	
a) No	
b) Yes, incentives only (please provide a list of such incentives below)	
c) Yes, financial support only	X
d) Yes, financial support and incentives (please provide details below)	
Further comments on financial support and incentives provided.	

The next question (138) is for DEVELOPED COUNTRIES

138. ◇ On Article 20(2), has your country provided new and additional financial resources to enable developing country Parties to meet the agreed incremental costs to them of implementing measures which fulfill the obligations of the Convention?	
a) No	
b) Yes (please indicate the amount, on an annual basis, of new and additional financial resources your country has provided)	
Further comments on new and additional financial resources provided.	

The next question (139) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION

139. ◇ On Article 20(2), has your country received new and additional financial resources to enable it to meet the agreed full incremental costs of implementing measures which fulfill the obligations of the Convention?	
a) No	X
b) Yes	

140. ◇ Has your country established a process to monitor financial support to biodiversity, including support provided by the private sector? (decision V/11)	
a) No	X
b) No, but procedures being established	
c) Yes (please provide details below)	
Further comments on processes to monitor financial support to biodiversity, including support provided by the private sector.	

141. ◇ Has your country considered any measures like tax exemptions in national taxation systems to encourage financial support to biodiversity? (decision V/11)	
a) No	X
b) No, but exemptions are under development (please provide details below)	
c) Yes, exemptions are in place (please provide details below)	
Further comments on tax exemptions for biodiversity-related donations.	

142. Has your country reviewed national budgets and monetary policies, including the effectiveness of official development assistance allocated to biodiversity, with particular attention paid to positive incentives and their performance as well as perverse incentives and ways and means for their removal or mitigation? (decision VI/16)	
a) No	
b) No, but review is under way	X
c) Yes (please provide results of review below)	
Further comments on review of national budgets and monetary policies, including the effectiveness of official development assistance.	

143. Is your country taking concrete actions to review and further integrate biodiversity considerations in the development and implementation of major international development initiatives, as well as in national sustainable development plans and relevant sectoral policies and plans? (decisions VI/16 and VII/21)	
a) No	
b) No, but review is under way	X
c) Yes, in some initiatives and plans (please provide details below)	
d) Yes, in major initiatives and plans (please provide details below)	
Further comments on review and integration of biodiversity considerations in relevant initiatives, policies and plans.	

144. Is your country enhancing the integration of biological diversity into the sectoral development and assistance programmes? (decision VII/21)	
a) No	
b) No, but relevant programmes are under development	X
c) Yes, into some sectoral development and assistance programmes (please provide details below)	
d) Yes, into major sectoral development and assistance programmes (please provide details below)	
Further comments on the integration of biodiversity into sectoral development and assistance programmes	

The next question (145) is for DEVELOPED COUNTRIES

145. Please indicate with an "**X**" in the table below in which area your country has provided financial support to developing countries and/or countries with economies in transition. Please elaborate in the space below if necessary.

A r e a s	**Support provided**
a) Undertaking national or regional assessments within the framework of MEA (decision VI/8)	
b) *In-situ* conservation (decision V/16)	
c) Enhance national capacity to establish and maintain the mechanisms to protect traditional knowledge (decision VI/10)	
d) *Ex-situ* conservation (decision V/26)	
e) Implementation of the Global Strategy for Plant Conservation (decision VI/9)	
f) Implementation of the Bonn Guidelines (decision VI/24)	
g) Implementation of programme of work on agricultural biodiversity (decision V/5)	
h) Preparation of first report on the State of World's Animal Genetic Resources (decision VI/17)	
i) Support to work of existing regional coordination mechanisms and development of regional and sub regional networks or processes (decision VI/27)	
j) Development of partnerships and other means to provide the necessary support for the implementation of the programme of work on dry and subhumid lands biological diversity (decision VII/2)	
k) Financial support for the operations of the Coordination Mechanism of the Global Taxonomy Initiative (decision VII/9)	
l) Support to the implementation of the Action Plan on Capacity Building as contained in the annex to decision VII/19 (decision VII/19)	
m) Support to the implementation of the programme of work on mountain biological diversity (decision VII/27)	
n) Support to the implementation of the programme of work on protected areas (decision VII/28)	
o) Support to the development of national indicators (decision VII/30)	
p) Others (please specify)	

Further information on financial support provided to developing countries and countries with economies in transition.

The next question (146) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION

146. Please indicate with an "**X**" in the table below in which areas your country has applied for funds from the Global Environment Facility (GEF), from developed countries and/or from other sources. The same area may have more than one source of financial support. Please elaborate in the space below if necessary.

A r e a s	**Applied for funds from**		
	GEF	**Bilateral**	**Other**
a) Preparation of national biodiversity strategies or action plans	***x***		
b) National capacity self-assessment for implementation of Convention (decision VI/27)	***x***		
c) Priority actions to implement the Global Taxonomy Initiative (decision V/9)			
d) *In-situ* conservation (decision V/16)	***x***		
e) Development of national strategies or action plans to deal with alien species (decision VI/23)			
f) *Ex-situ* conservation, establishment and maintenance of *Ex-situ* conservation facilities (decision V/26)	***x***		
g) Projects that promote measures for implementing Article 13 (Education and Public Awareness) (decision VI/19)	***x***	***x***	***x***
h) Preparation of national reports (decisions III/9, V/19 and VI/25)	***x***		
i) Projects for conservation and sustainable use of inland water biological diversity (decision IV/4)	***x***	***x***	
j) Activities for conservation and sustainable use of agricultural biological diversity (decision V/5)	***x***	***x***	
k) Implementation of the Cartagena Protocol on Biosafety (decision VI/26)	***x***		
l) Implementation of the Global Taxonomy Initiative			
m) Implementation of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity			
n) Others (please specify)			

Further information on application for financial support.

Box LXII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.
Mongolia pays special attention to implementing its policy for the conservation and sustainable use of the natural resources of the country and every year approves a certain amount of funding for this activity from the state budget. Projects funded by foreign countries and international donor organizations also provide great contributions to conserving the biodiversity of the country. Further close co-operation with the NGOs, private sector, foreign countries and international donor organizations is very important to secure more financial resources for sustainable conservation and use of biodiversity resources.

D. THEMATIC AREAS

147. Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the thematic programmes of work of the Convention (marine and coastal biodiversity, agricultural biodiversity, forest biodiversity, inland waters biodiversity, dry and sub-humid lands and mountain biodiversity).

3 = High Challenge	1 = Low Challenge
2 = Medium Challenge	0 = Challenge has been successfully overcome
N/A = Not applicable	

Challenges	Programme of Work					
	Agricultural	Forest	Marine and coastal	Inland water ecosystem	Dry and subhumid lands	Mountain
(a) Lack of political will and support	1	1		1	2	1
(b) Limited public participation and stakeholder involvement	1	1		1	1	1
(c) Lack of mainstreaming and integration of biodiversity issues into other sectors	2	1		2	2	2
(d) Lack of precautionary and proactive measures	2	2		2	2	2
(e) Inadequate capacity to act, caused by institutional weakness	1	2		1	2	2

(f) Lack of transfer of technology and expertise	1	1		1	1	1
(g) Loss of traditional knowledge	2	2		2	2	2
(h) Lack of adequate scientific research capacities to support all the objectives	2	2		2	2	2
(i) Lack of accessible knowledge and information	2	2		2	2	2
(j) Lack of public education and awareness at all levels	1	1		1	1	1
(k) Existing scientific and traditional knowledge not fully utilized	1	1		1	1	1
(l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	2	2		2	2	2
(m) Lack of financial, human, technical resources	2	2		2	2	2
(n) Lack of economic incentive measures	2	2		2	2	2
(o) Lack of benefit-sharing	3	3		2	3	3
(p) Lack of synergies at national and international levels	1	1		1	1	1
(q) Lack of horizontal cooperation among stakeholders	1	1		1	1	1
(r) Lack of effective partnerships	1	1		1	1	1
(s) Lack of engagement of scientific community	1	1		1	1	1
(t) Lack of appropriate policies and laws	0	0		2	1	1
(u) Poverty	1	1		1	1	1
(v) Population pressure	1	1		1	1	1
(w) Unsustainable consumption and production patterns	1	1		1	1	1
(x) Lack of capacities for local communities	1	1		1	1	1
(y) Lack of knowledge and practice of ecosystem-based approaches to management	1	1		1	1	1

(z) Weak law enforcement capacity	1	1		1	1	1
(aa) Natural disasters and environmental change	1	1		1	1	1
(bb) Others (please specify)						

Inland water ecosystems

148. Has your country incorporated the objectives and relevant activities of the programme of work into the following and implemented them? (decision VII/4)

Strategies, policies, plans and activities	No	Yes, partially, integrated but not implemented	Yes, fully integrated and implemented	N/A
a) Your biodiversity strategies and action plans			x	
b) Wetland policies and strategies			x	
c) Integrated water resources management and water efficiency plans being developed in line with paragraph 25 of the Plan of Implementation of the World Summit on Sustainable Development			x	
d) Enhanced coordination and cooperation between national actors responsible for inland water ecosystems and biological diversity				

Further comments on incorporation of the objectives and activities of the programme of work

149. Has your country identified priorities for each activity in the programme of work, including timescales, in relation to outcome oriented targets? (decision VII/4)

a) No	
b) Outcome oriented targets developed but priority activities not developed	X
c) Priority activities developed but not outcome oriented targets	
d) Yes, comprehensive outcome oriented targets and priority activities developed	

Further comments on the adoption of outcome oriented targets and priorities for activities, including providing a list of targets (if developed).

Mongolia is regarded as one of the countries that have limited water resources and 88.5 percent of its total water resources is surface water in which lakes are compose 83 percent.

In recent years, due to global warming/change and adverse human activities, there is de-

crease of water level in mountain rivers, lakes and ponds fed by snow, ice and glaciers.

According to surface water registration and census conducted in 2003, 2385 rivers and springs and more than 800 minor water sources were dried up. Therefore, the Government of Mongolia has announced the year of 2005 as the year of Water Policy Reform and established the Water Authority, which is a government implementing agency responsible for improving management of water resources, providing rational utilization and sustainable use of water resources and coordinating interrelations of related sectors. In addition, the National Water Committee has established at the Government and the National Program on Water has been developed within its activities of creating legal environment and developing action plans.

The Program's purposes are:

- Establish control on water utilization and water cost and price
- Change some of the rivers' directions to regulate their water flow
- Increase number of wells and water points and harvest snow and rain water creating artificial ponds to improve rangeland irrigation
- Increase availabilities and quality of drinking water for the population
- Take surface water areas under protection
- Conduct registration and census for surface water and identify dried lakes, rivers, springs and minor water points and implement measures for their rehabilitation.

Within activities protecting the surface water in Mongolia, it is been indicated that the measures to increase water resources via rehabilitating areas of water sources are the main priority. In addition, increase of water supply for the population through providing sustainable utilization is considered as the goal of national priority.

150. Is your country promoting synergies between this programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level? (decision VII/4)

a) Not applicable (not Party to Ramsar Convention)	
b) No	
c) No, but potential measures were identified for synergy and joint implementation	
d) Yes, some measures taken for joint implementation (please specify below)	X
e) Yes, comprehensive measures taken for joint implementation (please specify below)	

Further comments on the promotion of synergies between the programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level.

Mongolia is joined to the Ramsar convention in 1997 and total of 6 areas are registered under the convention and their protection and rehabilitation activities are been implemented. At present, within the convention activities, particular attention has given to protection of water birds. However, in recent years protection of fish in some lakes is been carried out.

Protection of lake ecosystem has been put forward not only within Ramsar convention but also Biodiversity convention as the lakes are composing main water bodies of Mongolia. Since 2005, within Ramsar convention on wetland protection, the Mongolian and Russian joint biological expedition has carried out research on wetlands and their classification. The joint expedition has characterized the marshlands as one of the forms of plant and the sci-

entific basis for their protection measures are been at the state of development. In the future, it is important to consider the following issues in protection of wetlands, particularly its biodiversity:

- Carry out research study on feeding systems of the lakes and quality of river water that feed the lakes and impact factors for the water quality
- Carry out detailed research on wetland biodiversity and include species of fish, insects and microorganisms into the list of biodiversity to be protected.
- Strengthen capacity of Water Authority and give particular attention in use of Ramsar convention for water resource utilization
- Develop rehabilitation action plan and program through conducting detailed research on some of the river basins and implementing river basin complex management.

151. Has your country taken steps to improve national data on: (decision VII/4)

Issues	Yes	No	No, but development is under way
a) Goods and services provided by inland water ecosystems?	x		
b) The uses and related socioeconomic variables of such goods and services?			X
c) Basic hydrological aspects of water supply as they relate to maintaining ecosystem function?			X
d) Species and all taxonomic levels?		x	
e) On threats to which inland water ecosystems are subjected?	x		

Further comments on the development of data sets, in particular a list of data sets developed in case you have replied "**YES**" above.

152. Has your country promoted the application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems? (decision VII/4)

a) No, the guidelines have not been reviewed	
b) No, the guidelines have been reviewed and found inappropriate	
c) Yes, the guidelines have been reviewed and application/promotion is pending	
d) Yes, the guidelines promoted and applied	x

Further comments on the promotion and application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems.

Box LXIII.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Mongolia lies at edge of three big drainage basins and a part of Asian Pacific Region that has higher altitude, lower levels of precipitation and higher dryness. Distribution of water resources throughout the country varies and water quality in some parts of regions is low. Most of rivers outflow via the state border so that the country is regarded as one of the countries that have limited water resources.

Most of water resources are surface water resources and the rivers and streams have 34.6 km^3 run-off resources and underground water resources are estimated as 6.1 millions m^3 according to the long term mean. This estimation has been used for last over 20 years. The steppe and dry and semi-dry Gobi regions constitute the 2/3 of total territory and only 36.7 % of the total run-off resources mentioned above are in these steppe and Gobi regions. However, these regions support more than half of the total livestock in the country.

Mean run-offs of rivers and streams in Mongolia per a year is 30.6 km^3 and plus the run-offs of rivers inflowing from Russia and China, neighboring countries, it is totally 34.6 km^3. Artic Ocean Basin river run-offs account for 49.0 % (16 km^3) of total river water reserves, Pacific Ocean Basin rivers 11 % (38 km^3), and the enclosed basin of Central Asian run-offs 40 % (13.9 km^3).

The central region of the country supports the Altai mountain range that is fed by glaciers and main rivers such as Onon and Ulz rivers that are fed by rainfall water. However, the number of rivers and streams dried up in the central region intends to be increased. While the highest number of dried up rivers and streams reached up to 33-54 in Khovsgol, Uvurkhangai, Tov, Arkhangai, Selenge, and Bulgan Aimags, it was fewer in the Gobi and steppe regions, where summer conditions were better. However, there were eight rivers dried up in Khovd Aimag and 17 rivers and streams in Bayan-Ulgii Aimag, where the summer condition was better. According to these reports some researchers made a conclusion the dryness has been intensified in the basins, where economic activities were intensively undertaken and the rivers and streams were fed by glaciers.

60 % of the mean annual river run-offs outflow through the state border and the rest is usually penetrated into soil by feeding the underground water resources and some parts inflow into lakes in the Gobi region, where evaporation usually takes place. 83.7 % of water resources are lakes, 10.5 % glaciers, and 5.8 % rivers. 85 percent of surface water is fresh water and 93.6 % of this amount is constituted by Khovsgol Lake water. There are considerable amounts of underground water resources in the country, but the amounts of water to be used are very low due to long term recovery process. Changes to surface water or river water tables take place for shorter period of time within 20 days or 18 times a year.

At present, observations and monitoring on water resources and regimes in the country are undertaken by 126 hydrological observation points including 110 guards for rivers and 16 guards for lakes. Observations on underground water tables and temperatures are undertaken at about 15 wells. Apart from these, there are 64 points /guards for taking samples of plankton and benthos fauna and flora species and over 140 points for hydro-chemical research sampling operating in the country.

Exploration and current state of underground water resource use: Researchers identified that about 90 % of water consumption in the country has been supplied from underground water resources. Underground water has specific ecological and vulnerable formation, water regimes and nutritive system and for restoration and recovery it takes long period as several decades and hundreds of years. Therefore, it is required that underground water re-

sources should be protected and used without exceeding its restorable amounts. Predominant amounts of water consumption in Ulaanbaatar city, 21 Aimags, and most of Sum centers, industries and economic entities and irrigation of pastureland in the country are supplied with underground water resources. Therefore, the underground water resource has practical and strategic importance in water supplies of the country.

According to the 2003 statistics there were total of 40,870 water points including 19,460 engineering designed wells and 21,410 manual wells in the country. The engineering designed wells (19,460) included 5,656 drilled wells, 6,064 short-piped wells, and 7,740 concrete wall wells. Totally 8,575 wells are used for drinking water of humans as wells household and industrial purposes and 32,263 wells were used for irrigation of pastureland.

Use of mineral water resources: Mineral water is the underground water coming up to the ground surface. There are over 90 mineral water points including about 40 hot water and over 50 cold water bodies, over 100 mineral-like natural springs, and about 40 mineralized lakes with mud used for traditional medical treatment recorded in the country. At present, there are over 40 % of the mineral water bodies in the western and eastern regions, 33.3 % in Khangai and 23.3 % in the central region of the country.

Marine and coastal biological diversity

General

153. Do your country's strategies and action plans include the following? Please use an "**X**" to indicate your response. (decisions II/10 and IV/15)	
a) Developing new marine and coastal protected areas	
b) Improving the management of existing marine and coastal protected areas	
c) Building capacity within the country for management of marine and coastal resources, including through educational programmes and targeted research initiatives (if yes, please elaborate on types of initiatives in the box below)	
d) Instituting improved integrated marine and coastal area management (including catchments management) in order to reduce sediment and nutrient loads into the marine environment	
e) Protection of areas important for reproduction, such as spawning and nursery areas	
f) Improving sewage and other waste treatment	
g) Controlling excessive fishing and destructive fishing practices	
h) Developing a comprehensive oceans policy (if yes, please indicate current stage of development in the box below)	
i) Incorporation of local and traditional knowledge into management of marine and coastal resources (if yes, please elaborate on types of management arrangements in the box below)	
j) Others (please specify below)	
k) Not applicable	
Please elaborate on the above activities and list any other priority actions relating to conservation and sustainable use of marine and coastal biodiversity.	

Implementation of Integrated Marine and Coastal Area Management

154. Has your country established and/or strengthened institutional, administrative and legislative arrangements for the development of integrated management of marine and coastal ecosystems?	
a) No	
b) Early stages of development	
c) Advanced stages of development	
d) Arrangements in place (please provide details below)	
e) Not applicable	
Further comments on the current status of implementation of integrated marine and coastal area management.	

155. Has your country implemented ecosystem-based management of marine and coastal resources, for example through integration of coastal management and watershed management, or through integrated multidisciplinary coastal and ocean management?	
a) No	
b) Early stages of development	
c) Advanced stages of development	
d) Arrangements in place (please provide details below)	
e) Not applicable	
Further comments on the current status of application of the ecosystem to management of marine and coastal resources.	

Marine and Coastal Living Resources

156. Has your country identified components of your marine and coastal ecosystems, which are critical for their functioning, as well as key threats to those ecosystems?	
a) No	
b) Plans for a comprehensive assessment of marine and coastal ecosystems are in place (please provide details below)	
c) A comprehensive assessment is currently in progress	
d) Critical ecosystem components have been identified, and management plans for them are being developed (please provide details below)	
e) Management plans for important components of marine and coastal ecosystems are in place (please provide details below)	
f) Not applicable	
Further comments on the current status of assessment, monitoring and research relating to marine and coastal ecosystems, as well as key threats to them	

157. Is your country undertaking the following activities to implement the Convention's work plan on coral reefs? Please use an "**X**" to indicate your response.

A c t i v i t i e s	**Not implemented nor a priority**	**Not implemented but a priority**	**Currently implemented**	**Not applicable**
a) Ecological assessment and monitoring of reefs				
b) Socio-economic assessment and monitoring of communities and stakeholders				
c) Management, particularly through application of integrated coastal management and marine and coastal protected areas in coral reef environments				
d) Identification and implementation of additional and alternative measures for securing livelihoods of people who directly depend on coral reef services				
e) Stakeholder partnerships, community participation programmes and public education campaigns				
f) Provision of training and career opportunities for marine taxonomists and ecologists				

g) Development of early warning systems of coral bleaching				
h) Development of a rapid response capability to document coral bleaching and mortality				
i) Restoration and rehabilitation of degraded coral reef habitats				
j) Others (please specify below)				

Please elaborate on ongoing activities.

Marine and Coastal Protected Areas

158. Which of the following statements can best describe the current status of marine and coastal protected areas in your country? Please use an "**X**" to indicate your response.	
a) Marine and coastal protected areas have been declared and gazetted (please indicate below how many)	
b) Management plans for these marine and coastal protected areas have been developed with involvement of all stakeholders	
c) Effective management with enforcement and monitoring has been put in place	
d) A national system or network of marine and coastal protected areas is under development	
e) A national system or network of marine and coastal protected areas has been put in place	
f) The national system of marine and coastal protected areas includes areas managed for purpose of sustainable use, which may allow extractive activities	
g) The national system of marine and coastal protected areas includes areas which exclude extractive uses	
h) The national system of marine and coastal protected areas is surrounded by sustainable management practices over the wider marine and coastal environment.	
i) Other (please describe below)	
j) Not applicable	

Further comments on the current status of marine and coastal protected areas.

Mariculture

159. Is your country applying the following techniques aimed at minimizing adverse impacts of mariculture on marine and coastal biodiversity? Please check all that apply.	
a) Application of environmental impact assessments for mariculture developments	
b) Development and application of effective site selection methods in the framework of integrated marine and coastal area management	
c) Development of effective methods for effluent and waste control	
d) Development of appropriate genetic resource management plans at the hatchery level	
e) Development of controlled hatchery and genetically sound reproduction methods in order to avoid seed collection from nature.	
f) If seed collection from nature cannot be avoided, development of environmentally sound practices for spat collecting operations, including use of selective fishing gear to avoid by-catch	
g) Use of native species and subspecies in mariculture	
h) Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polypoids.	
i) Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity	
j) Minimizing the use of antibiotics through better husbandry techniques	
k) Use of selective methods in commercial fishing to avoid or minimize by-catch	
l) Considering traditional knowledge, where applicable, as a source to develop sustainable mariculture techniques	
m) Not applicable	
Further comments on techniques that aim at minimizing adverse impacts of mariculture on marine and coastal biodiversity.	

Alien Species and Genotypes

160. Has your country put in place mechanisms to control pathways of introduction of alien species in the marine and coastal environment? Please check all that apply and elaborate on types of measures in the space below.	
a) No	
b) Mechanisms to control potential invasions from ballast water have been put in place (please provide details below)	
c) Mechanisms to control potential invasions from hull fouling have been put in place (please provide details below)	
d) Mechanisms to control potential invasions from aquaculture have been put in place (please provide details below)	
e) Mechanisms to control potential invasions from accidental releases, such as aquarium releases, have been put in place (please provide details below)	
f) Not applicable	

Further comments on the current status of activities relating to prevention of introductions of alien species in the marine and coastal environment, as well as any eradication activities.

Box LXIV.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.

Agricultural biological diversity

161. ◇ Has your country developed national strategies, programmes and plans that ensure the development and successful implementation of policies and actions that lead to the conservation and sustainable use of agrobiodiversity components? (decisions III/11 and IV/6)	
a) No	
b) No, but strategies, programmes and plans are under development	
c) Yes, some strategies, programmes and plans are in place (please provide details below)	X
d) Yes, comprehensive strategies, programmes and plans are in place (please provide details below)	

Further comments on agrobiodiversity components in national strategies, programmes and plans.

Mongolian agriculture produces over 20% of GDP and it is mainly contributed by the livestock sector. While crop sector is developing from 1940, several varieties of plants adapted in Mongolian conditions are invented. After 1990, when agriculture, especially crop sector failed, the Government has started to pay its attention to creating favorable legal environment for developing crop sector and increasing its output to support livelihoods of citizens and the following legal documents have been revised or newly enacted, namely: "Land Law", "Law on Allocation of Land to Mongolian Citizens for Ownership", "Law on Cropping" and "Insurance Law of Seed Cropping". For purpose of nationwide implementation of these laws and legislations, the government initiated and executed "Crop Program" and "Green Revolution Program" step by step that diversified crop activities from a few types of cereal and vegetable to multi-plant production of vegetables and cereals. In addition to the above mentioned programs, the government implemented sub-programs designed for reducing crop sector risks, which paid special attention to mitigating of risks related to climatic changes and unfavorable weather conditions, creating new crop varieties resistant to the risk factors, protecting crop sector from risks and creating risk early warning systems.

In addition, the government has developed a special policy on Agricultural Sector Development for 2003-2015 that promotes objectives to increase of agricultural outputs and to cultivate mainly local varieties and straggle with insects and other negative factors using progressive technologies. Furthermore, the document considers organizational, technical and technological supports to intensive livestock sector development, protection of gene-pools of nuclear herds' animals and creating high productive breeds to be resistant to natural and weather risks. Concluding that protection of gene-pools of best local breeds and sub-breeds is a basis for sustainable development of national agriculture, the government initiated the Law on Protection of Gene-Pool and Health of Animals. A detailed plan to increase livestock population, especially number of camels is being implemented. Considering this, research studies are organized in direction of rehabilitation of vegetation covers of pastures and hayfields to support productivity of animals.

162. ◇ Has your country identified ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use, including food security, of agricultural biological diversity? (decision V/5)	
a) No	
b) No, but potential measures are under review	

c) Yes, some measures identified (please provide details below)	X
d) Yes, comprehensive measures identified (please provide details below)	

Further information on ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use of agricultural biodiversity.

Due to its specific natural and geographical conditions, Mongolia is considered as risky in terms of agricultural farming. Main factors affecting to productivity of agricultural sectors include weather disasters and prevalence of harmful insects and weeds. Therefore, the following measures are taken to mitigate negative impacts of agricultural biodiversities.

- Retraining of 1200 veterinarians representing 600 private veterinary units in 320 soums (in repeated counting) are organized periodically in order to build up their capacities.
- A diagnostic laboratory of extremely contagious diseases of animals is established within the framework of the "Project on Diagnostic Capacity Building of Extremely Contagious Diseases". This gives an opportunity to diagnose contagious diseases through diagnostic methods such as "A" category polymerase coherent reaction, crossbreeding of nuclei acids, tissue cultivation and ELIZA reaction.
- Although natural zuds and draughts killed many millions of animals including nuclear herds and female breeding stocks, the number of nuclear herds has increased due to implementation of regular actions on restoring nuclear herds and male breeding stocks and sales exhibitions of breeding animals every year.
- The gene pool of animals has enriched thanks to preserving semen of animals decreased in their numbers and importing of semen and embryos from abroad.
- Using of zero and reduced tillage in crop production (on 31.7 thousand ha) has not only decreased crop production expenses, but also become a new technology enabling liquidation of perennial and cereal type weeds. As defined that irrigated cropping is a future perspective of agriculture, last four years, 6 irrigation schemes with total irrigating capacity of 800 ha are built up newly and 17 irrigation schemes with irrigating capacity of 4094 ha are rehabilitated. For purpose of protecting pastures and agricultural lands from rodents and locusts, chemical and mechanical methods of straggling with them are used every year. In order to decrease negative effects for human health, birth and generation from consuming imported food products without any security controls as experiences of previous years, professional inspection agencies provide regular security controls.

Annex to decision V/5 - Programme of work on agricultural biodiversity

Programme element 1 – Assessment

163. Has your country undertaken specific assessments of components of agricultural biodiversity such as on plant genetic resources, animal genetic resources, pollinators, pest management and nutrient cycling?

e) No	
f) Yes, assessments are in progress (please specify components below)	X
g) Yes, assessments completed (please specify components and results of assessments below)	

Further comments on specific assessments of components of agricultural biodiversity.

As part of this work an information network has been established. Projects have also been implemented to strengthen the capacity to diagnose hyper-infectious livestock diseases, such as joint bone loosening of cattle, sheep and goats, some chronic infectious dis-

eases, and prevent to from gad-fly's larva development under the back skin of animals. Also, 30 kinds of veterinary bio-preparatives have been prepared and are being introduced in manufacturing. Aiming to enrich newly formed agricultural biodiversity and their gene pool, a gene pool collection has been formed and is now operating under a related research institute.

Working towards achieving results in activities like establishing a gene pool of plants and animals, breeding precious animals and plants via biotechnological methods, decision making of conservation activities, the use of chemical-biological preparatives in combating and preventing various diseases of animals and plant insect pests, and the use of mineral fertilizers in improving crop yield and quality.

164. Is your country undertaking assessments of the interactions between agricultural practices and the conservation and sustainable use of the components of biodiversity referred to in Annex I of the Convention (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance)?	
a) No	x
b) Yes, assessments are under way	
c) Yes, some assessments completed (please provide details below)	
d) Yes, comprehensive assessments completed (please provide details below)	

Further comments on assessment of biodiversity components (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance).

The project "Country Need Assessment in Biodiversity Conservation," funded by the GEF, has assessed Mongolian Agriculture biodiversity resources. For more information, please visit: www.mnec/biodiversity

165. Has your country carried out an assessment of the knowledge, innovations and practices of farmers and indigenous and local communities in sustaining agricultural biodiversity and agro-ecosystem services for food production and food security?	
a) No	
b) Yes, assessment is under way	x
c) Yes, assessment completed (please specify where information can be retrieved below)	

Further comments on assessment of the knowledge, innovations and practices of farmers and indigenous and local communities.

Initiated evaluation and appreciation of practical and new inventions and knowledge of local people and farmers. Although, new inventions and initiations have been well supported, legal environment was formed and financial, technical and technological supports have been offered to intensive farm development in the central zone of agriculture region. This issue was first raised in 2005-2006, and the assessment of initiations of food industry supporters and their collective skills and knowledge will begin. Mongolians have long lasting traditions of herding livestock, especially in nomadic pasture herding styles, and this kind of assessment would be required in order to save this traditional style of herding livestock.

166. Has your country been monitoring an overall degradation, status quo or restoration/rehabilitation of agricultural biodiversity since 1993 when the Convention entered into force?	
a) No	
b) Yes, no change found (status quo)	
c) Yes, overall degradation found (please provide details below)	X
d) Yes, overall restoration or rehabilitation observed (please provide details below)	

Further comments on observations.

As part of agriculture biodiversity assessment activities, approval of pasture land and agriculture land has been conducted once every 3-5 years. This activity estimates the amount of degraded land, inclusion and deduction of land in pasture use, arable and non-arable land, and prepares a combined plan of these lands.

Apart from this, the assessment of biodiversity in terms of agriculture and animal husbandry has been conducted to some extent. During this period, an assessment of all livestock, activities to form a nuclear herd, selection of breeding livestock, replacement of stock with new parent animals, and the approval their origin has been organis annually. As a result of this activity, the number of of core herd has increased by 2.3 times compared to the number in 2000. In addition, of the number of breeding females per breeding male was 70 in 2000, and it has since been reduced to 54-55, an improvement in the herd sex ratio. The quality of livestock has been improved and now 93-96.7% of male breeding cattle, horses and camels and 93.7-94.3% of male breeding sheep and goats have reached the standard.

During this period, the new breed of Sartuul sheep with wiry wool and high productivity of meat and wool, Tamir sheep with high productivity of meat and wool, brown camel of Tuhum tungalag, and red goat of Altai with high productivity of cashmere have been introduced.

Additionally, 70% of agricultural crops seed have been renewed and and there is now the

opportunity to use 100% of domestic seeds for plantation. Apart from this, a new breed of wheat, Darkhan 72, and a new breed of barley, Burkhant 1, have been produced.

Programme element 2 - Adaptive management	
167. Has your country identified management practices, technologies and policies that promote the positive, and mitigate the negative, impacts of agriculture on biodiversity, and enhance productivity and the capacity to sustain livelihoods?	
a) No	
b) No, but potential practices, technologies and policies being identified	
c) Yes, some practices, technologies and policies identified (please provide details below)	X
d) Yes, comprehensive practices, technologies and policies identified (please provide details below)	

Further comments on identified management practices, technologies and policies.

The main factor affecting agriculture biodiversity is overlapping pastures, and in order to mitigate against this, a plan to support the development of intensive farming practices has been prepared. The introduction of farming, irrigated fodder and hay plantations have been experimented with in bigger settlement areas, like the Ulaanbaatar zone.

As part of work to improve local people's livelihoods, and with the aim of developing small scale industry to produce agriculture products, national programmes were implemented on small scale loan and rural development. In addition, Mongolia has been implementing the majority of international projects in agricultural fields for the improvement of livelihood of rural people, forming sustainable economic grounds and the sustainable use of natural resources.

Further, there is a requirement to implement multi-lateral activities such as the reducing in use intensity of open water resource points used for drinking by wild animals, restoring non-arable and degraded land, and rehabilitating pastoral land. To do this collaboration with research and experimental institutes, centres and organisations are required, and much importance should be given to supporting the participation of scientific organisations.

Programme element 3 - Capacity-building	
168. Has your country increased the capacities of farmers, indigenous and local communities, and their organizations and other stakeholders, to manage sustainable agricultural biodiversity and to develop strategies and methodologies for *In-situ* conservation, sustainable use and management of agricultural biological diversity?	
a) No	X
b) Yes (please specify area/component and target groups with increased capacity)	

Further comments on increased capacities of farmers, indigenous and local communities, and their organizations and other stakeholders.

169. Has your country put in place operational mechanisms for participation by a wide range of stakeholder groups to develop genuine partnerships contributing to the implementation of the programme of work on agricultural biodiversity?	
a) No	
b) No, but potential mechanisms being identified	X
c) No, but mechanisms are under development	
d) Yes, mechanisms are in place	

170. Has your country improved the policy environment, including benefit-sharing arrangements and incentive measures, to support local-level management of agricultural biodiversity?	
a) No	
b) No, but some measures and arrangements being identified	
c) No, but measures and arrangements are under development	x
d) Yes, measures and arrangements are being implemented (please specify below)	

Further comments on the measures taken to improve the policy environment.

Agricultural stakeholders have been implementing activities to strengthen capacity at an administrative level through international projects and programmes. In this way, experiments and studies based on local people are run on the sustainable use of natural resources, and training and programmes to strengthen local people's limited extent capacity as part of projects like "Sustainable pasture management", "Pasture management", "Mongolian pasture-Green gold", and "Supporting rural development". These projects not only improve local people's capacity, but work on training to enable flexibility in local administrations, and improve knowledge and skills of specialised human resources. However due to problems like a delay in investment decision, and that funding resources do not reach target people etc., the capacity of local people is not much improved. Local stakeholders are operating on their own resources and capacities, however.

170: The decentralisation of concentrated administration and financing, the equal allocation of benefits has not yet been properly implemented at the present level of the country's development. In addition, the development of natural sectors is dependent not on the political system, but on the economic system, and formation of an administrative mechanism to regulate intra-sector cooperation is required. Apart from this, the present level of underdeveloped social capacity to understand and valuate intangible benefits from nature, especially from biodiversity at every stage, is a significant barrier to the allocation of a system of benefits. Thus, it is urgently required to prepare assessment system that estimates direct and indirect, tangible and non-tangible benefits from agriculture.

Programme element 4 – Mainstreaming	
171. Is your country mainstreaming or integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes?	
a) No	
b) No, but review is under way	
c) No, but potential frameworks and mechanisms are being identified	X
d) Yes, some national plans or strategies mainstreamed and integrated	

into some sectoral plans and programmes (please provide details below)	
e) Yes, some national plans or strategies mainstreamed into major sectoral plans and programmes (please provide details below)	

Further comments on mainstreaming and integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes.

State policy regarding the food and agriculture sector is responsible for uniting and directing the activities of the state, citizens and legal bodies for the development of agriculture, enablement of production growth, increasing benefits, improvement the quality and safety of food products, risk insurance of agriculture from natural hazards and the improvement of rural people's living conditions. Thus, aiming to implement this policy, duties and responsibilities to enable activities related to economic, trade, the production, of nature and the environment, hazard management and adjustment to the general development trend of the country is performed.

Today, larger projects implemented in the agriculture sector involve the Ministry of Nature and Environment, reflecting general requirements of nature conservation and biodiversity conservation. This could lead to the conclusion that the national policy of the agriculture sector has a fully inclusive inter-sectoral feature.

172. Is your country supporting the institutional framework and policy and planning mechanisms for the mainstreaming of agricultural biodiversity in agricultural strategies and action plans, and its integration into wider strategies and action plans for biodiversity?

a) No	
b) Yes, by supporting institutions in undertaking relevant assessments	X
c) Yes, by developing policy and planning guidelines	X
d) Yes, by developing training material	
e) Yes, by supporting capacity-building at policy, technical and local levels	
f) Yes, by promoting synergy in the implementation of agreed plans of action and between ongoing assessment and intergovernmental processes.	

Further comments on support for institutional framework and policy and planning mechanisms.

173. In the case of centers of origin in your country, is your country promoting activities for the conservation, on farm, *In-situ*, and *Ex-situ*, of the variability of genetic resources for food and agriculture, including their wild relatives?

a) No	
b) Yes (please provide details below)	x

Further comments on of the conservation of the variability of genetic resources for food and agriculture in their center of origin.

Although the Mongolian breed of livestock is adapted to the harsh natural climate and extensive grazing system, its productivity is low and of poor quality. As a result of natural evolution, tireless efforts of experts and scientific breeding and selection work, 10 breeds, 3 breeding groups and 3 types and 4 strains of sheep; 2 breeds, 1 breeding group of cattle; 3 breeds, 1 breeding group and 5 strains of goats; 1 breed and 3 strains of camel, and 1 breed and 3 strains of horse have been recognized. In addition there are high

productivity mixed breeds of meet and milk producing cattle, broilerchickens and pigs in Mongolia.

In 1989-1991 many NGOs as such 'Mongol Horse', 'Mongol Camel', Mongol Yak', 'Mongol Dog', 'Mongol Camel' and 'Mongol Bee' were established to analyze, research data and information collection relating to each species of livestock.

The Parliament approved the law on 'Livestock Gene-pool and Health Protection' in 1993. The law was amended in 2001 considering market condition and was significant measures in ensuring development of livestock production. This law determines the rights of the State and local government organizations which protect livestock gene-pool, inspection organizations, citizens and other economic entities. The law coordinates the relations, concerned of livestock and domestic animals gene-pool protection activities such financing of the law implementation and fining these in contravention of the law.

Soum and district level veterinary services were privatized in 1999 and aimag breeding units were amalgamated with the Agricultural Department according to order A/85, 1999 of the Minster for Agriculture and Industry. This restructuring has caused some negative impact on the system for ensuring scientific basis for livestock breeding programs and the provision of technical support and training to livestock breeds almost collapsed.

One of the major priority goals of Government for improving livestock health and quality is to protect livestock gene-pool and improve livestock productivity. At national level, a total of 513 vet and breeding services included 335 privatized entities and 178 newly established ones have been allocated responsibility of implementing above goal.

One of important parts of of livestock gene-pool protection activities is to freeze and conserve semen of highly productive breeds of livestock at the National Livestock Gene-pool Center. This has conserved about 430,0 thousand straws of deep forzen semen. Alongside, with this artificila insemination has been practiced by households, economic entities and institutions using deep frozen semen in accordance with consumer orders.

Box LXV.

Please provide information concerning the actions taken by your country to implement the Plan of Action for the International Initiative for the Conservation and Sustainable Use of Pollinators.

The agriculture sector provides 20% of Mongolia's GDP. This is primarily met from livestock husbandry. From 1990 onwards, the agriculture sector, especially crop cultivation, started declining at an alarming rate. The production and amendments of legal documents, such as, "Land law", "Law of land privatization to Mongolian citizen", "Agriculture plantation law", "Seed plantation insurance law" etc., the ratifying of "Law about conserving livestock gene pool and health", and producing national strategic documents such as "Agriculture plantation program", and "Green revolution program", have aimed to develop agriculture, increase production, and support the livelihood of people residing in agriculture zone,. This has brought a new stage to the development of the national agriculture sector.

Further to this, the state administration has prepared a state agriculture policy with due implementation from 2003-2015. This policy is working towards increasing agriculture production through planting domestic breeds and managing insect pests and other adverse factors by using advanced technology. Apart from this, these documents are suppose to offer support in administration, techniques and technologies for introducing intensive livestock herding into rural areas, conserving the livestock gene pool and inventing new breeds having high productivity and climatic tolerance.

The government has given importance and attention to increasing agriculture biodiversity, and the improvement of quality, and the invention of new breeds of animals and sorts of plants capable of adjusting to local conditions and with high economic benefits. On one hand this has contributed to an increase in agriculture productivity, and on the other hand, has increased agriculture biodiversity. Also, major steps have been taken to conserve the gene pool of bio-resources by renewing the seed pool of agriculture crops, and increasing

nuclear herds of livestock.

Issues to be considered in the future as follows:

- Prepare an assessment system for the direct and indirect, tangible and intangible benefits from bio-resource,s especially from agriculture at its present level;
- Decentralize the concentration of administration and financing;
- Deepen cooperation and transparency between sectors;
- Implement multi-lateral activities, such as reducing the intensity of use on open water resource points used for drinking by wild animals, and by restoring non-arable and degraded land, and rehabilitating pastoral land; and

Introduce new techniques and technologies in agriculture.

Box LXVI.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.

Forest Biological Diversity

General

174. Has your country incorporated relevant parts of the work programme into your national biodiversity strategies and action plans and national forest programmes?	
a) No	X
b) Yes, please describe the process used	
c) Yes, please describe constraints/obstacles encountered in the process	
d) Yes, please describe lessons learned	
e) Yes, please describe targets for priority actions in the programme of work	

Further comments on the incorporation of relevant parts of the work programme into your NBSAP and forest programmes
The National Program on Forest is adopted by the Mongolian Government resolution #248 on 31 October 2001. The Program put 5 goals forward to be implemented in 3 phases. Protection of the forest biodiversity is not particularly considered in the program.

Box LXVII.

Please indicate what recently applied tools (policy, planning, management, assessment and measurement) and measures, if any, your country is using to implement and assess the programme of work. Please indicate what tools and measures would assist the implementation.

Box LXVIII.

Please indicate to what extent and how your country has involved indigenous and local communities, and respected their rights and interests, in implementing the programme of work.

Box LXIX.

Please indicate what efforts your country has made towards capacity building in human and capital resources for the implementation of the programme of work.
Amendments made in the Environmental Protection Law allow local residents to form cooperation to implement certain environmental projects and programs. - Protection of forest and its reforestation are to implement through cooperative ownerships involving local residents. - Local residents are encouraged to participate on the basis of the Mongolian Government resolution #125 of 1998 that allows ownership of forest funds to economic entities and organizations on the basis of agreement valid for certain period of time. At the beginning community forestry were responsible for forest protection and rehabilitation but eventually obligations and rights for such as planting rare species, application of chemicals for protection of harmful insects and diseases, maintaining fire protection stripes are not been implemented at all.

Box LXX.

Please indicate how your country has collaborated and cooperated (e.g., south-south, north-south, south-north, north-north) with other governments, regional or international organizations in implementing the programme of work. Please also indicate what are the constraints and/or needs identified.

Expanded programme of work on forest biological diversity

Programme element 1 – Conservation, sustainable use and benefit-sharing	
175. Is your country applying the ecosystem approach to the management of all types of forests?	
a) No (please provide reasons below)	
b) No, but potential measures being identified (please provide details below)	x
c) Yes (please provide details below)	

Comments on application of the ecosystem approach to management of forests (including effectiveness of actions taken, lessons learned, impact on forest management, constraints, needs, tools, and targets).

Amendments to the Laws on Customs Tariffs and Value Added Taxes were developed and adopted on January 27, 2005. The amendments were to exempt the all the imported logs, boards, tree and bushy seeds and seedlings from the customs and value added taxes.

A proposal on updated rates and amounts of fees for cutting trees for household purposes including firewood was developed and was approved by the Governmental Resolution No: 147 of 2005 and since then it has been followed by. According to the Resolution the mean amounts of fees of tree cutting for household purpose have been increased by 2.0 times more than those previously collected.

In order to reduce and eliminate illegal tree cutting in the country a proposal on Endorsement of ecological and economic assessment of damages and loss of forest resources was developed and was approved by an Order No:61 of 2005 by the Minister of Nature and Environment. Intensive harvest of birch especially the harvest for increasing Chinese chopstick making industries has resulted in serious deterioration of forest resources and natural regeneration of immature birch species and consequently the harvest of birch has been banned within the nearest two years in the country. The Aimag and Capital City Governors have been assigned to take preventive and protective measures to ensure natural restoration and regeneration of birch reserves.

A procedure on planning, management and funding of forestation and forestry activities was developed and approved by an Order No: 83/101 of 2005 jointly by the Ministries of Nature and Environment and Finance. In 2005 the maximum amounts of quota of tree cutting was established as 39.9 thousand m^3 and fuel wood as 570.0 thousand m^3 was proposed and they were discussed and approved by a Minister's Council meeting. The quota approved was delivered to the Aimag and Capital City Governor's offices and the enforcement of harvest of trees within the quota has been under supervision and inspection.

Forest researchers and scientist are involved in the development of the Forest Law and numerous references related to forest ecosystems such as forest special zone and restricted area were included in the law. Several protected areas with forest such as Khan Khentii Strictly Protected Area were established.

176. Has your country undertaken measures to reduce the threats to, and mitigate its impacts on forest biodiversity?

Options	X	Details
a) Yes		Please specify below the major threats identified in relation to each objective of goal 2 and the measures undertaken to address priority actions
		Forest fire and tree cut are considered as main threat to Mongolia's forest biodiversity. Law on Forest Fire is enforced in Mongolia. Due to forest clear-cut the plant rare species are disappearing and instead unfavorable plants are to dominate. For this reason the clear cut is been banned by the Forest Law. In addition, harvest and collection of certain herbaceous plants are banned by the Law on Natural Plants.
b) No	x	Please provide reasons below

Further comments on measures to reduce threats to, and mitigate the impacts of threatening processes on forest biodiversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

Due to global warming, dryness, droughts, forest and steppe fires, non-technological tree harvesting and increased distributions of pests in forests in recent years in the country, the pests and harmful insects that are fed by leaves, conifers, cones, stems and roots in wood have been widely distributed in forested areas occupying 8.5 % of total territory of Mongolia. Over-pollution of pests in parts of some Aimags and Capital City has intensified the desertification by deteriorating forest ecosystem, water balance and soil protection rates (even some small rivers, streams and ponds have already dried up) in other words it would bring damages and loss as potential natural disaster. There are about 700 species of pests and harmful insects recorded in Mongolia and about 40 species i.e. Siberian silkworm (*Dendrolimus superans sibiricus Tschetv*), gypsy moth, tussock moth (*Orgyia antique L)*, Jacobson's looper (*Erannis jacobsoni Djac, and* weevil and jewels (*Curculionidae, Buprestidae*) that cause serious damages to forests.

In 2004 the reviews on distributions of pests and harmful insects were conducted totally in 608.0 thousand ha including forested areas in Ider, Aldarkhaan, Tosontsengel, Ikh Uul, Nomrog, Yaruu, Songino, Tudevtei, and Tsetsen Uul of Zavkhan; Khotont, Tovshruuleh, Tsenkher, Ikh Tamir, Erdenebulgan, Khangai, Tariat, and Under-Ulaan of Arkhangai; Tunel, Tosontsengel, Tarialan, Ikh Uul, Moron, Galt, Tomorbulag, Jargalant, and Shine-Ider of Khovsgol; Bayantsogt, Ugtaal-tsaidam, Erdene, Mongonmorit, and Altanbulag of Tov; Bayan-undur and Jargalant of Orkhon; Orkhon, Sharyn Gol, and Khongor of Darkhan Uul; Altanbulag and Shaamar of Selenge; Naranbulag, Zuunkhangai, and Undurkhangai of Uvs; Zuunbayan-Ulaan, Khujirt, Kharkhorin, Bat-ulziit, and Uyanga of Uvurkhangai; Binder, Bayan-adraga, Dadal, Batshireet, Umnudelger and Tsenkher of Khentii; Orkhon, Buregkhangai, Khisig-undur, Bugat, and Khangal of Bulgan Aimag as well as Bogd Khan Uul SPA, a green zone of Ulaanbaatar city.

The Ministry of Environment and the Nature organized field research on very rare and useful plant species in forest steppe, steppe and desert steppe zones covering territories of 17 provinces in summer of 2003. The field research groups identified 188 rare and 70 very rare species in Khovd, Govi-Altai, Ovorkhangai, Bayankhongor, Omnogobi provinces, 54 very rare in some areas of Tov province and Selenge, Orkhon, Bulgan, Arkhangai and Zavkhan and 41 in Dundgobi, Dornogobi, Sukhbaatar, Dornod, Khentii provinces respectively and 23 very rare species were registered in Khangai region, 28 in Mongol-Altai, 15 in Great Lakes basin, 11 in Olon nuur khondii, 28 in Gobi-Altai, 12 in Altain Ovorgobi and 12 in Zuun garin gobi.

List of plant species with medical and food importance was developed out of about 2900 herb vascular species registered in Mongolia and on the basis of Institute of Botany, Academy of Sciences and field scientists' recommendations total of 382 medical and food species were registered by their scientific names in the information fund. Out of which 195 species are considered as conservation required and their protection measures are been developed.

Totally 33 species of rare species were planted with their seeds in Delgerkhangai of Khentii Aimag and Bayannuur of Bulgan Aimag. Biomass of 25 species were collected from a botanic-geographical circle in Eastern Mongolia and planted in Kherlen-Bayan-Ulaan area of Delgerkhangai Sum of Khentii Aimag. Methodologies of assessment of ecological and economic values of useful plants (each species) that have high market demands, but restricted reserves were developed and the ecological and economic value assessment for some rare species i.e. liquorices and *Orobanche coerulescens* was updated. Justifications for re-establishing the rates and amounts of plant use fees are being developed.

177. Is your country undertaking any measures to protect, recover and restore forest biological diversity?

Options	X	Details
a) Yes		Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities
b) No		Please provide reasons below
	x	There are numerious rare floral plant species in the forests of Mongolia. However not many can identify them and their replantation is difficult due their weak germination and low survaval capability. Such plant species are: *Cypripedium guttatum, C. macranthum, C.calceolus, Microstylis monophyllos, Calypso bulbosa, Corallorhiza trifida, Neotta camtschatea, Epipogon aphyllum.*

Further comments on measures to protect, recover and restore forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

The Government of Mongolia adopted a national program "Green Wall" on March 9 2005 and a Decision No: 44 on some measures and responses relevant to the enforcement of the national program. Additionally, the Governmental Mission Assignment No: 01 dated on March 10, 2005 was issued in the connection to the implementation of the national program.

For the implementation of the national program "Green Wall" that aims to conduct forestation of totally 250,000 ha within the nearest 30 years the structures, schemes and Action Plan of forestation in main and sub forest strips were developed.

The Mission approved by a former Prime Minister, encouraged the public to actively participate in the implementation of the national program and assigned special tasks with 8 provisions to the authorities of Ministries, Agencies and organizations and Governors at all levels. Under the assignments, there were three working groups and research and exploration committee of professionals and scientists at the Ministry of Nature and Environment and management and monitoring councils/ teams at Aimag level established and run.

In relation to the implementation of the national program "Green Wall" the procedures and regulations on forestry planning, management and funding were updated and approved by a joint Order by the Ministries of Nature and Environment and Finance and draft regulation on establishment and expenditure of Green Wall Fund was submitted by the Government for approval.

In relation to the national program "Green Wall" approved on a Governmental session on May 4, 2005, a draft regulation on establishment and expenditure of Green Wall Fund was discussed and approved in order to collect endowment and other funding resources from domestic and foreign individuals, economic entities and organizations. The Green Wall Fund will play an important role in funding and supporting the responses against desertification, sand movement, and dust in Gobi region and ecological impacts and public campaigns of forestation and expansion of green zones in the country.

Seed funds to be used for forestation and forest restoration are enriched and expanded from year to year. In order to supply with good quality seeds and seedling a forest seed lab under the Forest and Hydrological Exploration and Research center do analysis and test seeds and seedlings to be used by economic entities and individuals for forestation. Based on analysis of seed quality the types and quantities/norms of seeds for forestation are selected and used.

In 2004 the central forest seed laboratory sampled and analyzed qualities of over 70 types of seeds of trees and bushes collected by about ten organizations and analysis of seed quality is been done on the samples of tree seeds collected from 17 sums of Zavkhan and 8 sums of Arkhangai province.

178. Is your country undertaking any measures to promote the sustainable use of forest biological diversity?

Options	X	Details
a) Yes	x	Please specify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities
b) No		Please provide reasons below

Further comments on the promotion of the sustainable use of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

In order to ensure the enforcement of the Law on Forests there were 6 teams led by Heads of Departments at the MNE established. The team members along with representatives from the Police and Traffic Police Offices, mass media and staff members of Protected Area Administrations of Khan Khentii and Bogd Khaan Mountain, and environmental inspectors participated the patrolling in green zones of the Capital City, Tov, Khentii, Arkhangai, Bulgan and Selenge Aimags for over 70 days starting from October 20. During the patrolling totally 71 vehicles were inspected, 1005 pieces of logs, 630 m^3 fuel wood logs, and 20 m^3 logs (prepared for house building) were confiscated and over MNT 4 millions of compensation were imposed to the violators.

179. Is your country undertaking any measures to promote access and benefit-sharing of forest genetic resources?

Options	X	Details
a) Yes		Please specify priority actions in relation to each objective of goal 5 and describe measures undertaken
b) No	x	Please provide reasons below
		Due to financial resource.

Further comments on the promotion of access and benefit-sharing of forest genetic resources. (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets)

Programme element 2 – Institutional and socio-economic enabling environment		
180. Is your country undertaking any measures to enhance the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing?		
Options	**X**	**Details**
a) Yes		Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities
b) No	X	Please provide reasons below
Further comments on the enhancement of the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		

181. Is your country undertaking any measures to address socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity?		
Options	**X**	**Details**
a) Yes		Please identify priority actions in relation to each objective of Goal 2 and describe measures undertaken to address these priorities
b) No	X	Please provide reasons below
		Numerious public awarenesses on protection of threatening forest biodiversity were conducted by Institute of Botany via mass media.
Further comments on review of socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		

182. Is your country undertaking any measures to increase public education, participation and awareness in relation to forest biological diversity?		
Options	**X**	**Details**
a) Yes	X	Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities
b) No		Please provide reasons below

Further comments on measures to increase public education, participation and awareness in relation to forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

Programme element 3 – Knowledge, assessment and monitoring		
183. Is your country undertaking any measures to characterize forest ecosystems at various scales in order to improve the assessment of the status and trends of forest biological diversity?		
Options	**X**	**Details**
a) Yes	x	Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities To date, there is great opportunity to map forests by using the Geographical Information System including data on state and changes to forest resources into database and make the database more accurate, applicable and accessible to the public. Information and data on forests in Binder and Umnudelger Sums of Khentii Aimag has been processed with ARCVIEW GIS-3.2 and entered the database.
b) No		Please provide reasons below

Further comments on characterization of forest ecosystems at various scales (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).
Institute of Botany is been implementing research study on Mongolian forest ecosystem in cooperation with the Mongolian and Russian joint biological complex expedition program for many years. Complex research on forest ecosystem is conducted in Central and Khangai region (in Tosontsengel soum of Zavkhan province) during 1976-1980, in Eastern Khentii region (in Mongonmorit soum of Tov province) during 1981-1989, in Eastern Khovsgol region (in Khyalganat of Bulgan province) during 1990-2000 and since 2001 to the present the research is been continued in Western Khentii region (basing in Sharin gol soum of Darkhan-uul province). As result of the research solid works such as 4 volums book of "Forest of Mongolia", 1.5 scale map of Mongolia's forest vegitation and book of "Pine forest of Mongolia" and severl hundreds of articles were published. Among which the works on changes of vegetation cover induced from human activities have significant importance. The "Map of Mongolian ecosystem" precents the state of forest ecosystem changes induced from forest fire and cutting.

184. Is your country undertaking any measures to improve knowledge on, and methods for, the assessment of the status and trends of forest biological diversity?

Options	X	Details
a) Yes	X	Please identify priority actions in relation to each objective of goal 2 and describe measures undertaken to address these priorities The Mongolian and Russian joint biological complex expedition research workers developed the classification methods for changed forest ecosystems. Institute of Botany, Academy of Sciences is been developing assessment measures to evaluate the state of forest ecosystems and certain forests.
b) No		Please provide reasons below

Further comments on improvement of knowledge on and methods for the assessment of the status and trends (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

Faculty of Biology, State University is started research on use of absorbed carbonic gas for forest state assessment. There are master and Ph.D degree students working on the thesis of forest state assessment.

185. Is your country undertaking any measures to improve the understanding of the role of forest biodiversity and ecosystem functioning?

Options	X	Details
a) Yes	x	Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities
b) No		Please provide reasons below

Further comments on the improvement of the understanding of the role of forest biodiversity and ecosystem functioning (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

186. Is your country undertaking any measures at national level to improve the infrastructure for data and information management for accurate assessment and monitoring of global forest biodiversity?		
Options	**X**	**Details**
a) Yes	x	Please identify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities For instance, Altai-Sayan region etc. is included in special protection at global level, and, via such status, information and data on biodiversity spreads worldwide. Further, it is required to operate national information network and monitoring study under MNE, especially regarding special protected area and biodiversity habitat area with due protection.
b) No		Please provide reasons below
Further comments on the improvement of the infrastructure for data and information management (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).		

Box LXXI.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

In Mongolia, coniferous forest occupies area between eastern longitude of 89-116^0, and northern latitude of 47-52^0, in mountainous region with mountain permafrost soil, whereas Saxaul forest occupies 8.5% of territory along southern region of Gobi and steppe, between eastern longitude of 91^0-109^0, and northern latitude of 42^0-45^0.

Each of the forests, coniferous and broadleaf forest growing along Khangai, Khentii and Huvsgul mountain ranges and hills and Saxaul forest adapted to grow in arid region of Gobi and steppe, grow in extreme ecosystem conditions, however they are precious natural resource which has many ecological important significance, such as, climate moderation, water regulation, protection of soil from erosion and degradation, sand fixation and sand stabilization, sustain favorable condition for existence of human, animals, plants and microorganisms.

Mongolian forest resource covers natural forests, forest ax, timber prepared site, site damaged by insect pests and diseases, area within 100 meter from forest edge, nursery site etc.

Mongolian forest resource include about 140 tree and shrub species, where Siberian larch, Scotch pine, Siberian pine, Spruce, Fir, Birch, Poplar, Aspen, Elm and Willow trees are mainly found. Dominant species is Siberian larch.

Mongolian government ratified "National program about forest resource" by the Order No248 of 2001, where stated about near-term policy on forest conservation, sustainable use of forestry resource, restoration and rehabilitation, which is one of the problems drawing

great attention in environmental and forestry sector, and has been implementing it for 5 years.

During this period, implementation sub-ordinates of National program about forest resource have been established in all aimag and capital city, and many activities, such as, Forestry sub-program and action plan to implement it, public advertisement of the program, public awareness about significance of forest conservation, rational utilization and rehabilitation, public involvement in program implementation etc., have been initiated and organized.

First stage action plan of "National program about forest resource" appointed to implement 64 activities, out of which 56 are implemented and 8 could not accomplish, but bigger activities which require more investment have been interrupted and it mean legal environment of forestry has to be related and adjusted to present market-oriented economic system.

Survey team to prepare draft project of revised Forest law, initiated by Parliament members, has been appointed by Order No162 of 2006 of Minister of Nature and Environment, and documents along with proposal of MNE has been delivered to Parliament members and Ministry of Legal and Domestic affairs. In October 2006, workshop was organized including forestry researchers, experts, specialists, representatives of aimag and soum offices, entities, organizations and associations, and discussed on the draft project of revised Forestry law.

"Regulation about conservation, utilization, and ownership of certain natural resource by local community" has been ratified and implemented by Order No114, 2006 of Minister of Nature and Environment, further delivered to Environmental offices of aimag and capital city, and implementation of this regulation would be highly significant in conservation of forest resource with the participation of local people.

Accomplishment report of action plan to implement first stage tasks of National program about forest resource /2002-2005/, draft project of plan to implement second stage activities of National program about forest resource /2006-2010/ has been prepared, received comments from Ministries, and discussed at the committee meeting of Minister of Nature and Environment, and combined proposal has been delivered to Government. In order to improve reforestation quality, raise local people's participation, and let them treat and protect reforestation site for 3 years, temporary rule to purchase man-made forest site by citizen, entity and organization in state forest resource has been ratified by Order No424, 2006 of Minister.

Order No69, 2006 of Minister of Nature and Environment allocated 1600 ha area for reforestation by state budget in aimag and capital city, 379 ha for building shelter belt under Green belt movement to aimags, and appointed aimag Government and Environmental offices to conduct selection of performer on the basis of bid, and according to this, action plan and budget schedule of selected citizen, entity and organization has been approved by Order No140, 2006 of Minister of Nature and Environment, and it is implemented by making contract with Environmental offices of aimag /capital city/.

Following this order, 493.5 mill. tugrug from state budget was allocated for forest rehabilitation activity on 1600 ha, and building main and supporting shelter-belts on 379 ha.

In order to improve inventory of reforestation and Green belt activities, Order No299 of Minister of Nature and Environment approved model structure of autumn inventory committee to assess and evaluate once done reforestation, and main and supporting shelterbelts of Green belt, and also formed and approved survey unit to give professional advice for assessing and evaluating autumn inventory of this year.

Aiming to supply seedlings and cuttings to reforestation and Green belt activities, Order No281 and 346, 2006 of Minister of Nature and Environment approved to establish 9 tree nursery in Gobi and steppe region, namely in Uvs, Dornod, Gobi-Altai, Khovd, Bayankhongor, Sukhbaatar and Darkhan-uul aimag, further contract has been made with Environmental offices of aimag and action is already in the implementation stage. Order No416 of Minister of Nature and Environment has been produced and enforced regarding intensifying Green belt activities in 2007, and Scotch pine seed collection in Bulgan, Khentii, Selenge, and Tuv aimag, preparation of cuttings of broadleaf trees in Bayan-Olgii, Tuv, Dornogobi, and Umnugobi aimag, and establishment of elite seed plantation in Selenge, Tuv and Khentii aimag have been initiated.

Following the proposal by Aimag governments, timber preparation schedule in 2006 has been approved by Order No78 of Minister of Nature and Environment which aims to reduce poverty by involving unemployed local people in that, and implementation has been controlled.

As a result of Order No246, 2004 of Minister of Nature and Environment, total license "Preparing fuelwood and timber from forest" and Certificate of origin has been checked and reported.

In order to improve full control over issue and implementation of fuelwood and timber preparation license, Minister of Nature and Environment produced Order No106, which transferred license and certificates of timber and fuelwood preparation from Center of Forest and Water survey to Department of Forestry of MNE, and further started issuing via only Environmental offices and controlling the implementation.

License to prepare fuelwood and timber from forest has been printed for 2, 4, and 6 m^3, which was approved by Order No208, 2006 of Minister of Nature and Environment based on the proposal from aimags. Also, based on the timber preparation allocation to aimags, seasonal schedule of issuing certificate of origin ahs been produced for aimags.

Order No89 of Minister of Nature and Environment invalidated Order No61, 2005 of Minister of Nature and Environment about "Approving forest resource damage assessment", and further delivered to Environmental offices of aimag and direction of implementing activities was given.

In order to intensify forest conservation, rehabilitation, and sustainable forest utilization, enhancing public participation in national programs "About forest resource" and "Green belt", and improve prevention of forest and steppe from fire, I.Erdenebaatar, Minister of Nature and Environment, Chief of National Forest Committee, called government, administrative organization, NGO, entities, and public in prior to 800^{th} anniversary of Great Mongolian empire and World nature conservation day, and announced it on the newspapers.

Since "Rules to allow rights of environmental professional organization" produced, total 59 enterprises and organizations expressed their willingness to become forestry professional organization, their documents have been reviewed, and 30 of them have been allowed rights of forestry professional organization to operate in reforestation and silviculture field.

Aiming to enable General office of Emergency to contact local branches, get information on fire occurrence, supply fire extinguishing with intensive administration, Minister of Nature and Environment produced Order No88, 2006, which was about posting fire duty officer who would be responsible for organizing forest and steppe fire prevention and combating activities, and provide above mentioned services to emergency office during dry periods of spring and autumn, further fire occurrence and frequency was watched under control and activities were implemented in timely manner according to information.

Intended to support activities of local people's union on prevention of forest fire and insect pests, and owning forest resource, Order No415 of Minister was produced.

Timber preparation amount, payment of prepared timber and fuelwood, amount of reforestation with self-funding or stat-funding have been allocated to aimags, and approved by Order No417 of Minister of Nature and Environment, further delivered to Aimag and capital city governments and Environmental offices, and implementation report has been collected.

Draft project of reforestation and forestry activities in 2008, and 2009, plan of timber preparation in 2007, and draft project of timber preparation in 2008 and 2009 have been prepared and approved by State Parliament.

Assessment committee which was appointed by Order No40 of Secretary-state of Ministry of Nature and Environment announced 3 bid files on Combating forest insect pest and disease, and selected implementation body of insect pest combating activity in 2006 and of forest survey on 1660.0 thous.ha forest area of Zavkhan and Bayankhongor aimag, and Batsumber soum of Tuv aimag, and made contract with these implementation bodies.

Division of Insect pest prevention of Center of Forest and Water survey has been selected for the bid of insect pest combating, and they conducted combating activies from state budget on 10.3 thous.ha area of Ulaanbaatar, Bogd-uul, Khentii, Oborkhangai, Bulgan, Huvsgul and Darkhan-uul aimag, and from local budget on 7.0 thous.ha area of Ulaanbaatar

green zone, and survey research of insect pest distribution on 217.1 thous.ha area.

Due to recent year's climate warming and drying up, and frequency of insect pest outbreak, insect pests distributed over 960.8 ha forest area of Mongolia and causing ecological and economical loss, therefore, in 2007, direction to prevent from insect pest distribution has been given to Governments of Khentii, Huvsgul, Bulgan, Arkhangai and Uburkhangai aimags.

Division of Forest survey of Center of Forest and Water survey, "Hovchiin hoimor" Co Ltd., and "Oin haiguul" Co.Ltd have been selected to conduct forest survey for 1660.0 thous.ha in Zavkhan, and Bayankhongor aimag, and Batsumber soum of Tuv aimag, and field survey has been carried out and now on the stage of data processing.

Overall amount was estimated by combining amount of reforestation by selected implementer individuals, organizations and entities which used state budget provided from Governments of aimag and capital; city, and Environmental offices in 2006, and materials and data from action form of "Green belt".

As for 2006, total rehabilitation of forest by reforestation and implementation of "Green belt" was done for 4587 ha area, where 1695.1 ha was done by state budgte, 199.7 ha by local budget, 2252.7 ha by budget of timber preparation companies themselves, 439.5 ha by Korean investment and "Green belt" was completed for 427.5 ha area.

In the frame of "Green belt" movement, competition was announced between schools, and Minister ordered to award the winner with 3.0 mill. tugrug, which was consequently organized. Under the call for every citizens to plant 3 trees, participated in the exhibition "Green belt-2006" and "Soyolj", which was organized about seeds, seedlings, cuttings, equipments, tools and instruments.

According to quadrilateral contract approved by Order No193, 2006 of Minister of Nature and Environment, directions were given to Environmental offices of aimags, approved quadrilateral contract with 21 enterprises sleected from aimags, and forest treatment was done by them.

Biological diversity of dry and sub-humid lands

187. Is your country supporting scientifically, technically and financially, at the national and regional levels, the activities identified in the programme of work? (decisions V/23 and VII/2)	
h) No	
i) Yes (please provide details below)	X

Further comments on scientific, technical and financial support, at the national and regional levels, to the activities identified in the programme of work.

Dry and arid zone of Mongolia reflects unique feature of endemic, rare and very rare plant, and animal species. Hence, include rare wildlife such as, wild camel, Gobi brown bear, mountain goat and wild sheep etc., and rare plants such as, *Adonis mongolica, Ammopiptanthus mongolicus,* and Saxaul tree etc. Intended to implement activities regarding conservation of these biodiversity and their gene pool, took financial and technical support from international projects and programs. In addition, research study on the ecological and biological features of these species, and their significance has been carried out in research organization and institutes at national level. This is one feature of fulfilling task to enhance capacity of scientific research, which was defined by the Convention. So far, "Conservation project of great Gobi ecosystem and its umbrella species" funded by WWF, and "Sustainable development of natural resource utilization of Gobi region" funded by GTZ has been successfully implemented.

Institute of Biology and Institute of Botany of MAS directed their activities to study ecological and biological characteristics and breed wild camel, Gobi brown bear, and introduce technology to domesticate rare plants, trees and shrubs of Gobi. Also, under the contract to cooperate with Italian Academy, stationary plot has been established in Bogd soum of Bayankhongor aimag, and started implementing research study to breed beneficial plants of Gobi.

188. Has your country integrated actions under the programme of work of dry and sub-humid lands into its national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD? (decisions V/23, VI/4 and VII/2)	
j) No	
k) Yes (please provide details below)	X

Further comments on actions under the programme of work of dry and sub-humid lands integrated into national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD.

Biggest problem facing in arid zone is desertification, and on the background of land degradation there have been adverse events such as biodiversity loss, and discretion of their distribution. Hence, aiming to relate tasks and activities of two conventions, the following issues have been reflected in the national programs of Desertification combating and Implementation of biodiversity convention:

1. Support rural development to rationally utilize natural resource
2. Prevent land degradation by conserving and protecting Saxaul forest, caragana etc. plants from being used as fuel source
3. Restore degraded land and protect habitat of rare species

189. Has your country undertaken measures to ensure synergistic/collaborative implementation of the programme of work between the national UNCCD process and other processes under related environmental conventions? (decisions V/23, VI/4 and VII/2)	
l) No	
m) Yes, some linkages established (please provide details below)	X
n) Yes, extensive linkages established (please provide details below)	

Further comments on the measures to ensure the synergistic/collaborative implementation of the programme of work between the national UNCCD processes and other processes under related environmental conventions.

In recent years, need to improve interrelationships between convention of desertification combating and other conventions has been increasing. For this, activities have been initiated to inter-relate activities, and improve capacities of national regulation committee of conventions and related organizations of conventions of Ramsar, Biodiversity and Climate change etc. In this sense, working towards the following targets:

1. Implement project of conservation of great Gobi ecosystem and its umbrella species, prepare scientific technology to conserve umbrella species of arid zone
2. Restore and rehabilitate degraded ecosystems under above project
3. Breed woody plants of Gobi and conserve their gene pool
4. Implement program to combat desertification, monitor climate change and forecast it under the Convention of desertification combating of UN.

Programme Part A: Assessment	
190. Has your country assessed and analyzed information on the state of dryland biological diversity and the pressures on it, disseminated existing knowledge and best practices, and filled knowledge gaps in order to determine adequate activities? (Decision V/23, Part A: Assessment, Operational objective, activities 1 to 6)	
a) No	
b) No, but assessment is ongoing	
c) Yes, some assessments undertaken (please provide details below)	X
d) Yes, comprehensive assessment undertaken (please provide details below)	

Further comments on the relevant information on assessments of the status and trends and dissemination of existing knowledge and best practices.

With funding of the Asian Development Bank, desertification research points were established and cooperative agreements between Mongolian and Japanese Governments were signed. Joint actions have been undertaken in order to facilitate access to the North Asian Information Exchange Network, and to train national professional cadres in this field.

With support the of "Green Resource Agency" and "J-Green" (Japan), a model research on impacts of desertification on local environmental, social and economic conditions has begun in Uvurkhangai Aimag.

Under a project "Overall Management -12 for Prevention from Desertification," funded by the German Government, training on, for example, vegetable cultivation, preservation and storage, establishment of green houses, conservation and restoration of licorice, making wool products and pastureland management were given in Bayanlig, Bogd, Shinejinst & Bayangovi Sums of Bayankhongor Aimag. A total of over 3000 individuals attended. In addition, the project funded the renovation of heating systems in shool and preschool buildings in Bayanlig and Bogd Sums to the value of MNT 7 million. The aim of this work was to contribute to comfortable living and studying conditions for school and preschool children, and to reduce the use of woody plants, particularly *Saxaul* sp., for fire making in the Gobi region. MNT 1.2 million was also used for the for construction of an the information and training centre "Shine Zalaa" partnership in Bayangovi Sum. MNT 7 million was spent on workshops and seminars. The project team also assisted in erecting protective fences around plots in the Sums where the project activities were implemented, and each Sums was supplied with 1500 pieces of logs by the Aimag.

Programme Part B: Targeted Actions	
191. Has your country taken measures to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences? (part B of annex I of decision V/23, activities 7 to 9)	
a) No	
b) Yes, some measures taken (please provide details below)	x
c) Yes, many measures taken (please provide details below)	

Further comments on the measures taken to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences.

192. Has your country taken measures to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work?	
a) No	
b) Yes, some measures taken (please provide details below)	X
c) Yes, comprehensive measures taken (please provide details below)	
d) Yes, all identified capacity needs met (please provide details below)	

Further comments on measures taken to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work.

In terms of responses against desertification and dust storms, natural phenonomena with extensive negative ecological and socio-economic impacts, the following actions have been undertaken.

International agreements to combat desertification and dust storms have been made in several areas. For example, with assistance from the Japanese Government aero-palynological stations will be installed to identify dust/sand storm impacts in Umnugovi, Dornod and Ulaanbaatar. Annual tri-partite meetings of Ministries of Environment in Japan, Korea and China will be organised to discuss potential national responses against desertification and dust/sand storms as part of North East Asian regional cooperation. Mongolia has therefore been provided with assistance and support from Japan and Korea for combating the desertification and land degradation within the source country.

China, Korea, Japan and Mongolia have begun a project implementing preventive measures and monitoring of dust/sand storms sources at a regional level. A regional master plan on the pre-vention and control of dust/sand storms in the North East Asian countries was also developed. The plan was supported by the Asian Development Bank and Japanese Government, Global Environment Facility, UN Convention on Desertification Response, Economic and Social Development Commission of Asian and Pacific Ocean regional countries UN Environmental Programme.

A thematic discussion and subsequent production of recommendations of the Great Session of Mongolian Academy of Sciences, "Approaches to Reduce the Environmental Deterioration in Mongolia," was organised.

The joint Mongolian and Netherlands Governments project "Preventive Measures against Natural Disaster, Droughts, & Pastureland Management" has been implemented, as has "Combating with Desertification" in the Bulgan Sum of Umnugovi Aimag with the support of Rotary organization of People's Republic of Korea. These porjects have been implemented to identify adequate pastureland use regimes, reduce land degradation and improve land management in these areas.

Under the Japanese Government technical assistance and cooperation programme, the project "Capacity Building of Personnel in charge of Weather Forecast Reports and their Analysis" has been implemented since February 2005. Under this project it was decided to install monitoring and baseline study facilities (that are to be connected to the regional dust storm monitoring network) in the vicinities of Ulaanbaatar city, Sainshand and Zamyn Ud towns. Relevant preliminary studies and pilot projects were conducted by the two parties involved. The funding agency and investing party organized six training sessions on methodologies of data processing of meteorological systems and satillite images for national specialists and researchers.

Box LXXII.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Mountain Biodiversity

Programme Element 1. Direct actions for conservation, sustainable use ad benefit sharing	
193. Has your country taken any measures to prevent and mitigate the negative impacts of key threats to mountain biodiversity?	
a) No	
b) No, but relevant measures are being considered	
c) Yes, some measures taken (please provide details below)	X
d) Yes, many measures taken (please provide details below)	

Further comments on the measures taken to prevent and mitigate the negative impacts of key threats to mountain biodiversity

Due to peculiarities of landscape, there lie zones of higher mountain, mountain taiga, forest steppe, steppe, desert steppe and desert, in Mongolia. Mountainous ecosystem occupies 23.3 percent of total territory and it includes higher mountain and mountain toga zones.

Higher mountain zone occupies 0.8 percent of Huvsgul mountain range, 0.9 percent of Khangai mountain range, and 1.9 percent of Altai mountain range and these occupy total 3.6 percent of the territory or 56394.0 km^2 area. On the other hand, mountain meadow in Khangai mountain range, mountain tundra in Huvsgul mountain range and snow, ice and barren peaks in Altai mountain range, are dominant.

Higher mountain region is often cold, and has cool wind, and as a result there are very few species of animals and plants are present. Here distribute rare animal species like, *Ovis ammon, Capra sibirica, Uncia uncial, Lagopus mutus, Tetraogallus altaicus*, and rare plants like, *Pinus pumila, Ptilagrostis mongolica* and *Gentiana algida*. Mountain taiga region includes mountain range of Khentii and Huvsgul belonging to province of great mountainous taiga of Southern-Baikal, and Zed-Buteel mountain range along Eastern Huvsgul shows some shortened, flattened latitudinal zonation which represents true feature of the region. In other words, southern distribution of taiga region which lies outside of our border passes via Zed-Buteel mountain range. Mountain taiga region occupies 4.5 percent of the territory, and out of them, 3 percent belongs in Huvsgul area, and 1.5 percent in Khentii mountain range.

Mountain taiga region is comparatively humid cold, and annual precipitation amount comes around 400-500 mm, and even more, but due to lack of warm period, plant growth period is very short. In this zone, *Pinus sibirica* and *Larix sibirica* forests dominate. Rare animals reported in Red book, such as, *Moschus moshciferus, Alces alces*, *Lynx lynx* and *Lutra lutra* reside here. Influencing factors on stabile status of mountain ecosystem includes climate change, and water resource deficit, and biodiversity loss due to this climate change etc. Apart this, changing economic and social system caused change in natural resource utilization types, especially pasture, forest and water resource utilization, which in turn brought loss and degradation of mountain ecosystem, especially of biodiversity. Hence, working towards reducing effects of above factors, and replace present type of utilization with sustainable and rational one. One of the biggest threatening factors on biodiversity of mountain ecosystem is hunting and poaching, and in order to conserve and protect some animals, involved unofficial organization with public participation. For instance, with the support of WWF, Snow leopard conservation program has been prepared, appointed research survey team to investigate distribution and habitat, and to protect Snow leopard, and accomplished some results. In the frame of project "Biodiversity conservation with public participation in Altai-Sayan eco-zone" funded by WWF and Holland government 2006 onwards, activities have been initiated on conservation of nature in complex, involvement and encouragement of public participation, and rationally and eco-friendly allocation of natural resource utilization.

194. Has your country taken any measures to protect, recover and restore mountain biodiversity?	
a) No	
b) No, but some measures are being considered	
c) Yes, some measures taken (please provide details below)	X
d) Yes, many measures taken (please provide details below)	

Further comments on the measures taken to protect, recover and restore mountain biodiversity

Following activities have been implemented aiming to conserve mountain ecosystems and their biodiversity under national biodiversity conservation program and UN convention:

- Limit trans-boundary trade of mountain undulates' organs (musk, deer penis etc.)
- Study Snow leopard and its food animals from representative of WWF in Mongolia
- Study habitat and migration of Wild sheep
- Conduct census of wild sheep, mountain goat etc. animals each year, and allocate number of hunting head on the basis of this census
- In the frame of project "Biodiversity conservation with public participation in Altai-Sayan eco-zone", activities to conserve, save and rehabilitate biodiversity have been initiated in Khovd, Uvs, Bayan-Olgii and Huvsgul aimag level. This project formulated plan to regulate pasture overlapping between wild animals and livestock, fight with poaching, schedule timing and area limit of sport hunting.
- At local level, programs to conserve and protect wildlife was initiated by local people and implemented successfully. One example is, Uvs aimag announced 2006-2007 as year not to hunt wildlife, and started implementing it with participation of local people.
- In Mongolia, especially in mountain ecosystem zone, biodiversity conservation issue concentrated more on wild animals, therefore needed to pay more attention on lacking conservation of rare and very rare plant conservation. For this, it is required to monitor and regulate activities of mining organization and tourist camps in mountain region.

195. Has your country taken any measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems?	
a) No	
b) No, but some measures are being considered	X
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	

Further comments on the measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems

At present level, mainly concentrating on stabilizing biodiversity head number in mountain ecosystem. Time to implement gene enrichment, conservation and gene diversity conservation has come, however lack of detailed research on biodiversity is making it difficult to be implemented.

Bio resource utilization has been going on intensively, however could not reach at stabilized level of utilization. Although implemented some activities to economically push up and encourage local people's participation in limited extent by international projects and program. Since there is no legal environment to support these activities continuously, usually initiated activities and local people's participation are slowed down or even stopped after project or program duration is completed, therefore related administrative bodies should take this issue in account and give importance to use economic motivation in these.

196. Has your country taken any measures for sharing the benefits arising from the utilization of mountain genetic resources, including preservation and maintenance of traditional knowledge?	
a) No	
b) No, but some measures are being considered	X
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	

Further comments on the measures for sharing the benefits arising from the utilization of mountain genetic resources

Mongolian nation has vast traditional ways of natural resource conservation, especially bio resource conservation which lasted for centuries, but due to increased demand of society, this tradition is interrupted and almost lost in some part of the areas. Biggest constraint for forming social ethics about restoring traditional conservation and increasing knowledge is met because of lack of social, economical and educational ground. However national program on ecological education has been approved, the time to implement administrative and organizational activities to direct towards nature conservation has not yet arrived.

Programme Element 2. Means of implementation for conservation, sustainable use and benefit sharing

197. Has your country developed any legal, policy and institutional framework for conservation and sustainable use of mountain biodiversity and for implementing this programme of work?	
a) No	
b) No, but relevant frameworks are being developed	
c) Yes, some frameworks are in place (please provide details below)	X
d) Yes, comprehensive frameworks are in place (please provide details below)	

Further comments on the legal, policy and institutional frameworks for conservation and sustainable use of mountain biodiversity and for implementing the programme of work on mountain biodiversity.

Basic principle of nature conservation is to enable sustainability via allocation of economic benefits drawn from biodiversity conservation, and rational utilization of resource, to citizens and organizations. For the implementation of this there is no suitable legal ground, therefore allocation of economic benefit from natural resource is not yet in right channel. As said above, this is related to improper implementation of cooperation between sectors, poverty at all level of society, and support of economically beneficial investments rather environmentally beneficial investments. As a conclusion of all these, nature oriented political policy of the country is not implementing for all layers of society.

198. Has your country been involved in regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity?	
a) No	
b) No, but some cooperation frameworks are being considered	
c) Yes (please provide details below)	X

Further information on the regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity

According to political geography, Mongolia borders with Russia and Republic of China,

and migration of wild animals are trans-boundary. Therefore, cooperating with these two countries on establishing trans-boundary SPA is priority of strategic target with high priority. In case of mountain ecosystem, depending on geographical location, it borders with Russia, Tuva and Altai remote area, and collaborative activities in these areas have been initiated in 1990s. At regional level, program to halt even stop poaching and contraband of wild animal products has been operating. Apart this, aiming to broaden collaborative research activities, to overcome constraints together, and to broaden collaboration of two countries in every sector, under the call "Altai our home", Bayan-Olgii, Khovd and Uvs aimag has been working in cooperation with Altai remote area and Tuva of Russia. One example is biennial international conference "Biodiversity, natural condition and history and culture of nation of Western Mongolia and its bordering neighbor areas". Main result of this kind of activities is to emerge cultural difference, develop nature conservation activity in combination at equal level.

Also, as a fact that Onon River is the start of Amar River, under the international cooperation to utilize Amar river basin, many small projects and programs from WWF and GTZ have been successfully implemented in Onon river basin regarding sustainable natural resource utilization, forest ecosystem management, forest fire prevention, biodiversity conservation, and water resource rational use.

Programme Element 3. Supporting actions for conservation, sustainable use and benefit sharing	
199. Has your country taken any measures for identification, monitoring and assessment of mountain biological diversity?	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures for identification, monitoring and assessment of mountain biodiversity

About 50 percent of rare and very rare biodiversity of Mongolia belong to mountain ecosystems, and it is important to study and monitor these biodiversity. In this way, under international projects and programs, system of evaluation and assessment is comprised for some animals, for instance, representative of WWF in Mongolia carried out activities like, studying Snow leopard and its food animals, studying habitat, distribution and migration of Wild sheep; surveying census of wild sheep and mountain goat head number each year so that to monitor their hunting number and population growth, studying Gobi brown bear and dress collar on bear, put forage fro them etc.

Further not only for mountain ecosystem, even for other ecosystems, attention should be paid to fulfill targets of national biodiversity program including intensive monitoring, increased participation of research organizations, and preparation of specialist at international level etc. in special protected area extent.

200. Has your country taken any measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity?	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity

In the frame of Mongolian-Russian joint biological expedition, research institutes of both sides are implementing sub-programs to process scientific ground of mountain ecosystem, and its biodiversity conservation, and sustainable use. Under this research, 2007 is stated as year to conduct area and very rare wildlife census in detail and working towards formulating strategy to conserve biodiversity.

201. Has your country taken any measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems?	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some measures are in place (please provide details below)	X
d) Yes, comprehensive measures are in place (please provide details below)	

Further comments on the measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems

Basis has been prepared and transferred about mountain ecosystem conservation, utilization for livestock pasture, conservation of beneficial and rare plants. Collar technology has been introduced to detailed study of migration of wild animals, and successfully experimented on Saker Falcon and Wild sheep.

According to theme "Possibilities to increase stock of some plants by biotechnological measures", micro plantlet of Chrysanthemum raised *in-vitro* was estimated to be flowering 6 months after transferring to *in vivo* condition.

About 150 Chrysanthemum plants were successfully multiplied by tissue culture, and transferred to soil.

Plantlet of *Robinia pseudoacacia* has been brought from Republic of Korea, and multiplied in this laboratory *in vitro*, which was time-saving new technology to multiply trees and shrubs. *Robinia pseudoacacia* has been multiplied *in vitro* condition, and produced 100.000 plantlets, out of which 2500 are transferred to *ex vitro* condition. As a result of research to multiply by tissue culture, *Glycirrhiza, Peganum harmala* was multiplied in vitro and plantlets and biomasses are produced. At present multiplication of Orchids, Chrysanthemum and Robinia pseudoacacia have been carried out successfully.

Intended to protect mountain ecosystem, technology to reforestate burnt and cut forest area, and to allocate rational amount of non-timber forest resource utilization differently to each forest-vegetational provinces has been prepared and is being experimented in provinces of eastern Khangai, and North-eastern Khentii.

Box LXXIII.

Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:

a) outcomes and impacts of actions taken;
b) contribution to the achievement of the goals of the Strategic Plan of the Convention;
c) contribution to progress towards the 2010 target;
d) progress in implementing national biodiversity strategies and action plans;
e) contribution to the achievement of the Millennium Development Goals;
f) constraints encountered in implementation.

Following results have been achieved under national biodiversity conservation program and UN convention regarding conservation of mountain ecosystem and its biodiversity:

- Limitation of trans-boundary trade of mountain undulates' organs (musk, deer penis etc.)
- Studied Snow leopard and its food animals under representative body of WWF in Mongolia
- Studied habitat and migration of Wild sheep
- Conducted census of wild sheep, mountain goat etc. animals each year, and formulated system to allocate number of hunting head on the basis of this census
- Worked especially on strengthening capacity of conservation programs initiated by citizens and organizations at local level
- In order to conserve habitat and distribution, and increase number of rare and very rare plants and animals, such as wild sheep, mountain goat, snow leopard, red deer and musk deer, *Sausurea involucrata* and *Allium obliquum*, UNDP, Holland governe,nt and WWF have stared implmeneting project "Biodiversity conservation with public participation in Altai-Sayan eco-zone" with due implementation in 2006-2010.
- Limited financial capacity of our country in transitional period of market oriented economic system is making it difficult to implement biodiversity conservation activities.

At present level, in mountain ecosystem the policy attention is mainly paid to stabilizing biodiversity head number, and time to implement gene enrichment, conservation and gene diversity conservation has come, however lack of detailed research on biodiversity is making it difficult to be implemented.

Today, when bio resource utilization has intensified, sustainable resource utilization has to be enhanced to new level, and fro this international projects and programs implemented activities to support public participation, and to comprise economic gear. Since there is no legal environment to support these activities continuously, usually initiated activities and local people's participation are slowed down or even stopped after project or program duration is completed, therefore related administrative bodies should take this issue in account and give importance to use economic motivation in these. Biggest constraint for forming social ethics about restoring traditional conservation and increasing knowledge is met because of lack of social, economical and educational ground. However national program on ecological education has been approved, the time to implement administrative and organizational activities to direct towards nature conservation has not yet arrived.

This is related to improper implementation of cooperation between sectors, poverty at all level of society, and support of economically beneficial investments rather environmentally beneficial investments. As a conclusion of all these, nature oriented political policy of the country is not implementing for all layers of society.

E. OPERATIONS OF THE CONVENTION

202. Has your country actively participated in subregional and regional activities in order to prepare for Convention meetings and enhance implementation of the Convention? (decision V/20)	
o) No	
p) Yes (please provide details below)	X
Further comments on the regional and subregional activities in which your country has been involved.	

203. Is your country strengthening regional and subregional cooperation, enhancing integration and promoting synergies with relevant regional and subregional processes? (decision VI/27 B)	
q) No	
r) Yes (please provide details below)	X
Further comments on regional and subregional cooperation and processes.	

The following question (204) is for DEVELOPED COUNTRIES

204. Is your country supporting the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes? (decision VI/27 B)	
a) No	
b) No, but programmes are under development	
c) Yes, included in existing cooperation frameworks (please provide details below)	
d) Yes, some cooperative activities ongoing (please provide details below)	
Further comments on support for the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes.	

205. Is your country working with other Parties to strengthen the existing regional and subregional mechanisms and initiatives for capacity-building? (decision VI/27 B)	
s) No	
t) Yes	

206. Has your country contributed to the assessment of the regional and subregional mechanisms for implementation of the Convention? (decision VI/27 B)	
u) No	
v) Yes (please provide details below)	
Further comments on contribution to the assessment of the regional and subregional mechanisms.	

Box LXXIV.

Please elaborate below on the implementation of the above decisions specifically focusing on: a) outcomes and impacts of actions taken; b) contribution to the achievement of the goals of the Strategic Plan of the Convention; c) contribution to progress towards the 2010 target; d) progress in implementing national biodiversity strategies and action plans; e) contribution to the achievement of the Millennium Development Goals; f) constraints encountered in implementation.

F. COMMENTS ON THE FORMAT

Box LXXV.

Please provide below recommendations on how to improve this reporting format.
Some difficulties were encountered in interpreting the meaning of the questions and there was overlap between some of the questions.

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