NEPAL

Third National Report

to the

Convention on Biological Diversity

His Majesty's Government
Ministry of Forests and Soil Conservation
Kathmandu

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Cover page: **Pokhara Valley and Machhapuchhre Mountain Range, Nepal**
Photo: Dr. KC Paudel

Preface

Biodiversity possesses ecological, economic and societal values. Biodiversity and its products are used in different occasions from the birth to the death in Nepal. Its protection and sustainable use is therefore, our top priority.

Nepal has given utmost importance for the conservation of biodiversity with people's willing participation within and outside protected areas. Nepal has also promoted sustainable use of biodiversity and benefit sharing through policy and legal instruments. Up to 50 percent of the total revenue generated in the protected areas is annually provided to the respective buffer zone users for community development in the concerned national parks and wildlife reserves. Local people are greatly benefited from this benefit sharing approach, and they are actively participating in biodiversity conservation programmes.

In order to ensure the contribution of biodiversity on poverty reduction, promote conservation and sustainable use of this valuable resource, separate policies on wetland, wildlife farming, management of protected areas through non-governmental organizations, herbs and non-timber forest products development, and agriculture have been implemented in addition to Nepal Biodiversity Strategy (2002) during the reporting period of the second and third reports of the Convention on Biological Diversity.

Nepal has also initiated biodiversity documentation programme in collaboration with national non governmental organizations. It has drafted a Bill on Access to Genetic Resources, and is finalizing the Biodiversity Strategy Implementation Plan. This Third National Report to the CBD provides major undertakings to conserve biodiversity and biological resources during the period of 2002 to early 2005. Data and Information are updated about the implementation status of Convention to the extent possible.

The Ministry of Forests and Soil Conservation - the national focal point for the Convention - appreciates the contributions and suggestions for the biodiversity stakeholders. The ministry organized a national seminar on the draft Third National Report to CBD before its finalization. I would like to take this opportunity to thank all the participants of the national seminar. Mr. Sushil Bhattarai, Senior Consultant is acknowledged for his expert inputs in drafting this report. I would like to appreciate the untiring efforts of Dr. Krishna C. Paudel, Joint- Secretary and Chief of the Environment Division, and his team in bringing this report in the present form.

Dr. Swoyambhu Man Amatya
Secretary
His Majesty's Government

Foreword

Nepal is rich in cultural, biological and ecological diversities. Biological resources and associated traditional knowledge play a vital role in the livelihood of Nepalese society. It is linked with food security, human health and environment. Nepal has been actively engaged in the conservation of natural resources through willing participation of local and indigenous community for decades. Nepal signed the Convention on Biological Diversity (CBD) on 12 June 1992, ratified it on 15th September 1993, and became a party to the convention on 21st February 1994. The Ministry of Forests and Soil Conservation (MFSC) serves as the national focal point to this Convention.

In accordance with the Article 26 of the CBD, This Third National Report is prepared as per the decision VII/25 of the Conference of Parties (COP) to the convention.

This report has been prepared by the national focal point by hiring local consultant and through active participation of many academicians, policy makers, head and representatives of several government and non-government organizations, civil society and relevant stakeholders. A national seminar was organized by MFSC on 5th May 2005 to discuss on draft report and finalized on the basis of comments/suggestions received during the national seminar from several experts and relevant organizations.

Nepal is committed for the implementation of the CBD. During the process, Nepal has submitted first and second National reports in previous years; thematic report on mountain biodiversity has been submitted this year; Nepal Biodiversity Strategy (NBS) has been approved in 2002; draft bill on Access to Genetic Resource and Benefit Sharing (AGRBS) has been submitted for approval, and several policies relevant to the implementation of CBD has been framed. Of all, the herbs and non- timber forest product policy 2004 and Agriculture policy 2004 are among the outstanding outcomes of this reporting period. In order to mainstream biodiversity programmes to fulfill CBD commitments, a high level National Biodiversity Coordination Committee (NBCC) has been established under the chairmanship of the Honorable Minister for the focal ministry (MFSC). Five thematic sub- committees, one each on Forests and Protected areas; Agro biodiversity; Biosecurity; Genetic Resource and Sustainable Use have been formed to provide scientific and technical inputs to the NBCC. At the local level, District Biodiversity Committees are established to coordinate local level programmes/ projects and raise awareness among stakeholder, especially the local and indigenous communities. Furthermore, documentation of biological resources and associated traditional knowledge has been started with priority. Community Biodiversity Registers (CBR) are prepared in a participatory way following a standard format prepared from a national consultation.

Nepal proudly announces that over 19% of the total country's land has been designated as protected areas where most of the representative natural ecosystems and habitats are conserved. Forests outside protected areas are being managed under various forms of community based natural resource management regimes including the world famous community forestry programmes. About one third of Nepalese people are involved in these resources management process. Conservation of agro biodiversity is mainly done by agrarian communities. *In situ* conservation of local landraces/verities/ breeds of crops/vegetables and livestock is encouraged by the government and non-governmental organization. *Ex-Situ* conservation is confined in seed bank and agricultural farms.

Nepal faces several challenges in CBD implementation. As per this report, most of them are related with growing population, poverty, deforestation and habitat loss, erosion of crop genetic diversity and so on. In order to best conserve and sustainably use Nepalese biodiversity for meeting the national goal of poverty reduction, additional financial support is required for raising awareness among stakeholders, institutional strengthening, capacity building, technology transfer and bioprospecting.

Finally, I express my sincere thanks to Mr. Sushil Bhattarai, consultant for his tireless efforts to draft this report. I offer special thanks to Mr. Batu Krishna Upreti, then Undersecretary at MFSC for his valuable time and efforts to prepare the report. All the academicians, experts and government officials, who contributed to this report, are gratefully acknowledged. I offer my sincere thanks to Mr. Ananta Raj Pandey (then secretary MFSC) and Dr. Swoyambhu Man Amatya, Secretary, MFSC for their valuable guidance.

Krishna Chandra Paudel, PhD
Chief,
Environment Division and
Focal Person, CBD

ACRONYM

ACAP	Annapurna Conservation Area Project
CA	Conservation Area
CF	Community Forests
CBD	Convention on Biological Diversity
CFUG	Community Forestry User Group
CPGR	Centre for Plant Genetic Resources
CITES	Convention on the International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of the Parties
DFO	District Forest Office
DNPWC	Department of National Parks and Wildlife Conservation
DPR	Department of Plant Resources
DSCWM	Department of Soil Conservation and Watershed Management
EIA	Environmental Impact Assessment
EPA	Environment Protection Act, 1996
EPR	Environment Protection Regulation, 1997
FUG	Forest User Group
GEF	Global Environment Facility
ICIMOD	International Centre for Integrated Mountain Development
IUCN	The World Conservation Union
HMGN	His Majesty's Government of Nepal
KMTNC	King Mahendra Trust for Nature Conservation
KTWR	Koshi Tappu Wildlife Reserve
MAP	Medicinal and Aromatic Plants
MOAC	Ministry of Agriculture and Cooperatives
MFSC	Ministry of Forests and Soil Conservation
NARC	National Agricultural Research Council
NBS	Nepal Biodiversity Strategy
NBU	National Biodiversity Unit
NEPAP	Nepal Environmental Policy and Action Plan
NGO	Non-Governmental Organization
NTFP	Non-Timber Forest Product
INGO	International Non-Governmental Organization
PA	Protected Areas
PGRU	Plant Genetic Resources Unit
RBNP	Royal Bardia National Park
RCNP	Royal Chitwan National Park
RONAST	Royal Nepal Academy of Science and Technology
RSNP	Royal Suklaphanta National Park
SNP	Sagarmatha National Park
TU	Tri-bhuban University
UNDP	United Nations Development Programme
VDC	Village Development Committee
WWF	World Wildlife Fund

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A. REPORTING PARTY

Contracting Party	**NEPAL**
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Signature of officer responsible for submitting national report	
Date of submission	March 2006

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 Ministry of Forests and Soil Conservation (MFSC) - the national focal point for the Convention on Biological Diversity (CBD) of His Majesty's Government of Nepal - has prepared this Third National Report to CBD by mobilising the local consultant. The consultant visited several organisations, consulted appropriate persons and drafted the report. The MFSC organised a national seminar on 5 May 2005 to seek inputs of the stakeholders on the draft report. Over 50 participants representing government ministries, departments and offices, non-governmental organisations, media, academic institutions and experts attended the national seminar. In addition, the draft report was sent to the concerned institutions for official comments and suggestions. The comments and suggestions received during the national seminar and from organisations have been incorporated at appropriate places in this report.

During the preparation of this report, relevant national documents prepared after the reporting of the Second National Report to CBD have been used. The major documents used as resource materials for the preparation of this report include:

- Tenth Plan (2002-2007)
- Nepal Biodiversity Strategy (2002)
- Water Resources Strategy (2002)
- National Wetland Policy (2003)
- Sustainable Development Agenda for Nepal (2003)
- National Action Program to Combat Desertification (2004)
- Human Rights Action Plan (2004)
- Other working policies and decisions of HMGN related to biodiversity conservation, and annual reports

In addition, consultation was made with the members, in particular the expert members, of the following advisory bodies:

(i) National Biodiversity Coordination Committee (NBCC);
(ii) Thematic Sub- Committee on Agro biodiversity;
(iii) National Biosafety coordination Committee; and
(iv) Concerned ministry and department officials and academic institutions

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.

Nepal signed the Convention on Biological Diversity (CBD) on 12 June 1992. The Convention was ratified by the Parliament on 15 September 1993. Nepal deposited the articles of ratification on 23 November 1993, and became the Party on 21 February 1994 in accordance with the provision of the Convention. The Ministry of Forests and Soil Conservation (MFSC) serves as the national focal point to this Convention.

His Majesty's Government of Nepal (HMG/N) is strongly committed to conserve the biological resources and their diversity in different ecosystems, and within and outside protected areas. It has given equal emphasis to manage agro-biodiversity. The approval and implementation of the Nepal Biodiversity Strategy (NBS) in 2002 clearly reflects Nepal's commitment towards the conservation of this very important resource. The Strategy provides a platform for the development of new policies and initiatives to address the existing gaps and obstacles on biodiversity conservation.

Nepal's biodiversity is the main stay of the country's economy and the well-being of its people. It has designated over 19 percent of its total landmass as protected areas and is making all possible efforts for the conservation of biodiversity with people's participation. Innovative participatory conservation measures introduced in late 1970's for the conservation of forests with the involvement of indigenous and local communities was expanded in early 1990s through

appropriate policies and legislations. Similarly, user groups concept was introduced in early 1990s for the management of protected areas, in particular the Annapurna Conservation Area. Local people are the main custodians for the conservation of national forests, protected areas and agro-biodiversity.

About 25 percent of national forests (1.1 million hectare) have been handed over to local communities in the form of community forests (CF) by March 2005. So far, 1.2 million households are being benefited from community forestry programmes. One of its objectives is to protect the biodiversity, increase greenery and improve the growing stock, while meeting the basic needs of the local people. Participatory conservation programmes have been expanded for better forest management, social mobilization, income generation and institution building at the grass root level. In the recent years, Nepal has approached to use forest products as one of the major resources for poverty reduction as well. Conservation of wild flora and fauna has been taken care.

In conserving agricultural biodiversity, major steps include initiation of genetic resource conservation (*In-situ*), development of agriculture development policy and Participatory Plant Breeding. Documentation of agro-biodiversity has also been initiated. However, a number of agro-biodiversity related issues remain inadequately addressed due to the overriding priority accorded to production and productivity to combat poverty.

The mountains of Nepal (about 83 % of the total land area) have unique assemblage of floral, faunal, cultural and social diversity. Out of its total protected areas, more than 80 percent lies in the mountains. Similarly, integrated soil conservation and watershed management programmes have been implemented in the mountains as well that help to conserve the mountain biodiversity at ecosystems, species and genetic level.

Nepal, being a landlocked country has no direct concerns with marine and coastal biodiversity. However, the protection and management of mountain ecosystems would contribute to minimise sedimentation in the downstream. Nepal has also accorded high priority for the conservation and management of wetlands. Four wetlands have been listed in the Ramsar Sites. They are: *Koshi Tappu* Wildlife Reserve, *Bishhajari Tal (lake) in the buffer zone of the Royal Chitwan National Park* (RCNP), *Jagadishpur* Reservoir and *Godha Ghodi Tal*. They represent significantly rich biodiversity resources contributing to livelihood and life support system of the local people.

Nepal has continued the allocation of technical and financial resources for the conservation of biodiversity. Due to subsistence nature of its agro-based economy, most of the poor people depend heavily on biodiversity resources, and HMG/N has accorded priority for poverty reduction through sustainable usage of forest products.

Nepal has done substantial work on transboundary cooperation for the protection and management of biodiversity, as well as the preservation of rare and endangered wildlife species.

In addition to specific biodiversity conservation programmes, Nepal has focused natural resource management such as forests, water and land with the understanding that they contribute to conserve biodiversity. Capacity building and people's empowerment are the major elements to bring the local people in the mainstream of resource management Some examples are cited here. During the last two years (fiscal years 2002/03 and 2003/04), the Ministry of Forests and Soil Conservation (MFSC) through its institutional network has formed over 1400 community forestry user groups (CFUGs). During the same period, silvicultural operations were carried out in about 300 different forest plots and organised nearly 3200 training to build the capacity of about 64,000 community forest users. Similarly, about 35,000 poor and leasehold forest users were made aware and/or trained in developing and implementing operation plans. Nine botanical gardens are managed for *ex-situ* conservation of plants. Five-year management plans have been developed and implemented in most of the protected areas (national parks and wildlife reserves including buffer zones). Six fascicles have been published as a part of Nepal Flora programme. The preparation of the national biosafety framework is underway with the assistance of GEF/UNEP. Human resource strategy for the MFSC has been developed.

In a nutshell, there is an increasing trend on implementing biodiversity conservation activities all over the country at all levels over the last three years. The population of some of the endangered species is on the increase. Conservation of ecosystems, genetic resources and endangered species has been greatly realised than ever before. The conservation paradigm has been shifted from species conservation to landscape management. The species protection regime has been changed to sustainable utilisation and benefit sharing regime through farming and breeding of even endangered wild animals. People's participation and empowerment is the key for natural resource management. Biodiversity documentation has been started. Contribution of medicinal herbs and non-timber forest products (NTFPs) has been greatly realised for poverty reduction. The Biodiversity Strategy is under implementation. Biodiversity conservation-friendly policies have been initiated and implemented. Biodiversity monitoring has been initiated and environmental impact assessment has focused on biodiversity conservation as well. Although it is too early to get the benefits of such initiatives taken during the second and third reporting period, Nepal considers them as a road map to contribute to achieve the objectives of the Convention.

Although several successes have been recorded over the years in the protection and management of biological resources and their diversity, particularly within the protected ecosystems and species, and community forestry, several problems and constraints are still remaining to make the success sustainable. Some of them are:

- Inadequate public awareness and participation outside the protected areas and agriculture system;
- High population pressure and prevailing poverty;
- Lack of harmonisation of policy, plans and programmes ;

- Inadequate facilities for research and development and information systems;
- Lack of *ex ante* consideration of biodiversity conservation in development projects;
- Lack of economic valuation of the biological resources, and also lack of understanding on the value (ecological, economic and societal values and/or direct, indirect and option values) of biodiversity;
- Inadequate protection measures for non-target species;
- Lack of technical and institutional facilities to address genetic diversity; and
- Inadequate resources (financial and technical) etc.
- Lack of gene bank for genetic preservation.
- Lack of mainstreaming biodiversity programmes.
- Lack of economic benefits.

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	Not applicable		
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	3	1	3	2	2	1	2	2	1	3	2	3	2	3	3	3
b) Limited public participation and stakeholder involvement	1	2	3	0	3	1	1	1	2	3	1	2	1	3	2	1	1	2
c) Lack of mainstreaming and integration of biodiversity issues into other sectors	0	1	3	2	3	3	1	2	3	3	1	3	3	3	2	3	3	3
d) Lack of precautionary and proactive measures	2	1	3	1	3	2	2	2	2	2	1	3	3	3	1	3	3	3
e) Inadequate capacity to act,	1	2	2	1	3	2	1	1	2	2	2	3	2	3	1	3	3	2

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

engagement of scientific community																		
t) Lack of appropriate policies and laws	1	0	2	1	3	2	2	1	1	2	2	0	3	3	1	3	3	3
u) Poverty	N/A	2	3	1	3	3	2	2	2	2	2	2	3	3	2	3	3	3
v) Population pressure	N/A	2	2	2	2	2	2	3	3	3	2	3	3	3	2	3	3	3
w) Unsustainable consumption and production patterns	2	3	1	2	2	2	2	3	2	2	2	3	2	3	2	2	3	3
x) Lack of capacities for local communities	1	1	2	1	1	1	2	2	1	2	2	3	3	2	1	1	2	2
y) Lack of knowledge and practice of ecosystem-based approaches to management	3	2	2	2	1	2	2	2	2	2	2	2	3	3	2	3	3	3
z) Weak law enforcement capacity	2	1	2	1	3	2	2	2	1	N/A	N/A	2	1	1	N/A	N/A	1	1
aa) Natural disasters and environmental change	N/A	1	1	1	1	N/A	N/A	1	N/A	1	1	3	1	1	N/A	N/A	1	2
bb) Geographical remoteness	N/A	1	2	1	1	2	1	2	2	2	1	3	2	2	1	2	2	3

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 programs 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.

No specific targets have been set for each goal at the national level. However, a number of initiatives have been taken which likely contribute to achieve the targets. The following description is based on the existing response measures related to the goals and targets.

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.

About 19.4 percent of the total area of the country (147181 sq. km), representing all ecological regions (Terai, Mid-hills, High Mountains and Himalayas) is under protected area system. Buffer zones have been designated in 7 national parks and 2 wildlife reserve. Nepal has so far 9 national parks, 3 wildlife reserves, 3 conservation areas, 1 hunting reserve and 9 buffer zones, representing major ecosystems in Nepal.

SN	Categories of Protected Areas	Year of Declaration	Area (km^2)	Physiographic zone	Conservation focus
National Parks					
1.1	Khaptad National Park	1984	225	Middle mountain	Wild goat, blue sheep and spiritual site
1.2	Langtang National Park	1976	1710	High mountain	Musk deer and red panda
1.3	Makalu Barun National Park	1991	1500	High mountain	High altitude endangered plants
1.4	Rara National Park	1976	106	High mountain	Musk deer, red panda, and high altitude lake
1.5	Royal Chitwan National Park (WHS, 1984)	1973	932	Terai-Siwalik	Rhinoceros, elephant, tiger, bison etc.
1.6	Royal Bardiya National Park	1976/88	968	Terai	Rhinoceros, elephant, tiger etc.
1.7	Sagarmatha National Park (WHS 1979)	1976	1148	High mountain	Musk deer, red panda, beer, snow leopard etc.
1.8	Shey Phoksundo National Park	1984	3555	High mountain	Wild goat, blue sheep, musk deer, lake
1.9	Shivapuri Watershed and Wildlife Reserve (Renamed as NP in 2002)	1984	144	Mid-hills	conservation of capital city
Wildlife Reserves					

2.1	Koshi Tappu Wildlife Reserve (Ramsite site, 1987)	1976	175	Terai	Wild buffalo and migratory birds
2.2	Parsa Wildlife Reserve	1984	499	Terai-Siwalik	Tiger, deer, antelopes, bison etc.
2.3	Royal Suklaphanta Wildlife Reserve	1976	305	Terai	Swamp deer, rhinoceros, tiger
Conservation Areas					
3.1	Annapurna Conservation Area	1992	7629	Middle mountain	Endemic plants and animals
3.2	Kanchenjunga Conservation Area	1997	2035	Middle mountain	Endemic plants and animals
3.3	Manaslu Conservation Area	1998	1663	High mountain	Endemic plants and animals
Hunting Reserve					
4.1	Dhorpatan Hunting Reserve	1987	1325	Middle mountain	Blue sheep
Buffer Zones					
5.1	Langtang Buffer Zone	1997	420	High mountain	Aimed at expanding biodiversity conservation and community development to reduce pressure on national parks and wildlife reserves. Also aimed at bringing the local people in the mainstream of biodiversity conservation.
5.2	Makalu Barun Buffer Zone	1998	830	High mountain	
5.3	Royal Chitwan Buffer Zone	1996	750	Terai-Siwalik	
5.4	Royal Bardiya Buffer Zone	1997	328	Terai	
5.5	Sagarmatha Buffer Zone	2002	175	High mountain	
5.6	Shey Phoksundo Buffer Zone	1999	1349	High mountain	
5.7	Royal Suklaphanta Buffer Zone	2004	244	Terai	
5.8	Koshi Tappu Buffer Zone	2004	173	Terai	
5.9	Parsa Buffer Zone	2005	298	Terai	
			4666		
	Total Area (km^2)		28,585	19.4 percent of the total area of the country	

Note: WHS= World Heritage Site

All the above conservation areas were named after the famous snow peaks of the Himalayas and places. These conservation areas are famous for eco-tourism. *Annapurna* Conservation Area is a major trekking destination for tourists in Nepal. The establishment of buffer zones around the Parks and Reserves is one of the remarkable initiatives in conserving biodiversity in Nepal and in resolving park and people conflicts. The primary objective is to minimize biotic interference on protected areas with the participation of local community as beneficiaries of conservation efforts.

Besides the above designated protected areas, about 1.1 million hectare of national forests (which totals to about 25% of the total forest area) is managed by the local people in the form of community forests. Similarly, around 3,000 hectares of the national forests are also managed in the form of leasehold forests by local communities.

Nepal has equally focussed on conserving agro-biodiversity particularly the indigenous landraces and livestock.

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		About 21 % (3.2 million hectare) of the total land area of Nepal is under cultivation. The principal crops are rice, maize, wheat, millet and potatoes followed by sugarcane, jute, cotton, tea, coffee, barley, legumes, oilseeds, vegetables and fruits. Agriculture sector contributes nearly 39 % to GDP and is the main economy of Nepal. Agricultural biodiversity is key to both immediate needs and long-term sustenance of Nepalese people.

			The Tenth Plan (2002-2007) has identified the need for sustainable agricultural development for poverty reduction through conservation and utilisation of agricultural biodiversity. The Plan emphasizes on the documentation and registration of plant genetic resources including associated traditional knowledge, and research on application of agriculture biodiversity and biotechnology. Agricultural biodiversity relating to agro-products and livestock gene conservation has been recently prioritized. The Nepal Biodiversity Strategy (2002) has identified the following three areas under sectoral strategies, they are: • Participatory plant breeding • Participatory variety selection, and • Seed bank. The Tenth Plan also emphasises on participatory on-farm conservation of local crop landraces is to: i) conserve the process of evolution and adaptation of crops to their environment; ii) conserve agro-diversity at all levels; iii) improve the livelihood of esource-poor farmers; iv) maintain or increase control of, and access to farmers over their genetic resources; and v) involve farmers into the national plant genetic resources conservation. Agricultural Policy (2004) has emphasised on the conservation and management of agro biodiversity, enhancement of agricultural productivity, development of basis for professional and competitive system of agriculture, agricultural germplasm collection and seed banking for *Ex situ* Conservation of gene pool.
b) Wetland/Inland Water	x		Wetlands have been recognized as one of the important ecosystems that harbor about 25 % of biodiversity of Nepal. Nepal has different types of wetlands, including permanent rivers, seasonal streams, lowland oxbow lakes, high altitude glacial lakes, swamps and marshlands, paddy fields, reservoirs and ponds. The low land water bodies alone support 32 species of mammals 461 species of birds (out of them, 15 species are rare), 9 species of turtle, 20 species of snakes and 28 species of fish. Seven wetland sites in lowland which are potential for Ramsar listing require urgent restoration and rehabilitation programme. HMGN has emphasised on increasing the number of Ramsar sites and manage them based on management plan with people's participation. It has also planned to document resoruce availability, traditional knowledge and management practices in the spirit of the Biodiversity Strategy (2002) and the National Wetland Policy (2003.) The NWP has classified wetlands into three categories for effective management: a) Wetlands that lie within the protected areas or buffer zones. b) Government or public wetland that lies outside the protected, areas, and c) Wetlands in private lands. No specific targets have been fixed for wetland biodiversity conservation.
c) Marine and coastal			Not applicable to Nepal
d) Dry and sub-humid land	x		The dry and subhumid lands of the high Himalayan region are characterised by the biodiversity of the Tibetan Plateau that lies in the northern Nepal. Such lands occur in places such as Mustang (Annapurna Conservation Area), Dolpo (Shey Phoksundo National Park), Sagarmatha National Park and some other mountain areas. Necessary policies and laws exist for the conservation of such lands in the protected area systems and general management prescriptions are introduced for other areas. The Nepal Biodiversity Strategy (2002) emphases on rangeland management and develop policies for acknowledging the efficiency of traditional pastoral practices, and understanding rangeland resource dynamics and current land use practices. The Strategy equally focuses on the conservation of rangeland biodiversity.
e) Forest	x		Nepal's forestry sector plays an important role in the socio-economic enhancement of the people. Over 80% of the people still depend upon

			forestry resources, especially for firewood, fodder and timber. The country has 5.5 million hectares of natural forests (39.6 percent) of over 10 percent crown coverage. Forests of Nepal are classified into national forests and private forests. The national forests are further divided into community forests, leasehold forests, religious forests and protected forests. All areas that have not been handed over as community forests or leasehold or religious forests are considered as government-managed forests. The national forests are managed by the Department of Forests through their District Forest Offices, according to the approved Forest Management Plans especially for the production of timber, firewood, fodder and NTFPs; and for the protection of the environment and biodiversity. Due attention has been given to the management of *Siwalik* hills to protect them against erosion and landslides. Biodiversity conservation is an integrated objective of forest management, and the management prescriptions have sufficiently helped for *in-situ* conservation of species and ecosystems. The Tenth Plan (2002-'07) include biodiversity conservation as an integral part of forests management and targets followings: • Form 2,500 new community forestry user groups, prepare 3,000 new operational plans and revise 4,000 operational plans and handover parts of national forests to community users as community forests; • Establish and operate 500 silvicultural demonstration plots; • Establish 1,500 pro-poor leasehold forestry user groups, and increase the leasehold forestry area to 6,500 ha; • Also handover leasehold forests to 25 organisations in the form of leasehold forests for industrial and eco tourism purpose. • Implement participatory corridor and connectivity activities including in four protected areas (Parsa Wildlife Reserve, Royal Chitwan National Park, Royal Bardiya National Park, and Royal Suklaphanta Wildlife Reserve) under Terai landscape programmes; • Manage *In situ* plant conservation plots in 5 places, and develop and mange botanical gardens in 4 development regions; • Develop and expand processing technologies for medicinal herbs and essential oils at 10 locations in government areas and 15 number in private/NGO sector, and also prepare 15 fascicles as a part of the preparation of Flora of Nepal; • Prepare and implement national herbs development action plan for all five development regions; • Manage 110 community integrated watersheds (sub-water level); and manage and conserve upper churiya integrated watersheds in four districts; • Prepare and implement, management plans for nine national parks and four wildlife reserves; action plans for six national parks and wildlife reserves and six buffer zone management plans, • Initiate biodiversity documentation programme, launch training in 30 districts for biodiversity-friendly sustainable harvesting of forest products; • Develop national biosafety framework; • Develop and/or amend necessary policies and laws for the conservation of forests and biodiversity
f) Mountain	x		Eight national parks and conservation areas located above 3000 m elevation in the High Mountains represent 63 ecosystems of Nepal. The mountain forest ecosystems have been subjected to great stress and continue to face multiple threats due to depletion of forests, resource extraction without proper management, poaching, invasion by exotic species, inappropriate farming practices and unregulated tourism. The cumulative impact of these actions results in accelerated soil erosion, watershed degradation and loss of biodiversity. There are three approaches to biodiversity management practices in the mountains. These are: 1) participatory management of forest, wildlife and watersheds; 2) enterprise-

based, community involved biodiversity management; and 3) landscape approach to biodiversity management.

In the mountains, emphasis is given on:

i) Land use development and planning

ii) Community-based integrated watershed management activities:

- Natural hazard prevention, such as disaster prevention, gully control, erosion control, torrent control, river bank stabilization and construction of conservation ponds using bio-engineering methods.
- Infrastructure protection and development such as irrigation channel improvement, foot trail improvement, road side stabilization, green belt or shelter belt plantation and construction of cable ways for transportation of farm products.
- Land productivity conservation including protection of productivity of land, terrace improvement, introduction of SALT technology, agro-forestry, fruit trees, fodder and grass plantation, pasture and grass land management, water source protection and degraded land reclamation, etc.

iii) Group mobilization and Empowerment: formation and empowerment of user groups including progressive farmers and women.

iv) Conservation plantation

v) Repair and maintenance of earlier works

vi) Research and development such as soil loss monitoring and development of watershed information system (WIS), and

vii) Monitoring and Evaluation.

Equal emphasis is given on enterprise-based community involved biodiversity management through sustainable collection of NTFPs and MAPs from forests, and cultivation of MAPs in private land. Another approach is the landscape biodiversity management. The annual target includes the creation of public awareness by celebrating international mountain day, biodiversity day, plant resources day, wildlife week and so on.

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 government-managed forests, in 18 Terai districts, are being managed by implementing the Operational Forest Management Plans (OFMPs).
- The Tenth Plan has focused on poverty reduction as main development objective. Accordingly, the forestry sector policy has incorporated these objectives as poverty reduction and conservation of biological resources. The Nepal Biodiversity Strategy (NBS, 2002) as an important policy document of HMGN for the protection and wise use of biological resources has envisioned following priority programs and are being implemented in the following sectors:
  a. Protected Areas
  b. National Forests
  c. Rangelands
  d. Wetlands/inland waters
  e. Agro-biodiversity, and
  f. Mountain biodiversity

Although quantified targets in all above sectors have not been set in the national plans and programmes, number of activities has been included. Some of them are as follows:

Protected Areas (National Parks, Wildlife Reserves and other protected areas):

- Develop and implement species conservation strategies for– wild buffalo, snow leopard, swamp deer, black buck, gangetic dolphin, *ghariyal*, tiger, elephant, rhinoceros, bison, and musk deer;

- Develop tiger conservation action plan with focus on ecosystem management and partnership building with local communities;
- Identify buffer zones around the protected areas for community participation on wildlife conservation, eco-tourism and sustainable use of forest resources;
- Create trans-boundary protected areas, linking protected areas of two or more countries, and implement the Terai Arc Landscape – Nepal Strategic Plan (2004 – 2010);
- Identify heritage sites, and develop and implement management plans in particular the *Sagarmatha* National Park and the Royal *Chitwan* National Park which are enlisted in the World's Heritage Sites of UNESCO in 1979 and 1984 respectively; and
- Conduct feasibility study of the social, ecological and economic advantages of the existing protected areas.

Forests (National, Community, Leasehold and Religious)

- Conserve important forest ecosystems, including in *Milke Danda-Jaljale* Himal (for rhododendron species), *Phulchoki* (mid-hill biodiversity rich forests) and *Barandabhar* (wildlife corridor) areas;
- Conduct biodiversity baseline survey in government managed, community, leasehold and religious forests, and incorporate them in operational plans;
- Develop replicable management models for sustainable use of biodiversity in the *Terai*, *Siwaliks*, Mid-Hills and Mountains; and train district forest officials and forest users;
- Design and promote biodiversity-friendly harvesting methods to forest users and assess their impacts on biodiversity;
- Develop a national register of plant species;
- Conserve vegetation types with focus on rare, endangered, and endemic plants;
- Develop sustainable harvesting plans for commercially important medicinal and aromatic plants;
- Encourage cultivation of Fruits, fodder and other plants on non cultivated marginal lands
- Promote biotechnology for the conservation and wise-use of genetic resources with due consideration on indigenous knowledge; and
- Promote *ex-situ* conservation of biodiversity, especially with plants in high demand, through the establishment of botanical gardens.

Rangelands

- Improve high altitude grazing lands by promoting fodder and pasture development;
- Strengthen research centers such as National Pasture and Grassland Research Centre, *Khumaltar*, Regional Pasture Research Centre, *Dhunche*, National Sheep Research Centre, *Jumla,* Agricultural Research Centres at *Pakhribas* and *Lumle*. These centers have all been producing forage and pasture seeds.

The Nepal Biodiversity Strategy (2002) includes the following strategies to conserve rangeland biodiversity:

- Prepare national rangeland policy by acknowledging efficiency of traditional pastoral practices, and understanding resource dynamics and current land use practices;
- Conserve rangeland biodiversity by focussing, *inter alia*, on (i) research on range wildlife ecology and wildlife habitats, wildlife-livestock interactions, and indigenous pastoral management, (ii) rehabilitation of over-grazed ranges, (iii) creation of biodiversity database, and so on;
- Promote pastoral development and management in the Himalayas by building capacity of professionals and locals, improving forage/fodder resources, improving people's participation and community organisation, determining the extent and severity of rangeland degradation, and so on.
- Develop forage through integrated management planning by developing appropriate technologies for fodder conservation, supporting seed production of forages, conducting training and so on.

Wetlands/Inland Waters

- Develop a national wetland/inland water policy;
- Identify critical sites for management interventions highlighting biodiversity values, ecological functions and cultural significance. Ten potential Ramsar Sites from the hills and mountains are being explored. Accordingly, the *Koshi Tappu* Wildlife Reserve, *Bishhajari Tal*, *Jagadishpur Reservoir* and *Godha Ghodi Tal* are listed in Ramsar Site in 1987 and 2003 (last three) respectively.
- Prepare and implement a participatory management plan that protects and monitors the endangered species of those critical sites. The management plan for *Koshi Tappu* is in being implemented and updated. The management

plans for *Ghodaghodi Tal* and *Bishhajari Tal* are also in place. Similarly, the preparation of management plan for *Jagdishpur Reservoir* is underway.

Agro-biodiversity (crops and livestock)

- Develop policies to promote the conservation of agro-biodiversity (including livestock);
- Develop necessary legislation to protect intellectual property rights of farmers;
- i*n-situ* conservation of agrobiodiversity;
- Strengthen *ex-situ* conservation of indigenous crops and livestock breeds, and estimate population of indigenous livestock;
- Strengthen institutional arrangement to coordinate with other line agencies and stakeholders;
- Develop livestock conservation and breeding policy to safeguard indigenous livestock germplasm and the protection of indigenous livestock genetic resources; and
- Increase population and production of indigenous *Yak, Lulu* and *Achame* cattle breeds.

Mountain biodiversity

- Develop and implement mountain development policy and legislation
- Promote sustainable use of NTFPs and MAPs linking with poverty reduction;
- Establish integrated sub-watershed management models and implement biodiversity conservation prescriptions; and
- Implement biodiversity education programs for communities living nearby protected areas.

HMG/N endorsed Sustainable Development Agenda for Nepal in 2003 values the conservation of biodiversity in different ecosystems. The major policy thrusts on biodiversity include: (i) management of natural forests and protected areas, (ii) conservation of ecosystems and genetic resources, (iii) conservation of biodiversity at landscape level, (iv) protection of land against degradation, (v) promotion of sustainable harvest and management of NTFPs, (vi) agriculture biodiversity for marginalized mountain communities, (vii) conservation of rangelands, and (viii) research and development in medical application and income of Nepal's biodiversity. HMGN has continuously pursuing these policies into actions through its regular programmes.

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

Nepal's conservation initiatives would contribute to attain the target as biodiversity conservation has been integrated in different categories of forests and initiatives are in place for the conservation of biodiversity. In relation to the national targets, Nepal has implemented a number of programmes with the active participation of local people, NGOs and other stakeholders. The achievements made during the last three years (after submission of second national report) are summarised below:

- Formation of over 1,400 community forestry user groups (CFUG), preparation of 1,500 Community Forestry operational plans and conduction of about 3200 trainings and participation of about 64 thousands of local forest users;
- Formation of about 400 pro-poor leasehold forestry user groups, and handover of 1014 hectares of forests, and conduction of over 3100 public awareness and training programmes, and preparation of strategic forest working plans for 57 districts (out of 75 total districts). Hills Leasehold Forests and Pasture Development Project is recently under implementation in 26 districts, also to promote agroforestry and sustainable use of biodiversity.
- Implementation of Terai landscape programme in four protected areas (as mentioned in II above), management of botanical conservatories in seven District Plant Resources Offices, development of processing technologies of six plant species, and also collection and processing of herbs and essential oils, identification of 30 priority plant species for cultivation, publication of six fascicles as a part of Nepal Flora publication. The botanical gardens have been developed in nine places. Nine small to large size processing facilities have been established to extract 16 types of essential oils. About eight types of plant products are in the market for users. A botanical garden has been established at Daman, a representative of High Mountains, during the UN International Mountain Year 2002.
- Preparation of about 1260 community-based soil conservation and watershed management plans, and rehabilitation of about 13 thousand hectares of degraded land, implementation of community integrated watershed management activities in 78 micro-watersheds. Over 850 community and ward conservation groups have been formed in 23 districts.
- Implementation of five-year management plans in Royal Chitwan National Park, and Royal Bardiya National Park, preparation of five-years management plans for Sagarmatha National Park, Koshi Tappu Wildlife Reserve and Royal Suklaplanta Wildlife Reserve, preparation of management plans of 9 buffer zones in progress. Implementation of the Participatory Conservation Programme has been continued with the assistance of UNDP to conserve biodiversity in the protected areas. Forests lying nearby the protected areas are handed over to 153 buffer zone community forestry user groups.
- Building a national consensus on documentation format and completion of biodiversity documentation in 30

communities which include, *inter alia*, documentation of traditional knowledge, skill and practices.

- Development of Biosafety framework in progress with the assistance of GEF/UNEP along with the establishment of 11-membered National Biosafety Coordination Committee. The biosafety framework will include frameworks for policy, legal system, technical system for risk assessment and management, and administrative system including people's participation on biosafety related issues. The biosafety guideline has recently been approved by HMGN and is under implementation.
- Reduction in annual deforestation rate from 1.3% to 0.06% in Terai.
- Incorporation of biodiversity conservation component to promote ecotourism for poverty reduction activities in protected areas

During this reporting period policies were developed and implemented to enhance the participation of NGOs in protected area management. HMG has given consent to the King Mahendra Trust for Nature Conservation (KMTNC) for the conservation and management of three national parks (NP) namely Shivapuri NP, Rara NP, and *Shey-Phoksundo* NP, and also to *Kanchenjunga* Conservation Area (KCA) Council for the conservation and management of KCA. Once the NGOs will prepare and submit the management plan, HMGN will approve and handover the management responsibilities to NGOs for the conservation of these NPs and KCA.

The Working Policy on Wildlife Farming, Breeding and Research (2003) promotes the farming of common wildlife species such as wild boar, deer (barking, spotted, hog and samber deer), snake etc., to facilitate commercial farming, *ex-situ* conservation and sustainable use. The Domesticated Elephant Management Policy (2003) promotes expansion and commercialization of elephants for research, breeding, conservation and sustainable use. Similarly, separate bill on access to genetic resources and benefit sharing, implementation of CITES and plant resources conservation has been drafted with the broader objectives of conserving biodiversity.

Efforts are being made to enhance public awareness by publishing and distributing brochures, posters and leaflets, and by organising training and awareness campaigns.

Nepal celebrated 2002 as the International Year of Mountain and implemented several activities including the declaration of the *Shivapuri* National Park in Central Nepal and High Altitude Botanical Garden at *Daman*. HMG also enunciated national policy and programs for the conservation of mountains. The Year 2002 was instrumental in bringing awareness at different levels about the urgent need for implementing conservation programs in the mountains. Nepal also observed the First International Mountain Day in 2003. His Royal Highness Crown Prince Paras Bir Bikram Shah Dev graciously inaugurated the main program and mountain exhibition. HRH Crown Prince also awarded the Mountain Development prize to institution and individuals for their commendable contribution for the conservation of mountain ecosystems. Similarly, the Natural History Museum under the Tribhuban University in Kathmandu, and the establishment of the International Mountain Museum at Pokhara by Nepal Mountaineering Association with the support of HMGN and INGOs have contributed in conserving mountain ecosystems.

In 2004, HMGN, the Ministry of Forests and Soil Conservation also observed the International Mountain Day at Pokhara in the premises of the International Mountain Museum. The then Rt. Hon'ble Prime Minister Sher Bahadur Deoba inaugurated the program and awarded the Mountain Development prize to institutions and individuals working at the grass-root levels in the field of nature conservation and ecotourism.

In order to enhance public awareness activities, HMG/N is celebrating the international biodiversity day and national days on forest, wildlife, plant resources, soil conservation, paddy day etc. These efforts have enhanced public awareness about the conservation of the biodiversity of different levels.

These efforts have maintained and/or increased population of endangered species such as tiger, musk deer etc. The overall trend on species conservation is positive.

Three districts (namely *Jumla, Kaski and Bara*) have been selected to represent high, middle and low altitude agro-ecosystems having rich agro-biodiversity for *in-situ* crop conservation. The Nepal Agriculture Research Council (NARC), and International Plant Genetic Research Institute (IPGRI) in collaboration with local NGOs are working together in partnership to implement the project. Studies are being carried out in the fields of socio-economy and culture, population structure and participatory breeding. The assessment and understanding of farmers' management of diversity (extent and distribution) has been initiated at these sites on rice, sponge gourd, finger millet, barley, buckwheat and pigeon pea using isozyme and micro-satellite DNA marker polymorphism techniques. Local crop diversity is maintained mainly by the processes of seed exchange among the community within and outside social networks. Results demonstrated that farming communities would benefit by linking conservation efforts with marketing.

Initiatives from NGOs have led to formation of community-based organization (CBOs) for the conservation of natural resources. Farmers Cooperative Society (FCS) at Dalchoki in Lalitpur district have collected and conserved local landraces at their farms and seed bank and also practice organic farming .

Altogether 10,737 accessions of over 90 food crops have been conserved in seed bank at NARC. Out of 198 food crop varieties released by National Seed Board of Nepal, 31 varieties were developed directly by local selection and 11 were developed by hybridization of local and exotic germplasm. Horticulture plants have been conserved at Horticultural Farms and Stations. Fruit germplasms have been maintained in 19 Agricultural Research Centre and farms under NARC and the Department of Agriculture (DOA).

Landraces of rice (98), soybean (216), lentil (146), broad bean (35), colocacia (48), barley (472), buckwheat (184), and finger millet (713) accessions have been characterized for highly heritable agro-morphological traits. A number of

institutions are involved for *ex-situ* conservation of agro-biodiversity. They are:

Nepal Agricultural Research Council (NARC)

- Agriculture Botany Division
- Livestock Improvement Division
- National Crop Commodity Program
- Fisheries Research Division
- Agriculture Research Stations

Department of Agriculture (DOA)

- Horticulture Farms
- Fishery Farms

Department of Livestock Services(DOLS)

- Livestock Farms
- Goat Farms

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

The Nepal Biodiversity Strategy provides guidance on biodiversity indicators to monitor its progress. It focuses on monitoring the habitats, ground conditions, indicator species, benefit sharing, management interventions, and of physical parameters such as soil and water erosion, air and water pollution, and greenhouse gases. The Strategy has also indicated the responsible agencies for monitoring. However, monitoring indicators have been developed and monitored on case-by-case approach at the project level. No specific indicators have been developed and monitored in relation to this target.

The King Mahendra Trust for Nature Conservation - a national NGO has published a field-tested guideline for biodiversity assessment and monitoring for protected areas in April 2005 in collaboration with the Darwin Initiative and United Nations Environment Programme - World Conservation Monitoring Centre. This guideline will provide a basis in mainstreaming biodiversity monitoring in protected areas and other areas of similar ecosystem.

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

Although Nepal's effort will contribute to meet this global target to some extent, there are number of challenges to promote biodiversity conservation at the national and local levels. They are briefly summarised below:

- Lack of baseline information within and outside protected areas and in agriculture sector in relation to biodiversity, and Inadequate exchange of information at both horizontal (between ministries and departments) levels and vertical (between the policy-makers and implementers in the field) levels.
- Increased conversion of fertile lands to non-farm activities such as residential, development infrastructures and industrial activities particularly in the urban and peri-urban areas.
- Increased use of modern high yielding varieties along with heavy dose of agro-chemicals which has induced erosion of agro-biodiversity and degradation of natural resources.
- Lack of technical, financial and marketing capabilities to compete in International markets for Nepalese bio-products.
- Open border with the neighbouring countries has made difficulty in maintaining quality agricultural production due to unauthorized import of low quality seeds and fertilizers.
- Problems of grazing and poaching in the protected areas. Grazing is a year round threat to some protected areas (PAs) in the *Terai* and is generally seasonal in high altitude PAs. Similarly, poaching of wild animals for highly valued products such as musk, skin, wool, horn etc has become a great threat to wildlife.
- Other challenges include:
  - High population pressure and prevailing poverty;
  - Low level of public awareness and peoples participation;
  - Weak monitoring and evaluation of biodiversity programmes;
  - Lack of integrated land and water use planning.

VII) Please provide any other relevant information.

Beside conservation, Nepal has also moved forward to attain the second and third objectives of the CBD such as sustainable use of biodiversity and fair and equitable sharing of benefits. These initiatives will further bring the local people in the mainstream of biodiversity conservation and poverty reduction. Expansion of community forests, pro-poor leasehold forests, buffer zones and in- situ crop management would provide a basis to further benefit the local people through biodiversity conservation.

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.

With the implementation of Nepal Biodiversity Strategy (2002), HMG/N has shown its strong commitment to conserve the biological resources and their diversity. The strategy provides a platform for the development of new policies and initiatives to address the existing gaps and obstacles.

- Expand management interventions in protected areas and different categories of forests;
- Promote biodiversity conservation in underrepresented protected area such as forests outside PAs; and
- Promote *ex-situ* conservation of rare, endangered, threatened and endemic plants through the establishment of botanical gardens, covering lowland (Terai), Mid-Hills and High Mountain ecosystems.

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		• Strengthen scientific basis for *in-situ* conservation of agricultural biodiversity, and develop scientific methods, institutional linkages and policy that support the role of farmers to promote on-farm conservation and use of crop genetic diversity; • Implement genetic Resources Policy Initiatives (GRPI) project to strengthen the national capacity to develop comprehensive genetic resources policy frame works; • Develop a policy for plant genetic resources for food and agriculture (PGRFA); • Document and register plant genetic resources and associated indigenous knowledge for research and application of agricultural biodiversity conservation and biotechnology. • Enhance conservation and utilization of valuable local genetic material through plant breeding and biotechnological research.
b) water	x		• Identify Ramsar sites, develop and implement wetland management plans in the spirit of the Strategic Plan;
c) Marine and coastal			Not applicable to Nepal
d) Dry and sub-humid land	x		No specific programs are underway to conserve biodiversity in the rangelands, and dry and sub-humid lands.
e) Forest	x		• Expand the coverage of community forests, leasehold forests (for pro-poor, eco-tourism and industries), and private forests • Internalise biodiversity documentation process; • Conserve pristine forest ecosystems • Scientific management of national block forests through collaborative approach.
f) Mountain	x		• Manage watersheds at different levels • Link biodiversity conservation in development programmes to reduce poverty

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.

No specific national targets have been fixed to protect biodiversity of a particular area, but the following policy statements provide ample opportunities for the conservation of important biodiversity.

- Maintain 40% of the total area under forest cover;
- Promote management of government-managed forests or protected forests based on the operational forest management plans;
- Promote rangeland biodiversity conservation with a) research on range land wildlife ecology and wildlife habitat and indigenous pastoral management; b) awareness campaign and environmental education; c) rehabilitation of overgrazed ranges; d) control of illegal poaching; e) incorporate indigenous knowledge into development plans; f) and establish appropriate monitoring systems, etc.;
- Accord high priority to participatory plant breeding approaches for important and endemic crops, and promote participatory plant variety selection to address the needs of local communities while strengthening on-farm conservation of indigenous crop genetic resources; and
- Conserve valuable germplasm in seed banks to allow easy access by small farmers.

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

- The programs related to NTFP include a) immediate measures to solve problems regarding collection and marketing, and b) cultivation of aromatic a m edicinal plants in private lands and community forests, etc.
- *In-situ* conservation of biodiversity in national forests, community forests, and leasehold forests has been encouraged. Similarly attempts have been made to include activities for biodiversity documentation in the annual programmes. All these activities are in increasing trend.
- Ecosystems and genetic resources are being protected in-situ within the protected areas (PAs).
- Department of Livestock Services and the National Animal Science Research Institute have jointly identified 25 local breeds of livestock. Research has been conducted at phenotypic, chromosome and DNA levels and this process will be continued in other breeds of animals.
- HMGN has also initiated conservation of endangered farm animal species such as *Acchame* and *Lulu* cattle, yak, *Bampudke* pig, *Asala, Janakpure, Lata, Tite* and *Katla* fish species.

These major activities have been implemented to conserve the important biodiversity in different physiographic zones.

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

Specific monitoring indicators include: (i) increase in population area coverage under selected species, (ii) Improvement in habitats for wild biodiversity, and (iii) conservation of indigenous and endangered species.

The means of verification include progress reports, monitoring reports, and published research findings, etc.

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

Major challenges and constraints include:

- Inadequate information regarding flora and fauna and lack of necessary budget for their exploration.
- Lack of baseline information to know the area having biodiversity of particular importance;
- Inadequate financial and technical resources for biodiversity specific studies and activities.
- weak taxonomic capacity.

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VII) Please provide any other relevant information.

Nepal needs to complete documentation of biological resources so as to prioritise and put specific focus for bioprospecting.

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.

No specific national targets are set but the national policies provide opportunities to maintain habitats, and/or reduce population decline of important species.

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		• Strengthen and promote cross-sectoral coordination by establishing Gender Equity and Environment Division in MOAC. • Support biodiversity research and promote usage of indigenous knowledge and innovations • Regulate activities related to indiscriminate use of pesticides, and encroachment of prime agricultural land through urbanization; and • Conserve indigenous and local breeds. • Use environmental impact assessment (EIA) to avoid and minimize impacts on biodiversity. • Initiate community biodiversity documentation.
b) Inland water			• Promote local participation in wetland management and fishery development; • Develop eco-tourism and organize tours to visitors; and • Eliminate and/or reduce invasive alien species like water hyacinth.
c) Marine and coastal			Not applicable to Nepal
d) Dry and sub-humid land			• Identify indigenous and useful species and maintain their habitats, for example: Sibukthorn as a source of Vitamin C in Jomsom. • Promotion of eco-tourism
e) Forest			• Promote community participation for *in-situ* conservation and *ex-situ* plantation of important endemic and threatened species in community forests; • Improve management of botanical gardens for *in-situ* and *ex-situ* conservation of wild plants; • Avoid, mitigate and/or compensate loss of forests from development projects and promote development of similar habitats for biodiversity in particular which are affected by infrastructure projects; • Restore the viable populations of endangered species in different ecosystems and habitats through census; • Translocate endangered species such as Rhinos in similar

			habitats; • Obtain necessary approval for the use of forest areas before conducting environmental assessments to ensure the restoration of habitats and/or creation of similar habitats to maintain the viable populations of plants and animals; and • Implement strategic plan, including for the development and conservation of wildlife corridors.
f) Mountain			• Establishment of PAs and mountain botanical gardens for *in-situ* and *ex-situ* conservation of biodiversity; • Establish coordination committees, and explore cross-sectoral coordination (in-country and transboundary) through such as Nepal-TAR of China for *Sagarmatha* National Park and Nepal, TAR, India and Bhutan for *Kanchanjunga* Conservation Area; and • Develop eco-tourism by managing PAs.

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 National Biodiversity Strategy (2002) includes strategies, *inter alia*, to:

- Implement landscape planning approach, and link PAs with wildlife-friendly corridors;
- Develop and implement species conservation plans targeting keystone species through population surveys, monitoring, protecting key habitats, and relocation and restoration of certain species; and
- Revitalise the degraded ecosystems and restore the flora and fauna in forests.

The Water Resources Strategy (2002) also focuses on the conservation of aquatic biodiversity by implementing aquatic ecosystem protection, rehabilitation and management programmes. The Strategy equally focuses on the implementation of watershed restoration and enhancement activities in all major development projects.

HMGN has also encouraged to conserving biodiversity through impact assessment and attempts have been made to include species conservation aspects even by creating similar habitats during the approval of environmental assessment reports of projects which will be implemented in the forest areas.

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

Nepal's biodiversity conservation policies are aimed at restoring the viable populations of endangered species in different ecosystems and habitats. The buffer zones have been established to maintain the habitats of endangered species within the protected areas and also to reduce human pressure on such areas through community development and income generating activities. Corridors between Nepal-India borders have been identified and maintained to allow movement of big mammals like rhinos, tigers, elephants, etc. across the border.

Several programmes and projects have been implemented in collaboration with the partner organizations in particular the international NGOs to restore and maintain habitats within and outside protected areas. However, it has yet to know the populations of major species. It has been considered that population of commercially valuable species are on the declining trend due to inadequate protection during insurgency period. The 2005 census has shown that rhino population has declined from 544 in 2000 to 372 in March 2005 in the Royal Chitwan National Park due to poaching, natural death and translocation. The poaching was noticed comparatively high due to merging of posts (from 32 to 8 posts) of the Royal Nepal Army due to insurgency. Illegal collection also prevails for yarsa gumba (*Cordyceps sinensis*) in the high mountains.

In addition, development projects implemented in the forest areas have also exerted pressure on biodiversity due to habitat fragmentation, easy access and loss of habitat as a part of site clearance for the project. In order to curb this situation, Nepal has focused alternative measures to conserve biodiversity such as (i) introduction of biodiversity conservation activities in forest management plans; (ii) specific guidance for documentation of species and appropriate mitigation measures in development projects; (iii) adoption of 1:25 ratio as compensatory plantation, meaning that the project which cuts one tree should plant 25 saplings, manage for 5 years and handover to local community users and/or competent forestry organization for future management.

HMGN has also adopted a policy to get necessary permission for all projects from the competent forestry organization before conducting studies such as Initial Environmental Examination (IEE) and environmental impact assessment (EIA) if the projects are planned for implementation in the forest areas. These initiatives are

aimed at restoring habitats and/or creating similar habitats to maintain the viable populations of plants and animals.

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

- Population of endangered species increased with habitat maintenance and improvement programmes
- Extent of forests managed with scientific forest management plans
- Number of habitats created
- Number of biodiversity monitoring centers established

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

In spite of some policy measures, there are a number of challenges to attain the objectives of this goal.

- Lack of information about the population of, at least, endangered fauna, and density of flora in different habitats;
- Also lack of information on number of natural habitats fragmented by the development projects and restoration activities implemented;
- Inadequate monitoring and evaluation system and lack of research and development (R&D) in priority areas such as valuation of biodiversity;
- Depletion of vegetation through collection of firewood, fodder and timber, and also uncontrolled livestock grazing.
- Weak implementation of EIA recommendations for the conservation of biodiversity; and
- Inadequate technical capacity and financial support.

VII) Please provide any other relevant information.

HMGN has made studies to know the effectiveness of existing management systems in the protected areas. The study in RCNP has shown that current efforts are effective to restore, maintain and improve biodiversity habitats. Nepal has planned to continue studies to know the effectiveness of management systems within the protected areas.

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 protected areas have been established to maintain, improve and restore the habitats of threatened species as well. Although species census program is limited to few endangered and threatened species, the rhino census of 2005 indicates the need for improving habitats and possibility of translocation of some rhinos in similar ecosystems for their viable populations. Similarly, the population of tiger and musk dear is also encouraging. HMGN has also initiated selective breeding for threatened buffalo and cow, in particular the Achhame and Lulu cows and Bam pudke pig. Although specific national targets have not been set, some of the following initiatives have contributed to conserve the threatened species both wild and domesticated species:

- *In-situ* conservation of important threatened species in different protected areas, community forests and leasehold forests;
- *Ex-situ* conservation of important threatened plant species in botanical gardens and wild animals in the Central Zoo;
- Translocation of endangered species like one-horned Asian rhinoceros;
- Improvement of habitat of certain important endangered species like tiger, blackbuck, swamp deer, etc.;
- Establishment of gene bank for indigenous and threatened species;
- Establish a method of identifying endangered varieties of crops; and
- Preparation and implementation of species conservation plan such as of snow leopard.

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		• Continue identification and conservation of threatened indigenous fish species such as (i) Asla (*Schizothorax nepalensis; S. macrophthalmus; S. annandalai; and S. rarensis*); (ii) Jalkapur (*Raimas guttams; Pseudentropius murius batraensis*); (iii) Lata (*Lepdocephalichthys nepalensis)*; (iv) Titae (*Psilorhynchus pseudechnets)*; and (v) Katle (*Barbodes hexagonolepis*); • Strengthen plant genetic resource monitoring system, and Centre for Plant Genetic Resources (CPGR) in NARC for germplasm conservation; • Establish national database for indigenous livestock through inventory, and continue breeding program for threatened species such as Yak, Lulu and *Achhame* cattle; and • Develop and implement species conservation action plan for endangered wild species and breeds.
b) Inland water			• Identify critical wetland sites and manage with the active participation of local community or stakeholders; • Remove invasive alien species like water hyacinth from lakes, ponds etc ; and • Promote conservation of threatened species in Ramsar sites such as KTWR, Ghoda Ghodi Tal, Gagdishpur Reservoir and Bishhazari Tal.
c) Marine and coastal			Not applicable to Nepal
d) Dry and subhumid land			Improve the habitat conditions of mountain PAs
e) Forest			• Identify status of plants such as rare, endangered and threatened species, and update CITES appendices; • Prepare and implement management plans for commercially important medicinal plants • Encourage and train local farmers for cultivation of NTFPs in marginal agricultural lands; • Conserve germplasm for indigenous plants, and also conserve genetic diversity through ecosystem approach; and • Strengthen management of Central Zoo for *ex-situ* conservation of wildlife genetic resources, and also conserve threatened wildlife species like wild buffalo, snow leopard, Tiger, Rhinoceros, Musk deer, Swamp deer, Blackbuck, Gangetic Dolphin, and Ghariyal.
f) Mountain			• Promote participatory watershed management in critical watersheds; and • Also promote threatened species conservation within and outside protected areas by increasing capacity of field staff and local communities through training and seminars.

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.

- Accord high priority for the protection and improvement of habitat of endangered species like Elephant,

Tiger, Rhinoceros, Snow Leopard, Blackbuck, Swamp deer, etc. by developing and implementing species action Plan;

- Establish and manage botanical gardens and conservatories for the conservation of threatened plant species;
- Manage seed bank for indigenous and threatened agricultural plant species; and
- Link biodiversity conservation with improvement of socio-economic condition of local and indigenous people to improve attitude about biodiversity conservation.

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

- A national register of medicinal and aromatic plants has been published in 2004.
- A landscape level biodiversity conservation programme is under implementation to improve the conditions of wildlife corridors;
- Community forestry user groups have been encouraged for *in-situ* conservation of species.
- Important threatened plants have been conserved in 9 botanical gardens and private lands.
- Translocation of endangered species like Rhinoceros from RCNP to RBNP and RSWR has been promoted. About three dozens Rhinos are already translocated.
- Habitat improvement activities are going on in protected areas for Tiger, Blackbuck, Swamp deer, etc.
- Identification of 25 local breeds of livestock has been completed with the collective effort of the Department of Livestock Services, and National Animal Science Research Institute. Research has been conducted at phenotypic level of all identified breeds. However, some breeds have been selected for research at chromosome level, and one breed for DNA level.
- Assessment of conservation status (according to new IUCN categories) has been initiated under the Darwin Initiative Project under implementation by the Royal Nepal Academy of Science and Technology (RONAST) in collaboration with the Department of Plant Resources, HMGN and the Central Department of Botany, T.U.

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

- Number of rhinos increased in RCNP, RBNP and RSWP;
- Number of other threatened species increased in protected areas, national forests and other categories of forests;
- Number of germplasm accessions, and condition of the seed bank;
- Poaching of endangered wildlife controlled; and
- Use of fuel efficient stoves, biogas and other alternative energy sources promoted to reduce plant and plant products as firewood.

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

- Utilisation of forest resources (plant and plant products) without knowing the stock (forest inventory), plant exploration
- Lack of population census information except for rhinoceros to understand the condition of threatened species;
- Lack of institutionalised system for status rating of species;
- Habitat fragmentation due to infrastructure and social development project without knowing the type and density of species;
- Habitat degradation and movement obstruction due to water resources projects (hydropower generation and irrigation through river damming). For example, habitat of Gangetic dolphin has been threatened in the Narayani River due to obstruction such as Gandak barrage, and industrial effluents.
- Inadequate technical and financial resources for resource inventory.

VII) Please provide any other relevant information.

Efforts are being made to improve the conditions of PAs with the participation of the local community. Once the insurgency situation is improved, activities related to the conservation of biodiversity would be enhanced in different ecosystems within and outside protected areas as there are ongoing but limited activities on species exploration, and status ranking.

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.

No specific national target has been established but the existing policies contribute to attain the objective of this target The policies and laws have been developed and harmonized with biodiversity conservation principles.

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		No specific targets are set but the following programmes would contribute to achieve this target. • Identify local breeds of livestock and strengthen semen bank; • Promote research at chromosome and DNA levels; • Conserve and rationally utilise genetic resources of domesticated livestock and fodder crops; • Conduct research to solve the problems in hybrid species; and • Document seeds, and promote identification and registration of agro-biodiversity.
b) Inland water			Establish regional centres for the conservation and faming of indigenous mountain fish species
c) Marine and coastal			Not applicable
d) Dry and subhumid land			No specific policies and programmes on genetic resource conservation
e) Forest			• Continue studies at phenotypic and chromosome levels for selected plant species; • Manage botanical gardens and conserve valuable species; and • Documentation of forest biodiversity and associated traditional knowledge.
f) Mountain			Not available

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.

Agro-biodiversity:

- Implement Genetic Resource Policy Initiatives (GRPI) project to strengthen the national capacity to develop comprehensive genetic resource policy framework;
- Document and register plant genetic resource by establishing Plant Genetic Resources Centre (PGRC) as national seed bank;
- Join South Asia Network on Plant Genetic Resources to implement joint activities in the sub-region

Wet-lands:

- Identify local people's knowledge, skill and practice regarding wetlands, and promote their innovations and traditional research for the sustainable use of wetlands resources; and
- Prohibit dumping of chemical pollutants, domestic garbage, industrial waste, toxic substances, and the use of electric current and explosives in the wetland sites.

Forests and Protected Areas:

- Conserve plant resources in the botanical gardens from tropical to sub-alpine zones, and also conserve germplasm in *ex-situ* condition;
- Promote tissue culture in selected plant species and genetic engineering techniques for the production of elite plants and *in-vitro* conservation of endemic, rare, endangered and threatened plants species;
- Conserve endangered and rare wild animals in protected areas, national forests and community-managed forests as a part of genetic resource protection; and
- Strengthe facilities for the *ex situ* conservation of wild mammals, birds and crocodiles in the Central Zoo.

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

Agro-biodiversity:

- The Plant Genetic Resources Unit (PGRU) of Agricultural Botany Division of NARC has released 198 food crop varieties, out of which 31 varieties were developed by local selection and 11 by hybridization of local and exotic germplasm.
- Collaborative project on strengthening the scientific basis of in-situ conservation of agricultural biodiversity on-farm was launched in two agro-ecological sites (*Kaski* - Mid Hill and *Bara* - *Terai*).
- Ongoing activities are underway to continue inventory to identify indigenous wild rice varieties (Species of *Oryza, Leersia and Hygroryza*) with the help of International Rice Research Institute (IRRI) of Philippines. Attempts are being made to continue research on the food value of such rice varieties and the conservation of the genetic resources.
- Species of field crops, legumes, oilseeds, vegetables, spices, jute/silk and others have been stored and a total 10,736 varieties of different food crops have been conserved in the Agriculture Botany Division of NARC's seed bank. Similarly 13 species of fishes have been conserved.

Forest Biodiversity:

- An updated National Register of MAPs was prepared and released on the occasion of International Biodiversity Day, 2004.
- HMG/N has approved the biodiversity documentation format in 2003 and documentation has been completed in 30 communities in collaboration with NGOs. The format has emphasised to document biodiversity of agriculture, forests, protected areas, rangeland, wetlands and mountain areas in particular of crops, livestock, wild flora and fauna. The biodiversity documentation also encompasses documentation of traditional knowledge, skill, technology and practices. Such documentation has been started with the formation of District Biodiversity Committees in 10 districts. HMGN is making efforts to institutionalise biodiversity documentation process through its institutional networks, and the NGOs have also shown greater interest to be involved in this process. The biodiversity documentation includes for both wild and domesticated species.
- Genetic resource conservation has been given due consideration in protected areas and different categories of forests such as government-managed, community-managed and leasehold forests.
- A Bill on Access to Genetic Resources and its regulation has been drafted and is awaiting for approval. The bill provides provisions for the conservation of genetic resources, biodiversity documentation including traditional knowledge, know-how, practices and innovations. It also provides provisions on access to genetic resources and benefit sharing with the local people.

Wetlands:

- A total of over 180 species of fishes are found in wetlands (natural and man-made). About 8 species are endemic to Nepal - *Schizothorax sp*. (*Asla*) are more than 40 species and the species found in *Rara* lake is

endemic. Endangered endemic plants identified in wetland areas are *Spiranthes simensis* (orchid), *Cyathea spinulosa* (tree fern), *Sphagaun nepalensis* (moss) and *Pandanus nepalensis* (screw pine).

- Many ethnic groups are dependent on wetlands for their livelihoods, some of them are: *Sunaha, Majhi, Mallaha, Bote, Mushahar, Baute, Musehia, Dushad, Sahani, Kewal, Danuwar, Kumal, Barhamus, Dhangar* and *Pode*.

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

- Number of crop varieties released and germplasm accessions maintained;
- Genetic resources conserved at *ex-situ* conditions;
- Access to International and Sub-Regional Networks on genetic resources (plant, agri-products and livestock) improved; and
- Number of public awareness programmes and training organised in biodiversity and genetic resources.

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

- Biodiversity documentation has yet to be internalised as a regular government programme with adequate training to field staff and public awareness activities. Science-based methods of documentation need to be standardised.
- Methods of tissue culture and propagation have yet to be established for many plants. The Biotechnology Section of the National Herbarium and Plant Laboratory of the Department of Plant Resources has maintained *in-vitro* conservation of some MAPs, but its facilities and activities should be expanded to address the vast genetic diversity of MAPs available in Nepal.
- The genetic resource storage facilities are poorly maintained.
- Inadequate funding, capacity building and limited research and development are the major challenges to conserve genetic resources at both *in-situ* and *ex-situ* conditions.
- Local people hesitate to provide their knowledge, skill and practices for documentation purposes which may be attributed to possible biopiracy and/or or lack of authority for their deposition.

VII) Please provide any other relevant information.

There is an increased realisation on the need for conserving both wild and domesticated genetic resources to ensure food security. HMGN and people of Nepal has realised the economic, social and ecological values of biological resources and hence, there is an urgent need for the development of methods and techniques, and development of a mechanism that encourages genetic resources conservation. In addition, there is a need for developing a system for biodiversity registration to benefit the biodiversity custodians, and share benefits before they are patented.

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 qualitative targets have been established	X

Please provide details below.

No specific national target has been fixed but the national policies focus on sustained use of biodiversity and its products.

- Utilise biodiversity components based on forest inventory and sustained yield basis;
- Promote eco-tourism and non-use values of protected areas; and
- Manage biodiversity rich areas in consistent with the objectives and provisions of the Convention.

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			• Strengthen the scientific basis for deriving genetic resources;
b) Inland water			• No national target has been fixed in other wetlands, except in Ramsar sites for the extraction of biodiversity products on sustained yield basis and according to annual programmes.
c) Marine and coastal			• Not applicable to Nepal
d) Dry and subhumid land			• No specific activities done so far.
e) Forest	Yes		• Promote sustainable use of forest products based on approved operational plans of community forests and leasehold forests; • Extract forest products based on sustained yield basis; • Invest 25% of the total earnings of the community forests for forests management including biodiversity conservation; • Implement collaborative forest management (CFM) scheme in 8 districts of Terai at pilot project; • Promote sustainable use of medicinal plants including NTFPs (resin, leaf, sabai grass, canes and bamboos); and • Link biodiversity conservation and sustainable use with poverty reduction.
f) Mountain			• Link biodiversity conservation with livelihoods and traditional medicines; • Promote sustainable use of resources to improve the living conditions of the mountain dwellers; and • Promote natural resource conservation to establish highland-lowland interactions.

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.

- As mentioned above, biodiversity management is guided by sectoral plans, programs and strategies. These are already covered in earlier sections. The most important policies and strategies that promote the extraction of biodiversity products from sustainably managed ecosystems include Herbs and NTFP policy (2004), Agriculture Development Policy (2004), Working Policy on Wildlife Farming, Breeding and Research (2003) and Biodiversity Strategy (2002).

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

- Plant and its products is generally considered as the "free gift of Nature" and existing policies and strategies favour for the extraction of biodiversity and its products from areas managed sustainbaly such as community forests. There are no data and information on agro-biodiverity whether they are sustainably harvested.

o In order to promote conservation and sustainable use of high-value herbs, the technical sub-committee of the Herbs and NTFP Coordination Committee has identified 30 plant species as the national priority herbs for their development, research and cultivation taking into account the national international demand and also their distribution, local use, and medicinal properties. They are: (1) *Dactylorhiza hatagirea*, (2) *Neopicrorhiza scrophularifolia*, (3) *Nardostachys grandiflora*, (4) *Valeriana jatamansii*, (5) *Swertia chirayita*, (6) *Rauwolfia serpentina*, (7) *Cordyceps sinensis*, (8) *Taxus baccata*, (9) *Zanthoxylum armatum*, (10) *Asparagus racemosus*, (11) *Gaultheria fragrantissima*, (12) *Acorus calamus*, (13) *Cinnamomum tamala*, (14) *Sapinus mukorossii*, (15) *Tinospora sinensis*, (16) *Aconitum spicatum*, (17) *Podophyllum hexandrum*, (18) *Berginia ciliata*, (19) *Piper longum*, (20) Lichens, (21) *Rheum australe*, (22) *Rubia manjith*, (23) *Cinnamomum glaucescens*, (24) *Aconotum heterophyllum*, (25) *Juglans regia*, (26) *Azadirachta indica*, (27) *Dioscorea deltoidea*, (28) *Mrochella conica*, (29) *Tegetes minuta*, and (30) *Phyllanthus emblica*. The same technical committee has also

recommended 12 plant species for cultivation and research purposes. They are: (1) *Dactylorhiza hatagirea*, (2) *Neopicrorhiza scrophularifolia*, (3) *Nardostachys grandiflora*, (4) *Swertia chirayita*, (5) *Valeriana jatamansii*, (6) *Taxus baccata*, (7) *Zanthoxylum armatum*, (8) *Rauwolfia serpentina*, (9) *Asparagus racemosus*, (10) *Piper longum*, (11) *Cinnamomum glaucescens*, and (12) *Tinospora sinensis*.

- HMG has implemented Biodiversity Sector Programme for Siwaliks and Terai and has initiated collaborative forest management (CFM) since 2003 in 8 districts of Terai with the objectives of managing the forests through the joint participation of users, local bodies and the government. The Collaborative Forest Management Manual (2004) provides provision to establish the 'revolving fund' and the 'development fund'. The revolving fund will be utilised for the commercial felling and transportation of forest products (timber and firewood) and the development fund will be mobilised for development activities. HMG has planned to replenish both funds though donor's assistance. The development fund will later be converted to district forest sector investment fund and will be utilised for intensive forest management including wild biodiversity. The benefit sharing mechanism has been developed for CFM scheme. Twenty-five percent of the revenue generated from the sale of timber and firewood under the CFM scheme will be deposited in the local fund and remaining 75 percent will be deposited in the national consolidated fund. The fund mobilisation of this 25 percent will be as per the decision of the District Forestry Sector Development Coordination Sub-Committee, and some portion of this fund will be used compulsorily for the implementation of CFM scheme. This CFM scheme is at the initial stage of development and will hopefully contribute to generate funding for the management of forests through collaborative efforts of the government, local bodies and the community users.

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

- Usage of biodiversity-products increased such as fodder, firewood, timber and NTFPs
- Investment of necessary fund for forests and biodiversity conservation in the spirit of the legislation
- Indigenous crop and livestock genetic resources maintained and promoted.

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

- Over harvesting of forest and biodiversity products without knowing the growing stock and also to meet growing demands.
- No database on biodiversity products traded and used locally
- Poaching of wild animals for high value products like rhino horn, tiger skin, musk, etc.
- Lack of necessary knowledge and skill on economic, social and ecological values of biodiversity
- Lack of knowledge and documentation on what biodiversity is, and its product Nepal has, and also lack of documentation and registration of knowledge, skill, technology and practice about the sustainable use of biodiversity and its products.
- Lack of proper monitoring mechanism, especially for impact monitoring.

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	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X

Please provide details below.

No specific target set so far but policies and legal instruments discourage the unsustainable use and over consumption of biological resources.

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	Yes		No specific targets are set but the existing mechanisms favour to regulate unsustainable consumption of biological resources. • Encourage protection of genetic resource of agro-biodiversity from threats of high-yielding crop varieties; • Promote participatory plant breeding and participatory varietals selection programs for the sustainable use of landraces; • Identify species and genetic resources which are used unsustainably; and • Use indigenous plants to protect agricultural crops against pest infestation, both in the field as well as during storage.
b) Inland water			• Control encroachment of wetland habitats, and reduce unsustainable harvesting of wetland resources, industrial pollution, agricultural runoff and siltation, and invasion of exotic species such as water hyacinth;
c) Marine and coastal			Not applicable
d) Dry and subhumid land			• Discourage overgrazing and promote plantation of nutrient-rich plants;
e) Forest			• Ban illegal extraction of trees from forests and extract forest products based on operational plans; • Encourage effective management of buffer zones for sustainable use of biological resources; and • Regulate unsustainable consumption of biological resources such as overgrazing, poaching and illegal timber extraction through administrative control and proper management.
f) Mountain			• Supply kerosene in trekking routes as an alternative energy source to minimize the use of forest products as firewood by the trekkers; • Promote eco-tourism within the protected areas with minimum adverse impacts on the environment; • Manage critical watersheds adopting integrated watershed management approaches to improve land productivity and to control soil erosion; • Utilise traditional knowledge and skill of the local inhabitants to conserve biological resources; and • Regulate collection of MAPs and NTFPs and encourage their cultivation in the form of cash crops against agricultural crops.

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 ongoing Tenth Plan (2002-2007), forest policies and working policies, and sustainable development agenda of Nepal emphasise on the promotion of sustainable harvest and management of NTFPs, and wild animals by promoting forest resource assessment and adaptive research.

- Encourage the use of EIA and identify unsustainable consumption of biodiversity products;
- Provide technical help to community forestry user groups (FUGs) and buffer zone users about the impacts of unsustainable use of biological resources;
- Increase awareness on biodiversity conservation including for school children through poster competition and other forms of non-formal education;
- Emphasise on poverty reduction with due care on the protection of biodiversity and the environment;

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

- In order to minimise emerging pressures on the unsustainable use of NTFPs, HMGN has given emphasis to conduct resource inventory prior to providing forestry resources as raw materials to forest-based industries. HMGN has also introduced compensatory measures where plant loss could neither be avoided nor mitigated. This compensation is at the ratio of 1:25, i.e., any infrastructure project to be implemented in forest areas and that needs to cut 1 tree should plant 25 saplings, manage for 5 years in its own cost, and handover to community users for future management and sustainable use. It is expected that this will contribute to increase the forest area to 40 percent of the total area of the country by 2007 which is 39.6 percent at present.
- Realising the increasing pressures on forests and biological resources, HMGN has also made a policy decision for any project that is planned for implementation in the forest areas to get prior approval from the Ministry of Forests and Soil Conservation before conducting environmental assessment. It is expected that this will further help to reduce pressures on forests and wild biodiversity.
- The projects planned for implementation in the forest areas require environmental assessment and HMGN has emphasised to avoid and/or minimise the impacts on biodiversity to the extent possible.
- Eco-tourism is promoted within the protected areas with minimum adverse impacts on the environment.
- In order to minimise unsustainable usage of biodiversity within and outside protected areas, extensive technical help to user groups (FUGs) of community forests and buffer zone users has been continuously provided.
- Other activities include awareness creation and capacity building, introduction of collaborative forest management in the Terai to involve close and distant users, and sharing of benefits derived from biological resources.
- All policies, strategies, programmes and projects focus on sustainable use of biological resources.

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

- Harvesting of biological resources regulated
- Public participation and capacity building programmes for biodiversity conservation increased
- Sustainable uses of biodiversity resources encouraged
- Impacts of development projects on biological resources reduced

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

- Lack of baseline data and methods to assess the loss or unsustainable consumption of biological resources;
- Also lack of data on biological resources available with potential growing stock, and no documentation of biodiversity because of the lack of technical know-how and funding;
- Biological resources still considered as the "free gift of Nature" and inadequate knowledge of the development partners in particular on the value of biodiversity and their conservation needs;
- Under valuation of traditional landraces, focus on cultivation of high-yielding varieties;
- Unregulated grazing, poaching of wild animals and illegal culling of trees in high altitude to meet the timber and firewood demand where plants require hundred of years to mature; and
- Lack of research on sustainable consumption of biological resources and also lack of studies on impacts upon biodiversity.

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	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X

Please provide details below.

- Regulate and prohibit formal trade of endangered flora and fauna through national legislations.
- Strength institutions, declare buffer zones, implement participatory park and wildlife management plans, conduct monitoring of flora and fauna, and provide support to Central Zoo for *ex-situ* conservation and research.

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	Yes		Not applicable.
b) Inland water	Yes		International trade of wild flora and fauna in wetlands and inland water resources not reported.
c) Marine and coastal			Not applicable to Nepal
d) Dry and subhumid land			No information available
e) Forest			• Regulate international trade of wild flora and fauna under the CITES provisions; • Enforce the National Parks and Wildlife Conservation Act (1973) to regulate trade of endangered and wild flora and fauna
f) Mountain			• No information available

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.

- Enforce policies and legal instruments to regulate international trade of wild flora and fauna; and
- Conduct biodiversity inventory, develop capacity on identification and status assessment of flora and fauna.

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

- As a Party to CITES, international trade of wild flora and fauna has been regulated. Population of endangered species is increasing in the protected areas. However, there are many protected species whose population are yet to assess. For example, the population of blue sheep population in *Dhorpatan* Hunting Reserve is yet to asses, although hunting license is regulated and issued in limited quantity.
- Some protected and endangered species such as Wild Buffalo (*Bubalus arnee*), Snow Leopard (*Panthera uncial)*, Swamp Deer (*Cervus duvauceli*), Black Buck (*Antelope cervicapra*), Himalayan Red Bear (*Ursus arctos*), Royal Bengal Tiger (*Panthera tigris*), Gangetic Dolphin (Platanista gangetica), Ghariyal Crocodile (*Gavialis gangeticus*), Marsh Magar Crocodile (*Crocodylus palustris*), Blue Sheep (*Ovis ammon*), Red Panda (*Ailurus fulgens*), Musk Deer (*Moschus chrisogaster*), Asiatic Elephant (*Elephas maximus*), Gaur (*Bos*

gaurus), Tibetian wolf (*Canis lupus*), Rhinoceros (*Rhinoceros unicornis*), etc. are given high priority in conservation and management, and their trade is fully regulated.

- Out of about 860 species of birds so far identified, about 130 species are considered threatened due to loss of suitable habitat, and 9 species of birds are extinct.
- Very little work has been done on reptiles and other animals.
- HMGN has implemented domesticated elephant management policy (2003) with the objectives, *inter alia*, of maximising the economic and environmental benefits through proper management of domesticated elephant, conserving and sustainably using biodiversity, and improving the living condition of the local people through equitable distribution of economic benefits arising from the management of domesticated elephants.
- HMGN has also implemented working policy on wildlife farming, breeding and research (2003) which provides ample opportunities, *inter alia*, to involve private sector in farming, breeding and carrying out scientific research and studies of endangered and high-value wildlife species, in reducing rural poverty through income and employment to the local people. HMGN will provide seed animal for farming purposes. However, the wild animals protected under the national legislation and included in the CITES appendices will not be provided for international trade. HMGN can provide seed animal of the following species.

Protected Wildlife Species	Other Wildlife Species
a. Gharial Crocodile	a. Barking deer
b. Black Buck	b. Spotted deer
c. Danphe (Impeyan pheasant)	c. Samber deer
d. Monal (Satyr tragopan)	d. Monkey (Rhesus monkey)
e. Cheer pheasant	e. Hog deer
	f. Wild boar
	g. Snakes
	h. All kinds of birds

- There are cases of illegal trade which are regularly confiscated in the trade routes and boarders, and are heavily penalised using legal provisions.

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

- Tiger and rhinoceros population increased.
- Habitat of some rare and endangered wildlife species improved.
- Illegal trade of wild flora and fauna controlled.

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

- Ecological, economic and societal values of endangered species are yet to be fully understood by the competent government authorities, stakeholders and local people.
- Unregulated collection of wildlife products from protected and forest areas have been the additional challenge for species conservation. Illegal hunting of endangered animal species is still a problem. Musk deer population is being threatened due to illegal trade. Its population and habitat study is urgently needed.
- Lack of knowledge and skill on identification of endangered species and its products in the custom offices has been the constraints for regulating international trade of endangered wild flora and fauna.
- Lack of technical and financial assistance has limited to conduct population census of endangered wild flora and fauna, and develop and implement regulatory mechanisms for avoiding international trade of such species.
- Documentation and registration of wild flora and fauna has also been a challenge for the implementation of conservation activities to regulate such trade.
- Lack of sufficient agriculture research support that has limited understanding about the wild relatives of domesticated crop and livestock species. In some cases, wild relatives of rice are crossed with other rice varieties.
- Private elephant is allowed to graze in the forests and lowland protected areas.

VII) Please provide any other relevant information.

HMGN has implemented a policy with regard to the handover of the management of National Parks, Wildlife Reserves and Conservation Areas to NGOs or other organizations in the spirit of the Budget Speech of FY 2003/04, and has accordingly issued the letter of intent to the King Mahendra Trust for Nature Conservation (KMTNC) - a national statutory NGO - to manage three national parks (NP) namely Shivapuri NP, Shey-Phoksundo NP, and Rara NP. The Trust is preparing the management plan for the conservation of these

national parks. Furthermore, HMGN is in the final stage of handing over the management responsibility to Kanchanjunga Conservation Council - a local NGO - for the management of Kanchenjunga Conservation Area. Similarly, the letter of intent has been issued to The Mountain Institute for the management of Makalu-Barun National Park and Conservation Area. These initiatives of involving NGOs in the management of protected areas will further mainstream the participation of local people in biodiversity conservation. These initiatives will provide opportunities to further know the status of endangered species in the respective protected areas. However, they will not be entitled to be engaged in the international trade of endangered wild flora and fauna.

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.

Although specific targets have not been set, the national effort is to reduce the rate of loss and/or degradation of natural habitats.

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	Yes		• Manage rangeland and pasture for grazing purposes; • Assess the population of livestock (*Lulu,* Yak and *Achhame*) in *Solukhumbu*, *Mustang* and *Achham* districts, • Discourage livestock grazing in natural habitats (forests) and promote stall feeding in the ecologically sensitive areas, such as degraded lands.
b) Inland water			• Necessary policies are in place to discourage activities that exert negative impact on wetlands, prohibit dumping of chemicals, fish poisons and use of electricity and dynamite, etc., and implement special programs for the restoration of disappeared wetlands with local participation
c) Marine and coastal			Not applicable
d) Dry and subhumid land			• Expand soil conservation and watershed management activities and re-green the degraded hills in 55 districts with the objectives of improving natural habitats, conserving water sources, and keeping the land use nature-friendly
e) Forest			• Expand community forests management activities all over the country, pro-poor leasehold forests in 26 districts; • Handover national forests to community users in the hills to meet the local demand for forest products, and also involve forest users in conserving wild flora and fauna, and improving natural habitats; • Implement collaborative forest management scheme in 8 Terai districts (where distant users and local bodies area also involved in spite of community users); • Encourage plantation of trees, shrubs, NTFPs in community and private lands;

			• Manage botanical gardens in 9 places to enhance *ex-situ* conservation of rare, endemic and endangered plant species, traditional landraces and economically important medicinal plants; and • Encourage cultivation of MAPs and NTFPs to rehabilitate degraded lands and improve natural habitats.
f) Mountain			• With the objectives of avoiding or minimising the loss of natural habitats, improving the watershed conditions, and contributing the living standard of the mountain dwellers, implement the following participatory integrated watershed management activities: o Land productivity conservation o National hazard prevention and reclamation o Infrastructure protection including use of bioengineering. o Community soil conservation including conservation education, and o Income generation activities with conservation o Conserve natural habitats, and promote eco-tourism in the mountains; and o Develop legislation to effectively address the biogeographical, economic and cultural realities of mountain domains in order to promote well being people dependent on mountain resources and to foster and ensure community-based strategies for mountain biodiversity conservation.

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.

- HMGN has a policy not to give natural forests for non-forestry activities. Section 68 of the Forest Act (1993) empowers HMGN to provide forests only to the national priority projects in case of no alternative other than forests, and if the project will not have significant adverse impacts on the environment.
- Section 5 of the National Parks and Wildlife Conservation Act (1973) prohibits a number of activities including wildlife hunting, construction of sheds, gazing of livestock, mining, and diversion of water resources within the national parks and wildlife reserves.
- The ongoing Tenth Plan, Sustainable Development Agenda for Nepal and other working policies, plans and programmes include provisions to reduce the loss and degradation of natural habitats. Similar provisions are included in several legislations aimed at conserving the species and ecosystems.

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

- The natural habitats in the protected areas have been changed due to increased ecological succession which is mostly associated with the stringent protection regime. The area of grasslands is shrinking and is converted to woody vegetation although it is still the natural habitat. It would have some negative impacts living on grasslands and beneficial impacts for wildlife favouring the woody vegetation.
- The community forests have been expanded and the natural habitats have been improved with the effective participation of the local people. Alternatively, the handing over of national forests into community forests has decreased the degradation of natural habitats in most of the Nepalese hills.
- HMGN and people of Nepal has realised the loss of degradation of natural habitats and abut 19.4 percent of the total area has already been included in the protected area regime. Declaration and management of buffer zones around the protected areas are increasing to reduce the loss and degradation of natural habitats. The buffer zones management activities have been instrumental in bringing the local people for the conservation of natural habitats and endangered species. There is an increasing trend of converting the marginal land to forest cover.
- Community development groups (of users) have been involved in watershed management and income-

generating activities. Compensatory measures have been introduced to discourage the use of natural forests, and conversion of natural habitats to non-forestry activities.

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

- Forest cover and density changed.
- Area under community forests increased.
- Conditions of natural habitats such as forests, grasslands, and wetland improved
- Conservation programmes and management regimes in protected areas effectively implemented
- Soil and water erosion in the watersheds and different agro-climatic zones reduced
- Sustainable water use enhanced

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

- Increased population pressure and conversion of natural habitats such as forests and wetlands for non-forestry uses has been the major challenge Nepal is facing in the recent days.
- Disposal of untreated industrial effluents including non-point source pollutants to natural water bodies has affected the natural aquatic ecosystems, particularly in the urban and industrial areas.
- Invasion of alien species is increasing in natural water bodies such as lakes and terrestrial ecosystems.
- Ecological succession in the protected areas network has reduced natural habitats for endangered species.

VII) Please provide any other relevant information.

In spite of untiring conservation efforts, the condition of natural habitats has not been improved outside the protected areas, to the desired extend, and the increased human and livestock pressures on different natural ecosystems deserve special attention for additional concerted efforts.

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.

- No specific targets have been fixed to this target. The impacts of invasive alien species have been recently realised at the scientific and technological communities.

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).

	Yes	No	Details
a) Agricultural	X		• Problems of weed have been realised but there are no specific targets.
b) Inland water			• Impact of common invasive species is water hyacinth (*Eichhornia crassipes*), which forms a dense mat blocking sunlight penetration under water and ultimately increases biological oxygen demand (BOD) has been realised and not target has been set.
c) Marine and coastal			Not applicable
d) Dry and subhumid land			Not known

e) Forest			• No specific target but the problem of invasive alien species realised.
f) Mountain			• Not known

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.

Invasion of alien species has been recognised by the scientific and technological communities in the recent days. Scientists have conducted preliminary studies to know the effects and impacts of invasive alien species. It is expected that such studies will help in developing necessary policies and regulatory mechanisms.

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

- There are over 100 non-native or alien plant species reported. Some of them are: *Eupatorium glandulosum, Lantana camara, Mikania micrantha, Midens pilosa, Amaranthus viridis, A. spinosus, Cassia tora and C. sophera*, etc. Inventory and management of these alien species is yet to mainstream.
- Reduction of natural regeneration has been promoted to keep the population of *banmara* (*Eupatorium glandulosum*) down. Potential use of *banmara* has also been explored for various uses. Women groups have made charcoal briquettes at *Godamchaur* in Kathmandu valley by using this species.
- Emphasis has been giver to promote local indigenous species in place of introduced exotic fish species (*Salmo guirdneri, S. frutta and Oncorhyclus rhodurns*).
- The most common invasive species is water hyacinth (*Eichhornia crassipes*), which forms a dense mat blocking sunlight penetration under water and ultimately increases biological oxygen demand (BOD). A regular cleaning of lakes and ponds has been conducted to reduce the population of water hyacinth. Local people also perform occasionally manual cleaning of such invasive species.

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

- Use of alien species and quantity of briquettes made
- Population of invasive alien species decreased
- Lakes and ponds made free of water hyacinth

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

- Lack of innovative and new technology to use invasive alien species although manual cleaning introduced in few lakes with the active participation of local people and NGOs
- Lack of inventory of invasive alien species
- Lack of financial resources to conduct research and studies on the potential threat from and uses of invasive alien species and also lack of financial resources for expanding cleaning activities.

VII) Please provide any other relevant information.

Invasion of alien species would be a great threat in changing the natural habitats and may likely affect the wild biodiversity. Additional technical and financial resources supported by research and studies will be required to control the invasion of non-native plant species.

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.

X

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			Not applicable
d) Dry and subhumid land			X
e) Forest			X
f) Mountain			X

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.

X

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

X

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

X

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

Both technical and financial resources and lack of knowledge about the implications of invasive alien species are the major challenges to address this emerging problem.

VII) Please provide any other relevant information.

X

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	X
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

- No specific target is set but recent study has accommodated the impacts of climate change phenomenon on biodiversity.

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		• X
b) Inland water	x		• X
c) Marine and coastal			• Not applicable
d) Dry and subhumid land			• X
e) Forest			• Conserve and develop forests as carbon sink
f) Mountain			• Conduct studies to identify the impacts of climate change on mountain forests and biodiversity

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.

The ongoing Tenth Plan has emphasised to implement programmes in the spirit of the international environmental conventions including the UNFCCC.

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

- Climate change is an important concern for Nepal's fragile mountain ecosystem. The potential glacier lake outburst floods (GLOFs) threaten livelihoods and biodiversity in the Himalayas. The need for substantial field-level research on deglaciation has been realised.
- The *Chhoo-Rolpa* Lake in the Everest Region being swollen due to the melting of glaciers by global climatic change. If the glacial outburst takes place, Nepal's big river, the Koshi River, would be flooded and may cause a big disaster in Nepal and it would have implications in the downstreams.
- The First Initial National Communication to the Conference of the Parties of the UN Framework Convention on Climate Change (UNFCCC) (2004) prepared with the assistance of GEF-UNEP has mentioned that a total of 14,778 Gg of carbon dioxide (CO_2) has been removed from land use change and forestry (due to changes in forest cover and other woody biomass stocks, and abandonment of managed lands) out of the total CO_2 emission (24,525 Gg) in 1993/94. Hence the total emission of CO_2 is 9,747 Gg for that fiscal year.
- It has been predicted that global warming may cause forest damage and forests would migrate towards the

polar region with changes in their composition, and even extinction of some species.

- The National Communication report has also mentioned that tropical wet forests and warm temperate rain forests would disappear, and cool temperate vegetation would turn into warm temperate vegetation under double CO_2 condition using the Holdridge model. Out of 39 forest types categorised by Holdridge model and incremental scenario (2^0C temperature rise and 20 percent increase in precipitation), vegetation pattern would differ, only 15 types of forests will remain under the existing CO_2 ($1xCO_2$) condition, and 12 types of forests under $2xCO_2$ condition.
- Using the Canadian Climate Change Model (CCCM) and Geophysical Fluid Dynamics Laboratory R-30 Model (GFD3), the National Communication report has mentioned the possible increase of temperature from 1.4 to 5.8^0C with the doubling of CO_2. In both models, winter and monsoon seasons will experience highest and lowest temperature rise respectively.
- The temperature rise will likely increase paddy production up to 7.5 percent, and wheat production only in the western region, and will likely decline in maize production.
- The study has concluded no major change in hydrological behaviour up to 4^0C increase in temperature. However, almost 20 percent of the present glaciated areas above 5,000m altitude will likely to be snow and glacier free area with an increase of air temperature by 1^0C.

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

- Increase or decrease in snow line and change in forest cover in the mountains
- Change in forest cover in different ecosystems

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

- Lack of scientific studies on the impact of climate change on forests, wild and domesticated biodiversity
- Lack of baseline data and information on climate change phenomenon, and implications of temperature rise on vegetation composition
- Lack of financial resources for research and development including impacts on biodiversity
- Lack of a mechanism for institutionalised effective monitoring and research

VII) Please provide any other relevant information.

- A memorandum of understanding (MOU) was signed between Department of Hydrology and Meteorology and WWF-Nepal Program in February 2005 for the period of 5 Years to conduct research on climatic change impacts in Nepal. At the initial stage, the research will be carried out in *Ngozumpa* and *Khumbu* glaciers to develop a model that protects the behaviour of these glaciers under future scenarios.
- Accession to Kyoto Protocol has opened avenues to access for funding from Clean Development Mechanism (CDM) to develop forests as carbon sink and conserve wild biodiversity. If community forests are included for funding under the CDM, it will bring a substantial change in conserving forest biodiversity in Nepal.
- The First Initial National Communication Report (2004) has proposed, *inter alia*, to undertake the following adaptive measures:
    - Plant trees extensively in the mid-hills to absorb Carbon Dioxide to mitigate its concentration;
    - Plan for and implement landscape management, agro-forestry, species-selection and silvicultural management in different ecological zones;
    - Promote and protect natural regeneration;
    - Identify and prioritize species that are relatively vulnerable to climate change and reforest sensitive areas with drought, heat, flood tolerant varieties;
    - Develop regional plans for non-reserve habitats to conserve population and resource lying outside protected areas; and
    - Conduct ecological research and monitoring on vulnerability and adaptation.

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	X
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

- Although clear target has not been set in relation to the global target, Nepal has moved towards pollution reduction.

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			o Promote organic farming and integrated pest management activities to reduce the effects and impacts of agro-chemicals on agro-biodiversity and human health.
b) Inland water			• Provide additional concessions and facilities to control pollution • Develop water and wastewater quality standards and regulations • Ensure compliance with environmental regulations • Establish minimum stream flow requirements • Implement polluter-pays principle and introduce pollution fees
c) Marine and coastal			• Not applicable
d) Dry and subhumid land			• No pollution reported
e) Forest			• Conserve forests also to reduce pollution from non-point sources • Regulate pollution control activities in forest-based industries
f) Mountain			• Improve sanitation and drinking water condition

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 policies, strategies and programmes related to industries, water resources, and the environment have underscored the importance of pollution control. The Water Resources Strategy (2002) has one of the strategies to manage watersheds and aquatic ecosystems which further urges to develop water and wastewater quality standards and regulations. This provides opportunities to establish water quality standards for rivers, lakes and ponds, and also establish effluent quality standards to regulate point-source discharge of pollutants into water bodies.

The Sustainable Development Agenda for Nepal (2003) further calls upon, *inter alia*, to enforce ban on untreated wastewater discharge from industries and municipalities, create incentives for wastewater treatment and increase private sector provisioning of environmental services such as waste management.

The Environment Protection Act (1996) provides provisions to mobilise environmental inspectors, *inter alia*, for inspection and monitoring of pollutants, and control of pollution. The Act also empowers HMGN to establish and/or prescribe existing laboratories for pollution control. Furthermore, the Act empowers HMGN to provide additional concessions and facilities to encourage any industry, enterprise, technology and process which causes positive impacts on the environment.

The ongoing Tenth Plan has a policy to implement polluter-pays principle and introduce pollution fees.

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

Point-source wastewater discharge and gaseous emission have been the major concerns in urban and industrial areas. Rivers and streams flowing along the urban and industrial areas have high biological oxygen demand (BOD) and chemical oxygen demand (COD) including some toxic elements. This has greatly impacted the aquatic biodiversity. If discharge volume of pollutants is not reduced, and quality is not improved, effects and impacts of pollutants on aquatic biodiversity will continue and would develop pollution-tolerant species. No substantial changes have been noticed in terrestrial species and ecosystems from increasing air and water pollution and noise level.

In order to address these concerns, HMGN has implemented the generic standards about tolerance limit for industrial (wastewater) effluents discharged to inland surface water and public sewers and industry-specific standards (leather, wool processing, fermentation, vegetable ghee and oil, paper and pulp, dairy, sugar, cotton textile, and soap industries) (2003). It has also issued effluent sampling and analysis methods. Similarly, HMGN has issued national ambient air quality standards. Effective implementation of these standards will help in reducing the effects of pollution on biodiversity. Monitoring of air quality is being started in the Kathmandu city. At present, there are 6 monitoring stations and they are made public to know the level of air pollutants and take necessary measures. Outside city areas pollution level is too low.

HMGN has also issued temporary pollution control certificate to the identified polluting industries. Furthermore, some of the fermentation (beer) industries have installed effluent treatment facilities.

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

- Volume of point-source pollutants (wastewater and gases) decreased
- Volume of non-point-source pollutants decreased
- Effects of pollutants on aquatic biodiversity and number of new pollution-tolerant species identified

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

- Nepal has yet to set water quality standards for different uses such as for drinking water, recreation and irrigation facilities, and establish an effective enforcement system.
- Source-based emission standards are yet to be issued to regulate air polluting activities.
- Lack of necessary laboratory facilities, trained manpower, and financial assistance for research and development has been a hindrance to monitor point-source and non-point-source pollution
- Linking of pollution with human health would provide better understanding on the need for controlling pollution and to have indirect contribution to biodiversity conservation.
- Pollution control measurements are not being effective from not designating and mobilising environmental inspectors in accordance with the provisions of the Environment Protection Act (1996).

VII) Please provide any other relevant information.

- Increased level of water pollutant on water bodies has accelerated eutrophication and many of the aquatic biodiversity face existence problem.
- Impact of pollution on biodiversity has yet to be established through research and studies.
- Much works still remain to enforce the existing pollution control activities. Most of the aquatic ecosystems, particularly in the urban and industrial areas, are considered ecologically non-functional due to heavy load of pollutants including toxic elements.

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	X
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	

Please provide details below.

- Ecosystem and species conservation policies have been mainstreamed to maintain and/or improve carrying capacity of the ecosystems, but specific targets have not been set in relation to this goal.

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		• Increase the production of goods and services to meet the immediate and long-term needs of the rural people, and also contribute to GDP; • Rear livestock (cattle, buffalo, sheep, goat, pig and poultry) to meet the demand for milk, meat, compost, transportation, power and economic benefit to majority of rural people; and • Maintain and/or improve agro-ecosystem to increase crop and cash crop production along with the conservation of agro-biodiversity.
b) Inland water			• Support livelihoods of indigenous and local communities dependent on wetlands; • Conserve perennial rivers that contain high demand and value indigenous and endemic species of fish like Trout, Eel, *Mahaseer, Katle, Jalkapoor*, etc.;
c) Marine and coastal			Not applicable
d) Dry and subhumid land			• Promote eco-tourism (trekking and mountaineering) taking into consideration the carrying capacity
e) Forest			• Maintain and/or improve goods and services provided by different forest ecosystems and species to the rural community in terms of fodder, firewood and timber, as well as to conserve biodiversity • Optimise the ecological and economic benefits obtained from protected areas
f) Mountain			• Maintain mountain ecosystem and species diversity for non-use values; Lichens, bryophytes, ferns and angiosperms like *Stellaria decumbens* and *Ephedra girardiana* are found even above 5000m. • Promote sustainable use of high value NTFPs and medicinal plants including Yarsa gumba (*Cordyceps sinensis*) and Guchhee mushroom (Morchella sp); and • Recycle royalty for the conservation of mountain biodiversity.

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.

- Promote eco-tourism and ecologically sound development to contribute to poverty reduction;
- Accord high priority to conserve forests, wetlands and other ecosystems to obtain goods and services sustainably;
- Promote sustainable use of medicinal plants and NTFPs, and protect indigenous species, knowledge and culture; and
- Maintain and improve where possible, the capacity of ecosystems taking into considerations their goods and values.

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

- The Terai Arc Landscape (TAL) Programme is under implementation with the vision of conserving globally unique landscape, safeguarding ecological integrity and securing sustainable livelihoods in collaboration with WWF-Nepal programme. The TAL Programmes covers 4 protected areas – PWR, RCNP, RBNP and RSWR in Nepal and 5 protected areas in India.The Participatory Conservation Programme under implementation with the assistance of UNDP also aim to conserve biodiversity and support the livelihoods of the people living nearby the protected areas.
- Additional programmes in the *Kangchenjunga* Conservation Area Project (KCAP) established in 1997 and supported by WWF-Nepal are under implementation to maintain and improve mountain ecosystems and to conserve the area's natural and cultural heritage. The programme is managed with community participation and by community-based organization (CBOs). Similar efforts are made in other protected areas and forest areas with the assistance of several Parties to the CBD such as UK, The Netherlands, Denmark and so on.
- Aquatic vegetables, fruits and molluscs are locally eaten as supplement of food and are also sold in the local market. Some grasses are also collected for making mattress, household goods and thatching huts of poor rural people. Realising it, emphasis has been given to aware the local people about the goods and services provided by different ecosystems.
- A 2 % tax is levied on hotel tourism as conservation fee, and it will be used for the conservation of trekking areas and promotion of eco-tourism.

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

- Increase in forest growing stock and continuous and adequate supply of forest products maintained
- Eco-tourism packages developed and tourists inflow increased
- Agricultural production and productivity increased due to forest conservation

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

- Lack of proper understanding on the values, and good and services provided by ecosystems,
- Over harvesting, and unsustainable use of ecosystem resources
- Inadequate implementation and enforcement of existing instruments such as policies, legislations and programmes

VII) Please provide any other relevant information.

A study on economic valuation of ecological goods and services from forest ecosystems has been started by MFSC. This preliminary study has been designed to calculate the goods and services of four types of forest ecosystems in lowland and mid-hills of Nepal. Economic valuation of two shrub lands has also been integrated into this study. The study will provide a basis to estimate the goods and services provided by the forests both directly and indirectly. Additional study on this area will be carried out in future. This study will provide a basis to convince the development partners to value economic, ecological and societal values of biodiversity, and further encourage them to integrate biodiversity conservation into their development activities.

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.

- Link biological resources and implement forestry programmes to support livelihoods;
- Promote the sustainable use of MAPs and NTFPs for poverty reduction;
- Furthermore promote the cultivation of local landraces for agriculture production; and
- Encourage farmers to grow local land race of crops, horticulture and rear livestock in ecologically suitable areas.

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 following initiatives have been expanded to improve the living condition of the local people through sustainable use of biodiversity and its products: • Promote cardamom, coffee and other cash crop cultivation in ecologically suitable areas such as cardamom in Eastern Hills and coffee in western hills as a source of income to the local people; • Rear livestock to supplement food and economic benefits to the poor rural people; and • Expand the uses of indigenous varieties of crops and livestock.
b) Inland water	X		• Encourage fish farming in lakes and reservoirs with particular focus on indigenous and local communities such as *Majhi, Danuwar, Bote, Musahar,* and *Tharu*
c) Marine and coastal			Not applicable
d) Dry and sub-humid land	x		• Promote the cultivation of low water requiring species such as Seebuckthron (*Hippophae salicifolia, H. tibetana*) fruits in the mountain districts such as Mustang, Manang, Dolpa, Rasua, Solukhumbu and Taplejunga which are also used in the form of beverage. These species contain high percentage of Vitamin C, A and B_{12}.
e) Forest	X		• Promote NTFPs and MAPs as food supplement and use them as economic benefits to the poor people as well; • Production of Fodder, leaf litter and firewood are encouraged as the basic needs of the rural people for their subsistence living; • Explore potential usage of plants for health care;
f) Mountain	X		• Promote the usage of biological resources as a major source of income generation; • Encourage cultivation of NTFPs (hill bamboo, fruit trees , etc) and medicinal plants (Chiraito, Jatamasi, etc); and • Also promote sustainable use of such as yarsagumba, *Morcella* mushroom to support the livelihood of mountain dwellers.

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 major policies, plans and programmes have linked biological resources with livelihood aspects. They are summarised below:

- The Tenth Plan favours for the sustainable use of biological resources for poverty reduction by linking them with the livelihoods and economic development of the people.
- The Herbs and NTFP Policy (2004) aims at encouraging the plantation and sustainable use of MAPs and NTFPs as a source of income generation to the local people. It also promotes, *inter alia*, regeneration, processing, production, sale and distribution of MAPs and NTFPS; commercial cultivation and *ex situ* conservation to contribute to employment opportunities and national income; development of NTFPs collection and processing centres; and support for technical knowledge, skill, know-how and marketing to improve the living conditions of the poor people.
- Biodiversity and its products are traditionally used for health care purposes, and the national policies encourage the documentation of traditional knowledge, skill, techniques and practices used by the local people and traditional healers.
- HMGN has emphasised on inventory of forests and biodiversity prior to the collection of MAPs and NTFPs for their sustainable use.
- Public awareness activities and training are ongoing for sustainable use of biological resources including on the management, nursery technique, juice extraction, and processing and marketing of Seebuckthron fruits.

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

- There is an increasing trend to utilise the wild flora and fauna and their products. There is a greater demand for NTFPs in particular the pine resin and leaf of *Taxus baccata* for forest based industries including other medicinal plants. Local people are encouraged for sustainable harvesting of NTFPs to reduce growing poverty particularly from different categories of forests such as community forests. In order to support the livelihood of mountain dwellers, HMGN has also encouraged the sustainable harvesting of yarsagumba (*Cordyceps sinensis*) by reducing the royalty. Additional efforts are underway to regulate the unsustainable harvesting of biological resources for commercial activities. Most of the forestry programmes have been linked with sustainable livelihoods of the poor people.
- Selected wild animals are also encouraged for farming, breeding and research to generate employment and know their potentiality for sustainable use. The policy provides opportunities to undertake farming, breeding and research on the protected species namely the gharial crocodile, black buck, danphe (Impeyan pheasant), monal (*Satyr tragopan*) and cheer pheasant and other wildlife species namely barking deer, spotted deer, samber deer, monkey (Rhesus monkey), hog deer, wild boar, snakes and all kinds of birds.
- Production of indigenous crops has been promoted not only to reduce rural poverty but also for the maintenance of genetic resources.
- Buffer zone management activities in the protected areas have been instrumental to improve the living standard of the poor people by providing job opportunities in community development activities, and supporting in income-generating activities. About 30 to 50% of the total income generated from PAs goes to buffer zone for community development activities. This has multi-fold impacts in benefiting the local people and improving the conditions of biodiversity in and around the protected areas.
- In the mountain areas including in *Sankhuwasava* district, some of the species such as Allo (*Girardiana heterophilla*) and malingo (*Arundinaria* sp) has contributed to generate income of the rural poor. The earlier is locally used for making warm clothes and the later is used as roofing material and for making baskets.

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

- Type and number of biological products sold by the local community
- Increase in income of the rural poor people associated with the usage of biological resources
- Increase in number of trained people using biological resources for income generation.
- Number of people trained in Seebuckthorn fruit collection and processing including other MAPs and NTFPs

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

Sustainable usage of biological resources and its contribution to complement food requirement is limited due to:

- Remoteness of the area and lack of proper data and information on its growing stocks and seasonal variation in production
- Problem in linking raw as well as finished products with markets.
- Inadequate training facilities to local people
- Lack of incentives to local people for *In-situ* and *ex situ* conservation of economic plants
- Lack of proper knowledge on the valuation of biological resources

VII) Please provide any other relevant information.

There is growing understanding about the usage of biological resources. If lack of inventory, documentation and registration of these resources continues, unsustainable use would likely exert additional pressure on their survival. HMGN has enunciated policies and programmes in the recent years to promote cultivation and processing of commercially valued plant species, and farming, breeding and research of endangered animal species.

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.

- Protect, acknowledge and appreciate the traditional values, knowledge and practices of indigenous and local communities while conserving and utilising biological resources; and
- Utilise the traditional knowledge in managing forests, buffer zone, watersheds, irrigation, and small hydroelectricity projects as well.

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		• Promote *in-situ* conservation of traditional crops and livestock. • Document agriculture related traditional technical innovation and practices
b) Inland water	X		• Maintain the culture, tradition and livelihood of indigenous and local communities like *Majhi, Danuwar, Chepang,* etc., who are dependent on wetlands
c) Marine and coastal			• Not applicable
d) Dry and subhumid land			• Maintain culture and tradition of the mountain communities.
e) Forest	X		• Use diverse knowledge and skill of indigenous and local communities including women and disadvantaged groups while forming user groups for the management of community forestry, buffer zones and watershed management works
f) Mountain	X		• Develop and implement code of conduct to preserve the culture, tradition and knowledge of mountain communities while promoting mountain tourism

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 National Wetland Policy (2003) has given utmost importance to involve the local people for management and sustainable use of wetlands by utilising their traditional knowledge, skill, practices and know-how. The draft access to genetic resource and benefit sharing bill which is under final stage also provides necessary provisions to protect the traditional knowledge, skills, techniques and practices through the provision of documentation and registration of such knowledge and skills.

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

- The Nepal Biodiversity Strategy (2002) acknowledges the importance of protecting traditional knowledge, innovations and practices and programmes are geared to achieve it.
- One of the objectives of the National Wetland Policy (2003), is to identify and protect local people's traditional knowledge, skill, innovations and practice.
- In order to acknowledge and appreciate the traditional values, knowledge and practices, HMGN has expanded the handover of national forests in the form of community forests so that local people could maximise their innovative ideas for forests and biodiversity conservation. Users' knowledge and participation has also been promoted in buffer zone management, soil and water conservation, irrigation water management, and even management of small hydroelectricity projects.
- The access to genetic resources bill underscores the importance of, and provides provisions to promote traditional knowledge, skill, know-how and practices of the indigenous and local communities as essential ingredients for biodiversity conservation.
- The biodiversity documentation format approved by HMGN in 2003 also urges to document traditional knowledge, skill, technique and practice including the listing of the resource person. Accordingly, biodiversity documentation programmes have been initiated in collaboration with the national NGOs. Few trainings have been organised as a part of biodiversity documentation process to develop human resources in this direction.
- In mainstreaming the protection of traditional knowledge, skills and practices, the Federation of Indigenous Nationalities including NGOs of indigenous and local communities has launched series of public awareness activities. Some of the NGOs have also been involved in documenting knowledge and practices for their protection.

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

- Understanding about the importance of traditional knowledge, skill and practice is one of the recent initiatives for biodiversity conservation in Nepal.
- Number of community biodiversity registers prepared.

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

Lack of baseline data and information on the nature of traditional knowledge, skills, techniques and practices and their uses has limited to develop necessary policies and programmes to best utilise the traditional knowledge for biodiversity conservation. There is also a lack of technical manpower and financial resource to speed up the process.

VII) Please provide any other relevant information.

Nepal underscore the importance of traditional knowledge and practices of the indigenous and local communities for the conservation and sustainable use of biological resources, and maximise the involvement of local people in conserving this important resources using precautionary principle and ecosystem approach.

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	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X

Please provide details below.

Although there is no clear national target, Nepal has institutionalised the benefit sharing mechanism through policies and legislations. The relevant policies that will contribute to achieve this target are:

- Address people's participation and especially the involvement of women and disadvantaged groups in implementing plans and programs, and optimise the usage of traditional knowledge and skills in biodiversity conservation;
- Provide all benefits to community forestry users, and pro-poor leasehold forestry users;
- Also provide up to 50 percent of the total revenue generated in the protected areas for community development; and
- Implement indigenous people-inclusive policies to protect their rights and mainstreaming them in natural resource management and benefit sharing.

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			• Encourage the use of traditional knowledge and skill for biodiversity documentation; and • Promote participation of local community in plant breeding, variety selection and gene bank.
b) Inland water			• Involve indigenous and local communities in wetland management, benefit sharing and fish farming; and • Develop and implement incentive measures for wetland management.
c) Marine and coastal			Not applicable
d) Dry and sub-humid land			No specific program
e) Forest			• Involve local communities in managing biological resources in and around the protected areas along with benefit sharing mechanisms; • Also involve local people in conserving community forests with emphasis on the participation of women and disadvantage groups; and • Promote participation of poor people in leasehold forestry programmes.
f) Mountain			• Recognise the importance of invaluable knowledge of indigenous mountain people for the conservation and sustainable use of plant and animal resources; • Promote participatory management of forests, wildlife and watersheds with enhanced participation of indigenous people; • Further promote sustainable use and equitable sharing of benefits amongst communities; and • Replicate knowledge-based mountain eco-tourism and enterprise-based biodiversity conservation approaches as practiced in the Annapurna Conservation Area Project (ACAP)

			administered by KMTNC.

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.

- Knowledge and enterprise-based biodiversity management, focusing to NTFPs and MAPs in all the community and leasehold forests, is one of the strategies for biodiversity conservation in terrestrial ecosystems.
- Benefit sharing has been rooted in protected areas, community forests, soil and water conservation, and water uses, in particular water for drinking and irrigation purposes.

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

- In the recent years, governmental and non-governmental organisations have ensured the involvement of local communities in natural resource management along with benefit sharing mechanisms. For example, up to 50% of the revenue generated in the protected areas are provided to the respectived protected areas for community development. In order to ensure effective participation of the local people, benefit-sharing mechanisms are in place in community forests, buffer zone areas and irrigation water management activities. The local people should utilise 25 percent of the total income generated in community forests in forest management which will contribute to biodiversity conservation. A process has been started whereby one percent of revenue generated from hydro projects will be spent in the districts where the projects are located. This will greatly benefit the indigenous people who inhabit with project sites. Efforts on maximising the participation of local indigenous and local communities in biodiversity conservation in the national parks, wildlife reserves and conservation areas have been instrumental to protect the rights of the indigenous people.
- Cultural values have been highlighted in the management plans of the Ramsar Sites so as to improve the participation of local stakeholders in wetland planning and management activities.
- Existing policies, legislations and strategies encourage people's participation and especially the involvement of women and disadvantaged groups in implementing plans and programs, and the use of traditional knowledge and skills in biodiversity conservation.
- There is a common understanding on the need for indigenous people-inclusive policies and their effective implementation so as to protect their rights and mainstreaming them in natural resource management and benefit sharing.

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

- Number of indigenous communities involved in wetland and natural resource management.
- Number of women and disadvantaged group of local people in community forests and their participation in fund generation and mobilisation
- Number of indigenous people involved in commercial cultivation, processing and marketing of biological resources

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

- In community forests, the local and indigenous people, especially livestock herders and NTFP collectors are facing challenges on their traditional control over forest resources, particularly in the mountainous areas. Free livestock movement has been limited due to controlled grazing through expanding CF programme.
- Most of the indigenous and local communities lack sufficient information and knowledge about their rights and responsibilities for the conservation of biological resources.
- Even in the good programmes, local elites and community leaders overrule on major decisions about the usage of, and benefit generated from of biological resources.

VII) Please provide any other relevant information.

NA

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

- Nepal has yet to synchronize with the global target.

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			• Conduct research on the food value of the indigenous wild rice varieties (species of *Oryza, Leersia and Hygroryza*)
b) Inland water			• Share fish fingerlings with the Parties in accordance with the provisions of the bilateral and international agreements
c) Marine and coastal			• Not applicable
d) Dry and subhumid land			• No specific work
e) Forest			• Take the advice of the scientific authority with regards to sharing of wild animals and plants as included in the CITES appendices
f) Mountain			• Promote research on genetic resources

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.

Nepal has yet to develop necessary policies and regulatory framework for the transfer of genetic resources.

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

- Genetic resources are provided for collaborative research purposes only. The CITES provisions have been implemented for this purpose.
- Nepal is in the process of being a party to International Treaty on Plant Genetic Resources for Food and Agriculture.
- Being a member of the South Asia Network on Plant Genetic Resources, Nepal has participated in implementing joint activities in the sub-region.
- Nepal is in the process of enacting the access to genetic resource bill and it provides provisions to regulate access to genetic resources in the spirit of the CBD.
- Research on the food value of the indigenous wild rice varieties (species of *Oryza, Leersia and Hygroryza*) is ongoing with the help of International Rice Research Institute (IRRI) of Philippines. Necessary transfer of genetic resources is in line with the international and bilateral agreements. Although germplasm of some

crop varieties have been stored in IRRI.

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

- Number and form of plant species included in the CITES appendices provided for research
- Number and type of animal species included in the CITES appendices provided for research
- Number of crop genetic resources sent abroad for research purpose
- Number of fish species (fingerlings) sent abroad for exchange or research or aquaculture purposes

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

- Nepal is yet to be a Party to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and be a member of the Committee on Genetic Resources of Food and Agriculture (CGRFA) in order to contribute to achieve this target.
- In-country research and development on genetic resources is limited due to lack of scientific capabilities and physical facilities.
- Nepal is in the process of establishing a competent authority for access to genetic resources and benefit sharing.

VII) Please provide any other relevant information.

- The enactment of the access to genetic resources bill will provide a basis to promote transfer of genetic resources in the spirit of CBD.

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		X	
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land		X	
e) Forest		X	
f) Mountain		X	

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.

Plants and animals and their products have been provided for research and non-commercial purposes only.

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

There is an increasing demand for live and dead specimens of Nepalese biodiversity and some wild and domesticated species have been provided for research purposes only. Plant specimens collected in different parts of Nepal are provided to foreign institutes on the basis of mutual trust for non-commercial purposes. Some crop genetic resources including rice varieties have been sent abroad in the past for research purposes only. Fish fingerlings are also sent abroad in particular to the SAARC member States for sharing purposes. Wild animals are also provided based on bilateral agreements or as a token of friendship for non-commercial purposes.

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

- None

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

None

VII) Please provide any other relevant information.

The access to genetic resources bill provides provisions for the sharing of benefits with those who uses the Nepalese genetic resources for commercial purposes.

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.

No specific national targets set but the development programmes are implemented with the assistance of the Parties and non-Parties to CBD.

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			No specific targets in the spirit of the Article 20 to the CBD
b) Inland water			No specific targets in the spirit of the Article 20 to the CBD
c) Marine and coastal			X
d) Dry and subhumid land			No specific targets in the spirit of the Article 20 to the CBD
e) Forest			No specific targets in the spirit of the Article 20 to the CBD

f) Mountain			No specific targets in the spirit of the Article 20 to the CBD

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.

Nepal has received technical and financial assistance from the Parties, UN agencies and international organisations for the implementation of plans and programmes related to biodiversity conservation. Some of the ongoing projects are as follows:

Forestry Sector: (US $ '000)

S.No.	Program/Project	Duration (Yrs.)	Project Period (Start-End)	Donor Agency	Total US$
1	Biodiversity Sector Program for Siwalik and Terai (BISEP-ST)	4	July 02 – July 06	SNV	7,300
2	Participatory Conservation Program II- Phase in 7 National Parks and BZ	2	Aug 04 – Dec 06	UNDP	1,000
3	*Terai* Arc Landscape Conservation Project	5	July 01 – July 06	WWF/N	6,000
4	*Churia* Watershed Management Project	5	Sept 01 – Aug 06	CARE/DEN	1,690
5	Conservation and Sustainable Use of Wetlands in Nepal	5	2004 – 2009	IUCN/UNDP	4,988
Total:					**20,978**

Note: Projects ending in 2005 are not included.

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

- Management and operational expenses for PAs are covered by funds from various sources, including income generated from park entrance fees and from HMGN consolidated fund. Expenses for other ecosystems, such as forests, agricultural lands and wetlands are covered from regular government budget. Additional funding from external sources is available on programme basis.
- His Majesty's Government has allocated a development budget for the forestry and agriculture sector totalling approximately to 34.48 million US dollars for all types of activities for the fiscal year 2003-2004. The budget for the forestry sector was approximately 8.76 million US dollars.
- Similarly, foreign aid commitment for the above fiscal year in agriculture and forestry sectors was 8.06 and 4.51 million US dollars respectively.
- A total amount of **20.98 million** US dollars has been targeted for the Forestry Sector for different time period from donor agencies like DANIDA, WWF/N, SNV, USAID, GTZ, DFID/UK, AUS/AID, SDC, JICA, UNDP, IUCN and GEF.
- A total amount of **12.80 million** US dollars has been allocated for three districts under the Western Terai Landscape Complex Project for the period of 8 Years with support from UNDP, SNV, WWF/N, IPGRI, NARC and LIBIRD. The program includes: (i) environmentally sustainable development linked to poverty reduction; (ii) capacity improvement of selected institutions responsible for women and disadvantaged groups; and (iii) enhance institutional capacity for management of protected areas, buffer zones and biodiversity rich areas.

Note: Other projects also include component budget for the implementation of biodiversity related programmes.

There is an increasing tendency to link biodiversity and natural resource management with the livelihoods and it will hopefully contribute to implement biodiversity programmes in the spirit of the CBD.

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

None

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

Taking into consideration the emerging problems on biodiversity, the technical and financial resources are inadequate to implement the activities in the spirit of the CBD and Nepal Biodiversity Strategy. The financial resources have provided substantial inputs to meet the obligations of the Convention partly. The GEF Small Grant has also been instrumental in developing field-specific models for the sustainable use of biodiversity and benefit sharing mechanisms.

VII) Please provide any other relevant information.

Nepal is finalising the Biodiversity Strategy Implementation Plan and it requires new and additional technical and financial assistance from the developed country parties for its effective implementation. The developed country Parties should avail new and additional financial resources in the spirit of the Convention.

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.

No specific target

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			NA
b) Inland water			NA
c) Marine and coastal			
d) Dry and subhumid land			NA
e) Forest			NA
f) Mountain			NA

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.

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- IPGRI is providing technical assistance to document agro-biodiversity and develop necessary policies. However, no specific technologies have been known transferred for the implementation of the Convention.

V) Please provide information on indicators used in relation to this target.
X
VI) Please provide information on challenges in implementation of this target.
• Lack of adequate financial and technical capacity of least developed country like Nepal. • Inadequate financial support to meet additional commitments.
VII) Please provide any other relevant information.
Nepal encourages to developing and refining locally suitable technologies for the conservation and sustainable utilisation of biodiversity and for the appreciation of the traditional knowledge, skills, innovations and practices. However, technology transfer would provide opportunities to generate and share benefit both within country and aboard.

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.

Nepal has not developed national targets in the spirit of the Global Strategy for Plant Conservation. However, the existing policies, legislations, strategies and programmes provide ample opportunities to achieve the targets set under this strategy. Hence, attempts are made to link the national efforts with the global targets to share information and achievements with the Parties.

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	
• Prepare and publish Flora of Nepal • Conduct plant exploration activities regularly to collect and house plants of different bio-climatic zones • Identify plant species and their habitats, and develop user-friendly database for easy flow of information	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
Government has allocated some funds with annual target as laid down in the country's Five Year Plan to run the project and activities. Some of the activities include (i) training workshop for flora compilation, (ii) study tour to Botanical Survey of India, (iii) publication of Fascicles during the year 2002 on Betulaceae, Buxaceae, Dipsacoceae, and Pontederiaceae, (iv) collection and identification of about 2400 plant species from Mustang Area (Arid High Mountain) in cooperation with University of Kitasato and University of Tokyo, and (v) publication of Flora of Kathmandu Valley and other specific locations. The plant specimens are preserved in National Herbarium (KATH).	
III) Current status (please indicate current status related to this target)	

- Plant exploration is regularly conducted based on the limited annual budget provided from the national consolidated fund. Existing pace of plant collection and identification limits to meet the global target of listing plant species. At present, the National Herbarium (KATH) of the government has collected and stored about 150,000 sheets from different parts of the country. Similar collections are in the Central Department of Botany of the Tribhuvan University, and other academic institutions. Till now, nearly 5,860 flowering plants identified. Of them, about 690 species (or 12%) are considered having medicinal properties. The Medicinal and Aromatic Plant Database of Nepal (MAPDON) has listed 1624 plants expected to be medicinal and aromatic. The Department of Plant Resources (DPR) conducts regularly plant exploration activities to document plants. At present, about 10 species of different plant groups have been identified on an average each year.
- To maintain a record of plant diversity, the Nepal Flora Project has been started since 1997. Three institutions: Royal Nepal Academy for Science and Technology (RONAST), Central Department of Botany (CDB) of the Tribhuban University and Department of Plant Resources (DPR) of MFSC are jointly working in this project.
- The RONAST is also implementing Darwin Initiative Project to strengthen the institutional base for plant taxonomy in Nepal in particular the herbarium collections through DPR and CDB. It also aims to develop taxonomic expertise to meet the needs of the country. So far, 18 Nepalese scientists have been selected as Darwin scholars from DPR, RONAST and CDB. Training has been provided on modern herbarium techniques for collection, documentation and utilisation including assessment of conservation status. It is in the spirit of the GSPC.
- Government has allocated some funds with annual target as laid down in the country's Five Year Plan to run the project and activities. Some of the activities include (i) training workshop for flora compilation, (ii) study tour to Botanical Survey of India, (iii) publication of Fascicles during the year 2002 on Betulaceae, Buxaceae, Dipsacoceae, and Pontederiaceae, (iv) collection and identification of about 2400 plant species from Mustang Area (Arid High Mountain) in cooperation with University of Kitasato and University of Tokyo, and (v) publication of Flora of Kathmandu Valley and other specific locations.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- Annual target fixed on the basis of national target specified in the development plan
- Attempts are being made to explore additional funding for plant exploration and also for strengthening herbarium facilities and human resources

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Percentage of annual targets and availability of funds
- Number and type of species collected and identified, based on ecological zones.

VI) Constraints to achieving progress towards the target

- Inadequate funding and lack of trained manpower in modern techniques and plant identification, and also lack of human resources capable for writing on some plant groups such as cryptogams
- Lack of adequate incentives to visit the remote, inaccessible, and geologically week areas
- Lack of career development opportunities to botanists in public service etc.

VII) Any other relevant information

Crops documentation process is in progress. There is an urgent need for collecting, identifying and storing wild relatives of domesticated species.

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

- Prepare a national register on plant resources;
- Prepare a list of plants of both protected areas and forests including endemic plants; and
- Rank the status of plants using the IUCN categories.

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?

a) Yes	X
b) No	

Please specify

- Continue assessment of conservation status of plant species; and
- List all species while leasing the forests, and also continue listing species in other categories of forests.

III) Current status (please indicate current status related to this target)

- HMGN has released the National Register of Medicinal and Aromatic Plants on the occasion of International Biodiversity Day 2004 and this register was prepared in collaboration with IUCN Nepal. This register has used the stocks of "An Enumeration of the Flowering Plants of Nepal Vol. I, II and III (1978-1982), Annotated Checklist of the Flowering Plants of Nepal (2000), Ethnobotany of Nepal (2001) and Genetic Heritage of Medicinal and Aromatic Plants of Nepal Himalaya (2001)". This document includes conservation status on the basis of legal provisions of HMGN and provisions of CITES. It also includes the IUCN categories of threatened plants as recommended in Rare, Endangered, and Threatened Plants of Nepal (1996). It documents about 190 species.
- The ongoing Darwin Initiative Project jointly implemented by RONAST, DPR and CDB-TU with the assistance of Royal Botanical Garden Edinburgh (RBGE) has also a component on the assessment of conservation status (according to new IUCN categories).

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- HMGN has listed 30 plant species as national priority list of herbs for development, research and cultivation based on the national and international demand as per the distribution, local use and medicinal importance. In addition, HMGN has also prioritised 12 plant species for cultivation and research (see goal 4 and target 4.1 for list of plants).
- In accordance with the provisions of the Forest Act (1993) and Forest Regulations (1995), HMGN has included 18 plant species, and asphaltum (rock exudates) under the protection list and has regulated their use. HMGN has encouraged to identifying impacts of the development projects on biodiversity during the preparation of the Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) report as per the Environment Protection Act (1996) and the Environment Protection Regulation (1997). The environmental assessment reports must assess impacts of the development projects on plant species and provide mitigation measures accordingly.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Harvesting of important species regulated
- Number of permits issued and forest checkpoints information on permits and the quantities updated
- List of plant species in operational forest management plans documented
- Protection list in IEE/EIA reports adequately used to assess impacts on species

VI) Constraints to achieving progress towards the target
o Insufficient taxonomists and conservation specialists including lack of country-wide and season-wise plan exploration o Inadequate knowledge, skill, logistical support and incentives to assess the conservation status of known plant species o Inadequate technical and financial resources
VII) Any other relevant information
Need for assessment of the conservation status of identified plant species has been realised in the recent days the plant scientists and conservationists are encouraged to do so.

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	
• Promote the development of sustainable use models in community forests and pro-poor leasehold forests	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
• Emphasise on the sustainable use of MAPs and NTFPs as a priority programme to reduce poverty; • Also emphasise on the domestication, cultivation, processing and marketing of endangered plant species; and • Introduce sustainable use models in different categories of forests including collaborative forest management in the operational forest management plan (OFMP).	
III) Current status (please indicate current status related to this target)	
• As mentioned in Goal 4 (Target 4.1), priority species for cultivation, research and sustainable use has been prepared. Phytochemical evaluation is ongoing to know the important constituents of few species. Based on the conservation status, use patterns, and practical experience, HMGN has promoted *in-situ* and *ex-situ* conservation of plant resources in protected areas, forests and botanical gardens. Studies are also ongoing to develop sustainable use models for commercially valued plant species. Area-specific sustainable development use models have been developed for the community forests and pro-poor leasehold forests. • *In-situ* conservation of plants has been ensured in protected areas, different categories of forests, and high altitude botanical gardens. *Ex-situ* conservation has been promoted in botanical garden and conservatories, and seed banks. However, *ex-situ* conservation efforts are minimal as compared to the vast resources available in the country. • Research and development (R&D) has been conducted by institutions such as DPR, Department of Forest Research and Survey (DFRS), RONAST, Research Centre for Applied Science and Technology (RECAST), Central Department of Botany of Tribhuban University, NARC and several NGOs such as Asia Network for Sustainable Agricultural Bio-Resources (ANSAB). • The Natural Products Research Laboratory (NPRL) of the DPR performs phyto-chemical screening and evaluation of medicinal and aromatic plants. So far 219 plants have been studied and about 10 new plants are screened each year. The DPR is also doing research on biotechnology. So far 11 medicinal and aromatic indigenous plants are developed for agricultural purposes.	

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)
• A 13-membered national level Herbs and NTFP Coordination Committee has been constituted in 2002 under the chairmanship of the Honourable Minister of Forests and Soil Conservation. Its objective is to develop necessary policies and ensuring coordination for the conservation and sustainable use of plant resources. • The Herbs and NTFP Policy (2004) is under implementation. The policy has been developed within the broader framework of the CBD provisions and its effective implementation would contribute to achieve this target. • The legislation related to species conservation also promotes the sustainable use of plants and their products.
V) Progress made towards target (please specify indicators used to monitor progress towards the target)
• Stocks of herbs and NTFPs known, and annual collection and use rate updated • Number of permits issued on the type and quantity of plant resources, collection and verification in forestry check points
VI) Constraints to achieving progress towards the target
• Lack of protocol based models for the conservation and sustainable use of plants • Inadequate mechanisms for the maintenance of seed banks • Inadequate funding for the conservation of high-altitude MAPs • Untimely and over- harvesting of MAPs for commercial purpose without knowing the stocks • Inadequate phyto-chemical evaluation and biotechnology research • Inadequate knowledge and information about the sustainable use of plants.
VII) Any other relevant information
Inclusion of conservation and sustainable use models is an integral part of the community forestry and pro-poor leasehold forestry programmes. The collaborative forest management is a new model under implementation to develop sustainable use models for the lowland (Terai) forests. In case of agricultural plants, protocols are generally developed for research purposes such as for hybridisation and/or selection of good variety. In a nutshell, Nepal has introduced a system for sustainable use of plant resources in (i) user committee managed forests, (ii) pro-poor leasehold forests, (iii) collaborative forests (managed by nearby and distant forest users, local bodies and NGOs), (iv) government-managed conservation area, and (v) NGO managed conservation areas. However these models follow the traditional norms and practices of managing plant resources.

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	
• Increase the coverage of protected areas, community managed forests and leasehold forests	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	

- Promote the conservation of protected areas and other categories of forests including agriculture genetic resources in the spirit of the policies, plans and programmes of the ongoing Tenth Plan (2002-2007), Nepal Biodiversity Strategy (2002), Sustainable Development Agenda for Nepal (2003) and other national policy documents which have emphasised to conserve ecosystems.

III) Current status (please indicate current status related to this target)

- Please refer Goal 1, Target 1.1. Nepal has so far 19.4 percent of the total area of the country under declared protected area system. About 1.153 million ha of government-managed forest has been handed over to community users for the development, conservation, management and sustainable use of forests.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- At the national level, this target has been achieved through the establishment of protected areas. The National Parks and Wildlife Conservation Act (1973) and Regulations such as National Parks and Wildlife Conservation Regulation (1974), Royal Chitwan National Park Regulation (1974), Himali National Park Regulation (1980), Conservation Area Management Regulation (1996), Buffer Zones Management Regulation (1996) etc. provide ample opportunities to conserve biodiversity in the protected area systems.
- The Environment Protection Act (1996) and its Regulation (1997) obliges the proponent to approve IEE and/or EIA report before the implementation of any prescribed project even in the buffer zones and conservation areas. The EIA Guidelines for the Forestry Sector (1995), Review Guidelines for IEE and EIA report of Forestry Sector (2003), and IEE Manual for Forestry Sector (2004) provide guidance for the preparation of quality environmental assessment reports with additional focus on plant conservation.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Area and number of protected areas declared
- Number of management plans prepared and implemented in the protected areas
- Percentage of revenue provided to the buffer zones for the implementation of community development programmes

VI) Constraints to achieving progress towards the target

- High population pressures and prevailing rural poverty
- General understanding about the automatic conservation of plants while conserving large mammals
- Inadequate technical and financial resources for the implementation of management plans and people's mobilisation
- Inadequate data and information
- Prevailing insurgency in the country

VII) Any other relevant information

Nepal has given high priority for the conservation of plant resource through necessary policies and laws. Emphasis has been given to conserve plants by knowing its multi-fold benefits and values, and its importance to habitat maintenance, management and improvement.

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	X
b) No	

Please specify

- 19.4% of the total country land is under declared protected area system
- Promote the conservation of plant diversity outside the protected areas

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	

Please specify

- Forests, agriculture and biodiversity related policies, plans, strategies and programme emphasise on biodiversity conservation in different ecological zones and ecosystems.

III) Current status (please indicate current status related to this target)

- Including the protected area system (over 19 percent), forests and shrub land cover about 39.6 percent of the total area of the country. In addition, biodiversity hotspots are mostly conserved through protected areas network. In general, the mid-hill is also rich in biodiversity and which is comparatively less represented under the protected area systems. However, biodiversity conservation has been promoted in community and national forests. Furthermore, efforts are made to conserve domesticated plants. Considering the whole Nepal, this target is met in terms of area management.
- Plants available in the religious sites are automatically conserved due to Nepali traditions, customs and values. Many plants are worshipped and conserved due to religious belief. As mentioned above, necessary coordination mechanisms are in place for the conservation of plant diversity in different ecosystems and ecological zones. The governmental and non-governmental organisations have joined hands to improve the condition of plant resources.
- Agrobiodiversity is being conserved mostly by traditional farming communities and government has initiated Ex situ conservation of local land races/breed in agricultural farms.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- In order to conserve and manage plant diversity outside the protected areas, the Forest Act (1993) and its Regulation (1995), Environment Protection Act (1996) and its Regulation (1997), and Local Self Governance Act (1999) and its Regulation (2000) have been implemented.
- The National Biodiversity Coordination Committee has been constituted for the effective coordination at the central level, and District Biodiversity Committees (DBC) have been formed in 10 districts by April 2005. HMGN has planned to constitute DBC in all 75 districts which will comprise of representatives from different stakeholders.
- In order to reduce pressure on plants and forest resources, HMGN has also promoted to produce clean energy (hydro-electricity and other sources of alternative energies), eco-tourism and other enterprise-based activities in forest areas without affecting and/or least damaging the biodiversity.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Increase in ground cover vegetation
- Increase in population of indicator species
- Implementation of the recommendations as included in the environmental assessment reports

VI) Constraints to achieving progress towards the target

- Increased pressure from infrastructure projects on wild plants during the construction stage
- Unregulated collection of MAPs and NTFPs
- Inadequate financial resources for sustainable management of plant resources

VII) Any other relevant information

There is an increasing awareness about the importance of plant resources and its economic value, in particular direct use value. Further awareness on the ecological and societal values of plant resources is needed.

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	X
b) No	
Please specify	
• Conserve plant diversity and local landraces during agriculture production	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
• Encourage plantation of fruit and fodder trees and NTFPs in marginal and unproductive lands and/or farms taking into consideration the land uses such as crop production in the plain areas, and horticulture development in the hills and slops.	
III) Current status (please indicate current status related to this target)	
• The production category of forests in the Terai is managed with one of the objectives of conserving biodiversity. The Biodiversity Sector Support Programme has been implemented in the production forests of 8 Terai districts to conserve biodiversity through collaborative forest management approach. • There is a practice of raising agro-forestry in and around the farmlands, plantation of trees along the river and irrigation channel banks, and cultivation of MAPs in the farmland. Although there is no clear data and information about the target, farmlands are used to continue farming of specific cereal and cash crops. • The agriculture land has also been converted to agro-forests through the plantation of sissoo (*Dalbergia sissoo*). However, the problem of dye-back of Sissoo trees has discouraged private plantation, especially monoculture plantation in the Terai (productive agricultural land) in recent years.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
• HMGN through the district forestry and agricultural offices, and NGOs have continuously provided technical support to private forests or NTFP/MAP growers. Plant seedlings are made available to private growers on subsidized price. • Emphasis has given to conserve and convert the marginal lands to forestry uses through the cultivation of MAPs and NTFPs. In addition, greenery programmes have also been launched to protect riverbanks, roadsides and convert to production land.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
• Although there is no proper record, there is an increasing trend to convert the unproductive land to vegetation cover. Emphasis has been given to cultivate locally suitable cereals and NTFPs to increase production with consideration on indigenous species, and local landraces of agriculture crops.	
VI) Constraints to achieving progress towards the target	
• Lack of necessary knowledge about the importance of conserving plant diversity • Poor infrastructure, and irrigation facilities • Haphazard and unscientific use of agro-chemicals (chemical fertilisers and pesticides) and possible genetic change	
VII) Any other relevant information	
Record keeping practice is yet to institutionalise about the plant diversity and accessory crops produced in the private lands.	

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	X
b) No	
Please specify	
• Protect endangered and threatened species in forest ecosystems • Conserve indigenous landraces and wild relatives of cultivated 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	
Although there are no specific national targets, Nepal has given high priority to conserve the locally threatened plants and other plants as included in the CITES appendices and IUCN red list.	
III) Current status (please indicate current status related to this target)	
The threatened plant species have been conserved in the protected areas and other categories of forests. HMGN has issued a list of plant species which are regulated for utilisations. The plant species such as *Dactylorrhiza hatagirea,* and *Juglans regia* have been banned for collection, utilisation, distribution, transportation and export. Seven species namely N*ardostachys grandiflora, Rauwolfia serpentina, Cinnamomum glaucescens, Picrorrhiza scrophulariiflora, Valeriana jatamansi*, many species of lichen, *Abies spectabilis*, and *Taxus* sp have been banned for export unless the Department of Plant Resources recommends to export the extracts of these species. Similarly, *Michelia champaca, Acacia catechu, Shorea robusta, Dalbergia latifolia, Pterocarpus marsupium* and *Juglans regia* (only of national forests) have been banned for cutting, transportation and export for commercial purposes.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Nepal's protected areas are meant to conserve habitats, and the threatened and endangered species. Utilisation of endangered species is sufficiently regulated. Although, protected areas are conserved for larger wild animals, it has also contributed directly or indirectly for the conservation of plants, particularly in the mountain national parks. Plant destruction in different categories of forests (community, leasehold, private, religious and government-managed forests) has been regulated based on the provisions of the Forest Act (1993) and the Forest Regulation (1995).	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Species included in the CITES appendices and HMGN protected list have been protected through institutional networks. The indicators include: • Type of species and number of threatened and endangered plants collected for research • Name of plant and number of permits issued	
VI) Constraints to achieving progress towards the target	
There is an inadequate plant exploration and status ranking of plant resources. There is lack of information about the frequency and density of plants available in different ecosystems and ecological zones. The lack of technological know-how and financial resources has limited status ranking of plant species.	
VII) Any other relevant information	
The need for plant exploration and assessment of conservation status has been realised in the recent years and there is a need for concerted efforts of the conservation partners to speed up the assessment aspect. Once the status will be known, it will help in developing and implementing species conservation plans as well.	

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	
b) No	x
Please specify	
X	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
X	
III) Current status (please indicate current status related to this target)	
Although, the national target has not been fixed in this target, emphasis has been given to conserve the threatened and endangered species either in botanical gardens or in gene/seed banks. So far, genetic resources of 90 species have been conserved in the seed bank of NARC. They include field crops, legumes, oilseeds, vegetables, spices and jute/silk. The domesticated plant species have not been categorised as threatened or endangered or rare. The National Herbarium (KATH) of the Department of Plant Resources has preserved the collected flowering and non-flowering plants. About 150,000 sheets of threatened, endangered, rare and vulnerable plants of vascular plants are preserved in the Herbarium. The Central Department of Botany of the Tribhuvan University and other academic institutions have also maintained herbariums of smaller size. In academic institutions, most of the collections are made from the graduate and post-graduate students and professors. During the establishment of botanical gardens, due consideration was given for the conservation of endangered species. Because of low level of information about the habitat and conservation status, it is considered that much still remains to meet this target.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Legal regime on forests and protected areas provide opportunities to conserve the endangered species. Plants are well conserved in the religious places. Attempts have been made to document plants, know the impacts and mitigate adverse impacts. Special attention has been given to conserve plant species as included in the CITES appendices and national protection list.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Record of DPR and forestry check posts about the threatened plants and their quantity collected	
VI) Constraints to achieving progress towards the target	
• Lack of assessment on the status of plants and listing them under threatened category • No national definition of threatened plants • Inadequate botanical gardens and conservatories and lack of necessary financial resources for their maintenance • Location of the National Herbarium in the moist area and the potential danger for damage of the herbariums • Duplicates of plant specimens collected yet to sequentially placed in the herbarium • Lack of separate regulatory measures for plant protection	
VII) Any other relevant information	
The need for improving the conditions of the National Herbarium has been realised but there is a severe constraints to improve its status due to lack of financial resources.	

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

No information about this target but about 200 species of wild relatives of the cultivated plants (cereals, pulses, vegetables, fruits, oils, and spices) is reported so far. However, quite a large number of publications in ethno botany has documented the indigenous and local knowledges on plants.

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?

a) Yes	X
b) No	

Please specify

Not exactly following the targets, the Agriculture Development Policy (2004) acknowledges the importance of conserving genetic diversity of crops. The agriculture development programmes include activities for the documentation and registration of crops.

III) Current status (please indicate current status related to this target)

- About 300 accessions of 18 traditional vegetables are maintained at the Agriculture Botany Division, NARC. About 27 local landraces of potato are collected and maintained at the Potato Research Programme, 12 of them have been characterized. Out of 102 edible mushroom species collected in Kathmandu, 25 species have been reported poisonous by National History Museum. The National Grain Legumes Programme has collected 1242 specimens of germplasm for 8 summer and winter legumes throughout different geographic regions of the country. More than 102 local landraces of oilseeds and 8 landraces of sugarcane collected at their germplasm specimens are preserved by NARC.
- Participatory Plant Breeding (PPB) programme uses *in-situ* conserved primitive landraces of crop species as parent materials, and Participatory Variety Selection (PVS) allows farmer communities to identify farmer-preferred varieties and landraces suitable for specific ecological zones. For example, *Jetheobudho, Panhele* and *Gurdi*, the major fine quality rice landraces of *Pokhara* Valley is being tried in other localities (*Gulmi* and *Argakhachi* districts) having similar ecological conditions.
- Traditional plants used for protecting crops against pests are further recognized and found valuable for organic farming. They are: Timur (*Zanthoxylum alatum*), Tobacco (*Nicotiana tabacum*), Neem (*Azadiracta indica*), Bakaino (*Melia azadiract*), Marigold (*Tagatis eracta*), Titepati (*Artemisia vulgaris*) Asuro (*Adhatoda vasica*) and many others.
- Local people are using their knowledge during the cultivation, harvest and storage of crops and their seeds.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- As a member of FAO Commission on Plant Genetic Resources for Food and Agriculture (PGRFA), it has adopted the Global Plan of Action for plant genetic resources. Nepal has also joined other crop specific regional and international institution to share information, knowledge and know-how for the genetic resources conservation.
- The Agriculture Perspective Plan (APP) is under implementation and it emphasizes on high-input agriculture with judicious use of fertilizer and the promotion of integrated pest management to counteract the potential negative impacts of fertilizer and pesticides on agro-biodiversity.
- The Agriculture Development Policy (2004) is a very positive initiative towards genetic resources conservation.
- The Seed Act provides provisions to conserve crop seeds and their quality maintenance.
- Documentation and maintenance of local knowledge has been initiated in selected ecological zones to develop a basis and mechanism for its expansion.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)
• Per unit area increase in production of cereal crops • Numbers of traditional landraces of crops preserved and/or their landraces conserved in i*n-situ* and *ex-situ* conditions and used for developing new varieties • Number of new varieties released
VI) Constraints to achieving progress towards the target
Nepal's traditional agro-ecosystem and the agro-biodiversity are under threat from recent agricultural practices as farmers go for high-input agriculture (i.e., use of improved varieties of seeds and fertilizer) to maximize production. Importance of genetic diversity of crops and other socio-economically valuable plant species has been realised but there is a shortage of financial resources to document such plants, develop and maintain facilities for their conservation.
VII) Any other relevant information
Study on genetic diversity of crops is a new initiative and requires more technical and financial assistance along with technology transfer.

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	
No management plans are prepared and implemented to control alien species. The Banmara (*Eupatorium glandulosum*) species is being used to make firewood briquettes by women forest user groups at *Bisankhu Narayan* Village Development Committee (local body) in Kathmandu. It has become successful and needs replication in other parts of the country.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
NA	
III) Current status (please indicate current status related to this target)	
Invasion of alien species would be dangerous for biodiversity of vulnerable Nepalese ecosystems. Its problems has been realised at the scientific and academic societies.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
NA	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
NA	
VI) Constraints to achieving progress towards the target	

- Lack of information about invasive alien species and its implication in degrading ecosystems at different levels
- Lack of inventory, record keeping system, and information on area invaded by the alien invasive species
- Lack of financial resources to assess the impacts of alien species and develop and implement management plans

VII) Any other relevant information

It is relatively a new area in Nepal. There is a lack of research and studies about the implications of invasive alien species in forest ecosystems and cropland and hence, only few information is available even at the academic institutions.

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	
Implement Convention's provisions and national legislations to regulate international trade of endangered wild flora	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	X
Please specify	
X	
III) Current status (please indicate current status related to this target)	
Being a Party to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) since 1975, trade of plant species included in the CITES appendices is well regulated. However, plant specimens are provided for research purposes upon the request of the researchers and academic institutions based on the recommendation of the scientific authority. Illegal trade of some of the high value medicinal herbs and orchids is noticed occasionally and is confiscated and penalised.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
The National Parks and Wildlife Conservation Act (1973) and the Forest Act (1993) provide provisions to regulate the trade and penalise the offenders of the plant species and its products collected from the protected areas and national forests respectively. The scientific authority to CITES has been mobilised for technical inputs as required by the Convention before the international trade of listed species.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
• List and number of species traded	
VI) Constraints to achieving progress towards the target	
Increasing involvement of traders in collecting commercially valued plants and plant products and open borders has been the major constraints to control illegal collection and trade. Also the lack of knowledge and skill to identify endangered plant species in the custom offices and even amongst the permit issuing agencies has limited to regulate trade.	
VII) Any other relevant information	
The need for developing keys to endangered species that may be traded has been realised and the capacity building of the custom officials would likely contribute to regulate such trade.	

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	
b) No	X
Please specify	
• No specific target set to achieve this target	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
• Promote sustainable use of plants and their products • Extract plant products based on approved operational forest management plans	
III) Current status (please indicate current status related to this target)	
• The Nepal Biodiversity Strategy (2002), The Tenth Plan, Sustainable Development Agenda for Nepal (2003) and the Herbs and NTFP Policy (2004) promote the sustainable use of plant products. The Strategy also calls upon the preparation and implementation of species conservation plans and biodiversity prospecting. Although, plant-based products are derived in small to large scales, there is no adequate data and information to confirm that they are derived from sustainably managed forests. However, plant products obtained from community forests follow the operational plan and they are derived on sustained yield basis. By April 2005, about 1.153 million hectares (20 percent of the total forest areas) has been managed by the community forestry users, involving about 1.56 million households (about 38 percent of the total population) in managing the community forests. In addition, about 75 thousands of people are the pro-poor leaseholders and they also utilise the plant products based on sustained yield basis. • There is an increasing trend to extract pine resin, and collect, fruits, flowers, bark and leaves of commercially important plant species. The collection of plant-products also follows the operation forest management plans. The collection of NTFPs and MAPs is prohibited from the national parks and wildlife reserves. However, such products could be extracted from the conservation areas and buffer zones based on the operational plans on sustained yield basis.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
The Forest Act (1993) and its Regulation (1995) regulates the collection of plant-based products from different categories of forests (community, leasehold, private, religious and government-managed forests). The forest inventory should be carried out before issuing permits to private sector for the collection of MAPs and NTFPs. Each category of forest should prepare operational forest management plan and plant and plant-products could be collected accordingly. HMGN is developing a system for forest certification that could contribute to institutionalise a mechanism and to know that plant products are extracted sustainably. The existing policies, legislations and programmes on the hand over of government-managed forests to community users and leaseholders will help in meeting this target in near future.	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
There is an increasing response to conduct forest inventory and know the stock and growth rate. The indicators include: • Quantify plant-based products derived from different categories of forests • Forest certification internalised and linked with the collection of plant products	
VI) Constraints to achieving progress towards the target	

- Lack of inventory, field-based monitoring, and inadequate plant exploration
- Inadequate implementation of operation plans for sustainable management of plant resources
- Lack of certification process and mechanism to ensure that plant products are derived from sources managed sustainably
- Lack of techniques and know-how on stock calculation particularly of NTFPs

VII) Any other relevant information

Importance of forest certification has been realised and is in the preliminary stage of development. Knowledge on growing stock of MAPs and NTFPs has been a long-standing issue and requires technical and financial resources to mainstreaming sustainable use of plants and plant-products.

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	
b) No	X
Please specify	
No specific target	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	

Although, specific target has not been fixed, Nepal underscores the importance of the effective participation of indigenous and local people for the conservation of wild plant resources.

- Reduce the barriers for the improvement of food security
- Promote the utilisation of plant products for health care

III) Current status (please indicate current status related to this target)

At the beginning, establishment of national parks and wildlife reserves limited the free rights of local indigenous people to collect plant resources for their livelihood. This situation has been changed as Nepal has implemented policies of biodiversity conservation with people's participation where indigenous and local knowledge, innovations and practices have been the part and parcel of plant resources management. The introduction of community forestry in the hills and buffer zones around the protected areas has sufficiently encouraged the indigenous and local people to avoid and/or minimise decline of plant resources, and collect, cultivate and harvest MAPs and NTFPs for commercial purpose, and benefit sharing.

In Nepal's landscape, conservation of forests has multi-fold benefits viz. loss of soil erosion and landslides which have directly affected the productive land system in the plain areas, water source regulation thereby reducing the floods and reduce loss of crops, life and property.

There is an increasing awareness about the need for expanding the involvement of indigenous and local communities in plant resources conservation. The community user groups have been formed and strengthened so that the knowledge, skill and practices of the local people have been used in natural resource management.

Documentation and registration of biological resources and associated traditional knowledge is started and hoped to protect traditional knowledge.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

HMGN has established the Nepal Federation of Indigenous Nationalities. The community groups have been instrumental to meet this target. As mentioned above, the revenue generated from hydro projects and protected areas and benefits derived from community forests are extensively used by indigenous and local communities for community development. The proposed legislation on access and benefit sharing has provisioned for knowledge documentation.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Number of members in the user groups such as in community forestry user groups, pro-poor leasehold forestry groups, and buffer zone management user groups
- Participation of indigenous and local communities in fund generation and mobilisation
- Use of traditional knowledge and practices for biodiversity conservation
- Sporadic documentation of traditional knowledge, techniques and practices
- Also documentation of such knowledge and skills in 30 community by early 2005.

VI) Constraints to achieving progress towards the target

- Low level of literacy of the indigenous people and dominating role of indigenous elites in decision-making process
- Lack of empowerment programmes specific to the indigenous people and language barrier

VII) Any other relevant information

Elites of the indigenous and local communities have shown greater interest in the recent days to get involved in biodiversity conservation, and there is an increasing trend to establish NGOs. Some NGOs have also shown interest to document the traditional knowledge, skill and practices related to biodiversity conservation.

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

- Although a separate target has not been set, various instruments are in place to contribute to this target. Public awareness, education and communication are the parts of providing information to the local people and encourage them to participate in plant conservation.

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?

a) Yes	x
b) No	

Please specify

- Promote public awareness activities to encourage people at large for the conservation of biodiversity;
- Release and share information on biodiversity conservation regularly;
- Encourage both print and electronic media in imparting useful information for the conservation of biodiversity; and
- Launch environmental education programmes.
-

III) Current status (please indicate current status related to this target)

- here are encouraging activities on conservation education, communication and public awareness. The number of people receiving conservation information is increasing and it has further encouraged them to participate in biodiversity conservation programmes.

Education

- Academic courses are offered in plant science where biodiversity conservation has been well incorporated right from the primary to tertiary levels of education. Environmental education is also offered from school to university level education where biodiversity is one of the major subjects. Courses on plant diversity are taught under the streams of environmental science, environmental management and botany.
- Biodiversity conservation has been integrated in non-formal education in almost all training, workshops and seminars organised by governmental and non-governmental organisations.
- The Institute of Science and Technology, the Institute of Forestry and the Institute of Agriculture and Animal Sciences of the Tribhuban University offer academic courses in biodiversity and conduct biodiversity related research and studies. The Kathmandu, Pokhara and Purbanchal Universities and other academic institutions affiliated with them also offer biodiversity studies and research.
- Other organisations also launch conservation education programmes. For example, the Central Zoo managed by KMTNC is regularly holding conservation education to the visitors, specifically the children.

Public Awareness

- Public awareness programmes are regularly launched by governmental and non-governmental organisations. Almost all the programmes and projects related to biodiversity conservation publish and disseminate information and activities not only to create awareness but also to bring the local people in the mainstream of biodiversity conservation.
- Regular celebration of wildlife week, conservation week, Wetland Day, World Environment Day, Biodiversity Day, World Heritage Day and Plant Resources Day are other means to create awareness about the conservation needs of plant resources. These occasions are attended by school children to policy-makers and politicians. During these occasions, theme-based poster competition, poetry and song contests among school children are also organised.
- The Natural History Museum of the Tribhuban University has a good depository of endangered and threatened flora and is open to general public. Similarly, the International Mountaineering Museum managed by Nepal Mountaineering Association in Pokhara is an important attempt to provide awareness in conserving mountain biodiversity and the environment outside the Kathmandu - the capital of Nepal.
- Nepal also organises floriculture trade fair, seminars, workshops, discussion programmes, and training to create awareness and develop human resources on plant science. Furthermore, postal stamps on flower series are issued regularly. For example, the Departmental of Postal Services issued stamps of picrorhiza (*Neopicrorhiza scrophularifolia*), Himalayan rhubarb (*Rheum nobile*), night jasmine (*Nyctanthes arbo-tristis*) and lotus (*Nelumbo nucifera*) on 24 December 2003. It means, various organisations have made concerted efforts to create public awareness about the importance of plant resources.
- Public awareness has also been enhanced through the celebration of international days such as biodiversity, mountain, environment and wetland days. Similarly conservation needs and importance of plant resources are highlighted during the celebration of national days such as plant resources, wildlife, forest, and soil conservation days.

Communication

- Importance of, and need for plant diversity conservation has been communicated through print and electronic media regularly. Special bulletins are published during the celebration of international days as mentioned above each year. A Journal of the Environment, published each year on the occasion of the World Environment Day, *Banko Janakari* (forest information) and other national journals also publish research articles on plant sciences. HMG organisations and NGOs regularly public newsletters, bulletins, magazines and bulletins frequently. For example, Plant Resources Bulletin, *Kalpabrikshya*, Conservation Newsletters, and Conservation News are regularly published and widely distributed by the Department of Plant Resources, Department of Forests, Department of National Parks and Wildlife Conservation, and Department of Soil Conservation and Watershed Management respectively. The print media publish news and feature articles on plant resources regularly with specific focus on pressure, threats and possible use of plant diversity for poverty reduction.
- Radio and television programmes are normally aired on weekly basis at the central and local level. The Nepal Radio airs programmes on agriculture, forestry and biodiversity weekly. Similarly, FM radios are also used to communicate biodiversity conservation messages in the local areas. A weekly TV programme named *Ankhijyal* is launched by a NGO - the Nepal Forum of Environmental Journalists. A number of project-specific radio and TV programmes are aired to communicate plant diversity information frequently.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

- Include public awareness activities as an in-built activity in each programme and project right from the design to implementation stages;
- Publish and disseminate project impacts on biodiversity conservation;
- Celebrate international and national days to create public awareness;
- Provide necessary information to media to create public awareness;
- Offer training and organise seminars and workshops as a part of capacity building; and
- Update and/or refine environmental education curricula.

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Inclusion of biodiversity courses in the environmental and natural management stream of the academic institutions
- Number of seminars, workshops, discussion programmes and training organised
- Number of radio and TV programmes aired

VI) Constraints to achieving progress towards the target

- Inadequate user-friendly information printed and aired
- Lack of public awareness information on local languages
- Lack of timely updating of plant diversity curricula in the academic courses
- Inadequate flow of information to the media
- Lack of orientation programme to journalists for biodiversity reporting

VII) Any other relevant information

In view of the nature of emerging problems and increasing unsustainable uses of plant diversity, user-friendly public awareness programmes need expansion all over the country. Local people should be encouraged to value their resources through extensive public awareness programmes.

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

- Develop human resources on biodiversity matters

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?

a) Yes	
b) No	x

Please specify

III) Current status (please indicate current status related to this target)

There are increasing numbers of plant scientists as science-stream of the academic institutions offer graduate and post-graduate degrees in plant science, environment and natural resource management. The plant scientists are mostly absorbed by the academic institutions, NGOs and development agencies. Plant scientists are involved in collection, identification and documentation of plant resources. In the recent days, NGOs are also involved in developing human resources for biodiversity documentation purposes. Plant scientists are mobilised to prepare the environmental assessment report which must incorporate baseline information, impacts, mitigation measures and monitoring indicates on plant resources of the project concerned which passes through the land uses containing vegetation. Seminar, workshop and training programmes are frequently organised to meet the demand for these activities.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)
Training activities are annually conducted by several organisations in areas of nursery development, inventory techniques, and preparation of the operation plan for community forests. The EIA training also include sessions on methods for information collection, impact identification and prediction of the development projects on plant resources. Orientation programmes, seminars and workshops are also organised occasionally to develop human resources, share information with the stakeholders, and encourage media to impart information about the importance and conservation needs for plant diversity.
V) Progress made towards target (please specify indicators used to monitor progress towards the target)
• Number of persons trained in plant identification and documentation • Number of plant scientists produced each year by the academic institutions • Number of publications about the importance of, and conservation needs for plant resources • Areas of facilities developed for plant conservation
VI) Constraints to achieving progress towards the target
• Inadequate technical manpower and funding • Outdated/obsolete and/or non-functional facilities • Limitation for career development in civil service because of the lack of new posts or non-fulfilment of vacant posts related to down sizing policy • Insufficient activities for plant exploration, capacity-building, technology development, and phyto-chemical screening activities in the government, NGOs and private sectors.
VII) Any other relevant information
Although plant resources are realised important, there is insufficient focus for the conservation of plant resources. It is also considered that plants will automatically be conserved as a part of habitat management of big animals.

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	X
b) No	
Please specify	
• Join national, regional and international networks for plant conservation activites	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	x
Please specify	
Although the importance of networking has been realised, no specific targets are fixed to join in the network and/or strengthen the existing networks.	
III) Current status (please indicate current status related to this target)	

Scientific and technological communities are benefiting from such networks in particular information sharing, human resources development, and plant identification.

- Nepal has an established network with foreign plant scientists, botanical gardens, herbaria and universities for plant exploration and identification purposes. The Department of Plant Resources - the governmental focal institution for plant resources - has established networks with Japanese, British, Indian, and French botanists (taxonomists) and also with Natural History (British) Museum, Botanical Survey of India (Calcutta), Royal Botanical Garden (Edingurgh and Kew UK), Harvard University Herbarium and National Herbarium, Smithsonian Institutions (USA), University of Grenoble and Natural History Museum (France), Kyoto University Herbarium and Tokyo University Herbarium (Japan), Komarov Botanical Institute (Russia) etc.
- Nepal is the member of International Network for Bamboo and Rattan (INBAR). The Department of Forest Research and Survey (DFRS) of the Ministry of Forests and Soil Conservation is serving as its focal point. The department is also a member of International Union of Forestry Research Organisations.(IUFRO).
- NARC is the focal point for the Consultative Group on International Agricultural Research (CGIAR), International Plant Genetic Resources (IPGRI), FAO Commission on Plant Genetic Resources (CPGR), International Legume Database Information System (ILDIS), and South Asia Network on Plant Gene Resources (SANPGR). These networks have been useful for sharing of information, knowledge and technologies.
- Nepal has continued plant exploration with foreign scientists and universities to collect and identify plant resources. The Botanical expeditions have also provided opportunities to train Nepalese botanists and also get higher education in the foreign universities.
- The Royal Nepal Academy of Science and Technology (RONAST) and Central Department of Botany, Tribhuvan University has also collaborated with the foreign academic institutions for the development of plant science in Nepal. For example, RONAST has academic linkages with National Research Council (Italy), Federation of Asian Scientific Academies and Societies, International Council of Scientific Unions, International Foundations of Sciences, Natural History Museum and Royal Botanical Garden (UK), and other several country level science academies of the developed and developing countries.

IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)

Promote collaborative activities with foreign institute and encourage Nepalese scientists for training

V) Progress made towards target (please specify indicators used to monitor progress towards the target)

- Number of botanical expeditions organised each year
- Number of participations in collaborative activities

VI) Constraints to achieving progress towards the target

- Inadequate facilitative policies and legal measures to develop and strengthen networks
- Low emphasis on the development of plant science and low level of funding
- Lack of funding for adequate participation in the networks

VII) Any other relevant information

Importance of networks has been realised but there is insufficient activities to participate and make effective use of the networks on plant conservation activities.

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.

d) This Global Strategy for Plant Conservation (GSPC) has provided a basis to understand the value of plant resources and mainstreaming plant resources conservation activities in development project and programmes as well. It has resulted to increase the mobilisation of the plant scientists in plant resources conservation. It has also provided an opportunity to expand plant exploration, identification and storage activities. Establishment of the seed bank is also the outcome of the need for conserving plant resources.

e) Actions are in progress on the contribution of achievement of the goals of the Strategic Plan of the Convention, although no specific targets have been set in the spirit of the Strategy at the national level.

f) Although the progress is too slow, it is in line with the 2010 target.

g) Institutional Settings as reported in the Second National Report and Biodiversity Strategy has been a guiding policy document to prepare and implement programmes. In order to translate Nepal Biodiversity Strategy (NBS) (2002) into action, a National Biodiversity Conservation Coordination Committee has been constituted under the chairmanship of the Honourable Minister for Forests and Soil Conservation. The District Biodiversity Conservation Committee has been constituted in 10 districts and it will be constituted in other districts on a phased manner. In the spirit of the NBS, five Thematic Sub-Committees, one each on (i) forests including protected area ecosystems and species, (ii) agriculture, (iii) sustainable use of biological resources, (iv) genetic resources, and (v) biosecurity have been already constituted. Similarly, HMGN has also constituted the Herbs and NTFP Coordination Committee under the chairmanship of the Honourable Minister for Forests and Soil Conservation for policy guidance and coordination. The Department of Plant Resources is serving as its secretariat.

   HMGN has implemented several policies and programmes including the Tenth Plan (2002-2007), Sustainable Development Agenda (2003) and Herbs and NTFP Development Policy (2004) that provide number of opportunities to mainstreaming GSPC in the coming years. Upon the instruction of His Majesty's the King, HMGN has launched a special programme on herbs management and commercialisation in the Karnali Zone (which includes 5 remote districts in western Nepal) to improve the socio-economic conditions of the poor people. This zone is well known for commercially and medicinally important herbs and NTFPs. Under this programme, a well-equipped nursery will be established in each 5 district; a feasibility study will be conducted for the production, processing and market management of herbs; herbs processing facilities will be improved, maintained and used; two herbs demonstration plots will be developed in each district to encourage local people in herbs cultivation; public awareness and training activities will be launched; and a herbs cooperative will be formed and mobilised.

   Plant diversity concerns have also been integrated in programmes and projects that will have impacts on biodiversity. In May 2003, HMGN made a policy decision on compensatory plantation at the rate of 1:25, i.e., if a project should cut one tree for its implementation, it should plant 25 saplings, manage for 5 years and hand over to community users or forestry organisation in its own cost. The June 2003 policy decision on integration of biodiversity in environmental assessments focuses on the collection of quantified information, impacts evaluation and corresponding mitigation measures with elaborated costs and environmental monitoring on biological resources. In addition, HMGN has implemented biodiversity sector support programme in 8 districts of the central Terai, landscape programme and other species conservation programmes in protected areas of the western Terai as well. The Agriculture Policy equally focuses, *inter alia*, on *in situ* conservation of agro-biodiversity, development of participatory biodiversity park, management of gene bank, and promotion of biodiversity documentation.

   In a nutshell, biodiversity conservation activities are ongoing within and outside the protected areas and agriculture sector with particular focus on species and ecosystem conservation, biodiversity documentation, and development of necessary policies and legislations. Nepal is finalising the biodiversity strategy implementation plan, and access to genetic resources bill which will provide additional impetus for the conservation of plant resources and also implement the GSPC more effectively.

h) Nepal has developed and implemented policies and programmes to achieve the Millennium Development Goals (MDGs). The eco-tourism, the management of buffer zone and community forestry programmes with active participation of local communities are contributing to MDGs. Utilisation of biodiversity and its products is contributing to reduce poverty, generate income for education in biodiversity-rich mountainous areas, use of biodiversity products in health care, and ensure environmental sustainability. However, the 2002 progress report on MDGs outlines lack of data and reported that overall status of programme implementation of MDGs is not encouraging. In goal 7 (ensure environmental sustainability), it has identified priority areas for

development assistance, *inter alia*, on (i) financial and technical assistance for the implementation of sustainable development agenda and biodiversity strategy action plan, (ii) technical assistance for promoting income generation through environmental conservation, and (iii) financial and technical assistance to translate lessons learnt from grassroots successes into national policy related to environment and natural resources.

i) One of the constraints is the low level of development assistance, in particular the financial assistance. Lack of convincing studies on economic, ecological and societal values (both direct and indirect values) of biodiversity has limited to mainstreaming the biodiversity in overall development process. The prevailing insurgency and the Donor's unwillingness for additional technical and financial assistance in the spirit of the Convention are the major constraints to expand and strengthen biodiversity conservation activities at the grassroots level.

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	
d) Yes, substantially implemented	X

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	
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	X

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	

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

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)	
c) Yes, formal cooperation (please provide details below)	X

Further comments on regional cooperation in applying the ecosystem approach across national borders.

- HMGN has endorsed ten years Terai Arc Landscape (TAL) - Nepal Strategic Plan (2004-2014) in February 2004 with the goal of conserving biodiversity, forests, soil and watersheds of the Terai and Churia Hills in order to ensure the ecological, economic and socio-cultural integrity of the region. The Plan aims to create and build upon effective partnerships with local communities as resource managers, beneficiaries and stewards. The effective implementation of the Plan will contribute to maintain the ecological integrity and conserve biodiversity. Furthermore, biodiversity conservation is linked with the livelihood improvement of the local communities through landscape level conservation approach. The TAL Project under implementation links 11 transboundary protected areas from *Parsa* Wildlife Reserve in Nepal to *Rajaji* National Park in India. It covers 4 and 7 protected areas of Nepal and India respectively. It encompasses an area of 7000 km^2 of protected area and 27,500 km^2 of forests in both countries. This new initiative would provide lessons for the applications of landscape approach in biodiversity conservation, and promote regional cooperation.
- The Royal *Chitwan* National Park (RCNP) provides habitats for tiger as in the adjoining *Valmiki* Tiger Reserve (VTR) of Bihar State of India. The park authorities of RCNP and VTR exchange information and coordinate to check illegal activities through patrolling and surveillance. Similarly, the Royal *Bardia* National Park (RBNP) and Royal *Suklaphanta* Wildlife Reserve (RSWR) in far-western *Terai* region of Nepal are sharing their conservation activities with *Dudhuwa* National Park in India. Here efforts are being made to maintain transboundary movement of important wildlife including Tiger, Elephant and Rhinoceros.
- An understanding has been maintained with the authorities of the Tibet Autonomous Region (TAR) of China on the protection of musk-deer, red panda and other endangered wildlife species between Sagarmatha National Park in Nepal and Quomolongma National Park in TAR.
- A regular meeting is taking place with the concerned authorities of India, China and Nepal to solve the problems of poaching and illegal trade in the Transborder areas.

  The transboundary biodiversity conservation efforts are working well for information sharing, ensure wildlife movement and control illegal activities.

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	
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 facilitating the exchange of experiences, capacity building, technology transfer and awareness raising to assist with the implementation of the ecosystem approach.

- The country level case studies have been developed to share experiences and lessons on biodiversity conservation. Studies have been conducted in TAL project area. Awareness raising and capacity building is one of the core programme areas for biodiversity conservation. Regional and sub-regional seminars, workshops and trainings are frequently organised to share information and build capacity. However, specific case studies have yet to be prepared and shared in the spirit of COP decisions.

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	

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)	X

Further comments on the creation of an enabling environment for the implementation of the ecosystem approach.

Nepal has been able to protect 80 percent of the existing 118 ecosystems through the protected area network. The Protected Area system represents almost all ecological zones and has been instrumental in conserving landscapes and biodiversity. Some biodiversity rich areas lie outside the protected area network and most of them are handed over to the community users to manage in the form of community forests. By April 2005, about 20 percent of the total forests have been handed over to community forestry user groups. However, about 30 % of the ecosystems remain outside the protected areas which need special attention.

Physiographic zone	Surface area (%)	Number of Total Ecosystems	Number in Protected Areas	% in Protected Areas
Terai and Siwaliks	27	23	15	65
Mid-hills	30	52	33	63
High lands and others	43	43	32	74
Total:	**100**	**118**	**80**	**68**

Nepal is implementing ecosystem management models by declaring 8 buffer zones around the PAs (National Parks and Wildlife Reserves) with active participation of local communities. These ecosystems include farmland, wetlands, rangelands, forest, etc.

Traditional use and rights of local people especially for livestock grazing and harvesting of forest resources (timber, firewood and fodder) for their basic needs are also respected. The production forests in the *Terai* and along the foothill of *Siwaliks* are now being managed under Collaborative Forest Management, where the local communities are taken as one of the key partners in forest management. The northern part of *Terai* forest along with the foothills of *Siwaliks* are also being managed under the *Terai Arc Landscape* (TAL) program, where emphasis is given on biodiversity conservation and livelihoods improvement of local communities.

In order to promote for effective implementation of this approach, capacity building would be a corner stone.

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.

- Bilateral cooperation with Tibet Autonomous Region of China in *Sagarmatha* National Park area
- Multilateral cooperation with India and China on joint study of biodiversity in *Kanchanjunga* Conservation Area (KCA) to make it a tri-national peace park
- Sub-regional cooperation within SAARC (South Asian Association for Regional Cooperation) framework for biodiversity programmes

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.

- Nepal participates in transboundary meetings with both its neighbours – China and India on matters related to the conservation of biodiversity. Cooperation has been extended on species protection, transboundary movement of endangered species.
- Nepal has also extended cooperation with other countries on transboundary movement of migratory birds including geese, cranes and storks.
- Being an active member of ICIMOD (International Centre for Integrated Mountain Development) and SSARC (with their headquarters in Kathmandu) and SACEP (South Asia Cooperative Environmental Programme), Nepal is involved in developing and implementing sub-regional policy frameworks on biodiversity and multilateral environmental agreements (MEAs).

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.

- HMGN underscores the importance of establishing synergies amongst the MEAs. Efforts are underway to develop synergy programmes on species conservation taking into consideration the linkages between CBD, UNFCCC and UNCCD. In this direction, the National Action Programme (NAP) on UNCCD approved by HMG in February 2004, urges to develop carbon sinks through biodiversity conservation by promoting the rehabilitation of degraded lands with broad-leaved trees and other plants, ensuring biodiversity conservation, and minimising loss of nutrient-rich top soil from forests. It also urges to establish synergy between relevant conventions and implement common programmes.
- The First Initial National Communication to COP of UNFCCC (July 2004) also urges to develop and implement adaptation options to biodiversity by, *inter alia*, refining climatological projections and increasing the understanding on how climate affects species, mitigating CO_2 concentration through extensive plantation of selected trees in mid-hills, promoting and protecting natural regeneration, and by conducting ecological research and monitoring on vulnerability and adaptation to climate change.
- There are also potentials to develop and implement synergy programmes on species conservation taking into consideration the provisions of CBD, CITES, Ramsar convention, and plant protection agreement in addition to UN Framework Convention on Climate Change, and UN Convention to Combat Desertification.

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.

a) Although the progress is slow, it is in line with the 2010 target, and spirit of the Convention. There is an increasing realisation about the need for species, ecosystem and genetic resources conservation. Coverage of protected area network has been increased by declaring the buffer zones (about 890 km^2 or about 0.6% of the total area of the country) during the reporting period of second and third national reports. People's participation is increasing in species and ecosystem conservation in buffer zones as they are receiving 50 percent of the total revenue generated in the respective protected areas.

b) Programmes have been developed and implemented in the spirit of the Strategic Plan of the Convention. Institutional settings as reported in the second national report are now working. The coordination mechanisms have further been enhanced by constituting NBCC, DBCC and thematic sub-committees. The sectoral policies and programmes have also accommodated biodiversity conservation aspects.

c) Some of the targets of 2010 have been met. The policies and programmes on biodiversity conservation accommodate the spirit of the 2010 target.

d) Conservation programmes follow the Biodiversity Strategy and its implementation plan is nearing to completion. The Plan will help stakeholders to refine and implement site-specific activities, and further streamline biodiversity conservation programmes.

e) The biodiversity conservation programmes are contributing to achieve the MDGs 1 and 7 in particular as the national policies focus on sustainable use of biodiversity and its products. However, the prevailing insurgency has limited to the achievement of the desired goals as programmes implementation lack expansion in rural parts of the country.

f) Information sharing with the Parties has been limited and development and re-packaging of user-friendly for the indigenous and local communities has also been limited due to financial constraints. Although capacity building has been talked at the national and international fora, much still remains to materialise it. Nepal has yet to develop targets in the spirit of the 2010 targets, and GSPC.

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)	
d) Yes, comprehensive strategies, plans and programmes are in place (please provide details below)	X

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

- The Nepal Biodiversity Strategy (NBS) provides an operational planning framework for the conservation of biological diversity, maintenance of ecological processes and systems and ensure equitable sharing of benefits.
- National policies formulated after 2002 such as (i) Wetland, (ii) Agriculture Development, (iii) Wildlife Farming, Breeding and Research, (iv) Domesticated Elephant Farming, (v) Tenth Plan, (vi) Sustainable Development Agenda, and (vii) Herbs and NTFP Development, and also National Action Programme on UNCCD and First Initial National Communication to UNFCCC focus sufficiently on the conservation of biodiversity in different ecosystems and encompasses the three objectives of the Convention. Over 19 percent of the country's landmass has been designated as protected areas for the conservation of biological

diversity. Equal emphasis has been given for the sustainable use of biodiversity and its products, in particular the MAPs and NTFP. Benefit sharing has been institutionalised for products of protected areas, and forest ecosystems such as community forests, leasehold forests and water bodies managed by local communities.

- Measures are being taken to curb down the unauthorized import of hybrid seeds, chemical fertilizer and pesticides.
- In a nutshell, Nepal's policies and programmes provide ample opportunities for implementing the three objectives of the Convention.

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.

Although specific targets have not been set, the following initiatives have been taken and/or continued based on the national strategies and action plans for the implementation of the Convention's provisions.

Cross-Sectoral:

- Ethno-botanical study, bio-prospecting of unutilized and under-utilized plant resources, and documentation of forests and agriculture biodiversity
- Biodiversity education and awareness
- Development of biotechnology for Germplasm conservation and utilization

Forest Biodiversity:

- Encouragement to biodiversity conservation through community participation and awareness
- Assessment of critical forests ecosystem, and sustainable management of forests in all ecological zones
- Domestication and/or *ex-situ* conservation of MAPs and NTFPs, and conservation of endemic, endangered and rare animals and plants and their habitats
- Strengthening of wildlife anti-poaching activities and CITES implementation.
- Promotion of eco-tourism with biodiversity conservation.
- Collection of 2 % (conservation tax) from hotels and restaurants in and around the protected areas (in operation).

Agro-biodiversity:

- Formulation of National Agro-biodiversity policy (in process) and initiation of biodiversity documentation
- *In-situ* (on farm) conservation of agricultural crops, livestock and fisheries and *ex-situ* conservation of indigenous livestock breeds.

Wetland biodiversity:

- Implementation of wetland policy since 2003 and inclusion of selected wetlands under Ramsar sites
- Implementation of programmes for effective conservation of Ramsar sites including management of wetlands against invasion of alien species, and national level inventory of wetlands

Mountain biodiversity:

- High altitude biological studies, and biodiversity conservation through watershed management
- Linking mountain protected areas (Kanchanjunga Conservation Area with India and China; and Sagarmatha National Park with Quomologma National Park in Tibet).

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.	
Activities identified in Number 13 are priority activities. Some of them are already completed, some in operation and some are waiting for funding from donor agencies.	

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.	
• Three objectives of the Convention are well incorporated into forestry and agriculture related policies and programmes. • *In-situ* conservation of wild races/relatives of agro-biodiversity is given due attention. • Conservation and sustainable use and benefit sharing aspects are also integrated for the management of protected areas, community forests and collaborative forests. Benefit sharing mechanism is functioning in protected areas, community forests, collaborative forests, and also water use projects managed water users associations. The NTFP cultivation and wildlife farming has also been promoted recently to enhance biodiversity conservation, and contribute to poverty reduction through their sustainable management and use.	

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	• Protection and maintenance of wetland ecosystem including the Ramsar sites and protected areas has been promoted; • Co-ordination with neighbouring countries is ongoing to protect the habitat of such species. • Nepal has realised the need for being a Party to the Convention on Migratory Species (CMS), and it is in process.
(b) Conservation, sustainable use and/or restoration of migratory species' habitats, including protected areas	• Same as in (a); sustainable use of migratory species has not been initiated.
(c) Minimizing or eliminating barriers or obstacles to migration	• No such case has been identified yet.
(d) Research and monitoring for migratory species	• Very little research and monitoring have been done so far.

(e) Transboundary movement	• Terai Arc Landscape (TAL) project is under implementation in collaboration with WWF, Nepal Programme to conserve biodiversity and connect *Terai* and *Siwaliks* from East to West Nepal for the smooth (undisturbed) movement of big mammals within and between country(ies). The TAL programme covers 2 national parks and 2 wildlife reserves in Nepal (Parsa and Royal Suklaphanta wildlife reserves, and Royal Chitwan and Royal Bardiya National Parks), and 3 national parks and 4 wildlife sanctuaries in India (Valmikinagar, Katarniaghat, Kishanpur, and Sonanadi wildlife sanctuaries and Dudhuwa, Rajaji and Corbett National Parks). • Emphasis has been given to maintain wildlife corridors between the neighbouring countries for tranboundary movement of big mammals like Tiger, Rhinoceros, and Elephants.
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	X
c) Yes, some projects have been implemented (please provide details below)	
Further comments on the projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use.	
This is the new area for intervention. Nepal has prepared and shared the First Initial National Communication on UN Framework Convention on Climate Change in 2004 and it has identified impacts of climate change phenomenon on biodiversity. Nepal is developing projects on alternative energy for funding from Clean Development Mechanism (CDM). The project will likely contribute to reduce use of plants as firewood, a major source of household energy in Nepal, thereby contributing to reduce impact on wildlife.	

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	X
b) No, but relevant mechanisms are under development	
c) Yes, relevant mechanisms are in place (please provide details below)	
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.	
The First Initial National Communication on UNFCCC and National Action Programme on UNCCD underscore	

the importance of developing and implementing synergy programmes for the effective implementation of provisions of the CBD, UNFCCC and UNCCD. Till now, synergy programmes have not been developed. This requires to developing a functional coordination between the focal points. The Ministry of Forests and Soil Conservation is the focal ministry for CBD, and the recently established Ministry of Environment, Science and Technology serves as the national focal points for UNFCCC and UNCCD.

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.

a) Implementation of Article 6 of the convention has been rooted in development planning and implementation in Nepal. Local people are benefited from conserving the biodiversity. Conservation and sustainable use aspects are well addressed through policies and legislations in the protected area system, community forests, pro-poor leasehold forests, and collaborative forest management. As the benefits are shared with the users, indigenous and local communities are benefiting from this initiative. In Nepal, linkage between climate change and biodiversity conservation has been recently understood and initiatives are yet to be taken in the spirit of the UNFCCC and CBD. However, ongoing programmes on forest management would contribute to absorb green houses gases and would also function as sink.

b) The Cartagena Protocol on Biosafety is under implementation to develop national framework on policy, legal system, risk assessment, and administrative system. Biodiversity conservation aspects have been integrated in the sectoral policies and programmes, and importance of biodiversity has been greatly realised, and communication, education and public awareness activities have been implemented extensively. Indigenous and local communities have taken active role in biodiversity conservation.

c) Nepal's national policies, strategies and programme are geared towards the achievement of the three objectives of the convention and would contribute to achieve the 2010 targets. Although national targets have not been fixed, Nepal's effort would contribute to meet the 2010 targets. Most of the initiatives are sufficiently in line with the 2010 targets as well.

d) Sustainable use of biodiversity and its product including benefit sharing mechanisms are in place which would contribute to achieve goals 1 and 7 of the MDGs. The national effort on biodiversity conservation would also partially contribute to generate funding for local level education. In Nepal, traditional use of biodiversity for health care has been almost replaced by modern medicines in the urban and sub-urban areas. However, rural people still use medicinal plants for curing the diseases.

e) Although policies and programmes are in line with the objectives of the convention, financial resource is becoming one of the major constraints for their effective implementation. About one-third of the total population are still below the poverty line (income of less than USD 1 per day). It is difficult to bring the poor people in the mainstream of biodiversity conservation. It rather encourages over-exploitation. Other constraints include low level of knowledge, skill and technologies for sustainable use. Nepal knows where biodiversity is available but does not have information about its quantity thereby demanding for inventory. In addition, other constraints include lack of trained manpower, research infrastructure, logistic support and incentives as also mentioned in the second reporting. Increased species conservation regime has also increased dependency over the donors as conservation pays later while people have hand-to-mouth problems. Hence, there is an urgent need for linking biodiversity conservation with livelihoods to bring the poor people in the mainstream of *in-situ* conservation of biodiversity.

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.

Identification of biodiversity deserves special attention to know the diversity and abundance as well. Nepal has continued plant exploration and identification programmes in limited scale because of the low level of funding. Research on wild animals and their groups is carried out before the preparation of the management plans. Some specific researches are also ongoing on big animals about the habitat preference and behaviour.

The target monitoring is in place. Monitoring about the impacts of development projects on different forms of biodiversity is yet to be in place. Specific monitoring on biodiversity has been conducted in few projects only. Also biodiversity monitoring is limited to species level only.

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)	19.4 % of the total areas designated as protected areas
b) at species level (please provide number of species per taxonomic group and percentage of total known number of species in each group)	Species of 15 plants, 58 mammals,40 birds, 13 reptiles, 1 amphibian and 2 insects included in CITES appendices
c) at genetic level (please indicate number and focus of monitoring programmes)	Not in place

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

Effective monitoring system is not in place due to the lack of financial and technical resources. However, the Nepal Biodiversity Strategy (2002) has focussed on monitoring of the following parameters:

- **Monitoring of Habitats**: Habitat preference monitoring of big animals within the protected areas has been realised and initiated such as in Royal Chitwan National Park.
- **Monitoring of Ground Conditions**: Each PA will develop its own monitoring program according to the guidelines provided by DNPWC.
- **Monitoring of Indicator Species**: The need for monitoring of key species has been realised but monitoring has not been started.
- **Monitoring of Benefit Sharing**: Periodic assessment has been carried out to know the usage of benefits shared between the government and the local communities in the protected areas and community forests.
- **Monitoring of Management**: The effectiveness of management system within the PAs has been initiated in the selected protected areas in order to refine sustainable management approaches for the conservation of biological resources.
- **Monitoring of Physical Parameters**: Few studies on water pollution and effects on species have been conducted as a part of post-graduate thesis.

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

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

Further comments on monitoring programmes on key threats to biodiversity.

- Development projects in the forest areas have impacted biodiveristy in particular the plants. Realising it and

in order to encourage for imapcts avoidance, minimisation and to develop compensation , HMGN has made a policy decision to include detail baseline data and information, and monitoring requirements as well.

- Impacts of climate change on biodiversity has been noticed in lowlands and high mountains but biodiversity monitoring in related to climate change has not been initiated.
- Pollution and eutrophication are common in most of the wetlands including rivers and lakes, due to the direct discharge of wastewaters and city drainage. No concrete mechanism has been set up to monitor and take further action.
- Studies on change in forest cover are carried out periodically by the Department of Forest Research and Survey.
- Some of the commercially important plant species and their products have been used without knowning the growing stock and their availability in the wild. Inadequate enforcement of regulatory mechanisms and anti-poaching activities due to current situation of the country would lead to overexploitation. In case of wild animals, only regulated hunting of blue sheep is provided in Dhorpatan Hunting Reserve.
- Nepal has to mainstream process and impact monitoring on biodiverity and other environmental parameters.

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	X
c) Yes, some mechanisms or systems are being established	
d) Yes, some mechanisms or systems are in place (please provide details below)	
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.

Management information system has been developed for the protected areas and community forests. However, it lacks details on biodiversity such as population, status, impacts and so on.

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.

At the national level, physical target monitoring is done regularly but it does not indicate the performance of the programmes in conserving biodiversity at the ground.

The Nepal Biodiversity Strategy (2002) has provided a framework for biodiversity monitoring and it focuses on progress monitoring of: (i) habitats, (ii) ground conditions, (iii) indicator species, (iv) benefit sharing, (v) management, and (vi) physical parameters.

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.
Impacts of limited biodiversity monitoring are neither quantified nor qualified. The target monitoring is in place. Need for performance and impacts monitoring has been realised in the recent days due to increasing pressure of the development projects on biodiversity, and expanded use of MAPs and NTFPs.

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	
b) No, but a plan is under development	
c) Yes, a plan is in place (please provide details below)	X
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.

In Nepal, plant exploration activity started in 1802 A.D. It got momentum after the advent of democracy in 1951 and after the Establishment of the Department of Medicinal Plants (now Department of Plant Resources). Each year plant exploration is carried out through government funding and in collaboration with universities and museums or gardens of the developed country Parties to CBD. Nepal has shortage of financial resources to speed up to invest for the strengthening of museums and herbaria. Although, Nepal has planned to publish Flora of Nepal, strengthening of the national institutions is severely affected due to financial constraints, and it has yet to do lot of work in the spirit of the COP decision IV/1.

Based on the plant exploration, a total of 10,091 plants (out of this, 5884 species are flowering) have been identified. Of them, about 700 species are known to contain medicinal properties.

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 Department of Plant Resources (DPR) has a regular programme for inventory, collection and identification of flora from different physiographic regions. The DPR has a National Herbarium, tissue culture laboratory and two botanical gardens in Kathmandu and Daman for *ex-situ* conservation of endangered and threatened plant species. In addition, Central Department of Botany of the Tribhuvan University (CDB-TU) has also maintained herbarium and conducts research on plant science. The number of taxonomists is low and existing infrastructure is of moderate quality. The national herbarium is facing a problem to protect the specimens from moisture as the herbarium is located in high rainfall area of Kathmandu.
- Although a separate plan has been developed for plant exploration as a part of Nepal Flora publication, it has not been implemented due to lack of funding arrangement.

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.	
· The Royal Nepal Academy for Science and Technology (RONAST) has started a Darwin Initiative Project in collaboration with the DPR and CDB-TU and with the assistance of Royal Botanical Garden Edinburgh (RBGE) to strengthen the institutional base for plant taxonomy in Nepal. Eighteen Nepalese scientists have been selected as Darwin scholars from RONAST, DPR and CDB-TU. They will be trained on field techniques of data recording and plant specimen collection, status assessment, modern herbarium techniques for collection, management, documentation and utilisation. This will hopefully contribute to develop human resources for the preparation of the Nepal Flora, and will also contribute to achieve the objectives of Global Taxonomy Initiative, and the Global Strategy for Plant Conservation in a limited scale. · Few Nepalese taxonomists have received training from UK, Japan and other countries as per the availability of fund. Local level training is also organised occasionally by the DPR, CDB- TU, RONAST and NARC based on funds availability.	

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	X
c) Yes, for some institutions	
d) Yes, for all major institutions	

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	X
b) No, but collaborative programmes are under development	
c) Yes, some collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessments)	
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.	

No specific programmes have been developed.

[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.

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

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	X
c) Yes, some activities are being undertaken for this purpose (please provide details below)	
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.	
Herbaria of neighbouring and other friendly countries are regularly used for plant identification purposes. Specific collaboration activities are yet to develop.	

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.	
There is an increasing realisation of the need for listing species, and developing and implementing species conservation plan for wild biodiversity, although much focus is on wild animals.	

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.	
Emphasis has been given to document major species of wild plants and animals in the environmental assessment process to identify impacts of the development projects on biodiversity.	

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

33. * On Article 8(i), has your country endeavoured 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.	
Utilisation of biodiversity and its products of the lowland national parks and wildlife reserves have been regulated. In mountain parks, local peoples are provided access for cattle grazing. The protected area system has well established mechanism to achieve the three objectives of the Convention. In community forests, sustainable use of biodiversity has been promoted as decided by the users in the spirit of the operational plans.	

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 additional initiatives after second reporting period include the implementation of following policies. No specific legal measures have been developed and enforced during the period of second to third national reporting periods. • National wetland policy (2003) • Format for biodiversity documentation (2004) • Domesticated elephant management policy (2003)	

- Working policy on wildlife farming, breeding and research (2003)
- Working procedure for the handover of management of national parks, wildlife reserves and conservation areas to NGOs and other organisations (2003)
- Manual for collaborative forest management (2003)
- Agriculture development policy (2004)
- Initial Environmental Examination (IEE) manual for forestry sector, 2004
- Strategy for collaborative activities amongst the government, civil society and private sector in forests, 2005

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.

Infrastructure development projects have accelerated pressure and stress on wild biodiversity due to loss of forests as a part of site clearance, fragmentation of habitats and/or indirect impacts due to influx of labour force and other activities during the construction period. As forests are still considered as the "free gift of Nature" and the pressure is inevitable for at least site clearance. Hence, compensatory mechanisms have been introduced. For example, the proponent planning to implement the project in the forests has to quantify loss of forests and species during the environmental assessment process, plant indigenous species at the rate of 1:25 (i.e., plantation of 25 plants for each tree felled down), manage for 5 years in its own cost, and handover to local communities/authorities for future management.

Emphasis has been given to thoroughly review biodiversity information, loss of, and impacts on species during the review process of environmental assessment reports. Accordingly, compensatory measures have been included. However, implementation of such measures is yet to be monitored although the Environment Protection Act (1996) and its Regulation (1997) oblige the competent government organisation to monitor impacts in the areas as included in the approved environmental assessment reports. Recently, MFSC has developed an environmental monitoring process and format to institutionalise environmental monitoring with particular focus on the green sector.

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

Biodiversity conservation activities have been internalised and population of endangered species such as tiger and musk deer is increasing. Over 19 percent of the total area of the country is managed under protected area system. Other forest areas have also been conserved with focus on species and ecosystem diversity. These activities would contribute to achieve the goals of Strategic Plan of the Convention, and also 2010 targets. The biodiversity strategy implementation plan has been developed through extensive consultation process and will be finalised soon. The biodiversity conservation programmes would also contribute to achieve the MDG goals, in particular 1 and 7. However, implementation of biodiversity conservation programmes in different ecosystems has been limited due to lack of financial and technical assistance, capacity building activities and inadequate human resources.

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)	X
d) Yes, comprehensive targets and indicators established (please provide details below)	

Further comments on targets and indicators for protected areas.

- The Tenth Plan has spelled out annual plans and has fixed targets and budget for protected areas. Indicators are also fixed to monitor the progress.
- There are several ongoing activities in the protected areas, some examples are:
  - Characterization of genetic diversity of threatened, economic and ecological species like rhino, wild buffalo, tiger and musk deer, etc and plant species like Yarshabumba (*Cordyceps sinensis*), Panch aunle (*Dactylorrhiza hatagirea*), etc. The indicators are: scientific publications.
  - Promotion of rural energy development in buffer zone areas and tourist areas like Sagarmatha National Park. The indicators are: decrease in demand of firewood from the protected areas and available of clean energy to the rural people.
  - Development of biotechnology for germplasm conservation of both wild and domesticated flora and fauna. The indicators are: advancement in conservation and sustainable use of genetic resources.

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	X
b) No, but relevant programmes are under development	
c) Yes, limited actions taken (please provide details below)	
d) Yes, significant actions taken (please provide details below)	

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

Over 19 percent of the total area of country is under protected area regime. During the last three years, buffer zones for the Sagarmatha National Park, Royal Suklaphanta Wildlife Reserve and Koshi Tappu Wildlife Reserve have been declared in 2002, 2004 and 2005 respectively. The total area of these buffer zones is about 590 km^2. The Royal *Suklaphanta* Wildlife Reserve has been recently identified as a potential habitat for black buck conservation.

Although the protected area system is considered under-represented in the mid-hills of Nepal, community forests have been promoted in the mid-hills. The community forests are exclusively managed by the local people by forming user groups. HMGN is in the process for integrating additional provisions for biodiversity conservation aspects in their operational plans.

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	
b) Not applicable	
c) No, but relevant actions are being considered	
d) Yes, limited actions taken (please provide details below)	X

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.

Marine ecosystem is not applicable to Nepal. The inland water ecosystems included into the protected areas are managed as per the legal provisions. The National Parks and Wildlife Conservation Act (1973) provides provisions to prohibit to damming, water diversion, and use of explosives in the rivers and streams that flow from the national parks. The Water Resources Strategy (2002) promotes the conservation of priority watersheds and aquatic ecosystems, development and implementation of water and wastewater quality standards and also implementation of aquatic ecosystem protection, rehabilitation and management programmes to contribute to species conservation. The provisions of Water Resources Strategy are applicable to water bodies lying outside the protected areas.

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.

HMGN in cooperation with WWF Nepal Programme has implemented Terai Arc Landscape (TAL) programme to join the protected areas from East to West with a part of Terai and Siwaliks in the form of natural corridor to ease free movement of wildlife (especially big mammals) and further strengthening of biodiversity protection. As mentioned above, the TAL programme covers 11 protected areas, 4 in Nepal and 7 in India.

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)	
d) Yes, EIA guidelines are applied to all relevant projects or plans (please provide details below)	X

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

- HMGN is implementing the National EIA Guidelines (1993) and the EIA Guidelines for the Forestry Sector (1995) which help to assess the impacts of the project on the environment, including the protected areas.
- The Environment Protection Act (1996) and Environment Protection Regulations (1997) provide provisions to prepare and approve EIA report of the prescribed projects. Any project that is planned for implementation in the protected area must undergo EIA process and get approval from the competent government authority before implementation. As EA reports are legally binding, they should be implemented.
- MFSC has developed the Review Guidelines for IEE and EIA reports of the forestry sector (2003) and IEE Manual for Forestry Sector (2004) to further strengthening the EA process in the forestry sector. The guidelines and manual emphasise to document biodiversity aspects and mitigation measures in greater detail. MFSC has also started the implementation of CBD guidelines in conducting and evaluating EIA reports.

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.

The existing legislative and institutional system is sufficient to handle this situation.

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.

Three types of management modalities are under implementation in the protected areas. The national parks and wildlife reserves are exclusively managed by the government. The conservation areas are either managed by the government or by the national statutory NGO. There is also a possibility to handover conservation areas to local NGOs, registered under the Association Registration Act. The capacity building components are integrated in the programmes. However, specific capacity needs assessments have not been carried out.

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)	
d) Yes, relevant plan is being implemented (please provide details below)	X

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

The National Parks and Wildlife Conservation Act (1973, and amendment 1994) provides provisions to share financial benefits. HMGN should provide up to 50 percent of the total amount generated in the protected areas for community development, in particular for the development and management of buffer zones. HMGN has constituted an Environment Conservation Fund in accordance with the provisions of the Environment Protection Act (1996). In order to administer this fund, the Environment Protection Regulations (1997) also provides provision to constitute a Management Committee under the chairmanship of the Secretary of the Ministry of Environment, Science and Technology (MEST). The committee has been represented by the National Planning Commission Secretariat, Ministry of Finance, Nepal Rastra Bank (Central Bank), Federation of Nepalese Chambers of Commerce and Industries and an environmental expert or chief of the environment-related NGO.

MEST will serve as its secretariat. Fund could be used for the conservation of natural resources even of the protected areas. The amount generated in the protected areas is deposited in the national consolidated fund, and HMGN provides funding for approved development programmes annually.

HMGN has also established National Agricultural Research and Development Fund in 2001. HMGN has adopted an approach to replenish this fund each year by providing about 10 percent of the total programme budget of the agriculture sector. The Fund targets government, non-government, educational, private sector and civil society organisations involved in agricultural research and development. The Fund will be allocated for research and development in five thematic areas which include: (i) agricultural productivity of the farming system; (ii) crop research and extension; (iii) livestock and fisheries research and extension; (iv) sustainable utilisation of natural resources and protection of the resource base and the environment; and (v) NTFPs and crops in the hills. This fund changes its priorities as per demand and could be utilised for agro-biodiversity studies and conservation in the buffer zones and conservation areas.

In addition, there are also other funds, but no separate sustainable financing plans are developed and implemented in the protected areas.

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	
c) Yes, some national methods, standards, criteria and indicators developed and in use (please provide details below)	X
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.

Protected area-specific criteria and indicators are developed to know the effectiveness of the programmes implemented. The effectiveness of the management interventions in the Royal Chitwan National Park has been studied. The governance is very strong and effective in the buffer zone, and conservation areas. These are managed exclusively by the local people and/or indigenous communities.

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.

a) The implementation of this article and associated decisions is satisfactory. There are encouraging impacts of eco-tourism to generate funds.
b) The protected area programmes contribute significantly to achieve the goals of the Strategic Plan of the Convention
c) It also contributes to achieve the 2010 targets on species and ecosystem conservation within the protected areas.
d) The protected area programmes are in line with the national policies and biodiversity strategies.
e) The protected area programmes will continue to achieve the goals 1 and 7 of MDG.
f) The strict protection regime has changed the land uses of the Tarai parks and reserves. It has contributed to increase wildlife population but conversion of grassland to woody vegetation in some protected areas has increased competition for the limited resources. The park-people conflict has arisen in areas where wild

animals frequently visit the agriculture farm land and destroy the products. The habitat management programmes are to be extended for wildlife. For this, research and development component would be required but such programme does not get funding in general. Although separate trust funds have been established, there is no fund replenishment mechanism to attract for outside funding.

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	X
c) Yes, some alien species identified and tracking system in place	
d) Yes, alien species of major concern identified and tracking system in place	

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.

- In forestry sector, the introduction of species of *Eucalyptus, Populus, Gravelia, Arocaria, Thuja* and *Cryptomeria* and some other species might produce adverse impacts on local ecosystems and wildlife habitats. Besides Eucalyptus, other alien species are planted as avenue trees and no such impact has been noticed. However, large scale plantation of *Eucalyptus* species in the Terai (Sagarnath area), as fast growing species to replace the degraded sub-tropical hardwood forests, has shown some adverse impact on the mammalian habitat, but no research has been done to assess the impacts and risks in Nepal so far.
- Studies showed that *Eupatorium glandulosum, E. odoratum, Lantana camera* are invasive alien species in the Terai and Mid-hills of Nepal including the protected areas. Invasion of water hyacinth (*Eichhornia crassipes)* in Ramsar sites and some important national wetlands has been noticed. In addition to this South American climber (*Mikania micrantha)* is common in some wetland areas of Koshi Tappu Wildlife Reserve. There is no systematic monitoring mechanism.

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.

Invasion of some alien species is recently understood in the scientific and technological communities. Local peoples are encouraged to plant and manage indigenous species. No specific actions are implemented for alien invasive species. Local NGOs are recently involved in removing invading species such as water hyacinth such as in Phewa Lake, Begnas and Rupatal around Pokara valley.

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	X
b) Yes, bilateral cooperation	
c) Yes, regional and/or subregional cooperation	
d) Yes, multilateral cooperation	

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	X
b) Yes (please provide details below)	
Further comments on the use of the ecosystem approach and precautionary and bio-geographical approaches in work on alien invasive species.	
Although ecosystem approach has been introduced for the conservation of protected areas, and forests, no specific programme on alien invasive species has been undertaken. However, cleaning of some lakes, identification of alien species and also utilisation of such species have been explored.	

50. Has your country identified national needs and priorities for the implementation of the Guiding Principles? (decision VI/23)	
a) No	X
b) No, but needs and priorities are being identified	
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.	
The guiding principles are yet to be accommodated into national policies and programmes. HMGN has so far focused on precautionary approach to discourage pressure on forests which is the depository of wild biodiversity.	

51. Has your country created mechanisms to coordinate national programmes for applying the Guiding Principles? (decision VI/23)	
a) No	X
b) No, but mechanisms are under development	
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.	
No such mechanisms are developed.	

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	X
b) No, but review under way	
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.	
X	

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	X
b) No, but potential coordination mechanisms are under consideration	
c) Yes, mechanisms are in place (please provide details below)	
Further comments on cooperation between various sectors.	
X	

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

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.	
Introduction of any alien species in large scale needs EIA. Strategic Environmental Assessment (SEA) is recently	

introduced at national-level policy but not yet in practice. None of the EIA reports have addressed alien invasive species. The SEA study of the Nepal Water Plan (2003) has also not addressed the possible problems of alien species. For other policies, plans and programmes, SEA has not been carried out. Concern on alien ivasive species is new to Nepal and this issue is sometimes discussed in the academic and scientific communities.

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	X
b) No, but relevant measures and policies are under development	
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.

The severity of, and threats of invasive species has not been studied at the national level. Issues of alien species are occasionally discussed in scientific communities only.

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.

- There is a need to study issues related to invasive alien species (IAS) and undertake policy measures to regulate and control them. This area is yet to get attention.
- Many agricultural crops and unknown weeds have been introduced. Some widely known IAS have started invading the forest areas, wetlands and agro-ecosystems The NBS provides a list of IAS, but comprehensive study is yet to be conducted.

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	X
b) No, but some programmes are under development	
c) Yes, some programmes are in place (please provide details below)	
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.

Traditional knowledge and biodiversity are complementary to each other. As the country possesses a diverse biodiversity from lowlands (Terai) to the Himalayas, the country has a wealth of culture and traditional knowledge

associated with biological resources. The knowledge is used in rural areas for herbal medicine by the traditional healers.

No specific activities for capacity building are in place related to GURTS. Activities are initiated to document traditional knowledge, skill, technique and practices in collaboration with the international and national NGOs. Although indigenous and local communities are involved to conserve genetic resources, and participate in decision-making process in natural resource management, Nepal has yet to know and develop mechanisms for genetic use restriction technologies.

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	
c) Yes (please provide information on the studies undertaken)	X

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.

MFSC has approved the biodiversity documentation format in 2003 after pilot study and format testing. It also implemented a project in collaboration with The World Conservation Union - IUCN Nepal to document biological resources and associated traditional knowledge. In order to institutionalise biodiversity documentation process at the local level, HMGN has constituted District Biodiversity Committees in 10 districts in 2004 and early 2005. Such committtees will be established in all 75 districts as and when necessary to facilitate, *inter alia*, to document traditional knowledge, skill, technique and practices. Some NGOs such as Himavanti, Libird, USC Nepal, MFSC and MOAC has also started to document biodiverity in various communities in Nepal. Until now, 28 Community Bioiversity Registers (CBR) has been prepared, but awaiting registration. The local NGOs are also involved in developing capacities of the local farmers, indigenous and local communities and other stakeholders on biodiverity conservation.

Some academic institutions including the Central Department of Sociology and Anthropology of the Tribhuban University is conducting studies to document knowledge and practices of indigenous and local communities, *inter alia*, in biodiversity matters. The Nepal Federation of Indigenous Nationalities, the national level organisation constituted by the government, including local NGOs and community-based organisations have shown interests and conducted programmes to raise public awareness. HMGN is encouraging the NGOs and CBOs to get involved in documentation of traditional knowledge, skill, techniques and practices related to biodiversity conservation. Representatives of the indigenous communities are encouraged to participate in the government-organised programmes, and HMGN is also attending their programme to share information and strengthen collaboration. However, such participation is at the initial stage. Once the capacity of the local NGOs and communities will be enhanced, it would provide a basis for the determination of status, trends and threats related to the traditional knowledge, skills and practices of the local communities.

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.

Nepal has established policy and legal system for project-level environmental assessment. The social and cultural aspects are covered within the broader framework of EIA. Nepal is focusing to integrate environmental, social and cultural studies under the legal framework of EIA rather than disintegration, i.e., conducting separate and standalone studies. However, social studies have been conducted to some of the large-scale projects. The concerns on social, cultural and environmental aspects have been addressed in the projects which should

undergo environmental assessments.

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	X
b) No, but a review of the Akwé: Kon guidelines is under way	
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.

There are no such projects designed that affect the sacred sites. In hydropower projects, about 1 percent of the revenue generated is provided to the respective district, and it will benefit the indigenous and local communities. Infrastructure projects are not legally allowed for implementation within the national parks and wildlife reserves expect some road projects. Nepal's legal regime on the environmental assessments provides opportunities to collect inputs of the indigenous and local communities where the project will be implemented. Once the report is submitted for approval, the competent government institution should also made public EIA reports for public review and suggestions. This has provided additional opportunity for the effective participation of the local people and voice their concerns.

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	
c) Yes, some measures taken (please provide details below)	X
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.

Capacity building and documentation of traditional knowledge, skill and practices of indigenous and local communities have been realised in the recent years. The working policy acknowledges the need for mainstreaming indigenous and local communities in development programmes, and ensures access to higher education, particularly in technical education such as agriculture, forestry, engineering and medical science. The NGOs are also involved in creating public awareness on natural resource management including biodiversity. People's empowerment programmes are ongoing to enhance and strengthen the capacity of the indigenous and local communities in this programme area.

HMGN has framed a draft Bill on “Access to Genetic Resources and Benefit Sharing”. This Draft Bill aims to protect traditional knowledge associated with the resources. The Bill proposes documentation, registration of biodiversity and associated traditional knowledge.

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.

- The Nepal Biodiversity Strategy (2002) states that indigenous knowledge and innovations pertinent to the conservation of biodiversity will be fully acknowledged and used wherever possible, at the same time providing optimum benefit to indigenous and local communities in a sustainable manner.
- The Wetland Policy (2003) has the objective of identifying knowledge, skill, practice and innovations of the local communities for the protection and utilisation of wetlands.
- The Sustainable Development Agenda for Nepal (2003) also urges to involving local communities near the protected areas for the management and sharing of economic and other benefits.
- Policies, laws, strategies and guidelines exist to enhance and promote effective participation of local communities in planning, programming and decision-making of a particular forests (community or leasehold forests) and buffer zones. However, much still remains to involve them in planning, development and implementation of national forests policies and programmes. Capacity building of forestry user groups is in progress and indigenous people if involved as a member of the legally recognised forestry users or buffer zone (protected area) users get necessary training and participate in planning, programming, and decision-making in the user committees and also fund mobilisation and sustainable use of biodiversity and its products.
- HMGN has promoted the effective participation of the institutions involved in developing the capacity of the indigenous and local communities in national and international programmes. The institutional representation has been noticed in the meetings of the Intergovernmental Panel on Forests (IPF), and Intergovernmental Forum on Forests (IFF) which have taken a number of initiatives to mainstreaming Traditional Forest Related Knowledge (TFRK) for the management of forest resources.
- The draft Bill on Genetic Resources (Access, Utilisation and Benefit Sharing) includes, *inter alia*, the following provisions on the conservation of traditional knowledge, skill, innovations and practices:
  a) Local communities shall be given priority on access, utilisation and benefit sharing of any genetic resources and materials which is under the ownership of an individual, organisation and HMG if such a community possess TK, skill, innovations, technologies and practices.
  b) An individual, local community, organisation, local bodies or HMG jointly or separately shall document traditional knowledge, skill, innovations, technologies and practices of the local communities.
  c) If the local community is the owner of biodiversity and genetic resources, such community shall keep 50 percent of the benefits obtained from it. If HMG is the owner of such resources, 20 percent shall be given to local communities.
- At local level, the Local Self Governance Act (1999) empowers the local bodies (District Development Committee, Municipalities and Village Development Committees) to manage and use of natural resources, collect revenue, generate funds and utilize them in resource management within their working area.

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.

- Women involvement has been institutionalised in natural resource management through the formation of community forestry user groups. HMG/N has initiated policies to maintain gender balance and empower women of indigenous and local communities to enhance their participation in all types of national development activities. Their access has been facilitated in saving and credit programmes.
- Efforts are being made to encourage women of indigenous and local communities in managing forests and implement soil and water conservation activities through the formation of women community user groups (WCUGs). At present, about 24 percent of the total community forestry user groups are exclusively of women. However, the participation of women in mixed user groups (men and women) is relatively weak because of their low level of education, traditions, practices and cultural barriers. They have also low influence in decision-making, fund generation and its utilisation process.

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.

At the national level, NGOs have started organising public awareness activities in development regions. HMGN encourages the participation of the local community organisations in pre- and post-COP programmes organised at the national level.

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	
b) Yes, to some extent (please provide details below)	X
c) Yes, to a significant extent (please provide details below)	

Further information on the support provided.

HMGN through its institutional networks all over the country provides necessary support to prepare and implement operational plans of the community forests, leasehold forests, and buffer zones. But the participation of the local communities is affected by their low level of education, elites' domination and the prevailing socio-cultural traditions.

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.

- A country-wide database on community biodiversity documentation with people's indigenous knowledge about different biological resources and their use has been started.
- Capacity building activities have contributed in managing forests, conservation areas, and buffer zones. Its impact is tremendous in conserving biodiversity as local people have effectively participated.
- The draft bill on Access to Genetic Resources and Benefit Sharing (AGRBS) will likely facilitate to developing capacity of the indigenous and local communities. Adequate representation of local and indigenous communities, women, disadvantaged groups is proposed in the national genetic resources council, a competent authority. The major constraints are low level of education, lack of empowerment activities, and undermining of their traditional contribution in natural resources management. The traditions, cultures and practices are also the barriers to mainstreaming indigenous and local communities in biodiversity conservation.

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.

- No measures have been taken for *ex-situ* conservation of components of biological diversity originated outside Nepal.
- HMGN has so far established 9 botanical gardens and conservatories in different bio-climatic zones with focus on landscape development for education and research, and aesthetic and recreational purposes.
- The *ex-situ* conservation sites include National Herbarium, botanical gardens and conservatories, tissue culture technology centre in government and private sectors, central zoo, and the seed storage facilities to store agriculture germless. DoF has established forest tree seed stands at several places.
- Of the estimated 7000 species of flowering plants in Nepal, nearly 80 percent have been collected, identified and preserved at the National Herbarium and Plant Laboratory at *Godavari*.
- For agro-biodiversity, NARC has preserved germplasm in its seed bank (prefabricated structure with 20 km^2. space) at *Khumaltar* to store germplasm collected from different districts of Nepal. Altogether 10,736 accessions of 90 crop species have been preserved at 5°C with 45% relative humidity. The accessions include species of field crops, legumes, oil seeds, vegetables, spices and jutes/silks.
- The Central Zoo has more than 900 animals of 123 species (species of 31 mammals, 63 birds, 9 reptiles and 20 fish). The Central Zoo houses 14 of the 38 endangered animal species of Nepal.

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.

- The translocation of rhinos from Royal *Chitwan* National Park (RCNP) to Royal *Bardia* National Park and Royal *Suklaphanta* Wildlife Reserve is a good example of reintroduction of threatened species into their natural habitats. Similarly, ghariyal crocodile population in the *Narayani* River has been maintained through captive hatching and releasing from ghariyal hatching centre of RCNP. For other animals, and plants such initiatives are yet to be introduced.

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.
• The Forest Act, 1993 (amendment 1999) and the National Parks and Wildlife Conservation Act, 1973 (several amendments) have provisions to regulate the collection of biological resources from natural habitats for scientific research as well. It is considered that species legally protected and included in CITES appendices have not been threatened through international trade. • *Ex-situ* conservation has been promoted in central zoo, herbarium, botanical gardens and conservatories, museums and seed banks. The confiscated biodiversity and its products are also conserved in *ex-situ* conditions.

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.
Limited *ex-situ* conservation activities have positive impacts on the conservation of endangered and threatened plant and animal species. It would also contribute to achieve the goals of the Strategic Plan of the Convention, 2010 target and goal 7 of the MDG. Nepal has limited facilities (both technical and financial) for *ex-situ* conservation and the establishment and maintenance of such facilities. Major constraints related to *ex-situ* conservation are inadequate financial resources, technical capacity, scientific information on species behaviour, and also inadequate national priority on species and genetic resource conservation as well.

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)	
d) Yes, in most relevant sectors (please provide details below)	X

Further information on integrating consideration of conservation and sustainable use of biological resources into national decision-making.
• Most of the recent policies and programmes focus on sustainable use of biological resources. For example, • The Tenth Plan and Herbs and NTFP Policy (2004) have accorded high priority on sustainable management and utilisation of biological resources, particularly the MAPs and NTFPs. Sustainable use of MAPs and NTFPs, and farming of selected wild animals are linked with poverty reduction, and it would contribute to bring the poor people in the mainstream of biodiversity conservation. • Achievements of the community forests, pro-poor leasehold forests, buffer zones and Conservation Areas such as Annapurna, Manaslu and Kanchenjunga Conservation Areas are the best examples of sustainable use of the components of biological diversity. Based on these experiences, sustainable utilisation mechanisms have been refined and replicated in other protected areas, water resources management, and watershed management activities.

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.

- Eco-tourism has been promoted to conserve biological resources, generate funds, and also minimise adverse impacts on biodiversity in the protected area network all over the country. HMGN has focussed on plant inventory during environmental assessment studies and has focussed on compensatory measures for adverse impacts related to site clearance. In other cases, avoidance and mitigation measures have been introduced while providing forest resources. However, much still remains to translate the concept into action and bring the development partners in the mainstream of biodiversity conservation.

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.

- Community forestry has been proved successful in the use and management of biological resources through user groups.
- Attention has been given to integrate the customary use of biological resources by indigenous and local communities while making operational plans. Women and disadvantaged groups are also encouraged to participate in the decision-making process.
- Before the finalisation of EIA report, the proponent is obliged legally to conduct public hearing at the project site to provide the local people an opportunity to voice their concerns. Their concerns must be documented in the EIA report as a part of the proof of the public hearing.

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.

Existing policies, legislation, guidelines and procedures provide ample opportunities to seek the participation of the local people and get their participation to rehabilitate degraded areas and improve the conditions of the biodiversity.

- The Local Self-Governance Act (1999) empowers local bodies for the sustainable use of natural resources so that it can contribute to enhance the economic condition of the local people without depleting the components of biological diversity.
- Community forests, leasehold forests and buffer zone management activities have been instrumental in restoring and maintaining biodiversity while meeting their basic needs (firewood, fodder and timber).
- The National Action Programme on UNCCD and First Initial National Communication to UNFCCC also provides opportunities to take remedial actions in degraded area and prmote biodiversity conservation. Local communities are encouraged to plant medicinal plants and NTFPs in degraded areas, which would help them to generate more income and also contribute to conserve biodiversity.

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	
c) Yes, indicators and incentive measures identified (please describe below)	X

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

- The indicators identified under community forests and buffer zone management system includes: (i) increase in income of the users, (ii) availability of firewood, fodder, poles and small timber, (iii) increase in agricultural production as a result of soil conservation, and (iv) overall improvement of the growing stock.
- Community forestry users utilise firewood, fodder and timber to meet their basic needs. The CFUGs should also invest at least 25 percent of their income accrued from the sale of forest resources. Besides, the user groups also plant MAPs and NTFPs in their community forests for commercial purposes.
- In buffer zones, HMGN has made provision to invest 30 to 50 percent of the revenue generated from the protected areas for community development, as an incentive of their participation in conservation activities.
- Soil conservation and watershed management activities are also carried along with some incentive packages like fruit trees plantation in schools, promotion of income generation activities like bee keeping, mushroom growing, literacy program, drinking water supply, etc
- Prizes, awards and letter of appreciation are also given to encourage local people in conservation activities, especially during conservation week, World Environment Day, International Mountain Day, International Biodiversity Day, etc.

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.

- HMGN has the single objective of poverty reduction and most of the programmes focus on achieving this objective. The biodiversity related policies also promote the sustainable harvesting of MAPs and NTFPs in different categories of forests. The wildlife farming policy also promotes for sustainable use of farmed animals and contributes to poverty reduction. The Agriculture development policy also emphasises on implementing activities that reduce poverty while conserving biodiversity.
- The BISEP-ST project assisted by SNV/N aims to: i) manage Terai forests, through collaborative effort of all stakeholders at local, district, region and national level, ii) manage forests for poverty reduction through the conservation of biodiversity, iii) promote livelihood opportunities by providing access to the sale of biological resources including MAPs and NTFPs, etc. Other programmes and projects equally focus on biodiversity conservation and poverty reduction. In a nutshell, Nepal's development policies provide ample opportunities for the sustainable use of biodiversity to improve the living conditions of the poor people who are involved in managing the resources.

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.

HMGN provides license for the sustainable utilisation of medicinal plants and NTFPs to meet the demand for raw materials of the forest-based industries operated at the private sector. The private sector is involved in extracting the pine resin, collection of leaf, bark and seeds of high value medicinal plants including whole plants to operate the forest-based industries. HMGN has also encouraged the private sector in managing domesticated elephant, and farming of wild animals such as deer, snakes and crocodiles to contribute to poverty reduction and biodiversity conservation.

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	X
c) Yes, a process is being planned	
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.

Nepal has duly reflected the Addis Ababa principles and guidelines for the sustainable use of biodiversity through necessary policies, laws and institutions. Usage of traditional and local knowledge and public awareness activities has been promoted. However, Nepal has yet to institutionalise science for adaptive management, conduct comprehensive interdisciplinary research, waste minimisation, and internalisation of costs for management and conservation of biodiversity. The goals and programme elements have also been reflected during the implementation of biodiversity conservation programmes. Much still remains to make the effective implementation of the principles and guidelines.

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.

In Nepal, funding for biodiversity conservation is limited which requires extended cooperation of the developed country parties to CBD. Nepal wishes to maximise the use of traditional knowledge and skill and requires transfer of technologies for bioprospecting, and biosecurity. For this, capacity building on advanced technologies and technology transfer and utilisation is a pre-requisite.

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.

- Because of the presence of majestic Himalayas and splendid nature with rich biodiversity, Nepal has become the major tourist destination. More than 40 percent of tourists visit protected areas, both in the lowland Terai and mountains to see the rare and endangered species. Eco-tourism has been considered as an ecologically sound tourist industry contributing to poverty reduction and sustainable development of the rural areas.
- There is no regular mechanism to assess, monitor and measure the impact of tourism on biodiversity. However, EIA has been done in some areas to assess the impact of tourism on the environment including biodiversity. Sporadic studies are occasionally conducted to document status and impact of tourism on biodiversity.
- HMGN has initiated to conduct initial environmental examination (IEE) of the buffer zone management plan to identify, predict and evaluate impacts of the plan on the environment, including the impacts of tourism on biodiversity. The projects that are proposed for implementation in the protected areas must undergo environmental assessment process in accordance with the provisions of the Environment Protection Act (1996) and Environment Protection Regulations (1997).

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	
c) Yes, programmes are in place (please describe below)	x

Further comments on educational and training programmes provided to tourism operators.

- The National Policy has encouraged the conservation education and awareness to all people concerned, including the tour operators. At the entrance or ticket counter of protected areas (SNP and RCNP), tourists and tourist guides are provided with brochures containing “do and don’t do” inside the protected areas. The code of conduct has also been distributed widely in PAs and tourist destinations. Similarly, the Participatory Conservation Programme and Nepal Tourism Board have launched similar public awareness programmes in the protected areas.
- The King Mahendra Trust for Nature Conservation (KMTNC) has been regularly conducting environment education programme to local people including tour guides, security and parks staff at its training centre at RCNP.
- The trekking agents association of Nepal (TAAN), in its workshops and training, also includes sessions on impact of trekking and tourism on the environment and biodiversity particularly in the mountains. However, much still remains to conduct research studies and awareness programme in this area.

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	

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 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.

The tourism for rural poverty alleviation programme (TRPAP) is under implementation with the assistance of UNDP, DFID, SNV and Nepal Tourism Board. The programme focuses on the marketing and promotion of rural tourism products, institutionalisation and pro-poor tourism product development. This programme also provides venture capital fund (VCF) on low interest without collateral to members of the community organisation for enterprise development, and promotion of tourism-related existing business or to start new ones.

Some organisations have implemented alternative energy promotion programmes such as biogas that has greater positive impacts on biodiversity conservation. The capacity building including training on biodiversity-product development is the major component of the tourism promotion activities around the protected area networks.

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	
c) Yes, a few principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector)	X
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.

HMG/N has prepared a National Tourism Plan taking into consideration the sustainable tourism principles. An EIA Guideline was drafted to consider biodiversity aspects in tourism development programmes. An EIA has also been carried out before opening new destination and strengthening the old ones in accordance with the provisions of the Environment Protection Act (1996) and Environment Protection Regulations (1997).

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.

- Much effort has been done to integrate biodiversity protection in tourism development initiatives. Eco-tourism has become very popular as it provides opportunities to develop tourism without depleting the natural environment or ecological functioning. Other forms of tourism are religious tourism, cultural tourism and village tourism, which aim to respect the indigenous knowledge, traditions and culture.
- In order to make eco-tourism sustainable, a 2 % tax is levied on hotel tourism as a conservation fee. These programmes are in line with the Biodiversity Strategy and would contribute to attain the goals of Strategic Plan, 2010 targets, and MDGs particularly on poverty reduction in the mountains. Nepal has also encouraged to use the alternative energy sources, and to avoid or reduce firewood use where plants growth requires several years.
- Biodiversity considerations should yet to be fully internalised in tourism development. This is constrained by lack of human resources, financial resources, and knowledge about conservation values. In some areas, the infrastructure development has ignored the traditions and cultures due to increased need for modern facilities.

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.

- HMGN has handed over more than 20 percent of forestland to the local communities by forming community forestry user groups and leasehold groups and preparing the operational plan. The forests would fulfil the basic needs of the local people for timber, fuelwood, fodder and grasses. Whereas the income accrued from the sale of surplus forest products is used to support activities like drinking water supply, school repair, and other activities in the respective communities. However, CFUGs should reinvest 25% of the total income for forest management. In case of pro-poor leasehold forests, users are entitled to utilise all income obtained from forest management and sustainable use.
- HMGN has made a provision to invest 30 to 50% of the park revenue for community development in the buffer zone areas. This is an incentive to the local people for their active participation in the conservation and sustainable use of biodiversity.
- The King Mahendra Trust for Nature Conservation (KMTNC) has set an example of people's participation in all aspects of conservation and development in *Annapurna* Conservation Area Project (ACAP). The project has improved the socio-economic condition of the people through the integration of conservation with development activities and proved the philosophy of conservation for development.
- Similarly, integrated watershed management programmes have been successfully implemented in Nepalese hills with active participation of the local people. Here, conservation activities are implemented along with fulfilling some basic development needs of the community such as, drinking water supply, trail improvement, terrace improvement, fruit and fodder trees plantation and encouraging other income generation activities such as mushroom cultivation, jam and jelly preparation, etc. The cableway installation between *Jhakridanda* to *Bhattedanda* (about 6 km) near Kathmandu valley is an successful example of conservation and development with active people's participation. The project has changed the economy of the local people by providing opportunity to sale fresh milk, instead of *khuwa* (dried milk) and helped to conserve nearby forests which were earlier heavily used to collect firewood.
- There are several other incentive programs like Ganesh Man Sing Puraskar**,** an amount of Nepalese Rupees 0.1 million (I USD = NRs 71.59 as of March 2006) being awarded each year to the best community forest user groups. Similarly, HMGN has established the Mountain Development Award (a sum of NRs. 0.2 million) in 2003 to appreciate and acknowledge the contribution of the institutions and individuals involved in natural resources management in the mountains. Other awards such as environment award have also been established to promote the conservation of natural resources and the environment.
- Prizes in the form of conservation books and other materials are also being awarded to school students by organizing quiz context, painting exhibition, etc. on specific days to create conservation awareness amongst teenagers.
- Although some incentive measures have been instituted, conservation of biodiversity has yet to be expanded to address the emerging problems arising from overuse, illegal collection and poaching.

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.
MFSC has conducted a study in the year 2005 to know the economic value of ecological goods and services of the forest ecosystems and it would likely provide a basis to develop necessary 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	
c) Yes, some programmes are in place	X
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	
b) Yes (please provide details below)	X
Further information on the proposals considered when designing and implementing the incentive measures for the conservation and sustainable use of biodiversity.	
Sporadic studies have been conducted to develop incentive measures on capacity building, establish process for participation, and undertake valuation and underlying causes of biodiversity loss. However, stakeholder involvement and public awareness activities have been expanded while developing such measures for the cause of biodiversity conservation.	

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	
c) Yes, relevant policies and practices identified but not entirely removed or mitigated (please provide details below)	X
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.	
Obstacles and barriers on developing and implementing incentive measures have been mitigated. Most of the policies, strategies and legal measures favour for incentives to promote the participation of local people in natural resource management such as forests, protected areas, land, and water resources. The current trend is to develop incentives that benefit the indigenous and local communities with the broader objectives of reducing poverty. However, channelling of incentives still requires much attention to make it easy and user-friendly.	

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.

a) Incentive measures introduced in the protected areas, community forests, pro-poor leasehold forests, collaborative forests and irrigation water management have contributed to bring the local people in the mainstream of biodiversity and natural resource management and it has greater impact in the local people. Eco-tourism has been one of the major sources of income in the protected areas while utilisation of forest products in particular, the timber is the major source of income in most of the community forests.

b) Local people have realised the importance of ecosystems and species and the incentive measures will likely contribute to achieve the goals of the Strategic Plan of the Convention.

c) It is likely that the involvement of local people in biodiversity conservation would contribute to achieve the 2010 target.

d) Incentive mechanisms have also contributed to implement the biodiversity strategies and programmes aimed at conserving biodiversity.

e) This programme has contributed to improve the living conditions of the local people as benefits provided to the users have also been used for income-generating activities. It is expected that incentive measures would contribute to achieve the MDG 1 and 7 as biodiversity conservation and its sustainable use has been linked to poverty reduction.

f) Local people are yet to be encouraged to spend certain percentage of their income in biodiversity conservation. The fund generated in the community forests are rather mobilised in non-forestry activities and similar situation exists in protected areas, and water resource management. Hence, there is a dire need for creating awareness of the users on the ecological, economic and societal values of biodiversity. There is also a need to encourage the community groups to reinvest certain percentage of their income in conducting research and studies, and managing biodiversity.

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.

- Scientific research is very limited in the government sector, and is conducted by the academic institutions. Government sponsored scientific research are mainly confined to the preservation of genetic resources.
- Management-related research is confined to protected areas, and training programmes are organised to develop human resources in aspects of biodiversity in protected areas and community forests. Resource (financial and technical) allocation for scientific research and training is also confined to protected areas and community forests.
- Support is essential to develop capabilities for scientific research, assessment and monitoring on floral, faunal and ecological parameters.

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.

- Very little scientific research has been done in this field. Few researches are carried out as a part of thesis to obtain Master's or PhD degree in academic institutions..
- *In-situ* conservation and sporadic research on indigenous crops and animal species are occasionally conducted by institutions such as NARC, RONAST, DPR, universities etc.

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.

- Few sporadic researches are conducted to document local traditional methods of conservation and biodiversity utilisation aspects.
- Indigenous management practices on farm, forest, water bodies are studied and methods are suggested for better conservation, sustainable use, value added processing and marketing of bio-resources.

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.

- Research outcomes are used in the field as well as in policy formulation process.
- Although specific targets in line with CBD are not fixed, the outcomes are in line with the Strategic Plan of CBD.
- The main constraints are the unavailability of technical manpower and funding, minimal effort on developing human resources, and lack of utilising the findings of the scientific studies in policy and programmes implementation.

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.

- Public awareness and communication has been integrated in almost all the biodiversity conservation programmes. There is a strong commitment to make public aware on biodiversity and seek for active participation of the local communities.
- Public information programmes are aired regularly from TV and national radio, including FM radio. A number of feature articles and news are regularly published in the local newspapers. The projects produce and distribute brochures and information sheets, organise seminar and interaction meetings. In addition, pamphlets, posters, international days have been observed.
- Biodiversity conservation aspects have been integrated in the environmental education which is offered in the primary to tertiary education. Separate courses on biodiversity have also been included in the undergraduate and graduate levels particularly in Botany, Zoology and environmental science.

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.

- Nepal has been facilitating biodiversity related awareness and education programmes at both formal and informal levels.
- Almost all the projects and programmes have integrated communication and public awareness programmes. Exchange of information has taken shape
- Governmental organisations and NGOs are launching programmes on biodiversity in the national radio and local FM radios, and televisions. Public awareness has been promoted in various celebrations such as biodiversity day, environment day, and wetland day and so on. Furthermore, various competitions are organised regularly and prizes are awarded to create interests of the students in biodiversity conservation.
- Recently, the proliferation of Cyber Cafes in Kathmandu and other cities in Nepal have provided youngsters access to biodiversity information using websites.
- Academic institutions are participating in exchange of knowledge and expertise while capacity on marketing of biodiversity is relatively poor.

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.

As mentioned in No. 92, electronic and print media are used to create public awareness on biodiversity. Journalists have also mobilised wildlife watch groups to communicate information on causes and consequences of biodiversity loss. On the occasion of International Biodiversity Day (2005), a special issue on biodiversity was also launched which was published by the NGO. In addition, the spokes person of MFSC also invite journalists or vice versa to create public awareness. Occasionally, meet the press programmes are organised by relevant institutions on thematic issues. More often press and media personnel are invited in biodiversity related workshops, interactions and seminars.

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 programme implementing organisations provide public awareness materials and extension services in their programme areas. The NGOs and CBOs, supported by concerned government organizations and INGOs, are also involved in developing human resources and creating public awareness. Biodiversity conservation aspects have also been integrated in the formal education in the primary and secondary levels of education. However, there is need for collection of best practices, repackaging and share information. The communication strategy for the forestry sector has also been developed and it provides opportunities to create public awareness. More often, relevant publications such as bulletin, brochure and posters are distributed at local levels. VDC, DDC and DBC are invited in local level biodiversity fares, exhibition etc.

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	X
b) No, but some programmes are under development	
c) Yes, some activities supported (please provide details below)	
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.

Nepal has continued information sharing with its partners and development agencies. However, no specific actions have been developed and prioritised in the spirit of the Global Initiative on Education and Public Awareness.

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.

- In government sector, some level of capacity exists but needs adequate resources for effective implementation.
- Some organisations such as NARC and the Department of Agriculture air TV and Radio programs regularly on farming technology, innovations and other scientific information on agricultural development to the farmers, junior technicians and general public. The Department of Forest (DOF) and the Department of National Parks and Wildlife Conservation (DNPWC) are also regularly conducting Radio programs on forestry and biodiversity issues. Monthly newsletters are also published regularly to provide technical information to the general public. The projects such as TAL and BISEP-ST also broadcast radio programme , publish and distribute newsletters and fact sheets on biodiversity.
- The NGOs viz. Nepal Forum of Environmental Journalists (NEFEJ) launches *Aankhijhyal* - a Nepali programme which include information on biodiversity conservation. Other NGOs also air specific programmes on biodiversity. There is an increasing effort of the governmental and non-governmental organisations in communicating biodiversity information to the general public.

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.

- Academic institutions have exchange programmes for advance studies on plant, animal and environmental science. Case-by-case exchange programmes are organised. Scientists, development workers, managers participate in international study tours and participate in meetings, seminars and conventions. A separate and comprehensive exchange programmes for biodiversity education is yet to be developed and implemented in the spirit of the COP decisions.

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.

Although no specific programmes are under implementation, issues on transboundary movement of big mammals and migratory birds are taken into consideration. Regional training, seminars, workshops and observation tours are frequently organised.

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	
b) Yes (please provide details below)	x

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.

- The focal point for CBD and implementing agencies have continued the promotional activities of the stakeholders on biodiversity matters. Emphasis is equally given to encourage development partners to consider the integration of biodiversity aspects in sectoral policies and programmes, support for curriculum development, training and information sharing.

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	X
b) No, but some programmes are under development	
c) Yes, some programmes developed and activities undertaken for this purpose (please provide details below)	
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.

NA

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.

a) Inclusion of public awareness activities in natural resource management programmes has increased the level of understanding about the importance of conserving this resource and it has provided an opportunity to enhance people's involvement in natural resource including biodiversity conservation. Also inclusion of biodiversity in academic courses has also contributed to develop human resources to some extent.

b) Enhanced knowledge and understanding would likely contribute to achieve the goals of the Strategic Plan of the Convention, 2010 targets, MDG7, and implement biodiversity strategy.

c) Academic courses require revision and updating to make it practical and user-friendly. Most of the information provided to the local illiterates is rather semi-technical. Sharing of biodiversity information is also limited to urban, and project areas only thereby demanding for repacking the information and making them user-friendly

and ensure country-wide circulation.

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 Environment Protection Act (1996) and the Environment Protection Regulations (1997) provides a list of projects that require either IEE or EIA. In order to facilitate the implementation of the legal provisions, the National EIA guidelines (1993), EIA Guidelines for Forestry Sector (1995), Guidelines for Review of IEE and EIA of Forestry Sector (reports) (2003), and IEE Manual for Forestry Sector (2004) and are under implementation.
- The Forest Act (1993) empowers HMGN to provide any part of the forests for national priority project, if there is no alternative except forest area to implement the projects, and if it will not have adverse environmental impacts. This provision has been implemented with due attention on wild biodiversity and forests.
- HMGN has made policy decision in 2003 to consider forests, natural environment, watersheds and biodiversity during environmental assessment process. The policy provides opportunities to quantify the impacts of the development projects on biodiversity and implement corresponding adverse impacts mitigation measures.
- HMGN has also made decisions in 2003 on compensatory plantation at the rate of 1:25 (i.e., plantation of 25 plants for each tree felled down) and manage for 5 years in its own costs and handover to the local communities for future management. Proponents have well responded on this compensatory measures and this will contribute to integrate biodiversity into impact assessment process.
- HMGN has regulated development of infrastructure development projects within the protected areas and dense forests with the objectives of keeping the wild biodiversity intact and minimise the adverse effects on biodiversity.
- In order to implement Article 14 of the Convention, biodiversity indicators have been drafted; emphasis has been given to consider biodiversity during alternative analysis; and 'no net loss" approach has been introduced.
- In March 2005, HMGN dissolved the Ministry of Population and Environment, established in September 1995, and accommodated its Environment Division into the Ministry of Science and Technology by changing its name as “Ministry of Environment, Science and Technology” (MEST). The MEST has the legal authority to approve EIA reports and conduct environmental auditing. However, MFSC, as a focal ministry for CBD, provides inputs for biodiversity aspects to be looked into EIA process.

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	
c) No, but mechanisms are in advanced stages of development	X
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 Biodiversity Strategy (2002) underscores the importance of conducting EIA of development projects that are likely to have adverse impacts on biodiversity. Other national policies and programmes including Water Resources Strategy (2002), National Wetland Policy (2003) and Sustainable Development Agenda (2003) emphasise on EIA.
- In order to integrate impact assessment principles in the policies, plans, and programmes, the ongoing Tenth Plan (2002-2007) has policy to promote the usage of Strategic Environmental Assessment (SEA). The SEA of Nepal Water Plan focus on species diversity and also on least affect biodiversity during the implementation of programmes and activities of the Plan.

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	X
b) No, but assessment of options is in progress	
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.

Nepal has given due attention to implement EIA and SEA at the national level in the spirit of the Article 14 of the Convention. Other mechanisms have not been developed to address transboundary impacts on biodiversity.

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.

Such damages have not been noticed, and no emergency response measures are in place.

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	
c) Yes, some aspects being applied (please specify below)	X
d) Yes, major aspects being applied (please specify below)	

Further comments on application of the guidelines.

- CBD guidelines has been taken due care for biodiversity-inclusive EIA study in the recent days. The proponents and consultants have been encouraged to address impacts on biodiversity taking into consideration the CBD guidelines and other country-level decisions. The SEA has not taken the root in policy, plan and programme. A SEA of Nepal Water Plan was conducted in 2003 and it has considered on the need for conserving biodiversity during the implementation of water resources programmes. Some guiding and operating principles of EIA have been implemented to the extent applicable in Nepalese context. Much focus has been given on "no net loss" approach.

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	X
b) Yes (please specify the measures)	

Further comments on national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity.

Lack of institutionalised environmental monitoring including on biodiversity has rendered limited information to formulate necessary policies and administrative measures in this regards. However, some administrative measures have been taken to ensure biodiversity conservation while reviewing the EIA reports submitted for approval. However, much focus is given on wild biodiversity and much still remains to internalise biodiversity conservation in environmental assessment process. Recently compensatory measures have been implemented for projects which will affect forests and biodiversity as a part of site clearance.

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.

- Nepal's EIA report focuses on compensatory measures rather preventing the damages to the environmental resources including biodiversity. As forests and biodiversity is still considered as the "Nature's free gift", there is an increasing pressure on forests and wild biodiversity from development projects. In order to prevent impacts, emphasis has been given to provide the forest areas only to implement the project outside the protected areas network. Impacts related to site-clearance are unavoidable and compensatory measures are introduced. For this, the project proponents should develop environmental management plan (EMP), with necessary mitigation measures, implementation responsibility and funding source to minimize adverse impacts on biological diversity.

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	X
b) No, but cooperation is under consideration	
c) No, but cooperative programmes are under development	

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.

Although national system exists on EIA, no mechanisms have been developed to cooperate with other Parties to the Convention.

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.

a) Institutionalisation of EIA with national policies and legislation has taken proper shape and EIA has been made mandatory for all prescribed projects. The proponents have complied with the legal provisions, and the competent authorities are involved in reviewing and approving the reports. But environmental monitoring has not been institutionalised. Hence, the competent authorities have no necessary information on compliance and effectiveness of the mitigation measures. In a nutshell, the outcomes and impacts of EIA system are still unclear.

b) Effective implementation of the EIA findings and recommendations would contribute to achieve the goals of the Strategic Plan of the Convention, 2010 targets, MDG7 and also translate biodiversity strategy into action. In this context, MFSC has organised training for the central and local level officials on EIA and biodiversity. In EIA trainings, biodiversity conservation needs and process for impact identification has been integrated.

c) Enforcement of the environmental legislation is not effective to the desired extent due to: (i) weak institutional development and its capacity, (ii) delay in decision-making, and/or compliance with environmental legislation, (iii) lack of public awareness about the importance of EIA to attain the goals of sustainable development, iv) degrading quality of EA reports due to increased "copying" practices, (v) emerging ethical erosion of the EA report preparers, ((vi) lack of environmental monitoring and auditing, and (vii) also lack of use of monitoring and auditing findings of few projects in assessing environmental impacts. The other constraints include inadequate human resources for, and involvement of non-professionals EIA report preparation and/or lack of accreditation of EIA practitioners and professionals, lack of proper understanding and knowledge about the importance and benefits of SEA, and also increased ad-hoc approach on EIA report review and decision-making. In addition, the competent government institution having authority on EIA report approval needs to develop its technical capacity to mainstreaming biodiversity into EIA process.

Article 15 - Access to genetic resources

110. Has your country endeavoured 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.

- A bill on access to genetic resources and benefit sharing has been drafted and proposed for approval. In addition, the regulation has also been drafted to enforce the bill once it gets the Royal Seal. The bill is prepared as per the Bonn guidelines and provides number of provisions such as prior informed consent (PIC) with the indigenous and local communities before biodiversity documentation and providing access, establishment of a competent authority called national genetic resources council, provision of public hearing, environmental impact assessment etc.
- The provision to establish an Authority to promote the sustainable use of genetic resources and materials and regulate actions that affect and damage the biodiversity. Similarly, the bill provides mechanisms on access and benefit sharing on mutually agreed terms.

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.

- Nepal lacks necessary facilities and human resources on scientific research on genetic resources using modern technologies, but participates in international collaborative researches.

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	X
b) No, but potential measures are under review	
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.

Commercial and other uses of genetic resources and materials are regulated through administrative measures, to the extent possible. After the bill takes the shape of legislation (mentioned in # 111), benefit sharing aspects will come in the forefront of utilisation of the genetic resources.

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	X
b) Yes (please provide details below)	
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.	
International provisions and practices in other countries were reviewed during the drafting stage and some of the provisions suitable for Nepal have been included to the extent appropriate. Nepal is currently reviewing the elements of ITPGR for food and agriculture.	

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	
b) No, but steps being taken to do so (please provide details below)	
c) Yes (please provide details below)	X
Please provide details and specify successes and constraints in the implementation of the Bonn Guidelines.	
The Bonn Guidelines has been taken into consideration to draft the bill on access to genetic resources to the extent applicable to the Nepalese circumstances.	

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)	X
d) Yes, some policies or measures are in place (please specify below)	
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.	
These provisions are included in the proposed access and benefit sharing bill. Specific legal provisions and administrative decisions are yet to be developed on IPR for the effective implementation of this Article.	

116. Has your country been involved in capacity-building activities related to access and benefit-sharing?	
a) Yes (please provide details below)	
b) No	X
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.	

x

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.

- Nepal underscores the importance of sustainable use of genetic resources and materials for bioprospecting, developing human resources and research facilities, and also poverty reduction. Nepal is developing legal measures on this important area, and strongly requires advanced facilities for testing and verification of 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.

In donor-funded projects, technical skill and knowledge has been noticed transferred to some extent. The technology transfer part is not so easy as envisaged in the Convention. However, information access has been enhanced through the development of information technology.

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	X
b) No, but potential measures are under review	
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.

Technologies accessed and transferred in the private sector are not documented. The government institutions sometimes obtain technical facilities by the developed country Parties under the components of programmes and projects.

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.

The outcomes and impacts of access to and transfer of technology are yet unclear in the national perspectives. In case of genetic resource utilisation, the technologies developed by the private sector would be difficult for access and transfer. The importance of modern biotechnology is realised but difficult to apply as necessary laboratory facilities and trained manpower is a problem in Nepal.

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	X
b) No, but relevant programmes are under development	
c) Yes, some programmes being implemented (please provide details below)	
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.

Programme-based training are provided to develop skills but its scale is negligible as compared to the need for implementing the COP decisions.

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.	
Although Nepal is rich in high altitude biodiversity, scientific and technical cooperation is yet to be translated into action in the spirit of the convention. A few collaborative research on crops and livestock is going in NARC.	

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	X
b) No, but assessments are under way	
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.	
NA	

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	X
b) No, but assessments are under way	
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.	
NA	

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	X
b) No, but some programmes are under development	
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.
NA

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	X
b) No, but a few measures being considered	
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.
NA

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.
Transfer of technology and technology cooperation is the weak part to implement the Convention. Hence its contribution to achieve the goals is unclear.

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	
c) Yes, some measures are in place	x
d) Yes, comprehensive measures are in place	

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.

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.

- The ICIMOD, NARC, IPGRI, IUCN-Nepal, and WWF-Nepal are cooperating to promote scientific knowledge and information in this field.
- Various international seminars and training workshops are also found useful in sharing information and enhance knowledge, know-how, practices, and technological advancements for the conservation and sustainable use of biodiversity.

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	X
b) No, but relevant methods are under development	
d) 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	
b) Yes (please provide some examples below)	X

Examples for the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention.

- A joint venture Tiger Research Program between DNPWC and KMTNC is being implemented at the national level with NORAD assistance at Royal Bardia National Park (RBNP).
- Efforts are being made with other agencies like IUCN-Nepal for wetland ecosystem conservation and with WWF-Nepal for Terai Arc Landscape (TAL) projects for the development of technologies.
- The KMTNC is also advancing research studies and developing techniques for the conservation of wild biodiversity.
- Joint research programmes are conducted on crops, livestock and fisheries from MoAC/NARC with CGIAR system, SYMMIT, IRRI etc.

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	

c) Yes (please provide details below)	X

Further comments on development of relevant initiatives.

Institutions and individuals involved in research and studies frequently use the CHM information. Emphasis has also been given to use CHM information in decision-making process. National level information is also uploaded in the website for easy access. Most of the data and information are distributed in the printed form.

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	
b) Yes (please specify services and tools below)	X

Further comments on services and tools to enhance and facilitate the implementation of CHM and further improve synergies among biodiversity-related Conventions.

Nepal has created a website for the CHM as **www.biodiv-nepal.gov.np,** which is being updated.

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.

HMGN has realised the urgent need for expanding in-country technical and scientific cooperation and is using information as contained in the CHM. HMGN has also started sharing information through its website. The Biodiversity Section of the Ministry of Forests and Soil Conservation and information sections of various organisations provide updated information to create public awareness. Information materials developed, repackaged and printed are shared with the development partners and stakeholders and print and electronic media are used for imparting such information. However, there is a need to enhance repackaging of information to indigenous and local communities who are the real custodians and users of biodiversity and its products. One of the constraints is the lack of technical and financial resources, and knowledge-based human resources to speed up sharing of user-friendly information.

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	X
b) No, but potential measures are under review	
c) Yes, some measures are in place	
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	

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	X
c) Yes, some measures are in place	
d) Yes, comprehensive measures are in place	

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.

- Biotechnology is an emerging area in Nepal. Biotechnology has been used in animal science and crop science in agro-biodiversity, and tissue culture for mass production of specific genetic variety of plant species.
- HMGN has launched a programme in 2004 for the development of biosafety framework with the assistance of UNEP/GEF. The biosafety guidelines is in place since 2005.
- Nepal has emphasised to develop this area as many products imported to Nepal may or may not contain Genetically Modified Organisms (GMO) and Living Modified Organisms (LMO). Such GMO-induced products can move freely in and to the Nepalese market. As a country of having rich indigenous genetic resources, Nepal has yet to develop her capacity to monitor such movements.

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	HMGN has allocated about USD 20,000.00 for the focal point's activities, and USD 169,000.00 for the preparation of national biosafety framework the fiscal year 2004/05. The Ministry of Agriculture and Cooperatives also allocate necessary budget to conserve agro-biodiversity on an annual basis. Besides, several departments, district offices and projects have allocated budget to implement biodiversity conservation programmes. SNV funded Biodiversity Sector Support in the Siwaliks and the Terai, and TAL are the major biodiversity programmes in the country.
b) Extra-budgetary resources (identified by donor agencies)	Such budget has yet to identify to expand the coverage of biodiversity conservation programmes. At present, the Participatory Conservation Programme (PCP) funded by UNDP has allocated about USD 9,000.00 for this fiscal year 2004/05the to finalise and publish Biodiversity Strategy Implementation Plan and also conduct a study on the status of biodiversity in major hydropower and road projects which have undergone EIA process.
c) Bilateral channels (identified by donor agencies)	SNV, DFID, DANIDA, SDC etc. supported projects have included biodiversity conservation programmes with allocation of some budgets but clear distinction is difficult to make.

d) Regional channels (identified by donor agencies)	X
e) Multilateral channels (identified by donor agencies)	X
f) Private sources (identified by donor agencies)	None, except some utilising biological resources as industrial raw materials.
g) Resources generated through financial instruments, such as charges for use of biodiversity	• Protected areas generate revenue from various sources such as entrance fees, royalty from hotels, elephant rides, issuing filming licenses, fines, and others. • HMGN also collects royalties from the sale of medicinal plants and NTFPs. However, it is deposited to the national consolidated fund and HMGN provides budget annually for the implementation of approved activities.

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.

- A framework for Nepal Trust Fund for Biodiversity has been proposed, and is still in process. In case of protected areas, revenue is shared with the local communities and is used also for biodiversity conservation. In community forests, about 25 percent of the total income is used for forest development and management. However, perpetual funding mechanism has yet to develop. The Environment Conservation Fund established in accordance with the provisions of the Environment Protection Act (1996) could also be used for biodiversity conservation. There is also a possibility to use the National Agricultural Research and Development Fund for the conduction of biodiversity related researches and studies.
- Under the in-country sources of funding, the national consolidate fund, poverty alleviation fund, funds generated by community based organisations such as community forestry user groups, leasehold forestry user groups, buffer zone user groups, private sector investment in biodiversity use, biogas subsidies could be considered as potential funding sources. Furthermore, GEF small grant programme and small grants of the conventions related to species conservation would also be the potential funding sources to implement small scale local programmes. However, there are inadequate funding for biodiversity conservation as people should wait for outcomes and impacts of such initiatives.

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)	X
c) Yes, financial support only	
d) Yes, financial support and incentives (please provide details below)	

Further comments on financial support and incentives provided.

Annual programmes funded through the national consolidated fund, and NGO-received funds from several agencies have contributed, although limited in scale, to achieve the objectives of the Convention.

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	

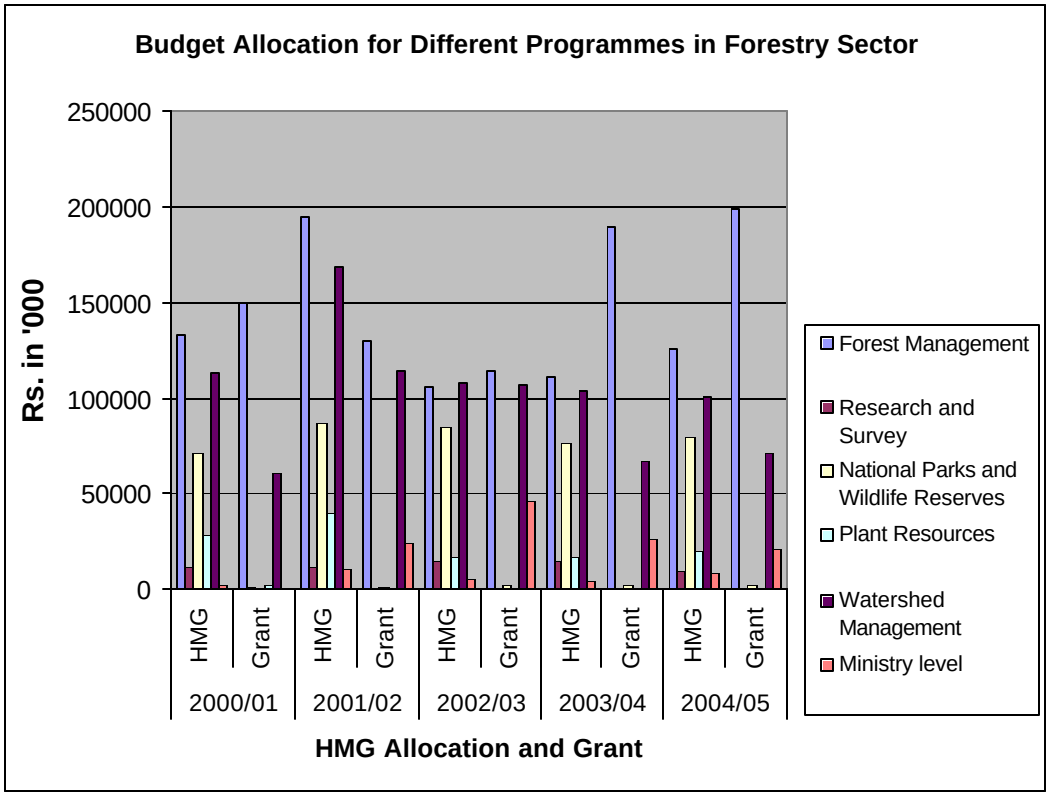
140. Has your country established a process to monitor financial support to biodiversity, including support provided by the private sector? (decision V/11)	
a) No	X
b) No, but procedures being established	
c) Yes (please provide details below)	
Further comments on processes to monitor financial support to biodiversity, including support provided by the private sector.	
The Monitoring and Evaluation Divisions of MFSC and MOAC are involved in target monitoring. However, process and performance monitoring is yet to be internalised.	

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.	
• A five years tax exemption is granted to encourage eco-tourism • Similar exemption is granted to leasehold forestry owners who take certain area of forestland for commercial plantation of NTFPs including MAPs.	

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.



The above graph provides information on fluctuation on budget allocation for natural resource management which contributes to biodiversity conservation. No studies have been conducted for perverse incentives, identify barriers, and means for their removal or mitigation.

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	
c) Yes, in some initiatives and plans (please provide details below)	X
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.

- The integration of biodiversity considerations has been ensured in major development plans and programmes including water resources plan, sustainable development agenda, and national action programme on UNCCD. Equal emphasis is given to include biodiversity considerations in other national development programmes. However, there is a need to create additional awareness of the development

partners, in particular the infrastructure development organisations, not only to include biodiversity concerns in their plans and programmes but also ensure biodiversity conservation during the programme/project implementation. The review of EIA reports clearly indicate that there are less concerns on biodiversity conservation and efforts are underway to mainstreaming biodiversity conservation in development projects as well.

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	
c) Yes, into some sectoral development and assistance programmes (please provide details below)	x
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

A mechanism is in place during the review process to promote the integration of biodiversity aspects in the sectoral development programmes and in other programmes like restoration or rehabilitation of biological resources.

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.

x

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.

Areas	**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**	**x**	**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**	**x**
g) Projects that promote measures for implementing Article 13 (Education and Public Awareness) (decision VI/19)		**x**	**x**
h) Preparation of national reports (decisions III/9, V/19 and VI/25)			
i) Projects for conservation and sustainable use of inland water biological diversity (decision IV/4)			**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	x	x	x
n) Others (please specify) such as for the implementation of community forests, leasehold forests, protected areas and agro-biodiversity			x

Further information on application for financial support.

Nepal is receiving technical and financial assistance from UN agencies in particular the UNDP including UNDP/GEF and UNEP/GEF for biodiversity conservation or other programmes that contribute to meet the objectives of the biodiversity convention. In addition, bilateral assistance has been received from a number of developed country parties. The recent projects in the forestry sector which also contain components of biodiversity conservation are assisted through SNV-N, DANIDA, DFID–UK, AUS-Aid, SDC, GTZ, JICA, ITTO, IPGRI, CARE Nepal, WWF Nepal etc. In the agriculture sector, Japan/JICA, ADB, DFID, FAO, IPGRI, France, Norway, SDC etc. are providing technical and financial assistance.

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.

a) The technical and financial assistance received from UN agencies and developed country Parties has been instrumental in mainstreaming biodiversity conservation aspects in the programme areas (geographical areas). The community forests and buffer zone management programmes have shown exemplary impacts on biodiversity conservation. Such assistance requires extension to increase physical coverage to benefit the indigenous and local people in a substantive way.

b) The assistance has contributed and will continue to contribute to achieve the goals of the Strategic Plan, 2010 targets, and MDG 1 and 7 in particular. It has also contributed to translate the biodiversity strategies into action.

c) Lessons learned during the last decade in expanding the implementation of the biodiversity conservation activities in the spirit of the Convention is limited to replicate in other similar areas due to lack of additional funding. It takes time to feel the benefits of biodiversity conservation and local poor people face difficulty in waiting for longer period. The biodiversity could be considered as "ripen fruit". It is natural that poor people wants to use it to the earliest possible without leaving the "seed". But its conservation should encourage the people to keep intact and promote sustainable use only. In this context, Nepal has yet to devise site-specific mechanisms to appreciate different ethnicity, their cultural norms and practices, and it requires additional funding and increase the geographical coverage of programme implementation. Lack of new and additional technical and financial assistance are the major constraints. Furthermore, capacity building at national level deserves special attention for effective implementation of the convention. Implementation of COP decisions in areas of alien species and GTI is lacking because lack of information, knowledge-based human resources and technical and financial assistance.

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	2	2	Not applicable	1	1	2
(b) Limited public participation and stakeholder involvement	0	0		1	2	1
(c) Lack of main-streaming and integration of biodiversity issues into other sectors	2	1		2	N/A	2
(d) Lack of precautionary and proactive measures	3	2		2	N/A	3
(e) Inadequate capacity to act, caused by institutional weakness	1	1		3	N/A	2
(f) Lack of transfer of technology and expertise	2	2		2	2	2
(g) Loss of traditional know ledge	2	1		2	N/A	2
(h) Lack of adequate scientific research capac ities to support all the objectives	2	2		2	2	3
(i) Lack of accessible knowledge and information	2	1		2	3	2
(j) Lack of public educ ation and awareness at all levels	2	2		3	3	3
(k) Existing scientific and traditional know ledge not fully utilized	1	2		2	3	3
(l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	3	3		3	3	3
(m) Lack of financial, human, technical resources	3	3		3	N/A	3
(n) Lack of economic incentive measures	3	2		3	N/A	3

(o) Lack of benefit-sharing	2	1		1	N/A	2
(p) Lack of synergies at national and international levels	3	2		3	N/A	3
(q) Lack of horizontal cooperation among stakeholders	2	2		3	N/A	3
(r) Lack of effective partnerships	2	2		2	N/A	2
(s) Lack of engagement of scientific community	1	2		3	3	3
(t) Lack of appropriate policies and laws	1	0		2	N/A	2
(u) Poverty	3	3		3	3	3
(v) Population pressure	3	3		2	1	2
(w) Unsustainable consumption and production patterns	2	3		3	N/A	3
(x) Lack of capacities for local communities	1	1		3	N/A	2
(y) Lack of knowledge and practice of ecosystem-based approaches to management	2	2		3	N/A	3
(z) Weak law enforcement capacity	2	1		3	N/A	3
(aa) Natural disasters and environmental change	2	1		2	N/A	3
(bb) Others - Lack of Security and Peace	1	3		3	2	3

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		X		

Further comments on incorporation of the objectives and activities of the programme of work

Most of the national policies include biodiversity conservation aspects in inland water ecosystems. The Water Resources Strategy (2002) and National Wetland Policy (2003) includes policies, strategies and programmes. However, effective implementation of biodiversity-inclusive programmes are relatively week outside the protected areas, particularly in the river system.

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	
c) Priority activities developed but not outcome oriented targets	
d) Yes, comprehensive outcome oriented targets and priority activities developed	X

Further comments on the adoption of outcome oriented targets and priorities for activities, including providing a list of targets (if developed).

HMGN has emphasised to conserve aquatic biodiversity in particular the fish species in the river ecosystems which are affected by hydropower projects. The EIA study of such project enumerates the fish species and includes adverse impacts mitigation measures. These measures include fish ladder to ensure fish migration, development of fish hatchery and release to maintain downstream fish population, and trucking and hauling of fish species which needs conservation. In order for sustainable management of watersheds and aquatic ecosystems, the 25-year Water Resources Strategy (2002) provides that:

- By 2007, management plan for pilot watershed and aquatic ecosystem will be prepared, and water quality and wastewater quality standards will be developed and implementation initiated;
- By 2017, full scale environmental protection and management projects will be implemented in all priority watershed and aquatic ecosystems; and
- By 2027, quality of watersheds will be increased by 80% in all regions, and adequate water quality for aquatic habitat including fish, human consumption and recreation will be in place in all rivers and lakes.

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	X
d) Yes, some measures taken for joint implementation (please specify below)	
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.

The synergy programmes are yet to be developed and implemented in the spirit of CBD-Ramsar Joint Work Plan. However, biodiversity conservation has been given due importance in wetlands. The NGOs are also taking initiatives in managing wetlands, particularly the Ramsar sites.

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.

Data at species level have been collected from selected wetlands. In case of inland river ecosystems, fish species has been documented on case-by-case approach during the preparation of EIA reports of the hydroelectricity projects. However, much still remains to collect data on goods and services, and socio-economic variables.

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	X
d) Yes, the guidelines promoted and applied	

Further comments on the promotion and application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems.

Rapid assessment of biological diversity of inland water ecosystems is carried out during the preparation of EIA report. Other initiatives have not been taken in this area.

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.
Utilisation of inland water has been enhanced for drinking water, irrigation and hydropower development. Recreational facilities have also been developed in selected lakes and rivers. Water use is increasing by damming the river system in their different stretches. This has affected migratory fish species. It is expected that unregulated activities in the inland water ecosystems would be detrimental for biodiversity. Even the Ramsar sites lack proper management due to technical and financial constraints. However, the effective implementation of the Wetland Policy (2003) and Water Resources Strategy (2002) would help to conserve biodiversity and mainstream species and ecosystems management.

Marine and coastal biological diversity

General

Not applicable to Nepal

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.	
Not applicable to Nepal being the land-locked country.	

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.	
Not applicable to Nepal	

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.	
Not applicable to Nepal	

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	
Not applicable to Nepal	

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.

Activities	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.

Not applicable to Nepal

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 .	
Not applicable to Nepal	

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.
Not applicable to Nepal

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.
Aquaculture has been developed but invasion of alien species has not been studied.

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.
Not applicable to Nepal

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.
The Nepal Biodiversity Strategy (2002) has focussed on promoting participatory plant breeding, and variety selection, and maintaining gene bank. The Agriculture Policy (2004) emphasises on *in-situ* conservation of agro-biodiversity including the development of gene bank. It also realised the need for establishing participatory biodiversity park, and improving degraded and natural reservoirs for the conservation, promotion, and sustainable use of biological diversity. The Ministry of Agriculture and Cooperatives (MOAC) has recently drafted agro-biodiversity policy (2005) with the vision of ensuring food security, conserving traditional knowledge and skill, and contributing to poverty reduction by promoting conservation, sustainable use and fair and equitable sharing of benefits. The draft policy encompasses the major provisions of the CBD including biosafety aspects related to agro-biodiversity. It focuses on public awareness, research and monitoring, and development of guidelines on biosafety. It also acknowledges, *inter alia*, the role of pollinators.

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	X
c) Yes, some measures identified (please provide details below)	
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.
Nepal has yet to develop facilities to identify the genetic use restriction technologies, and also to identify their potential impacts on biodiversity. The ongoing programme on the development of biosafety framework would document such technologies that Nepal should focus in the coming years. Experts have emphasised, *inter alia*, to address the following issues during the development of biosafety framework regarding the food production and food security: i. Potential failures of GM crops; ii. Potential negative impact of Bt (*Bacillus thuringiensis*) crops producing toxins (increased resistance to Bt toxin by the pest, crop losses due to killing non-targeted bio-control organisms and reduction in soil fertility due to Bt toxin remaining in soil); iii. Potential transfer of insecticidal properties or virus resistance to wild species of crops; iv. Potential loss of genetic diversity; v. Risk of using developing countries like Nepal as an inappropriate testing grounds by scientists and companies promoting GM organisms; and vi. The relative costs (financial, social, political versus relative benefits i.e. productivity and food security).

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?	
a) No	
b) Yes, assessments are in progress (please specify components below)	X
c) Yes, assessments completed (please specify components and results of assessments below)	

Further comments on specific assessments of components of agricultural biodiversity.
• Evaluation of the performance of local landraces and their release is ongoing. • Storage of germplasms in the seed bank and maintenance of traditional germplasm accessions has been institutionalised.

- Identification, conservation and promotion of environmentally suitable indigenous breeds of livestock has been started.
- Crossbreeding and livestock improvement has been initiated in selected livestock to increase milk, and meat production, and develop resistance to harsh climate.
- Integrated Pest Management methods are under evaluation, identification and conservation of pollinators in progress

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	
b) Yes, assessments are under way	X
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).

Assessments are ongoing particularly at species and genetic levels with due consideration on economic importance of species.

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.

Documentation of traditional knowledge, skills and practices have been recently initiated in agriculture sector and it would help to promote the usage of such knowledge and skills, and replicate practices for enhancing agriculture production and ensuring food security. In situ conservation of crops, vegetables, fruits and fisheries is ongoing.

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.

Studies indicate the increasing genetic erosion in selected species which may be attributed to increased use of agro-chemicals and use of HYVs. There is also a tendency of cultivating the hybrid species by replacing the local species. Lack of awareness and market has been identified as one of the responsible factor for genetic erosion.

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	X
c) Yes, some practices, technologies and policies identified (please provide details below)	
d) Yes, comprehensive practices, technologies and policies identified (please provide details below)	
Further comments on identified management practices, technologies and policies.	
Declining production of local species has encouraged the local people to cultivate hybrid crop varieties. The MOAC and NARC has implemented activities to identify management practices, technologies have been developed and used, and the existing policies encourage to minimise impacts on agro-biodiversity by regulating the use of agro-chemicals (chemical fertilisers, insecticides and pesticides) and by promoting integrated plant/pest management.	

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	
b) Yes (please specify area/component and target groups with increased capacity)	X
Further comments on increased capacities of farmers, indigenous and local communities, and their organizations and other stakeholders.	
MOAC through its regional training centres, research stations and district agriculture offices organise training programmes regularly to enhance the capacities of the farmers, particularly on developing skills on farming practices. HMGN has initiated to provide sessions on the need for and ways to in situ conservation of agro-biodiversity. MOAC also airs agriculture development programme each day to create public awareness. Similarly, INGOs and NGOs are also involved in creating public awareness and building capacity at different levels to enhance understanding about agro-biodiversity conservation, its potential benefits and ways to achieve them.	

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	
c) No, but mechanisms are under development	X
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.

New varieties have been provided to the local people along with necessary information and training. Farmers are also discouraged to use heavy dose of agro-chemicals in crops in order to encourage organic farming and conserve agro-biodiversity. The proposed access and benefit sharing bill also deals with agrobiodiversity resources.

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.

Conservation of agro-biodiversity has only been emphasised in the agriculture development policy. The Biodiversity Strategy (2002) focuses on participatory plant breeding, participatory variety selection, and gene bank strengthening. A thematic sub-committee has been constituted on agricultural biodiversity to address the works, serve as a clearing house for ideas, proposal and initiatives, and also serve as an expert group on policy and directives in particular the technical and advisory aspects. The agriculture policy 2004 also emphasizes on the conservation of agro-biodiversity. The draft agro-biodiversity sub sectoral policy has outlined in details about the conservation and promotion of agro-biodiversity. In situ conservation of agro-biodiversity and documentation of agro-biodiversity is prioritised in the draft Nepal Biodiversity Strategy Implementation Plan.

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	
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.

The agro-biodiversity policy has been drafted recently in the spirit of the Convention on Biological Diversity and within the framework of NBS. The Ministry of Agriculture and Cooperatives - the focal ministry for agriculture development - is strengthening its institutional capacity and mobilising its technical and management offices to promote the conservation of agro-biodiversity. NARC is conducting and promoting research and development on agro-biodiversity. The Thematic Sub Committee on Agro-biodiversity is Chaired by the Secretary of MoAC who is also a member in the National Biodiversity Coordination Committee (NBCC).

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.

Seed bank is in operation to ensure *ex-situ* conservation of crops and horticulture species. Some studies are ongoing about the genetic variability in selected species, and documentation of wild species have also been initiated. Both In-situ and Ex-situ programmes are launched to conserve indigenous and native land races, species/breeds and varieties of agro-biodiversity. Documentation, characterization, cultivation/farming, and gene banking is in progress. Farmers are encouraged to self save, plant, exchange and market such varieties of crops and livestock breeds. Awareness programme, biodiversity fares, farmers' field days, farmers schools are run as a means for awareness, communication, demonstration and participation in research and development programmes.

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 Gender, Equity and Environment Division of the Ministry of Agriculture and Cooperatives has recently developed a project on the "Management and Conservation Pollination Service through Ecosystem Approach" to be jointly implemented with ICIMOD and FAO. This has been one of the priority projects of the NBSIP(final draft).

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.

Conservation of agriculture biodiversity is gaining importance in the recent days. It would have positive impacts on food security and poverty reduction. It will also contribute to conserve the local landraces and breeds. Hence, the existing programmes would contribute to achieve, at least partially, the goals of Strategic Plan of the Convention, 2010 targets, MDG1, and enhance the implementation of biodiversity strategies. However, the current trend of cultivating hybrid varieties, and usage of toxic agro-chemicals should be avoided and/or minimised. Nepal also lacks necessary funding, technical and technologies services for the conservation of agro-biodiversity in the spirit of the Convention and COPs decisions.

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	
b) Yes, please describe the process used	X
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 Biodiversity Strategy (2002), ongoing Tenth Plan (2002-2007), Sustainable Development Agenda (2003) and other policies, working policies, strategies, procedures and manuals have been developed in the spirit of the CBD, and thematic sub-committee has been formed on forest biodiversity as well. The major functions of the thematic sub-committee on forest is similar to that of agriculture biodiversity (see # 171). Adequate emphasis has been given about forest biodiversity in NBSAP. Forest management considers biodiversity conservation both at national and community managed forests. Forest management operational plans are being revised taking biodiversity conservation in to account.

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.

Forest management plans have been developed for all the lowland forests. Parts of the national forests are handed over to the community forestry user groups based on the operational plan. The leasehold forest is also managed based on the operational plan. Nepal has institutionalised forestry planning for annual programmes, and management interventions have been introduced accordingly. Biodiversity conservation aspects have been integrated in the annual and periodical plans. Target monitoring is in place. Environmental assessment is carried out for each prescribed project which is planned for implementation in the forest areas.

In order to implement forestry plans, human resource development is an ongoing process. Regular training is provided through the five regional forestry training centres and a central level training section. Biodiversity conservation has been integrated in each of the forestry training to share information and develop capacity of the field level forestry officials. The biodiversity training are also organised occasionally to build capacity of the forestry officials. Biodiversity documentation includes documentation of forest resources and associated traditional knowledge of the forestry users community.

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.

- The Community Forestry (CF) in Nepal is a successful example of participatory forest management in Hills and Mountains. Sustainable harvesting and equitable distribution of benefits among the users who may be the indigenous and local communities are helpful to conserve the biodiversity in the forests. About 1.153 million hectares of national forests (20 percent of total) have been handed over to about 14,000 community forest user groups, and about 38 percent of the total population of Nepal are involved in these user groups. Of these user groups, about 24 percent are exclusively of women, and each user living nearby the forest

would be the active member of the user groups.

- Some forests are also given to poor local people (below poverty level) under the leasehold forestry programme which is under implementation in 26 districts of Nepal. The people grow forest species (preferably NTFPs and MAPs) and earn their living. HMGN also provides forests to the private sector in the form of leasehold forests for industrial and eco-tourism purposes. There is a growing awareness about the need for conserving forest biodiversity, and efforts are underway to internalise biodiversity documentation and conservation in such forests.

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.

- As mentioned above, the central level and five regional level training centres provide regular training to forest officials. Demand-driven specialised training on biodiversity and environment assessment is also organised occasionally. Much effort is given to include sessions on biodiversity in the regular forestry training programmes including regional planning workshops, and other seminars and workshops. Almost all the forestry projects also organise seminar, workshops and training as an in-built component. In a nutshell, human resource development is an institutionalised part of forestry programme. However, the number of trained people is quite small to cater the services at the field level and also to get engaged in implementing several activities related to biodiversity. Furthermore, biodiversity courses are trained at the institute of forestry, agriculture and environment under various universities.

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.

- Bilateral cooperation is one of the major initiatives in Nepal for technical and financial assistance in forestry sector and forest management. South-south cooperation has been promoted being a member of the SAARC (South Asian Association for Regional Cooperation) forestry programme, and other regional forums. Nepal is receiving technical and financial assistance from development country Parties of the Convention such as Denmark, Australia, Japan, Switzerland, Germany, Finland etc. and hence, north-south cooperation is like the donor and recipient.
- About 40 percent of the total area is under the jurisdiction of the Ministry of Forests and Soil Conservation. *In-situ* conservation of biodiversity has been promoted in these areas. However, the technical and technological capacity in handling biodiversity aspect is severely limited. Nepal needs additional financial and technical assistance in the field for expanding biodiversity documentation and registration, development of biodiversity products certification process, human resource development, genetic resource conservation and utilisation in particular and wildlife corridor management and so on. Further areas for support needs expansion of taxonomic initiatives, handling of alien species and effective implementation of Global Strategy for Plan Conservation. It is also urgently required to know what Nepal has and their status. It means more biodiversity exploration, identification, and management supports are required to implement the convention effectively and more meaningfully.

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)	
c) Yes (please provide details below)	X

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).

The forests of Nepal are managed with ecosystem approach. A total of 118 ecosystems have been identified in different physiographic zones: Terai, Siwaliks, Mid-Hills, and High Mountains. The forests are managed with people's participation. The State forests are handed over to community users in the form of community forests, leasehold forests (pro-poor user groups, commercial uses and eco-tourism purposes) and other users adopting collaborative forest management. The pro-poor leasehold forests are managed by indigenous and local poor people. The remaining national forest is management by the expanded network of government's forestry institutions. The community forest is the most successful forestry programme in Nepal as local users are involved in management, sustainable use and benefit sharing. Forest management is comparatively low in some areas of the lowland community forests and harvesting prevails without knowing the growing stock. Nepal underscores the importance of empowering local users in managing the forests. Based on this experience, HMGN has introduced collaborative forest management in the lowland forests where distant users will have the opportunity to participate in forest management and share benefits unlike that of community forests. Nepal has also empowered the local people through policies and legislations to solve the emerging problems of forest destruction and depletion.

The existing management approaches have conserved forests and drinking water sources, contributed to reduce soil erosion and landslides, increased forest products and so on.

Several problems and constraints still remain to make the success sustainable, they are:

- High population pressure and prevailing poverty;
- Increased use of forest products such as firewood, timber, fodder and other products;
- Low levels of public awareness and participation of the development partners (non-forestry sector);
- Inadequate field-level human resources to cater the services;
- Inadequate integration and coordination with concerned stakeholders;
- Inadequate research and development (R&D) and information systems; and
- Inadequate resources (financial and technical).

176. Has your country undertaken measures to reduce the threats to, and mitigate its impacts on forest biodiversity?,

Options	X	Details
a) Yes	X	Please specify below the major threats identified in relation to each objective of goal 2 and the measures undertaken to address priority actions Major threats: • Forest depletion and habitat degradation accompanied with grazing, poaching, illegal timber harvesting, conversion of forests to non-forestry activities and fragmentation of forest areas due to infrastructure development projects • Loss of species due to over exploitation of commercially valued species, and increased use of forest products such as firewood, timber, fodder and other products, and genetic erosion • Population pressure and prevailing poverty due to socio-economic, natural and anthropogenic causes (pollution, fire, overgrazing, alien species, illegal trade and hunting) • Inadequate public awareness and participation • Low level of knowledge-based human resources • Inadequate data and information necessary for preparing and updating operational plans • Exploitation of NTFPs without proper inventory and management prescriptions • Lack of research and development (R&D) • Inadequate resources (financial and technical). Measures undertaken: • Public awareness activities including capacity building of local authorities/people, including human resource development and institutional strengthening for the implementation of national strategies or plans for priority programs • Launching of ecosystem, species and genetic resource conservation programmes with landscape approach • Development and implementation of management plans, including species conservation plan • Strengthening of the management of ecosystems and habitats with people's participation • Sporadic studies, identification and monitoring of wild biodiversity components • Implementation of economic incentive measures for biodiversity conservation. • Integration of social dimension including those related to poverty, into the conservation and sustainable use of biodiversity, etc.
b) No		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).

Other policy measures are related, *inter alia*, to encouragement of infrastructure development partners to ensure conservation of biodiversity, incorporation of avoidance-minimisation-compensatory measures into impact assessment, and empowerment of local people in natural resource management.

These initiatives have been found effective to conserve biodiversity. The impact assessment reports have started the inclusion of biodiversity conservation aspects, people have shown their strong commitment to conserve and utilise biodiversity at sustainable basis, and potential impacts on forests have been minimised, if not avoided.

Lack of additional technical and financial resources have limited the expansion of forest management activities even in biodiversity-rich areas. Local people have yet to understand the economic, ecological and societal values

of biodiversity. Involvement of women and disadvantage group (indigenous and local communities) is yet to be expanded by avoiding cultural barriers and so on.

177. Is your country undertaking any measures to protect, recover and restore 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 • Implementation of community and private forestry programmes with people's participation including women, indigenous and disadvantage groups of people • Implementation of national and leasehold forestry programmes • Management of Non-timber forest products (NTFPs) • Protection of habitat of rare and endangered species at both *in-situ* and *ex-situ* conditions • Management and protection of ecologically sensitive ecosystems • Institutional strengthening and cross-sectoral coordination and implementation of policies • Application of Environmental Impact Assessment (EIA) • Involvement of women in biodiversity conservation • Inventory, research and development of flora and fauna, etc. The community forestry actions are implemented country-wide. Other programmes are site-specific and are in small scale.
b) No		Please provide reasons below

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).

Similar to as mentioned in # 176

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 • Implementation of community forestry operational plan and collaborative forest management plans , that considers sustainable harvesting of forests • Cultivation of NTFPs on private lands to save over harvesting form forest • Protection of forests from fire, grazing, illegal hunting (poaching), timber theft and deforestation • Policy and legislation: o More responsibility to local communities (Community Forestry) o Identification and management of useful plant species, which may not be useful for fuelwood and timber o Regulation on unsustainable harvesting of NTFPs and MAPs • Promotion on management training and institutional support to CFUGs and CBOs including effective monitoring and evaluation (M&E) • Promote research and development (R&D), as a support to sustainable management of forest biodiversity, etc.

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).

As mentioned above, community forestry has started giving returns. The collaborative forest management and MAPs/NTFPs cultivation are the recent initiatives. People' empowerment is another important area for being the community forests success. The outcomes and impacts of these activities have been instrumental in expanding the forest management activities. Biodiversity-inclusive forest management is an open area which might bring positive impacts on forests and the environment.

There are increasing trends on the involvement of women and disadvantage groups of people in decision-making, fund generation and mobilisation. However, much still remains to reduce the domination of local elites in forest management.

HMGN has emphasised on the documentation of biodiversity and its products at the community level. It has also developed facilitating policies to promote MAPs and NTFPs cultivation, collection and processing to improve the living conditions of the local people through the sustainable use of biodiversity and benefit sharing.

179. Is your country undertaking any measures to promote access and benefit-sharing of forest genetic resources?

Options	X	Details

a) Yes	X	Please specify priority actions in relation to each objective of goal 5 and describe measures undertaken
		• A policy on Access to Genetic Resources and Benefit Sharing has been drafted and is waiting for endorsement. The policy has the following major objectives:
		  • Creating conditions to facilitate access to genetic resources and genetic materials for environmentally sound use and bioprospecting;
		  • Ensuring sharing in a fair and equitable way the results of research and development and the benefits arising from access, use and transfer of genetic resources and genetic materials;
		  • Also ensuring access to and transfer of technology employed in the access, use and transportation of genetic materials and genetic resources;
		  • Promoting and ensuring biotechnology and genetic engineering for the benefit of the Kingdom of Nepal and by protecting the traditional knowledge;
		  • Discouraging and controlling bio-piracy; and
		  • Also promoting cooperation between Contracting Parties to the Convention for access, use and transfer of genetic resources, genetic materials and benefit sharing.
		In order to translate the policies into legislation, the Access to Genetic Resources and Benefit Sharing Bill and its Regulation has also been drafted in the spirit of the CBD. The Bill is awaiting approval. The draft Bill focuses, *inter alia*, on documenting the biodiversity with prior informed consent of the indigenous and local communities, registering both in-country and imported biodiversity and its product with the proposed Biodiversity Authority/Council, and getting involved in access to genetic resources after necessary approval and ensureing sharing of benefits in accordance with the provisions of the law and/or as mutually agreed upon. The Bill will likely promote the sustainable use of genetic resources and contribute to poverty reduction as well.

b) No		Please provide reasons below

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)
There is a continuous pressure on forest genetic resources and HMGN is facing difficulty to mainstreaming access to and benefit sharing of such resources due to lack of equipped laboratory and analytical facilities and trained human resources. It is expected that the promotion of access and benefit sharing of forest genetic resources would greatly contribute to generate additional funds for biodiversity conservation, and poverty reduction. It will also contribute to establish modern laboratories, utilise advance technologies and develop knowledge-based and capable human resources. Till now, Nepal lacks experiences, knowledge and skills on handling genetic materials.

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	X	Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities • Nepal has country-wide network for forest management system and is strengthening the capacity of the network for the conservation of forestry biodiversity through necessary training and other activities. Thematic Sub Committee serves as a think tank whereas District Biodiversity Committees work as local level coordinating body. In order to contribute to achieve the goal, HMGN has approached to: • Community mobilization: o Empowerment and mobilization of women including disadvantage groups of indigenous and local communities for the management of community forests, leasehold forests and buffer zones; and o Formation of forestry user groups under each user committee guaranteeing fair representation of women and disadvantaged groups. • Benefit Sharing: o Providing all benefits to local forestry users who are involved in community forest management, however, 25 percent of the income generated should be spent for the management of concerned community forests legally; o Also providing 25 percent of the revenue generated from the sale of forest produce (timber and firewood) to the local community. Part of which will be spent for collaborative forest management and the rest for community development; and o Further providing all benefits to the pro-poor leasehold forestry user groups derived by them from forest management and sustainable use. o These initiatives have contributed to the conservation of forest biodiversity in areas where community users are involved. HMGN has approached to mobilise them in biodiversity documentation in order to know what type and composition of biodiversity is available and what could be done for access to and benefit sharing of such resources to make the process itself sustainable.
b) No		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).		
Conservation and sustainable use of forest biodiversity has been addressed through institutional development and strengthening. In case of access and benefit sharing, Nepal has yet to mainstreaming it more effectively in government-managed forests. Users' management approach has been found effective to conserve forest biodiversity. However, the country is facing difficulty to document and register biodiversity and its product and		

associated traditional knowledge, skill, techniques, innovations and practices due to limited financial and technical assistance. Nepal has limited analytical facilities on genetic resources and materials, and hence, genetic constituents of even the most traded species are not known for bioprospecting purposes.

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	X	Please identify priority actions in relation to each objective of Goal 2 and describe measures undertaken to address these priorities • Integration of biodiversity conservation in relevant works is an essential activity to link biodiversity with socio-economic aspects; • Increasing pressure on forests and change of forest areas to non-forestry activities requires review. It should also review Kamaiya (indigenous bonded-labour) population and their present status to find out alternate living, instead of clearing forests for their rehabilitation; • Implementation of EIA findings and recommendations on forest biodiversity and policy decisions about the conservation of biodiversity should be field-tested and HMGN is planning to conduct such field studies to mainstream biodiversity concerns in infrastructure and other development projects; and • Promoting leasehold forestry is a priority action to provide degraded forest areas to landless and poverty-stricken people and link them with biodiversity conservation, and encourage them in NTFPs cultivation to improve their living standard
b) No		Please provide reasons below

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).

- Forests are continuously used for non-forestry activities in spite of the government policy of not giving the forest areas for non-forestry activities. It has accelerated habitat fragmentation and site-specific loss of some species.
- There is a need for creating awareness of and convincing the development partners involved in implementing the programmes and projects in the forest areas about the ecological, economic, and societal values of biodiversity and its long-term implications on forests. Also there is a need for bringing the people in the mainstream of biodiversity conservation in different ecosystems.
- Human resource development programmes are also urgently required within and outside the forestry institutions to facilitate the integration of biodiversity conservation aspects in sectoral programmes and projects. At present, HMGN has approached for the implementation of existing policy measures and expansion of biodiversity documentation process. The 2003 policy decision on the need for including detail baseline information about the biodiversity in environmental assessment reports of the development projects has brought positive change and has sufficiently provided inputs for informed decision-making. It is expected that effective implementation of this policy would contribute to least damage biodiversity and its habitat and/or create similar habitat.

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 • Public awareness is the focal area of the governmental and NGOs to bring the local people in the mainstream of biodiversity conservation. • As explained earlier in previous sections, weekly radio programme and bi-monthly television programmes covering different aspects of forest and biodiversity conservation is ongoing. Other programmes also air biodiversity conservation aspects regularly. • HMGN is publishing regularly the *Kalpabrikshya, Samrakchan Samachar,* Plant Resources, and *Jadibuti* (newsletters) *Banko Jankari,* (a forestry journal) including bulletins during the International Biodiversity Day and Mountain Day. These bulletins, newsletters and journal provide news, feature articles, scientific and conservation education materials. • Brochures, posters and pamphlets are regularly published to share information about the project activities. • Biodiversity Day, Mountain Day, World Environment Day, Plant Resources Day, Soil Conservation Week, Wildlife Conservation Week, Forest Day etc. are observed annually. *Ganeshman* Prize for the best Forest User Group, Mountain Development, Environment, Abraham awards are awarded annually to acknowledge the works of the institutions and individuals. • Quiz and painting contest, rallies and exhibition, etc. are also organised occasionally. • Environmental education offered from primary to tertiary levels also contains courses on biodiversity.
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).

The need for repackaging the information has been realised to make them easily understandable and user-friendly. It is also realised to revise the academic courses on biodiversity to develop human resources that could address the emerging local problems. It is also necessary to revise the training packages to develop human resources to address emerging problems on biodiversity. The basic constraints are the lack of financial resources. There is a need for trainers' training, and HMGN is trying to provide training through its regional training centres. There is also a need for preparing help guides to trainers and trainees about biodiversity conservation in different habitats/ecological zones taking into consideration the traditional customs and values.

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 • DFRS carry out national forest inventory and prepare forest maps periodically. • As mentioned above, HMGN is developing procedures to mobilise forestry user groups in biodiversity documentation. When it will be in place, biodiversity documentation could be done in about 25 percent of the total forest area. • Assessment of biodiversity has been internalised through EIA process. The MFSC through its Monitoring Division and Regional Forestry Directorates has made efforts to monitor and evaluate the programmes annually and five yearly, as per the National Development Plans. • The Department of Forest also undertakes measures to improve the status and trends of forest biological diversity. In protected areas, the Department of National Parks and Wildlife Conservation (DNPWC) is responsible for the effective management and monitoring of all the protected areas, including those managed by NGOs and CBOs. • A guideline for biodiversity assessment and monitoring for protected areas has been prepared in early 2005 by the King Mahendra Trust for Nature Conservation in collaboration with UNEP, WCMC and Darwin Initiative. This field tested guideline will provide ample opportunities to mainstreaming biodiversity assessment and monitoring within and outside the protected areas. The biodiversity monitoring has also been initiated in selected protected areas with the active participation of the local communities. These initiatives will hopefully enhance knowledge and skill for future assessment and monitoring works.
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).		
This is the new area for Nepal.		

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 • In-country training and seminars are occasionally organised for concerned wardens and forest officers to share information, enhance knowledge and develop necessary skills. As mentioned in # 183, a guideline on biodiversity assessment and monitoring has been prepared. The guideline includes data requirements, and information sources, and evaluation criteria as well. In-service training is also provided to forest officers, wardens and other technical staff. • HMGN has also refined methods for the assessment of deforestation rate and has estimated 0.06% deforestation in Terai instead of 1.3% in mid-1990s. • The approach taken on biodiversity documentation would help to assess the composition,, abundance, trend of forest biodiversity and contribute in developing appropriate strategy for its conservation/development and use.

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).

Assessment of the status and trends is yet to be conducted. There is also a need for developing new methods and refining the existing ones. Periodic assessment of forests, and assessment of community mobilisation have been realised and some studies have been conducted in the recent years. However, there is a lack of technical and financial resources, locally suitable technologies and tools to speed up the assessment works.

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 • Mobilisation of media, NGOs and CBOs and capacity building programmes are the prioritised actions to enhance the level of understanding about forest biodiversity. • There is a need for conducting country-wide studies to let know the development partners who implement projects in forests about the ecological, economic and societal values of forests and biodiversity in economic term. Such studies will provide a basis to influence policy formulation and implementation of programmes and projects in forest areas by non-forestry institutions. This will also provide information on contribution of forests to national gross domestic product (GDP) and bioprospecting as well.
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).

No specific targets are set but involvement of media in biodiversity conservation issues has enhanced general understanding of the local people to policy-makers. Lack of data and information associated with poor information management system has made difficult to influence decision-making process. Few database prepared in the recent past are also non-compatible to each other. And hence, there is an urgent need for putting the management information system in place and use data and information in decision- and policy-making processes.

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 Management information systems have been recently developed for community forests, leasehold forests, and protected areas. The system include information on forest area handed over, date of handover, salient features of the operation plan, number of users and beneficiaries and so on in case of community forests and leasehold forests. However, the protected area system provides data and information about the physical conditions and management interventions.

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).

The need for biodiversity assessment and monitoring has been realised and data management system has been established in the government organisation such as Department of National Parks and Wildlife Conservation, and Department of Forests, in INGOs like World Wildlife Fund - Nepal Programme, and regional centres like the International Centre for Integrated Mountain Development (ICIMOD).

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.

The programme of work has provided a basis to further implement biodiversity conservation activities in forest areas. There is an increasing realisation about the importance of biodiversity at different levels of the forestry institutions and cross-cutting sectors. This has contributed to integrate biodiversity concerns in non-forestry activities as well. The impacts are positive and would contribute to achieve the goals slowly. There is a need for implementing a number of policy measures that has been developed during the last three years. The major constraint is the low level of technical and financial assistance.

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)

a) No	
b) 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.

The high Himalayan region represents Nepal's dry and sub-humid lands. To a larger extent, they are characterised by the biodiversity of the Tibetan Plateau that lies to the north of Nepal. The Mustang (Annapurna Conservation Area), Dolpo (Shey Phoksundo National Park), Sagarmatha National Park and some other similar places have the characteristics of the dry and sub-humid areas. Despite the unique floral and faunal species (with some endemic species as well) diversity in these lands, lack of financial resources have limited the conservation efforts. Very little research has been conducted in these inaccessible areas. However, grazing pressure is intense.

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)

a) No	
b) 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.

The Nepal Biodiversity Strategy (2002) has included strategies on rangeland management. The strategy recognises the need, *inter alia*, for (i) developing national rangeland policy, (ii) conducting research on wildlife

ecology, wildlife habitat and wildlife-livestock interactions, (iii) creating awareness campaign and creating of biodiversity database, (iv) incorporating indigenous knowledge into development plans, (v) enhancing pastoral development and management, and (vi) promoting forage development through integrated management planning.

HMGN has endorsed the National Action Programme in 2004 to implement UNCCD and the need for biodiversity conservation has been reflected. The Programme emphasises, *inter alia*, on the promotion of community, leasehold and private forests in the degraded areas, domestication of high value and low volume plants and sustainable use of NTFPs, conflict minimisation on forests and benefit sharing, and conflict resolution between resource users and cattle grazers, and conservation of indigenous livestock.

Successful implementation of the strategy and action programme would contribute to conserve the biodiversity of the dry and sub-humid areas.

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)

a) No	
b) Yes, some linkages established (please provide details below)	x
c) 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.

- The National Action Programme to UNCCD includes about 70% of the total programmes and actions on forest management, and rehabilitation of degraded areas in different ecosystems. It also includes actions to establish synergy between relevant conventions and implement common programmes. The First Initial Communication to COP of UNFCCC has identified the possible implications of climate change on biodiversity loss.
- Nepal has designed a project on *National Capacity Needs Self-Assessment (NCSA) for the Global Environmental Management* to identify priorities and needs, and capacity building particularly on three Rio conventions - CBD, UNFCCC and UNCCD. At the end of the project, an action plan and resource mobilisation strategy will be developed for capacity development to implement these three conventions. However, the funding has not been ensured for this initiative to date.

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	X
b) No, but assessment is ongoing	
c) Yes, some assessments undertaken (please provide details below)	
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.

Few studies have been conducted about the nature of problems and required interventions in dry sub-humid areas and the rangelands. Some forage development programmes have been promote by the Department of Livestock Services to meet the cattle needs in the mountain rangelands.

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	X
b) Yes, some measures taken (please provide details below)	
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.	
X	

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.	

- Although specific programme have not been designed and implemented for dryland biodiversity, in-country training and field visits are organised on project-basis to share information and to show the local people the success programmes. The training are organised to field officials and occasional field visits are specifically designed for local people including the indigenous people, women and disadvantaged groups.
- In some areas, local capacity has been significantly increased for biodiversity conservation. Accordingly, local people have shown their commitments, and have requested HMGN to handover management responsibility for the Kanchanjunga Conservation Area, an area rich in biodiversity with unique landscape.
- The management and conservation responsibility of about 20 percent of the total forest area has also been handed over to the local community forestry user groups. About 14,000 users are involved in managing the forests, particularly in the middle hills. However, local capacity has yet to enhance for the integration of biodiversity conservation into local management efforts in the dryland

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.
• Biodiversity conservation effort is week in dry and sub-humid lands of Nepal. Few studies have been conducted to know the problems and prospects for livestock development. The National Action Programme on UNCCD has proposed to: (i) conduct studies on conflicts between cattle herders and community forestry user groups and launch preventive measures, (ii) undertake strategic assessment of rangeland, stock and requirements, and develop database of rangeland and cattle, (iii) develop and manage pasturelands in temperate zones, (iv) conduct census of indigenous livestock and protect endangered and rare species, (v) strengthen germplasm conservation facilities, (vi) introduce incentive package for stall feeding and rearing of productive cattle. It is expected that effective implementation of NAP activities would contribute to achieve the goals of the Strategic Plan, 2010 targets, develop and/or refine strategies and actions, and also achieve the goals 1 and 7 of MDG. • Taking note of the UNCCD's use of terms, the trans-Himalayan region including Mustang, Dolpa, Manang and Jumla falls under the dry and sub-humid lands. These areas are geographically remote, economically poor and socially disadvantaged. The KMTNC has made effort to conserve the parts of Manang and Mustand, and the management prescriptions in the Shey-Phoksundo National Park address the conservation needs of the Dolpa region. Because of the lack of data and information of these areas, there is an urgent need for financial and technical assistance to address and conserve biodiversity - the area sufficiently rich in high altitude biodiversity and an open museum of several endangered and threatened species and ecosystems.

Mountain Biodiversity

Programme Element 1. Direct actions for conservation, sustainable use and 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
• Eight national parks and three conservation areas representing 63 ecosystems are located above 3000 m elevation in the High Mountains of Nepal. • The mountain forest ecosystems are under great stress and continue to face multiple threats due to deforestation. Resource extraction without proper management, poaching, invasion of exotic species, inappropriate farming practices and unregulated tourism are some of the emerging threats. The cumulative impact of these actions results in accelerated soil erosion and watershed degradation and loss of biodiversity. There are <u>three</u> approaches to biodiversity management practices in the mountains. These are: 1) participatory management of forest, wildlife and watersheds; 2) Enterprise-based, community involved biodiversity management; and 3) Landscape approach to biodiversity management.

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

The protection of mountain biodiversity is in place, and recovery and restoration is weak as there is inadequate data and information on species and ecosystems and their status in the mountains.

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

- The policies, strategies, programmes and activities promote the sustainable use of mountain biodiversity. The medicinal and aromatic plants, and NTFPs are promoted for sustainable use. However, sustainability of the utilisation is unclear due to lack of resource inventory. Overexploitation of some of the plant species has been noticed and regulated. *In-situ* conservation of wild species and *ex-situ* conservation of domesticated plants have been promoted.
- Integrated soil and water management programs (ISWMP) are being implemented at selected watersheds with the active participation of local people. But the budgetary constraint has limited the expansion of the programmes.

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

In order to promote benefit sharing of mountain genetic resources as well, access to genetic resources bill and regulation has been drafted and awaited for ordinance.

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.

The following policies, strategies and legal frameworks are in place:

- Policies of the national development plans, forest policy, agriculture development policy, herbs and NTFP development policy, wildlife farming, breeding, and research working policy, wetland policy, mountain development, sustainable development agenda for Nepal, biodiversity strategy, water resources strategy etc. provides opportunities to meet the three objectives of CBD, across the whole country including mountains .
- The Constitution of the Kingdom of Nepal (1990) emphasises on the conservation of rare wildlife.
- Acts and Regulations focusing on species conservation include:
  - Forest Act (1993) and its Regulations (1995)
  - Environment Protection Act (1996) and its Regulations (1997)
  - Water Resources Act (1992) and its Regulations (1993)
  - Soil Conservation and Watershed Management Act (1982) and its Regulations (1985)
  - National Parks and Wildlife Conservation Act (1973) and National Parks and Wildlife Protection Regulations (1974), Wildlife Reserve Regulations (1977), Himali National Parks Regulations (1980), Buffer Zone Management Regulations (1996), Conservation Area Management Regulations (1996), and Government Management on Conservation Area Regulations (2000)
  - King Mahendra Trust for Nature Conservation Act (1982) and its Regulations (1985)
  - Aquatic Life Protection Act (1961)
  - Seed Act (1989) and its Regulations (1998)
  - Livestock Development Act (1999) and its Regulations (2000)
  - Local Self-Governance Act (1999) and its Regulations (2000)
- Guidelines and manuals - National EIA Guidelines (1993), EIA Guidelines for Forestry Sector (1995), Buffer Zone Management Guidelines (1999), Review Guidelines for IEE and EIA reports of the Forestry Sector (2003), Collaborative Forest Management Manual (2003), IEE Manual for Forestry Sector (2004) etc.

- Institutions - Ministry of Forests and Soil Conservation (with 5 regional forestry directorates and 5 regional training centres, 5 departments, 74 district forest offices, 55 district soil conservation offices, 16 protected area offices, 7 district plant resource offices), Ministry of Agriculture and Cooperatives (with 5 regional agriculture directorates, 5 regional training centres, 3 departments, district agriculture and livestock offices in all 75 districts, NARC and crop and livestock centres) in the government sector, Ministry of Environment, Science and Technology.

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	x
c) Yes (please provide details below)	

Further information on the regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity

Biodiversity management has been tried in Mount Everest ecosystem, shared by Nepal and the Tebetan Autonomous Region (TAR) of China, and the Mount Kangchenjunga ecosystem shared by India, Nepal, Bhutan and TAR. Initiatives are underway to develop and link an estimated 6,000 km^2 of fragmented protected areas in the Kangchenjunga landscape. Cooperation for transboundary conservation of the Mount Everest ecosystem between Nepal and TAR has increased in the last decade with the involvement of ICIMOD and the Mountain Institute (TMI) and WWF.

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	X
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 for identification, monitoring and assessment of mountain biodiversity

Some activities are ongoing for plant exploration and identification. Animal census is limited to Asiatic one-horned rhinos. Biodiversity monitoring has been initiated in some of the lowland national parks with people's participation. A Guideline for Biodiversity Assessment and Monitoring has recently been developed and is under use in mountain protected areas. The guideline was prepared by KMTNC with the support of UNEP/WCMC and Darwin Initiative and was field-tested in the Annapurna Conservation Area. Plant exploration activities are ongoing in limited scale.

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

- ICIMOD has some ongoing research and technology development activities in the mountains.
- Plant exploration activities are ongoing in limited scale in collaboration with Japanese, French and others in the mountains. Scientific research on wild animals is also carried out occasionally as a part of academic degree.
- There are no specific researches aimed at promoting technical and scientific cooperation.
- Capacity building has been carried out in limited scale.

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

Listing of appropriate technologies, and development of technologies have been started but there is no practice of validating them.

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.
• Biodiversity conservation in the mountains has provided a basis for promoting sustainable use to improve the living standard of the mountain dwellers. Intensive conservation is promoted in the protected area systems. It would contribute to achieve the goals of the Strategic Plan of the Convention, 2010 targets, MDG1 and 7. The lessons learnt in promoting eco-tourism and involving local people in biodiversity conservation has been replicated to implement the national policies, strategies and programmes in similar eco-zones. • Although, biodiversity conservation has been promoted, Nepal faces problems of technical and financial resources. The capacity of biodiversity managers and officials need to be developed to enhance their knowledge and skill in particular the biodiversity assessment and monitoring. Involvement of development partners who implement non-forestry activities in the mountain forests is equally important. Furthermore, the capacity of the local people should be developed with high priority.

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)	
a) No	
b) Yes (please provide details below)	X
Further comments on the regional and subregional activities in which your country has been involved.	
Participation in sponsored programmes in sub-regional and regional programmes, and regular participation in SAARC biodiversity, forestry and environmental programmes	

203. Is your country strengthening regional and subregional cooperation, enhancing integration and promoting synergies with relevant regional and subregional processes? (decision VI/27 B)	
a) No	
b) Yes (please provide details below)	X
Further comments on regional and subregional cooperation and processes.	
Issues are raised about the need for integration of biodiversity and implementation of common (synergy) programmes to enhance biodiversity conservation, and/or contribute to biodiversity conservation while implementing MEAs and programmes in biodiversity rich areas.	

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)	
a) No	
b) Yes Working with SAARC member country parties and Asia Pacific Country parties in the area of capacity building through sharing of ideas and experiences	X

206. Has your country contributed to the assessment of the regional and sub-regional mechanisms for implementation of the Convention? (decision VI/27 B)	
a) No	X
b) Yes (please provide details below)	
Further comments on contribution to the assessment of the regional and sub-regional 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.

Most of the items are already covered in earlier questions. The regional and sub-regional programmes have been instrumental in sharing information and lesson learnt in similar problems. Such programmes would encourage countries to speed up activities on biodiversity and share lessons. Nepal faces difficulty to participate such programmes with national funding and hence, there is a need for additional considerations to involve few people from the least developed countries.

F. COMMENTS ON THE FORMAT

Box LXXV.

Please provide below recommendations on how to improve this reporting format.

It is exhaustive and lengthy. It is difficult to avoid and/or minimise responses. Information is often repeated. It is also difficult to provide information requirements of the box items. Some thematic areas such as protected areas could be included in the reporting format. Some more questions could be developed on synergy programmes (CBD, UNFCCC, UNCCD, CITES, Ramsar and CMS).

Note: Information of the following publications was also used to prepare this report.

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Uprety, B.K. 1999. *Nepal's National Report on Floral Diversity*. South Asia Cooperative Environment Programme. Colombo