

SINGAPORE
Third national report

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A. REPORTING PARTY

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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.

Preliminary responses were prepared by the National Focal Point. Sections of the report were sent to relevant stakeholders Ministries and other agencies for them to revise and complete the responses. These were then collated and refined by the National Focal Point for submission.

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.

The legal basis for conservation has been improved and strengthened by amendments to the National Parks Board Act (2005) and the Parks and Trees Act (2005). Areas protected and conserved include two National Parks, four Nature Reserves (increased by two in 2002), and 22 administratively protected Nature Areas. Singapore signed the Kyoto Protocol in early 2006 and is now studying the implications of climate change for biological diversity and future trends in marine and terrestrial ecosystems (to 2100).

Total species representation in Singapore has become better known. 2282 native plant species have been recorded for Singapore, of which 25.6% are thought to have become locally extinct since 1819 (Tan 1995). These numbers, however, are continually being revised, as there are frequent discoveries and rediscoveries. The palm *Orania silvicola* (presumed locally extinct) was rediscovered in 2006, and the tree *Dipterocarpus tempehes* was discovered wild in 2005. Approximately 6.7% of native plants are considered endangered, and approximately 17.7% vulnerable (Tan 1995).

In situ conservation efforts have been strengthened by capacity building in the Singapore Botanic Gardens, amongst the staff of the Nature Reserves, and by a Plant Conservation Strategy, Bird Conservation Strategy and (under development) a Butterfly Conservation Strategy. Tracking and monitoring have been strengthened by nationwide Natural Area Surveys. Reforestation efforts continue to improve the condition of the forest, by planting with native tree species and removal of alien invasives.

Ex situ conservation has been improved by the efforts of the Singapore Botanic Gardens, work by the National University of Singapore on enrichment planting, by the National Technological University on tissue culture, and by the establishment of three new gardens known as Gardens By The Bay. This adds significantly to green space. Parks Connectors act as ecological corridors through the city, along waterways and between parks and reserves; the network is being extended by some 200km by the year 2015. Singapore strongly promotes the 'City in the Garden' concept, with an important role for urban conservation in improving the human environment to work, live and play. Efforts are complemented by the system of roadside planting and parkland that set aside space for in situ and ex situ conservation of flora and fauna.

Inland water ecosystems consist of reservoirs, streams and rivers, and freshwater swamp forest. These are maintained with little evidence of biodiversity degradation, but studies are under way to monitor and counteract the presence of alien species. The 'Active, Beautiful and Clean (ABC)' Waterways programme is led by the Public Utilities Board (PUB), and implemented jointly by PUB, National Parks Board, Urban Redevelopment Authority and other agencies; this enhances greenery along waterways, provides habitat for nature and improves native biological diversity.

Surveys have revealed remarkable survival of marine and coastal biodiversity, with discoveries of previously unreported seagrass beds, and new records of a number of molluscs and polychaetes.

Forest biological diversity is maintained predominantly within the Nature Reserves. Monitoring and population studies have been conducted in collaboration with the Centre for Tropical Forest Science, showing satisfactory resilience of timber volumes and species diversity. Population studies of mammals such as pangolins, flying lemurs, porcupines, leopard cats and slow loris show continuing survival, and discoveries in new areas.

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 – <i>In-situ</i> conservation	X		
e) Article 8(h) - Alien species		X	
f) Article 8(j) - Traditional knowledge and related provisions – N.A.	N.A.	N.A.	N.A.
g) Article 9 – <i>Ex-situ</i> 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		X	
x) Dryland and subhumid land biodiversity — N.A.	N.A.	N.A.	N.A.
y) Mountain biodiversity — N.A.	N.A.	N.A.	N.A.

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	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0
b) Limited public participation and stakeholder involvement	1	2	1	2	2	N/A	0	1	1	0	1	2	2	1	2	1	1	0
c) Lack of mainstreaming and integration of biodiversity issues into other sectors	2	1	1	2	2	N/A	1	2	2	1	2	2	2	2	2	2	2	2
d) Lack of precautionary and proactive measures	0	1	2	1	2	N/A	1	N/A	2	0	0	1	1	0	0	0	0	0
e) Inadequate capacity to act, caused by institutional weakness	1	0	0	8	1	N/A	N/A	N/A	N/A	0	0	0	1	0	0	0	0	0
f) Lack of transfer of technology and expertise	1	0	1	1	1	N/A	0	N/A	2	0	0	0	1	0	0	0	0	0
g) Loss of	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

traditional knowledge																			
h) Lack of adequate scientific research capacities to support all the objectives	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
i) Lack of accessible knowledge and information	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
j) Lack of public education and awareness at all levels	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
k) Existing scientific and traditional knowledge not fully utilized	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	0	1	2	2	2	N/A	N/A	1	1	1	1	1	2	1	2	1	1	1	0
m) Lack of financial, human, technical resources	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
n) Lack of economic incentive measures	1	1	1	1	1	N/A	1	1	2	0	0	2	2	1	N/A	0	0	0	0
o) Lack of benefit-sharing	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
p) Lack of synergies at national and international levels	1	1	1	1	2	N/A	1	N/A	1	0	0	1	1	0	1	0	0	0	0
q) Lack of horizontal cooperation among stakeholders	0	0	0	0	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
r) Lack of effective partnerships	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1
s) Lack of engagement of scientific	1	1	1	1	1	N/A	1	1	1	1	1	1	1	1	1	1	1	1	1

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

2010 Target

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

Box III.

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

Please provide details below.			
A ratio of 8 hectares of parkland per 10,000 capita population has been adopted			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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 following major planning documents are available: URA Master Plan 2003 Singapore Green Plan 2012 Singapore Green Plan 1992			
IV) Please provide information on current status and trends in relation to this target.			
22 Nature Areas have been designated under the Singapore Green Plan. The National Parks Board works with the Urban Redevelopment Authority and other agencies on safeguarding natural habitats and their constituent biodiversity (flora and fauna) throughout Singapore, as well as in the 22 designated Nature Areas, 4 Nature Reserves and 2 National Parks.			
V) Please provide information on indicators used in relation to this target.			
Maintenance of 8 habitat types in 22 Nature Areas are monitored.			
VI) Please provide information on challenges in implementation of this target.			
Taking into account numerous demands of the different sectors on land constraints in a small island city state is a challenge.			
VII) Please provide any other relevant information.			

Box IV.

Target 1.2	Areas of particular importance to biodiversity protected		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established	X		
Please provide details below.			
<p>As for Target 1.1.</p> <p>National Parks and Nature Reserves are included.</p>			
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			N.A.
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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.			
<p>The following guiding documents are in place:</p> <p>URA Master Plan 2003</p> <p>Singapore Green Plan 2012 (SGP 2012)</p> <p>Singapore Green Plan 1992</p>			
IV) Please provide information on current status and trends in relation to this target.			
<p>The URA Master Plan gives a framework for implementing targets related to land use. The Singapore Green Plan 2012 gives a framework for many environment-related activities, habitat restoration, public awareness and education.</p> <p>The Singapore Green Plan can be accessed at www.mewr.gov.sg</p>			
V) Please provide information on indicators used in relation to this target.			
Land areas and percentages are typical indicators used.			

VI) Please provide information on challenges in implementation of this target.
The greatest challenges are limited resources in terms of manpower and funding.
VII) Please provide any other relevant information.

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			X
c) Yes, one or more specific national targets have been established			
Please provide details below.			
The Plant Conservation Strategy project aims to restore, maintain and reduce the decline of rare and threatened plant species in Singapore.			
The Bird Conservation Strategy aims to monitor bird populations at key sites, and propose and implement methods for maintaining and increasing the populations of indigenous species.			
An Insect Conservation Strategy with emphasis on butterflies is under development.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No			
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			X

Please provide details below.

National targets are to be developed under the individual strategies mentioned above. A 5-year biodiversity survey of the Central Nature Reserves has been conducted (1993-1997), and a 2-year survey is being carried out with emphasis on intertidal and marine sites.

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

V) Please provide information on indicators used in relation to this target.
Work is in progress on the use of indicators, including IUCN status categories, number of species and number of habitats conserved.

VI) Please provide information on challenges in implementation of this target.
The greatest challenges are limited resources in terms of manpower and funding.

VII) Please provide any other relevant information.

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.			
National targets are being developed under the individual strategies mentioned above.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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 Singapore Green Plan 2012 acts as a framework of targets for conservation-related activities to achieve according to a timetable, with oversight by a committee.	
IV) Please provide information on current status and trends in relation to this target.	
Updated terrestrial, intertidal and marine status surveys are in progress.	
V) Please provide information on indicators used in relation to this target.	
Under the Plant Conservation Strategy, as an example, the number of species propagated and the number of plants are used as indicators.	
Seedling growth and survival are monitored under forest restoration programmes in the nature reserves.	
VI) Please provide information on challenges in implementation of this target.	
The greatest challenges are limited resources in terms of manpower and funding.	
VII) Please provide any other relevant information.	

Box VII.

Goal 3	Promote the conservation of genetic diversity		
Target 3.1	Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
Policy is to conserve more than one site of each representative key ecosystem. Mangroves, tropical evergreen dipterocarp forest, freshwater swamp forest, coral reefs and numerous other ecosystems are represented.			
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			N/A

b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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 Plant Conservation Strategy and the Bird Conservation Strategy are examples of Singapore's implementation of measures in the field. The issuing of research permits related to biological research helps in monitoring usage of biological and genetic diversity.			
IV) Please provide information on current status and trends in relation to this target.			
Current activities include review of development plans, impact assessments, setting up of the National Biodiversity Reference Centre website. The National Parks Board carries out programmes of forest restoration, plant salvage, coral replanting, in collaboration with other agencies.			
V) Please provide information on indicators used in relation to this target.			
Number of plant species and individuals propagated, number of research permits issued, compilation of scientific published output, and forest restoration / tree-planting programmes are amongst the indicators available.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box VIII.

Goal 4	Promote sustainable use and consumption.
Target 4.1	Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	X
Please provide details below.	

Singapore promotes the use of products from sustainably managed forests, or other forms of sustainable production. Such promotion applies more to imported raw materials and products rather than those produced within country because Singapore's forests are not exploited commercially.

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

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.

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

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

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

VII) Please provide any other relevant information.

Box IX.

Target 4.2		Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced	
I) National target: Has a national target been established corresponding to the global target above?			
a) No		X	
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
Singapore engages in non-consumptive use of indigenous biological resources. The target therefore has limited relevance to Singapore.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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.			
Singapore has incorporated biodiversity considerations into land use planning, for example through the URA Master Plan, the Special and Detailed Controls Plan, and the Singapore Green Plan (SGP) 2012.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box X.

Target 4.3		No species of wild flora or fauna endangered by international trade	
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target		X	
c) Yes, one or more specific national targets have been established			
Please provide details below.			
Singapore has signed and ratified CITES and therefore abides by international regulations and standards. Species of wild flora and fauna within Singapore are generally not traded as they are fully protected by law.			
II) National targets for specific programmes of work: If such national target(s) ha(s)(ve) been established, please indicate here, and give further details in the box(es).			
Programme of work	Yes	No	Details
a) Agricultural			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N.A.
e) Forest		X	
f) Mountain			N.A.
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.			
Singapore is a party to CITES. Policy on import and export of wild flora and fauna is subject to inter-agency consultation, e.g. between the Agri-Veterinary Authority, National Parks Board and other relevant agencies. Cases are referred to scientific review when required.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box XI .

Goal 5	Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.		
Target 5.1	Rate of loss and degradation of natural habitats decreased		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
A ratio of 8 hectares of parkland per 10,000 capita population has been adopted. All examples of primary tropical rain forest in Singapore are fully protected within Nature Reserves.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest	X		
f) Mountain			N/A
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.			
Land use planning is conducted on a multi-agency basis. A National Biodiversity Reference Centre website has been established, and the National Parks Board advises on biodiversity in relation to land use and development. Biodiversity impact assessments are required in certain cases.			
IV) Please provide information on current status and trends in relation to this target.			
There is active and increasing feedback between agencies, with encouraging response. An increasing number of projects are required to conduct pre-planning studies and make provisions for the conservation of biodiversity.			
V) Please provide information on indicators used in relation to this target.			

VI) Please provide information on challenges in implementation of this target.
There is a shortage of manpower and funding resources. Non-biodiversity related agencies have to put in more effort and manpower on topics they are less familiar with.
VII) Please provide any other relevant information.

Box XII.

Goal 6	Control threats from invasive alien species.		
Target 6.1	Pathways for major potential alien invasive species controlled		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
At present this is under the purview of the Agri-Veterinary Authority. Soil checks and water checks are carried out to avoid accidental importation of unwanted pests and micro-organisms. There are strict plant importation requirements.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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.			
IV) Please provide information on current status and trends in relation to this target.			
This is ongoing. There is progressive removal of some invasives (e.g., Smilax) from the Nature			

Reserves. There is increasing awareness of the issues and need for controls.

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

One indicator is number of pest organisms removed. A checklist of invasives is being compiled.

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

VII) Please provide any other relevant information.

Box XIII.

Target 6.2	Management plans in place for major alien species that threaten ecosystems, habitats or species		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
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 Singapore Green Plan calls for a concerted effort in controlling alien invasives. Policy is to reduce the number of invasive species of both plants and animals.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A
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.			
Culling of major alien pests such as House Crows and Red-Eared Sliders is carried out periodically.			

There are weed removal programmes (e.g., to eradicate growth of Smilax and Clidemia hirta) in the Nature Reserves.

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

Programmes are continuing, but this is a slow and long-term process.

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

Examples are the number of species targeted for control, and the population size of particular species (e.g., House Crows).

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

Funding, manpower resources, and the implementing of control measures such as quarantine, border controls and identification of alien species are constraints.

VII) Please provide any other relevant information.

Box XIV.

Goal 7	Address challenges to biodiversity from climate change, and pollution.		
Target 7.1	Maintain and enhance resilience of the components of biodiversity to adapt to climate change		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
Singapore signed the Kyoto Protocol in 2006 and has prepared a National Climate Change Strategy (NCCS).			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N/A
e) Forest		X	
f) Mountain			N/A

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.	
Studies of vulnerability, adaptation measures and mitigation are being undertaken, in general and with reference to biological diversity, with a view to elaborating the National Climate Change Strategy (NCCS) into a series of implementable plans with time-bound or event-bound targets. There is a Sustainable Green Technology Building programme, with incentives to industry.	
IV) Please provide information on current status and trends in relation to this target.	
V) Please provide information on indicators used in relation to this target.	
VI) Please provide information on challenges in implementation of this target.	
The multifarious predicted impacts of climate change on biological diversity make priority-setting difficult.	
VII) Please provide any other relevant information.	

Box XV.

Target 7.2	Reduce pollution and its impacts on biodiversity		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established	X		
Please provide details below.			
National targets are under the purview of the National Environment Agency (NEA).			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N.A.

e) Forest		X	
f) Mountain			N.A.
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.			
NEA conducts regular monitoring programmes, to assess performance against targets. Individual developments and industries are also assessed. Programmes are in place to monitor and reduce pollution, litter, and haze. These include but are not limited to impacts on biological diversity.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
The greatest challenges are limited resources in terms of manpower and funding.			
VII) Please provide any other relevant information.			

Box XVI .

Goal 8	Maintain capacity of ecosystems to deliver goods and services and support livelihoods.
Target 8.1	Capacity of ecosystems to deliver goods and services maintained
I) National target: Has a national target been established corresponding to the global target above?	
a) No	
b) Yes, the same as the global target	
c) Yes, one or more specific national targets have been established	
X	
Please provide details below.	
National targets on water retention and treatment depend on management of catchments, which include the Nature Reserves, the forest delivering goods and services in climate amelioration, water capture and water quality. The forested areas, inland waters and marine areas provide recreational services. These and other goods and services are managed and maintained through site management and ecosystem management.	
The Public Utilities Board conducts the "Active, Beautiful and Clean (ABC) Programme" for waterways in collaboration with National Parks Board. The vision of the National Parks Board includes "enhancing the quality of life by providing and managing excellent greenery, recreation and outreach, in partnership with the community". It is the objective of the Singapore government to provide an environment suitable to work, live and play.	

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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N.A.
e) Forest		X	
f) Mountain			N.A.
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.			
There are many recreational, outreach, education and awareness programmes. Providing venues for the enjoyment of goods and services from biodiversity is an important theme. The community is involved in the Community In Bloom programme, Young Arborists Programme, and various forest restoration and tree-planting activities.			
IV) Please provide information on current status and trends in relation to this target.			
In addition to the Parks provision of 8 hectares per 10,000 population, the system of Parks Connectors is being greatly expanded over the next decade.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box XVII.

Target 8.2	Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			X
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
This is not directly applicable to Singapore.			
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			N/A
b) Inland water			N/A
c) Marine and coastal			N/A
d) Dry and subhumid land			N.A.
e) Forest			N/A
f) Mountain			N.A.
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.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box 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			X
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
Not applicable in Singapore, because of the lack of traditional and indigenous communities and traditional knowledge.			
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			N.A.
b) Inland water			N.A.
c) Marine and coastal			N.A.
d) Dry and subhumid land			N.A.
e) Forest			N.A.
f) Mountain			N.A.
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			N.A.
c) Yes, into sectoral strategies, plans and programmes			
Please provide details below.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box 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	N.A.		
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			
Please provide details below.			
Not applicable in Singapore.			
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			N.A.
b) Inland water			N.A.
c) Marine and coastal			N.A.
d) Dry and subhumid land			N.A.
e) Forest			N.A.
f) Mountain			N.A.
III) Has the global or national target been incorporated into relevant plans, programmes and strategies?			
a) No	N.A.		
b) Yes, into national biodiversity strategy and action plan			
c) Yes, into sectoral strategies, plans and programmes			
Please provide details below.			
Not applicable in Singapore.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Box 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			
b) Yes, the same as the global target			X
c) Yes, one or more specific national targets have been established			
Please provide details below.			
In process. Singapore has participated with other ASEAN countries in the drafting of a framework agreement on access to, and fair and equitable sharing of benefits from, genetic resources. The wording is in accordance with applicable agreements.			
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			N.A.
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N.A.
e) Forest		X	
f) Mountain			N.A.
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.			
This is incorporated into the system for issuing research permits. Singapore follows the Bonn Guidelines. Further activities are being pursued through cooperative programmes of the ASEAN Centre for Biodiversity.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			

Number of enquiries received, number of research permits issued, and benefits received.

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

Singapore is both a user and a provider of biological resources, and balancing these needs is a challenge.

VII) Please provide any other relevant information.

Box XXI .

Target 10.2	Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
In process. Singapore has participated with other ASEAN countries in the drafting of a framework agreement on access to, and fair and equitable sharing of benefits from, genetic resources. The wording is in accordance with applicable agreements.			
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			N.A.
b) Inland water	X		
c) Marine and coastal	X		
d) Dry and subhumid land			N.A.
e) Forest	X		
f) Mountain			N.A.
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.			
This is incorporated into the system for issuing research permits. Singapore follows the Bonn Guidelines. Further activities are being pursued through cooperative programmes of the ASEAN			

Centre for Biodiversity.

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

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

Number of enquiries received, number of research permits issued, and benefits received.

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

Singapore is both a user and a provider of biological resources, and balancing these needs is a challenge.

VII) Please provide any other relevant information.

Box XXII.

Goal 11	Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention.		
Target 11.1	New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20		
I) National target: Has a national target been established corresponding to the global target above?			
a) No			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established			X
Please provide details below.			
Staff strength of the Biodiversity Centre has been increased, and training is provided by National Parks Board and a variety of other institutions. Sharing of skills, technical expertise and experience is routine between institutions.			
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			N/A
b) Inland water	X		
c) Marine and coastal	X		
d) Dry and subhumid land			N.A.
e) Forest	X		
f) Mountain			N.A.

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

Box 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			
b) Yes, the same as the global target			
c) Yes, one or more specific national targets have been established	X		
Please provide details below.			
Staff strength of the Biodiversity Centre has been increased, and training is provided by National Parks Board and a variety of other institutions. Sharing of skills, technical expertise and experience is routine between institutions, including technical collaboration with overseas agencies.			
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			N/A
b) Inland water		X	
c) Marine and coastal		X	
d) Dry and subhumid land			N.A.
e) Forest		X	

f) Mountain			N.A.
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.			
Allocations for foreign assistance have been determined in collaboration with the Ministry of Finance.			
IV) Please provide information on current status and trends in relation to this target.			
V) Please provide information on indicators used in relation to this target.			
VI) Please provide information on challenges in implementation of this target.			
VII) Please provide any other relevant information.			

Global Strategy for Plant Conservation (GSPC)

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

Box XXIV.

Target 1. A widely accessible working list of known plant species, as a step towards a complete world flora.			
I) Has your country established national target corresponding to the above global target?			
a) Yes			X
b) No			
Please specify			
A complete list has been published (Gardens' Bulletin Singapore)			
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?			
a) Yes			X
b) No			
Please specify			

The list is the basis for assessments, surveys, monitoring and Red Data Book preparation.	
III) Current status (please indicate current status related to this target)	
Done	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Done	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
Done	
VI) Constraints to achieving progress towards the target	
N/A	
VII) Any other relevant information	
-	

Box XXV.

Target 2. A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
The Singapore Red Data Book was published in 1994 and is undergoing revision for a second edition.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
Revised list using IUCN criteria is in preparation.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
Collaboration occurs with academic institutions, non-governmental organizations and experts	

V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target Staff time, and information on population size of each species, are constraints
VII) Any other relevant information

Box XXVI.

Target 3. Development of models with protocols for plant conservation and sustainable use, based on research and practical experience.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
A Standard Operating Procedure has been developed, in consultation with various agencies. This includes protocols.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
The Plant Conservation Strategy is a continuing programme of activities.	
III) Current status (please indicate current status related to this target)	
In operation. There are activities to locate, identify, propagate and distribute surplus stocks of rare plant species to improve their status.	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	
A ratio of 8 hectares of parkland per 10,000 capita population has been adopted. This includes National Parks and Nature Reserves.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
The URA Master Plan and the Singapore Green Plan 2012 are guiding documents related to land use for conservation purposes. The aim is to conserve at least one representative example of each ecosystem.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	
A listing of sites important for biological diversity, including plant diversity, has been prepared.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
The listing is shared with other agencies and used as a basis in consultations on planning	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXIX.

Target 6. At least thirty percent of production lands managed consistent with the conservation of plant diversity.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	
b) No	N.A.
Please specify	
This target is not applicable in Singapore	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	N.A.
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box XXX.

Target 7. Sixty percent of the world's threatened species conserved <i>In-situ</i>.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
The Singapore Red Data Book provides a framework for national planning on threatened species.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	

Please specify
The majority of indigenous forest species are conserved within the Nature Reserves. The Plant Conservation Strategy, Bird Conservation Strategy and the Insect Conservation Strategy under development are the basis for species-targeted conservation activities
III) Current status (please indicate current status related to this target)
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)
V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target
VII) Any other relevant information

Box XXXI.

Target 8. Sixty percent of threatened plant species in accessible <i>Ex-situ</i> collections, preferably in the country of origin, and 10 percent of them included in recovery and restoration programmes.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	X
b) No	
Please specify	
Singapore Botanic Gardens maintains an extensive ex situ living collection including indigenous plant species, and contains 6 hectares of original rain forest.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
Targets are incorporated into the Plant Conservation Strategy.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	

VI) Constraints to achieving progress towards the target
VII) Any other relevant information

Box 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	N.A.
Please specify	
This target is not applicable in Singapore	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	X
b) No	
Please specify	
There are management plans to control specific alien invasive species such as House Crows and Red-eared Sliders.	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
The Agri-Veterinary Authority currently undertakes work on control of alien invasives. There are programmes to manage weed species such as Smilax and Clidemia hirta within protected areas.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
The greatest challenges are limited resources in terms of manpower and funding.	
VII) Any other relevant information	

Box XXXIV.

Target 11. No species of wild flora endangered by international trade.	
I) Has your country established national target corresponding to the above global target?	
a) Yes	N/A
b) No	
Please specify	
Indigenous wild flora are not normally traded in Singapore.	

II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	N.A.
Please specify	
Singapore's forest resources are not traded commercially	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	

V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target
VII) Any other relevant information

Box 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	N.A.
Please specify	
This target is not applicable in Singapore	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	
b) No	
Please specify	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	
Curricula with bio-diversity are implemented in Primary Science, Lower Secondary Science, 'O' level Science, 'O' level Biology, 'O' level Geography and 'A' level Biology (ages 8 to 18).	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
A volunteer programme provides opportunities for members of the public to participate in a wide spectrum of activities related to biodiversity conservation. The Adopt-a-Park programme enables schools, grassroots organizations and the private sector to take ownership in nature outreach and habitat rehabilitation. Schools are brought into these activities through the Community Involvement Programme.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	

Training requirements have been examined during a programme of work by the ASEAN Regional Centre for Biodiversity Conservation (ARCBC, now the ASEAN Centre for Biodiversity).	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
Institutions relevant to plant conservation, particularly Singapore Botanic Gardens and the National University of Singapore, have been able to maintain and expand staff resources. Physical facilities such as tissue culture laboratories have been upgraded.	
III) Current status (please indicate current status related to this target)	
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)	
V) Progress made towards target (please specify indicators used to monitor progress towards the target)	
VI) Constraints to achieving progress towards the target	
VII) Any other relevant information	

Box 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	
II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies?	
a) Yes	X
b) No	
Please specify	
At national level the Plant Conservation Strategy is the main network for plant conservation activities. At regional level Singapore collaborates through the ASEAN Centre for Biodiversity. The Singapore Botanic Gardens offers research fellowships through the region.	

III) Current status (please indicate current status related to this target)
IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target)
V) Progress made towards target (please specify indicators used to monitor progress towards the target)
VI) Constraints to achieving progress towards the target
VII) Any other relevant information

Box XL.

<p>Please elaborate below on the implementation of this strategy specifically focusing on:</p> <ul style="list-style-type: none"> 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.

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.

<p>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)</p>	
a) No	
b) No, but application is under consideration	
c) Yes, some aspects are being applied	
d) Yes, substantially implemented	X

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

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	X
d) Yes, practical expressions have been developed for applying most principles of the ecosystem approach	

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

6. ? Has your country promoted regional cooperation in applying the ecosystem approach across national borders? (decision V/6)	
a) No	
b) Yes, informal cooperation (please provide details below)	X
c) Yes, formal cooperation (please provide details below)	
Further comments on regional cooperation in applying the ecosystem approach across national borders.	
Singapore is collaborating with other ASEAN countries in developing a standard list of ecosystems and habitats, for use in regional and national databases, under the ASEAN Centre for Biodiversity (ACB).	

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.	
There is technical exchange (e.g., through fellowships of Singapore Botanic Gardens), and collaborative research (e.g., by National University of Singapore, National Institute of Education).	

Individual researchers have participated in regional programmes on specific ecosystems, such as limestone karst ecosystem in Vietnam and Malaysia.

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

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

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)	
c) Yes, multilateral cooperation (please give details below)	X
d) Yes, regional and/or subregional cooperation (please give details below)	
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.

Scientists from Singapore institutions collaborate in taxonomic and ecological research with counterparts from other nations. They provide expertise in conducting national and regional workshops and training. They provide taxonomic identification services.

Singapore collaborates in regional agreements related to conservation and sustainable use, e.g., COPSEA, PEMSEA.

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.	
Most work of this nature is conducted through regional mechanisms such as Meetings of the ASEAN Senior Officials on Environment, ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB), and the ASEAN Centre for Biodiversity	

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.	
The ASEAN Framework Agreement on Access to, and Fair and Equitable Benefit-sharing from, Biological Resources is being harmonized with the Bonn Guidelines through activities under the ASEAN Centre for Biodiversity.	

Box XLI.

<p>Please elaborate below on the implementation of this strategy specifically focusing on:</p> <ul style="list-style-type: none"> 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 6 - General measures for conservation and sustainable use

12. Has your country put in place effective national strategies, plans and programmes to provide a national framework for implementing the three objectives of the Convention? (Goal 3.1 of the Strategic Plan)

a) No	
b) No, but relevant strategies, plans and programmes are under development	
c) Yes, some strategies, plans and programmes are in place (please provide details below)	X
d) Yes, comprehensive strategies, plans and programmes are in place (please provide details below)	

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

The URA Master Plan and the Singapore Green Plan 2012 are the key planning documents.

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.

The Singapore Green Plan 2012 has targets and action programmes that are monitored on a quarterly timetable.

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.

The Singapore Green Plan 2012 currently serves the role of a National Biodiversity Strategy and Action Plan

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)	
c) Yes, in major sectors (please provide details below)	X
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.	
<p>The Singapore Green Plan 2012 currently serves the role of a National Biodiversity Strategy and Action Plan. The URA Master Plan guides land use in relation to biodiversity. Conservation and sustainable use are being integrated into education (programmes under the Ministry of Education), industrial planning and development (consultation between the Urban Redevelopment Authority, National Parks Board, National Environmental Agency, Economic Development Board and others), transport (consultation with Land Transport Authority, Marine and Ports Authority), use of genetic resources (research permit systems, consultation with private sector on biosciences) and others.</p>	

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	
(b) Conservation, sustainable use and/or restoration of migratory species' habitats, including protected areas	Restoration of habitats is undertaken in protected areas, relevant to migratory species. There is a Standard Operating Procedure on management of migratory marine turtle nestings.
(c) Minimizing or eliminating barriers or obstacles to migration	
(d) Research and monitoring for migratory species	Bird ringing and monitoring are undertaken at key protected areas. Volunteer organizations undertake annual counts of migratory birds.
(e) Transboundary movement	
II) If NO , please briefly indicate below	
(a) The extent to which your country addresses migratory species at national level	
(b) Cooperation with other Range States since 2000	

Biodiversity and Climate Change

17. Has your country implemented projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use? (decision VII/15)	
a) No	
b) No, but some projects or programs are under development	
c) Yes, some projects have been implemented (please provide details below)	X
Further comments on the projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use.	
Singapore signed the Kyoto Protocol in May 2006 and its first programme is development of a National Climate Change Strategy. A study of impacts anticipated over the next 100 years is now beginning, and others will follow on mitigating measures and adaptation measures in various sectors.	

18. Has your country facilitated coordination to ensure that climate change mitigation and adaptation projects are in line with commitments made under the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification? (decision VII/15)	
a) No	
b) No, but relevant mechanisms are under development	
c) Yes, relevant mechanisms are in place (please provide details below)	
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.	
Inter-agency coordination on commitments under UNFCCC and UNCCD is facilitated via the Climate Change Working Group (CCWG), which features representatives from the various government agencies involved in climate change mitigation and adaptation, and helps to shape national policy on climate change.	

Box XLII .

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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 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)	
c) Yes, complete programmes at ecosystem level and selected/partial inventories at the genetic and/or species level (please specify and provide details below)	X
Further comments on ongoing programmes to identify components of biodiversity at the genetic, species and ecosystem level.	
<p>The National Parks Board conducts biodiversity area surveys covering all key habitats and sites in the country;</p> <p>There is continuing work by Singapore Botanic Gardens and Raffles Museum of Biodiversity Research concerning taxonomy and species diversity;</p> <p>Site surveys are conducted by various branches of National Parks Board (Conservation Division);</p> <p>Population dynamics of tree populations are studied and monitored in permanent plots (NParks / CTFS) in the Nature Reserves;</p> <p>Species-specific surveys are conducted (e.g., hornbills, jungelfowl, etc.);</p> <p>Ecosystem-specific surveys are conducted (e.g., inland waters and reservoirs)</p>	

20. ? On Article 7(b), which components of biological diversity identified in accordance with Annex I of the Convention, have ongoing, systematic monitoring programmes?	
a) at ecosystem level (please provide percentage based on area covered)	X
b) at species level (please provide number of species per taxonomic group and percentage of total known number of species in each group)	X
c) at genetic level (please indicate number and focus of monitoring programmes)	
Further comments on ongoing monitoring programmes at the genetic, species and ecosystem level.	
<p>ECOSYSTEMS: all main ecosystems are monitored.</p> <p>SPECIES: in principle the status of all species is monitored on a ten-year cycle, for revision of the National Red Data Book. The intensity of monitoring varies greatly between species and groups, some being monitored annually or more than annually.</p>	

21. ? On Article 7(c), does your country have ongoing, systematic monitoring programmes on any of the following key threats to biodiversity?	
a) No	
b) Yes, invasive alien species (please provide details below)	
c) Yes, climate change (please provide details below)	X
d) Yes, pollution/eutrophication (please provide details below)	X
e) Yes, land use change/land degradation (please provide details below)	X

f) Yes, overexploitation or unsustainable use (please provide details below)	
Further comments on monitoring programmes on key threats to biodiversity.	
<p>CLIMATE CHANGE: data collection is coordinated by the National Environment Agency (NEA)</p> <p>POLLUTION / EUTROPHICATION: water quality is monitored by the Public Utilities Board (PUB); air quality and water quality are monitored by NEA;</p> <p>LAND USE CHANGE / LAND DEGRADATION: complete information is maintained by the Urban Redevelopment Authority and Singapore Land Authority.</p>	

22. ? On Article 7 (d), does your country have a mechanism to maintain and organize data derived from inventories and monitoring programmes and coordinate information collection and management at the national level?	
a) No	
b) No, but some mechanisms or systems are being considered	
c) Yes, some mechanisms or systems are being established	
d) Yes, some mechanisms or systems are in place (please provide details below)	X
e) Yes, a relatively complete system is in place (please provide details below)	
Further information on the coordination of data and information collection and management.	
<p>The following are maintained by the National Parks Board:</p> <p>Geographical Information System database of maps;</p> <p>Plant database;</p> <p>Terrestrial fauna database;</p> <p>Marine species database;</p> <p>Photographic database;</p> <p>Biodiversity literature database</p>	

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.	
Where appropriate, rarity is assessed using the IUCN Red List criteria, adapted to national level.	

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.

Decisions on Taxonomy

24.? Has your country developed a plan to implement the suggested actions as annexed to decision IV/1? (decision IV/1)

a) No	X
b) No, but a plan is under development	
c) Yes, a plan is in place (please provide details below)	
d) Yes, reports on implementation available (please provide details below)	

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

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.

New national herbarium facilities have been completed in 2006.

Staff training in various taxonomic disciplines is provided.

Discussions have taken place on possibilities for a national reference collection of micro-organisms and fungi.

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.	
Taxonomic training is available at National University of Singapore and Nanyang Technological University. Singapore Botanic Gardens herbarium has a continuing programme of scientific exchange and fellowships for interaction with regional taxonomists.	

27.? Has your country taken steps to ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable? (decision IV/1)

a) No	
b) No, but steps are being considered	
c) Yes, for some institutions	
d) Yes, for all major institutions	X

28.*² Is your country collaborating with the existing regional, subregional and global initiatives, partnerships and institutions in carrying out the programme of work, including assessing regional taxonomic needs and identifying regional-level priorities? (decision VI/8)

a) No	
b) No, but collaborative programmes are under development	
c) Yes, some collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessments)	X
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.	
SINGAPORE COLLABORATES IN ASIANET, BIONET AND IN WORK OF THE ASEAN CENTRE FOR BIODIVERSITY	

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)

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.

a) No	
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)	X
Further comments on national assessment of taxonomic needs and capacities.	
This was included in the Second National Report .	

30. * Is your country working on regional or global capacity building to support access to, and generation of, taxonomic information in collaboration with other Parties? (annex to decision VI/8)	
a) No	
b) Yes, relevant programmes are under development	
c) Yes, some activities are being undertaken for this purpose (please provide details below)	X
d) Yes, many activities are being undertaken for this purpose (please provide details below)	
Further comments on regional or global capacity-building to support access to, and generation of, taxonomic information in collaboration with other Parties.	
The ASEAN Centre for Biodiversity Conservation acts as a repository and network for taxonomic information	

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	
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.	

Taxonomic work is not distinguished by ecosystem, but Singapore researchers are most active in taxonomy of marine fauna and forest flora.

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	
b) Yes, for access and benefit-sharing (please provide details below)	X
c) Yes, for Article 8(j) (please provide details below)	
d) Yes, for the ecosystem approach (please provide details below)	X
e) Yes, for impact assessment, monitoring and indicators (please provide details below)	X
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.

b) Access and benefit-sharing: relevant taxonomic work is carried out by the private sector, especially on fungi and other micro-organisms;

d) Ecosystem approach: current surveys of natural areas throughout Singapore are based on ecosystems and result in new species records, improved identification skills, faunistic and floristic analysis;

e) impact assessment and monitoring: results from current surveys of natural areas throughout Singapore are applicable to impact assessment and monitoring.

Article 8 - *In-situ* conservation

[excluding paragraphs (a) to (e), (h) and (j)]

33. ? On Article 8(i), has your country endeavored to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components?

a) No	
b) No, but potential measures are being identified	
c) Yes, some measures undertaken (please provide details below)	X
d) Yes, comprehensive measures undertaken (please provide details below)	

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

Important Plant Areas (IPAs) and areas important for biodiversity generally within Singapore have been identified, and the listing is shared between agencies for all development consultations. Feedback is provided to all development requests channelled from the Urban Redevelopment Authority (URA) to National Parks Board. Biodiversity Impact Assessments are undertaken as an administrative requirement in particular cases. Conditions may be imposed on development to conserve biological diversity.

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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.	
<p>The Wild Animals and Birds Act protects fauna throughout Singapore. Under the Parks and Treed Act, all flora and fauna is protected within the 4 Nature Reserves and 2 National Parks, and within all public parks in Singapore. On top of this, all trees above a given girth size are protected within Tree Conservation Areas.</p> <p>Marine life on the underwater substrate is protected by the Singapore Land Authority, and free-swimming fauna is protected under the Fisheries Act. In inland water, plants and animals may not be removed from water bodies under the jurisdiction of the Public Utilities Board.</p>	

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	X
b) No, but relevant processes and categories of activities being identified	
c) Yes, to a limited extent (please provide details below)	
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.	

Box XLIV.

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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

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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.	
Targets and indicators relate to visitor use, control of impacts and visitor satisfaction.	

37. Has your country taken action to establish or expand protected areas in any large or relatively unfragmented natural area or areas under high threat, including securing threatened species? (decision VII/28)	
a) No	
b) No, but relevant programmes are under development	
c) Yes, limited actions taken (please provide details below)	
d) Yes, significant actions taken (please provide details below)	X
Further comments on actions taken to establish or expand protected areas.	
All tropical evergreen rain forest in Singapore is protected within Nature Reserves. Additional Nature Reserves were declared in 2002, protecting the largest mangrove area and coastal hill forest vegetation.	

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)	
e) Yes, significant actions taken (please provide details below)	X

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.

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)	
d) Yes, many steps identified and implemented (please provide details below)	X

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

These aspects are covered by the URA Master Plan, Singapore Green Plan 1992 and Singapore Green Plan 2012. Government agencies responsible for policy, planning and other measures consult on all significant development proposals in relation to terrestrial, inland waters and marine biodiversity.

40. Is your country applying environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas? (decision VII/28)

a) No	
b) No, but relevant EIA guidelines are under development	
c) Yes, EIA guidelines are applied to some projects or plans (please provide details below)	X
d) Yes, EIA guidelines are applied to all relevant projects or plans (please provide details below)	

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

Biodiversity Impact Assessments are imposed as an administrative requirement of National Parks Board when there is considered to be a significant need (likely impact either from project size, project type or project location). Other environmental aspects may be incorporated as requirements of related agencies (e.g., National Environment Agency, Urban Redevelopment Authority, Public Utilities Board, Singapore Land Authority).

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	
b) No, but relevant work is under way	
c) Yes, some gaps and barriers identified (please provide details below))	X

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.	

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)	
d) Yes, a thorough assessment undertaken and comprehensive programmes established (please provide details below)	X
Further comments on protected-area capacity needs assessment and establishment of capacity building programmes.	
The current nature area surveys contribute to planning. Staff capacity (current and needs) assessments have been undertaken in 2005-2006.	

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.	

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.	

Box XLV.

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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 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.	
A study has been conducted on the Red-eared Slider <i>Pseudemys scripta</i> . Other surveys of alien species in inland waters are currently being considered.	

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	
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 prevent the introduction of, control or eradicate those alien species that threaten ecosystems, habitats or species.

Consultation occurs between National Parks Board as CBD Focal Point, and the Agri-Veterinary Authority on all controversial cases of animal and plant import-export. Considerations include likelihood of invasive potential.

" THINK AGAIN before you release" is a programme targeted to discourage people from releasing animals or their unwanted pets into parks and nature reserves. This was achieved through printed materials (posters and brochures) and media to help spread the message over 2 weeks period. We also worked with religious groups to gain their support in this programme as well during the Vesak day period.

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

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

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

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

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

The ecosystem approach is used in the Plant Conservation Strategy; in identifying Important Plant Areas (IPAs); and assessing sites for conservation-related activities. These activities include the exclusion, control and removal of invasive aliens as appropriate. Singapore also gives consideration to trans-regional movements, e.g. organisms in ballast water.

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

51. Has your country created mechanisms to coordinate national programmes for applying the Guiding Principles? (decision VI/23)	
a) No	
b) No, but mechanisms are under development	X
c) Yes, mechanisms are in place (please provide details below)	
Further comments on the mechanisms created to coordinate national programmes for implementing the Guiding Principles.	
<p>The current Plant Importation (Control of Plants) Regulations takes into consideration the Guiding Principles in regulating invasive plants.</p>	

52. Has your country reviewed relevant policies, legislation and institutions in the light of the Guiding Principles, and adjusted or developed policies, legislation and institutions? (decision VI/23)	
a) No	
b) No, but review under way	
c) Yes, review completed and adjustment proposed (please provide details below)	X
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.	
<p>The current Plant Importation (Control of Plants) Regulations takes into consideration the Guiding Principles in regulating invasive plants.</p>	

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

54. Is your country collaborating with trading partners and neighboring countries to address threats of invasive alien species to biodiversity in ecosystems that cross international boundaries? (decision VI/23)	
a) No	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 neighboring countries.	

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	
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)	X
d) Yes, comprehensive activities are being undertaken (please provide details below)	
Further information on capacity development to address threats of invasive alien species.	

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

Box XLVI.

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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 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	N.A.
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.	
Singapore does not possess smallholder farmers, indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

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	N.A.
c) Yes (please provide information on the studies undertaken)	
Further information on the studies undertaken to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities, and priority actions identified.	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

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	N.A.
b) No, but review is under way	
c) Yes, a review undertaken (please provide details on the review)	
Further information on the review.	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

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	N.A.
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.	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

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	N.A.
b) No, but some programmes being developed	
c) Yes, some measures taken (please provide details below)	
d) Yes, comprehensive measures taken (please provide details below)	

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

Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities

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	N.A.
b) No, but relevant mechanisms, guidelines and legislation are under development	
c) Yes, some mechanisms, guidelines and legislation are in place (please provide details below)	

Further information on the mechanisms, guidelines and legislation developed.

Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities

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	N.A.
b) No, but relevant mechanisms are being developed	
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.

Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities

Support to implementation

64. Has your country established national, subregional and/or regional indigenous and local community biodiversity advisory committees?	
a) No	N.A.
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	N.A.
b) Yes (please provide details about the outcome of meetings)	
Further information on the outcome of regional meetings.	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

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	N.A.
b) Yes, to some extent (please provide details below)	
c) Yes, to a significant extent (please provide details below)	
Further information on the support provided.	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

Box XLVII.

Please elaborate below on the implementation of this article and associated decisions specifically focusing on:	
<ul style="list-style-type: none"> 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. 	
Singapore does not possess indigenous and local communities in the sense used by CBD, but takes cognizance of these issues when involved in transnational activities	

Article 9 - *Ex-situ* conservation

67. ? On Article 9(a) and (b), has your country adopted measures for the <i>ex-situ</i> 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 <i>ex-situ</i> conservation of components of biodiversity native to your country and originating outside your country.	
<p>Singapore Botanic Gardens and the soon-to-be-opened complex of three new areas known jointly as “Gardens By The Bay” provide extensive facilities for ex situ conservation of native plants and rare plants from other countries. Back-up is provided by nursery facilities under the National Parks Board (Horticultural Park and Pasir Panjang Nursery), as well as tissue culture facilities.</p> <p>The Plant Conservation Strategy includes provision for salvage of otherwise doomed individual plants, tissue culture, and ex situ conservation.</p> <p>Singapore Zoo contributes conservation funding in the region, and has conservation breeding programmes for endangered species.</p> <p>Jurong Bird Park contributes conservation funding in the region, and has conservation breeding programmes for endangered species.</p> <p>There is commercial captive breeding of Dragon Fish (Arowana, <i>Scleropages formosus</i>), a CITES Appendix 1 species.</p>	

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.	
<p>Under appropriate conditions, stocks of plant species propagated in ex situ situations may be replanted in suitable habitats. This is conducted on a case-by-case basis.</p>	

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

All biological resources in National Parks, Nature Reserves and public parks are fully protected. Removal for research purposes is managed by a permit system. National Parks Board assesses wild population size before any decision to salvage specimens or beging ex situ propagation.

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.

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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.

All biological resources in National Parks, Nature Reserves and public parks are fully protected. Removal for research purposes is managed by a permit system.

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)	
d) Yes, comprehensive measures are in place (please provide details below)	X

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

All biological resources in National Parks, Nature Reserves and public parks are fully protected. Removal for research purposes is managed by a permit system.

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	N.A.
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 that protect and encourage customary use of biological resources that is compatible with conservation or sustainable use requirements.	
Customary use is generally not applicable in Singapore.	

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.	
Community-related and education-related activities include the following: COMMUNITY IN BLOOM; YOUNG ARBORISTS'S CLUBS; ADOPT-A-PARK SCHEME ADOPT-A-RIVER SCHEME	

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

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)	
d) Yes, comprehensive policies and programmes are in place (please provide details below)	
Further information on sustainable use programmes and policies.	
N/A	

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	
c) Yes, mechanisms are in place (please describe below)	X
Further comments on the development of mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity.	
The Adopt-A-Park Scheme and the Adopt-A-River Scheme are open to private sector participation.	

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.	

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.	

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.	
Draft Guidelines are currently under review by relevant government agencies.	

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.	
Training programmes for tour operators and guides are available through colleges such as Ngee Ann Polytechnic.	

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	N.A.
b) No, but relevant programmes are being considered	
c) Yes, some programmes are in place (please provide details below)	
d) Yes, comprehensive programmes are in place (please provide details below)	
Further comments in the capacity-building and financial resources provided to indigenous and local communities to support their participation in tourism policy-making, development planning, product	

development and management.

N/A

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 | X |
| 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) | |
| 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.

Draft Guidelines are currently under review by relevant government agencies.

Box XLIX.

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

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

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 | X |
| c) Yes, some programmes are in place (please provide details below) | |
| d) Yes, comprehensive programmes are in place (please provide details below) | |

Further comments on the programmes to identify and adopt incentives for the conservation and sustainable use of biodiversity.

84. ? Has your country developed the mechanisms or approaches to ensure adequate incorporation of both market and non-market values of biological diversity into relevant plans, policies and programmes and other relevant areas? (decisions III/18 and IV/10)	
a) No	
b) No, but relevant mechanisms are under development	X
c) Yes, mechanisms are in place (please provide details below)	
d) Yes, review of impact of mechanisms available (please provide details below)	
Further comments on the mechanism or approaches to incorporate market and non-market values of biodiversity into relevant plans, policies and programmes.	

85. ? Has your country developed training and capacity-building programmes to implement incentive measures and promote private-sector initiatives? (decision III/18)	
a) No	
b) No, but relevant programmes are under development	X
c) Yes, some programmes are in place	
d) Yes, many programmes are in place	

86. Does your country take into consideration the proposals for the design and implementation of incentive measures as contained in Annex I to decision VI/15 when designing and implementing incentive measures for the conservation and sustainable use of biodiversity? (decision VI/15)	
a) No	X
b) Yes (please provide details below)	
Further information on the proposals considered when designing and implementing the incentive measures for the conservation and sustainable use of biodiversity.	

87. Has your country made any progress in removing or mitigating policies or practices that generate perverse incentives for the conservation and sustainable use of biological diversity? (decision VII/18)	
a) No	
b) No, but identification of such policies and practices is under way	X
c) Yes, relevant policies and practices identified but not entirely removed or mitigated (please provide details below)	
d) Yes, relevant policies and practices identified and removed or mitigated (please provide details below)	

Further information on perverse incentives identified and/or removed or mitigated.

Box L.

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

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

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.

Many training opportunities are in place, at local universities and institutions. There is a Plant Identification Course available for new National Parks Board staff.

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.

Research programmes exist in aquaculture, pest management, and other applied topics. A Forest Restoration Workshop was carried out jointly with the Centre for Tropical Forest Science in 2006. The performance of planted saplings is assessed so as to identify a selection of native species suitable for reforestation sites.

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.

Research results on various topics in the Nature Reserves are incorporated into conservation management, for example results of the CTFS research on forest tree population biology; research on behaviour of, and disease risks to, primates; avoidance of road-kills; butterfly food plants.

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.

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)

d) Yes, a CEPA strategy developed and public participation promoted to a significant extent (please provide details below)

X

Further comments on the implementation of a CEPA strategy and the promotion of public participation in support of the Convention.

Curricula with bio-diversity are implemented in Primary Science, Lower Secondary Science, 'O' level Science, 'O' level Biology, 'O' level Geography and 'A' level Biology (ages 8 to 18).

A volunteer programme provides opportunities for members of the public to participate in a wide spectrum of activities related to biodiversity conservation. The Adopt-a-Park programme enables schools, grassroots organizations and the private sector to take ownership in nature outreach and habitat rehabilitation. Schools are brought into these activities through the Community Involvement Programme.

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)	
d) Yes, many activities are being undertaken (please provide details below)	X
Further comments on the activities to facilitate the implementation of the programme of work on CEPA.	
<p>Many activities are being undertaken, including the following:</p> <p>Invasive Weed Management Programme - we are working with schools and organisation on their participation in this programme;</p> <p>Reforestation Programme - this involves schools and organisations e.g. Schering Plough, Timberland etc.</p> <p>Training of volunteers as our guides and watch groups to reach out to more people on the interesting plants and animals in the reserve and what they can do to help conserve them.</p> <p>Conduct Nature Programmes for schools to learn more about our forest and water catchment e.g. get wild camp, plant hunt, nature learning camp.</p> <p>Conduct guided walks for individuals as well as organised groups.</p> <p>" THINK AGAIN before you release" - A programme targeted to discourage people from releasing animals or their unwanted pets into parks and nature reserves. This was achieved through printed materials (posters and brochures) and media to help spread the message over 2 weeks period. We also worked with religious groups to gain their support in this programme as well during the Vesak day period.</p> <p>Interpretative signages along trails in parks and nature reserves serve as self guided walks.</p> <p>Volunteers, park adopters and schools are involved in nature guiding and reforestation. Volunteers also engage in surveys of plants and animals, while schools also contribute to coastal clean-ups.</p>	

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)	
d) Yes, to a significant extent (please provide details below)	X
Further comments on the promotion of biodiversity-related issues through the press, the various media and public relations and communications networks at national level.	

The Ministry of Education has been working over the last few years with partners like Sembawang Corporation, for example, to promote "Greenwave", an environmentally related competition for all schools and tertiary institutions. Such national level activities promote awareness of biodiversity-related issues from a very young age and are reinforced all the way to the tertiary level.

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.

School students have a wide range of opportunity to receive education and participate in biodiversity programmes at the local level. Teachers lead students on field trips to nature conservation sites like Bukit Timah and Sungei Buloh to raise awareness of the importance of conservation of such sites. Schools are also involved in re-forestation programmes that are led by biodiversity experts from tertiary institutions such as the National Institute of Education. The Raffles Museum of Biodiversity Research, which is located at the National University of Singapore, initiates collaborations with school students on biodiversity programmes.

95. Is your country supporting national, regional and international activities prioritized by the Global Initiative on Education and Public Awareness? (decision VI/19)

a) No

b) No, but some programmes are under development

X

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.

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 schools, our teachers have the capacity to deliver the biodiversity components of the curricula in Primary Science, Lower Secondary Science, 'O' level Science, 'O' level Biology, 'O' level Geography

and 'A' level Biology.

The National University of Singapore and the National Institute of Education have sound biodiversity programmes. Likewise, efforts from National Parks Board and Singapore Environment Council are relevant.

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.

Both the public and private sectors collaborate to raise awareness of biodiversity amongst students. For example, the Raffles Museum of Biodiversity Research (NUS Dept. Biological Sciences), the Singapore Institute of Biology (SIBiol) and Nature's Niche Pte Ltd organised the *Biodiversity of Singapore Symposium 2003* where participants came together to share and discuss about the importance of biodiversity in the local context. Teachers and students also participated in the Junior Eco-Club Asia-Pacific Conferences in Japan.

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)

b) Yes, some activities undertaken for some issues and thematic areas (please provide details below)

X

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.

Schools have access to environmental resource materials which raise awareness in biodiversity.

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.

Ministry of Education works with a number of partners from the public and private sectors in promoting biodiversity education programmes e.g. Sembawang Shipyard, Singapore Environment Council, National Institute of Education, National University of Singapore, Singapore Science Centre, Hongkong and Shanghai Bank, etc.

100. Is your country communicating the various elements of the 2010 biodiversity target and establishing appropriate linkages to the Decade on Education for Sustainable Development in the implementation of your national CEPA programmes and activities? (decision VII/24)

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

Further comments on the communication of the various elements of the 2010 biodiversity target and the establishment of linkages to the Decade on Education for Sustainable Development.

Various elements of the 2010 biodiversity target are communicated through various platforms such as the Biodiversity of Singapore Symposium, the Sembawang Corporation's Greenwave competition and the Singapore Environment Council's Seashore project with Hongkong and Shanghai Bank.

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.

All students in our schools have exposure to and awareness of biodiversity education through the compulsory science curriculum components on biodiversity.

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 | X |
| c) No, but legislation is in advanced stages of development | |
| d) Yes, legislation is in place (please provide details below) | |
| 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.

EIA or Biodiversity Impact Assessment (BIA) is an administrative requirement for certain projects.

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 | |
| d) Yes, mechanisms are in place (please provide details below) | X |

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.

National programmes and policies conform to the URA Master Plan and Singapore Green Plan 2012. Mechanisms are in place to ensure inter-agency consultation on all major national programmes and policies, or modifications.

103. ? On Article 14.1(c), is your country implementing bilateral, regional and/or multilateral agreements on activities likely to significantly affect biological diversity outside your country's jurisdiction?

- | | |
|---|---|
| a) No | |
| b) No, but assessment of options is in progress | |
| c) Yes, some completed, others in progress (please provide details below) | X |
| 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.

Most regional activities are coordinated through the ASEAN Centre for Biodiversity. For example, Singapore is ready to sign the ASEAN Framework Agreement on Access to, and Fair and Equitable Sharing of Benefits From, Biological and Genetic Resources.

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	
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	X

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	
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)	X

Further information on national mechanisms for emergency response to the activities or events which present a grave and imminent danger to biodiversity.

Emergency services are trained and equipped to deal with response to events such as oil spills, chemical hazards, and bush fires that present dangers to biological diversity.

106. Is your country applying the Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact-Assessment Legislation or Processes and in Strategic Impact Assessment as contained in the annex to decision VI/7 in the context of the implementation of paragraph 1 of Article 14? (decision VI/7)

a) No	
b) No, but application of the guidelines under consideration	X
c) Yes, some aspects being applied (please specify below)	
d) Yes, major aspects being applied (please specify below)	

Further comments on application of the guidelines.

107. On Article 14 (2), has your country put in place national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity? (decision VI/11)

a) No	
b) Yes (please specify the measures)	X

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

Singapore has developed legal precedents for assessing quantum of damages, and has successfully applied this in the courts.

The Parks and Trees Act 2005 has relevant clauses on liability and redress.

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)	
d) Yes, comprehensive measures are in place (please provide details below)	X
Further information on the measures in place to prevent damage to biological diversity.	
<p>Legislation is in place, e.g., the Wild Animals and Birds Act, National Parks Board Act, Parks and Trees Act, Fisheries Act, etc.</p> <p>There is a protected area network of national parks and nature reserves, and Tree Conservation Areas, to prevent damage to biological diversity.</p> <p>Nature Areas have been designated in supplementary land use planning documents, for administrative protection of biological diversity.</p> <p>There are additional administrative procedures to ensure consultation on development proposals that have implications for conservation of terrestrial, inland freshwater and marine biodiversity.</p> <p>Contractual obligations may be included within contracts for developers.</p>	

109. Is your country cooperating with other Parties to strengthen capacities at the national level for the prevention of damage to biodiversity, establishment and implementation of national legislative regimes, policy and administrative measures on liability and redress? (decision VI/11)	
a) No	
b) No, but cooperation is under consideration	
c) No, but cooperative programmes are under development	
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.	

Box LIII.

<p>Please elaborate below on the implementation of this article and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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 15 - Access to genetic resources

110. ? Has your country endeavored to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms, in accordance with paragraphs 2, 4 and 5 of Article 15?	
a) No	
b) Yes (please provide details below)	X
Further information on the efforts taken by your country to facilitate access to genetic resources for environmentally sound uses by other Parties, on the basis of prior informed consent and mutually agreed terms.	
A system of permit application and approval is in place, for both commercial and non-commercial use. Singapore is ready to sign the ASEAN Framework Agreement on Access to, and Fair and Equitable Sharing of Benefits from, Biological and Genetic Resources.	

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	
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 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.	
Yes, this would be included in the ASEAN Framework Agreement and on a case-by-case basis in research approvals.	

112. ? Has your country taken measures to ensure the fair and equitable sharing of the results of research and development and of the benefits arising from the commercial and other use of genetic resources with any Contracting Party providing such resources, in accordance with Article 15(7)?	
a) No	
b) No, but potential measures are under review	X
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive legislation is in place (please provide details below)	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place (please provide details below)	
f) Yes, comprehensive policy and administrative measures are in place (please provide details below)	
Further information on the type of measures taken.	

There are procedures in place for consideration of research applications related to commercial use. There are procedures for deposit of research materials in national reference collections, and for publication and dissemination of results.

113. ? In developing national measures to address access to genetic resources and benefit-sharing, has your country taken into account the multilateral system of access and benefit-sharing set out in the International Treaty on Plant Genetic Resources for Food and Agriculture?

a) No

b) Yes (please provide details below)

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.

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.

Administrative and policy measures take the Bonn Guidelines into account.

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)

X

c) No, but relevant policies or measures are under development (please specify below)

d) Yes, some policies or measures are in place (please specify below)

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.

Intellectual property rights are incorporated into the draft ASEAN Framework Agreement on Access to, and Fair and Equitable Sharing of Benefits fro, Biological and Genetic Resources.

116. Has your country been involved in capacity-building activities related to access and benefit-sharing?

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

Please provide further information on capacity-building activities (your involvement as donor or recipient, key actors involved, target audience, time period, goals and objectives of the capacity-building activities, main capacity-building areas covered, nature of activities). Please also specify whether these activities took into account the Action Plan on capacity-building for access and benefit-sharing adopted at COP VII and available in annex to decision VII/19F.

Various national and regional meetings have taken place, to discuss capacity requirements in processing of research approvals, monitoring, intellectual property rights and patenting, and other aspects of access and benefit-sharing. National meetings are coordinated by National Parks Board, and regional meetings are under the auspices of ASEAN Centre for Biodiversity, ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) or other ASEAN forums.

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.

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	
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 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.

118. ? On Article 16(3), has your country taken measures so that Parties which provide genetic resources are provided access to and transfer of technology which make use of those resources, on mutually agreed terms?

a) No	
b) No, but potential measures are under review	X
c) Yes, some measures are in place	
d) Yes, comprehensive legislation is in place	
e) Yes, comprehensive statutory policy or subsidiary legislation are in place	
f) Yes, comprehensive policy and administrative arrangements are in place	
g) Not applicable	

119. ? On Article 16(4), has your country taken measures so that the private sector facilitates access to joint development and transfer of relevant technology for the benefit of Government institutions and the private sector of developing countries?

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

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.

Programme of Work on transfer of technology and technology cooperation

120. Has your country provided financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation? (decision VII/29)	
a) No	
b) No, but relevant programmes are under development	
c) Yes, some programmes being implemented (please provide details below)	X
d) Yes, comprehensive programmes being implemented (please provide details below)	
Further comments on the provision of financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation.	

121. Is your country taking any measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation? (decision VII/29)	
a) No	X
b) No, but some measures being considered	
c) Yes, some measures are in place (please provide details below)	
d) Yes, comprehensive measures are in place (please provide details below)	
Further comments on the measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation.	

122. Has your country made any technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building? (annex to decision VII/29)	
a) No	
b) No, but assessments are under way	X
c) Yes, basic assessments undertaken (please provide details below)	
d) Yes, thorough assessments undertaken (please provide details below)	
Further comments on technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building.	

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.	

124. Has your country identified and implemented any measures to develop or strengthen appropriate information systems for technology transfer and cooperation, including assessing capacity building needs? (annex to decision VII/29)	
a) No	
b) No, but some programmes are under development	
c) Yes, some programmes are in place and being implemented (please provide details below)	X
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.	

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.	

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.

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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.

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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.

Singapore collaborates with countries in the region through the ASEAN Centre for Biodiversity, and through existing partnerships between sister organizations (e.g., Singapore Botanic Gardens and sister institutions in Bogor (Indonesia) and Xishuanbanna (China)). Many examples of technical and scientific collaboration exist between university researchers in Singapore and their counterparts throughout South-east and East Asia.

129. ? On Article 18(4), has your country encouraged and developed methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention?

a) No	
b) No, but relevant methods are under development	
c) Yes, methods are in place	X

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.

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	X
c) Yes, by means of access to, and transfer of technology	
d) Yes, by using research cooperation facilities	X
e) Yes, by using repatriation of information	
f) Yes, by using training opportunities	X
g) Yes, by using promotion of contacts with relevant institutions, organizations and the private sector	X
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.

The CHM mechanism is newly developed in Singapore. The website provides information about current events, training opportunities, funding, recent research and collaborative projects. This leads to information available elsewhere within scientific circles in Singapore on training opportunities (e.g., scholarships), funding (e.g., fellowships at Singapore Botanic Gardens herbarium), and research 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.

CHM is available to all on a website, with facilities for on-line research applications, checklists of flora and fauna, description of relevant laws, etc.

134. Has your country developed, provided and shared services and tools to enhance and facilitate the implementation of the CHM and further improve synergies among biodiversity-related Conventions? (decision V/14)

a) No

X

b) Yes (please specify services and tools below)

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

Not yet. This is under consideration.

Box LVIII.

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

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

Article 19 - Handling of biotechnology and distribution of its benefits

135. ? On Article 19(1), has your country taken measures to provide for the effective participation in biotechnological research activities by those Contracting Parties which provide the genetic resources for such research?

a) No

b) No, but potential measures are under review

c) Yes, some measures are in place

X

d) Yes, comprehensive legislation are in place

e) Yes, comprehensive statutory policy and subsidiary legislation are in place

f) Yes, comprehensive policy and administrative measures are in place

136. ? On Article 19(2), has your country taken all practicable measures to promote and advance priority access by Parties, on a fair and equitable basis, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Parties?

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

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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	X
b) Extra-budgetary resources (identified by donor agencies)	
c) Bilateral channels (identified by donor agencies)	
d) Regional channels (identified by donor agencies)	
e) Multilateral channels (identified by donor agencies)	

f) Private sources (identified by donor agencies)	
g) Resources generated through financial instruments, such as charges for use of biodiversity	

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.

137. ? On Article 20(1), has your country provided financial support and incentives to those national activities that are intended to achieve the objectives of the Convention?

a) No	
b) Yes, incentives only (please provide a list of such incentives below)	
c) Yes, financial support only	X
d) Yes, financial support and incentives (please provide details below)	

Further comments on financial support and incentives provided.

The next question (138) is for DEVELOPED COUNTRIES

138. ? On Article 20(2), has your country provided new and additional financial resources to enable developing country Parties to meet the agreed incremental costs to them of implementing measures which fulfill the obligations of the Convention?

a) No	
b) Yes (please indicate the amount, on an annual basis, of new and additional financial resources your country has provided)	

Further comments on new and additional financial resources provided.

The next question (139) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION

139. ? On Article 20(2), has your country received new and additional financial resources to enable it to meet the agreed full incremental costs of implementing measures which fulfill the obligations of the Convention?

a) No	
b) Yes	X

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	
b) No, but procedures being established	
c) Yes (please provide details below)	X
Further comments on processes to monitor financial support to biodiversity, including support provided by the private sector.	
The current financial tracking system monitors support to overseas causes. Information on within-country support is available in principle but not analysed separately.	

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	
b) No, but exemptions are under development (please provide details below)	
c) Yes, exemptions are in place (please provide details below)	X
Further comments on tax exemptions for biodiversity-related donations.	
Tax exemptions for charitable and non-profit organizations are in place.	

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	X
b) No, but review is under way	
c) Yes (please provide results of review below)	
Further comments on review of national budgets and monetary policies, including the effectiveness of official development assistance.	

143. Is your country taking concrete actions to review and further integrate biodiversity considerations in the development and implementation of major international development initiatives, as well as in national sustainable development plans and relevant sectoral policies and plans? (decisions VI/16 and VII/21)	
a) No	
b) No, but review is under way	
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.	
Biological diversity considerations are being incorporated into the National Climate Change Strategy in response to signature of the Kyoto Protocol.	
Singapore takes cognizance of WSSD targets and incorporates these where appropriate into Singapore Green Plan 2012 targets.	

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	

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.	
Areas	Support provided
a) Undertaking national or regional assessments within the framework of MEA (decision VI/8)	
b) <i>In-situ</i> conservation (decision V/16)	
c) Enhance national capacity to establish and maintain the mechanisms to protect traditional knowledge (decision VI/10)	
d) <i>Ex-situ</i> conservation (decision V/26)	
e) Implementation of the Global Strategy for Plant Conservation (decision VI/9)	
f) Implementation of the Bonn Guidelines (decision VI/24)	
g) Implementation of programme of work on agricultural biodiversity (decision V/5)	
h) Preparation of first report on the State of World's Animal Genetic Resources (decision VI/17)	

i) Support to work of existing regional coordination mechanisms and development of regional and sub regional networks or processes (decision VI/27)	
j) Development of partnerships and other means to provide the necessary support for the implementation of the programme of work on dry and subhumid lands biological diversity (decision VII/2)	
k) Financial support for the operations of the Coordination Mechanism of the Global Taxonomy Initiative (decision VII/9)	
l) Support to the implementation of the Action Plan on Capacity Building as contained in the annex to decision VII/19 (decision VII/19)	
m) Support to the implementation of the programme of work on mountain biological diversity (decision VII/27)	
n) Support to the implementation of the programme of work on protected areas (decision VII/28)	
o) Support to the development of national indicators (decision VII/30)	
p) Others (please specify)	
Further information on financial support provided to developing countries and countries with economies in transition.	

The next question (146) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION

146. Please indicate with an "X" in the table below in which areas your country has applied for funds from the Global Environment Facility (GEF), from developed countries and/or from other sources. The same area may have more than one source of financial support. Please elaborate in the space below if necessary.			
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)			X
d) <i>In-situ</i> conservation (decision V/16)			X
e) Development of national strategies or action plans to deal with alien species (decision VI/23)			X
f) <i>Ex-situ</i> conservation, establishment and maintenance of <i>Ex-situ</i> conservation facilities (decision V/26)			X

g) Projects that promote measures for implementing Article 13 (Education and Public Awareness) (decision VI/19)			X
h) Preparation of national reports (decisions III/9, V/19 and VI/25)			X
i) Projects for conservation and sustainable use of inland water biological diversity (decision IV/4)			X
j) Activities for conservation and sustainable use of agricultural biological diversity (decision V/5)			N.A.
k) Implementation of the Cartagena Protocol on Biosafety (decision VI/26)			N.A.
l) Implementation of the Global Taxonomy Initiative			X
m) Implementation of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity			X
n) Others (please specify)			
Further information on application for financial support.			

Box LXII .

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

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

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	N/A	1	2	2	N/A	N/A
(b) Limited public participation and stakeholder involvement	N/A	1	2	2	N/A	N/A
(c) Lack of mainstreaming and integration of biodiversity issues into other sectors	N/A	1	2	1	N/A	N/A
(d) Lack of precautionary and proactive measures	N/A	1	2	1	N/A	N/A
(e) Inadequate capacity to act, caused by institutional weakness	N/A	1	2	1	N/A	N/A
(f) Lack of transfer of technology and expertise	N/A	1	2	1	N/A	N/A
(g) Loss of traditional knowledge	N/A	N/A	N/A	N/A	N/A	N/A
(h) Lack of adequate scientific research capacities to support all the objectives	N/A	1	2	2	N/A	N/A
(i) Lack of accessible knowledge and information	N/A	1	2	2	N/A	N/A
(j) Lack of public education and awareness at all levels	N/A	1	2	2	N/A	N/A
(k) Existing scientific and traditional knowledge not fully utilized	N/A	1	2	1	N/A	N/A

(l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented	N/A	2	2	1	N/A	N/A
(m) Lack of financial, human, technical resources	N/A	1	2	1	N/A	N/A
(n) Lack of economic incentive measures	N/A	1	2	1	N/A	N/A
(o) Lack of benefit-sharing	N/A	N/A	2	1	N/A	N/A
(p) Lack of synergies at national and international levels	N/A	1	2	1	N/A	N/A
(q) Lack of horizontal cooperation among stakeholders	N/A	1	2	1	N/A	N/A
(r) Lack of effective partnerships	N/A	0	2	1	N/A	N/A
(s) Lack of engagement of scientific community	N/A	0	1	1	N/A	N/A
(t) Lack of appropriate policies and laws	N/A	1	2	1	N/A	N/A
(u) Poverty	N/A	N/A	N/A	N/A	N/A	N/A
(v) Population pressure	N/A	N/A	N/A	N/A	N/A	N/A
(w) Unsustainable consumption and production patterns	N/A	N/A	N/A	N/A	N/A	N/A
(x) Lack of capacities for local communities	N/A	N/A	N/A	N/A	N/A	N/A
(y) Lack of knowledge and practice of ecosystem-based approaches to management	N/A	0	1	1	N/A	N/A
(z) Weak law enforcement capacity	N/A	0	1	0	N/A	N/A
(aa) Natural disasters and environmental change	N/A	1	1	1	N/A	N/A
(bb) Others (please specify)	N/A				N/A	N/A

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				
<p>The Active, Beautiful and Clean (ABC) Programme under the Public Utilities Board incorporates various objectives and activities consistent with the CBD targets.</p> <p>The ABC Programme is implemented in collaboration with other government agencies and the private sector.</p>				

149. Has your country identified priorities for each activity in the programme of work, including timescales, in relation to outcome oriented targets? (decision VII/4)	
a) No	
b) Outcome oriented targets developed but priority activities not developed	X
c) Priority activities developed but not outcome oriented targets	X
d) Yes, comprehensive outcome oriented targets and priority activities developed	
Further comments on the adoption of outcome oriented targets and priorities for activities, including providing a list of targets (if developed).	
<p>Some priority activities and some outcome-oriented targets have been developed. These include targets on length of inland waterways to be managed, water quality targets, targets for recreational use.</p>	

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)	X
b) No	
c) No, but potential measures were identified for synergy and joint implementation	
d) Yes, some measures taken for joint implementation (please specify below)	
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.	

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?			
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.			
<p>a) e.g., recreational use of inland waters; studies on freshwater biological diversity;</p> <p>b) e.g., recreational use of forests, waterways, beaches;</p> <p>d) e.g., national species inventories, natural area surveys;</p> <p>e) e.g., on climate change, pollution sources, recreational use</p>			

152. Has your country promoted the application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems? (decision VII/4)	
a) No, the guidelines have not been reviewed	
b) No, the guidelines have been reviewed and found inappropriate	
c) Yes, the guidelines have been reviewed and application/promotion is pending	
d) Yes, the guidelines promoted and applied	
Further comments on the promotion and application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems.	
Although the CBD guidelines have not yet been reviewed, there are existing projects to perform rapid assessment of the biological diversity of inland water ecosystems. These activities are not in conflict with the CBD guidelines.	

Box LXIII.

<p>Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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.

Marine and coastal biological diversity
General

153. Do your country's strategies and action plans include the following? Please use an "X" to indicate your response. (decisions II/10 and IV/15)	
a) Developing new marine and coastal protected areas	X
b) Improving the management of existing marine and coastal protected areas	X
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	X

e) Protection of areas important for reproduction, such as spawning and nursery areas	X
f) Improving sewage and other waste treatment	X
g) Controlling excessive fishing and destructive fishing practices	
h) Developing a comprehensive oceans policy (if yes, please indicate current stage of development in the box below)	
i) Incorporation of local and traditional knowledge into management of marine and coastal resources (if yes, please elaborate on types of management arrangements in the box below)	
j) Others (please specify below)	
k) Not applicable	
Please elaborate on the above activities and list any other priority actions relating to conservation and sustainable use of marine and coastal biodiversity.	

Implementation of Integrated Marine and Coastal Area Management

154. Has your country established and/or strengthened institutional, administrative and legislative arrangements for the development of integrated management of marine and coastal ecosystems?	
a) No	
b) Early stages of development	X
c) Advanced stages of development	
d) Arrangements in place (please provide details below)	
e) Not applicable	
Further comments on the current status of implementation of integrated marine and coastal area management.	

155. Has your country implemented ecosystem-based management of marine and coastal resources, for example through integration of coastal management and watershed management, or through integrated multidisciplinary coastal and ocean management?	
a) No	
b) Early stages of development	X
c) Advanced stages of development	
d) Arrangements in place (please provide details below)	
e) Not applicable	
Further comments on the current status of application of the ecosystem to management of marine and coastal resources.	

Marine and Coastal Living Resources

156. Has your country identified components of your marine and coastal ecosystems, which are critical for their functioning, as well as key threats to those ecosystems?

a) No	
b) Plans for a comprehensive assessment of marine and coastal ecosystems are in place (please provide details below)	
c) A comprehensive assessment is currently in progress	X
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

Surveys of marine natural areas are being conducted in many intertidal and subtidal locations.

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			X	
b) Socio-economic assessment and monitoring of communities and stakeholders				X
c) Management, particularly through application of integrated coastal management and marine and coastal protected areas in coral reef environments			X	
d) Identification and implementation of additional and alternative measures for securing livelihoods of people who directly depend on coral reef services				X

e) Stakeholder partnerships, community participation programmes and public education campaigns			X	
f) Provision of training and career opportunities for marine taxonomists and ecologists			X	
g) Development of early warning systems of coral bleaching		X		
h) Development of a rapid response capability to document coral bleaching and mortality		X		
i) Restoration and rehabilitation of degraded coral reef habitats		X		
j) Others (please specify below)				
Please elaborate on ongoing activities.				

Marine and Coastal Protected Areas

158. Which of the following statements can best describe the current status of marine and coastal protected areas in your country? Please use an "X" to indicate your response.	
a) Marine and coastal protected areas have been declared and gazetted (please indicate below how many)	
b) Management plans for these marine and coastal protected areas have been developed with involvement of all stakeholders	
c) Effective management with enforcement and monitoring has been put in place	
d) A national system or network of marine and coastal protected areas is under development	
e) A national system or network of marine and coastal protected areas has been put in place	
f) The national system of marine and coastal protected areas includes areas managed for purpose of sustainable use, which may allow extractive activities	X
g) The national system of marine and coastal protected areas includes areas which exclude extractive uses	
h) The national system of marine and coastal protected areas is surrounded by sustainable management practices over the wider marine and coastal environment.	
i) Other (please describe below)	
j) Not applicable	

Further comments on the current status of marine and coastal protected areas.

Mariculture

159. Is your country applying the following techniques aimed at minimizing adverse impacts of mariculture on marine and coastal biodiversity? Please check all that apply.

a)	Application of environmental impact assessments for mariculture developments	X
b)	Development and application of effective site selection methods in the framework of integrated marine and coastal area management	X
c)	Development of effective methods for effluent and waste control	X
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	X
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	X
l)	Considering traditional knowledge, where applicable, as a source to develop sustainable mariculture techniques	N/A
m)	Not applicable	

Further comments on techniques that aim at minimizing adverse impacts of mariculture on marine and coastal biodiversity.

Alien Species and Genotypes

160. Has your country put in place mechanisms to control pathways of introduction of alien species in the marine and coastal environment? Please check all that apply and elaborate on types of measures in the space below.

a) No	
b) Mechanisms to control potential invasions from ballast water have been put in place (please provide details below)	
c) Mechanisms to control potential invasions from hull fouling have been put in place (please provide details below)	
d) Mechanisms to control potential invasions from aquaculture have been put in place (please provide details below)	
e) Mechanisms to control potential invasions from accidental releases, such as aquarium releases, have been put in place (please provide details below)	
f) Not applicable	

Further comments on the current status of activities relating to prevention of introductions of alien species in the marine and coastal environment, as well as any eradication activities.

Relevant agencies in Singapore have set up consultative process to move forward on the above issues.

Box LXIV.

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

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

Agricultural biological diversity

161. ? Has your country developed national strategies, programmes and plans that ensure the development and successful implementation of policies and actions that lead to the conservation and sustainable use of agrobiodiversity components? (decisions III/11 and IV/6)	
a) No	
b) No, but strategies, programmes and plans are under development	
c) Yes, some strategies, programmes and plans are in place (please provide details below)	
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.	
Not applicable in Singapore	

162. ? Has your country identified ways and means to address the potential impacts of genetic use restriction technologies on the <i>In-situ</i> and <i>Ex-situ</i> conservation and sustainable use, including food security, of agricultural biological diversity? (decision V/5)	
a) No	
b) No, but potential measures are under review	
c) Yes, some measures identified (please provide details below)	
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 <i>In-situ</i> and <i>Ex-situ</i> conservation and sustainable use of agricultural biodiversity.	
Not applicable in Singapore	

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)	
c) Yes, assessments completed (please specify components and results of assessments below)	
Further comments on specific assessments of components of agricultural biodiversity.	
Not applicable in Singapore	

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	
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).

[Not applicable in Singapore](#)

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	
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.

[Not applicable in Singapore](#)

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)	
d) Yes, overall restoration or rehabilitation observed (please provide details below)	

Further comments on observations.

[Not applicable in Singapore](#)

Programme element 2 - Adaptive management	
167. Has your country identified management practices, technologies and policies that promote the positive, and mitigate the negative, impacts of agriculture on biodiversity, and enhance productivity and the capacity to sustain livelihoods?	
a) No	
b) No, but potential practices, technologies and policies being identified	
c) Yes, some practices, technologies and policies identified (please provide details below)	
d) Yes, comprehensive practices, technologies and policies identified (please provide details below)	
Further comments on identified management practices, technologies and policies.	
Not applicable in Singapore	

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 <i>In-situ</i> conservation, sustainable use and management of agricultural biological diversity?	
a) No	
b) Yes (please specify area/component and target groups with increased capacity)	
Further comments on increased capacities of farmers, indigenous and local communities, and their organizations and other stakeholders.	
Not applicable in Singapore	

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	X
b) No, but potential mechanisms being identified	
c) No, but mechanisms are under development	
d) Yes, mechanisms are in place	

170. Has your country improved the policy environment, including benefit-sharing arrangements and incentive measures, to support local-level management of agricultural biodiversity?	
a) No	
b) No, but some measures and arrangements being identified	

c) No, but measures and arrangements are under development	
d) Yes, measures and arrangements are being implemented (please specify below)	
Further comments on the measures taken to improve the policy environment.	
Not applicable in Singapore	

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	
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.	
Not applicable in Singapore	

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	
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.	
Not applicable in Singapore	

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)

Further comments on of the conservation of the variability of genetic resources for food and agriculture in their center of origin.

[Not applicable in Singapore](#)

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.

Box LXVI.

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

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

Forest Biological Diversity

General

174. Has your country incorporated relevant parts of the work programme into your national biodiversity strategies and action plans and national forest programmes?

a) No	
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

Relevant aspects are incorporated into the Singapore Green Plan 2012. Management plans are in place for Bukit Timah Nature Reserve; and for Sungei Buloh Wetlands Reserve.

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.

Recent tools applied include the following:

FAO Forest Resources Assessment

Millennium Development Goals

ASEAN State of the Environment Report

— are all used as tracking methods for forest-related performance

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.

Not applicable in Singapore

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.

Box LXX.

Please indicate how your country has collaborated and cooperated (e.g., south-south, north-south, south-north, north-north) with other governments, regional or international organizations in implementing the programme of work. Please also indicate what are the constraints and/or needs identified.

Expanded programme of work on forest biological diversity

Programme element 1 – Conservation, sustainable use and benefit-sharing	
175. Is your country applying the ecosystem approach to the management of all types of forests?	
a) No (please provide reasons below)	
b) No, but potential measures being identified (please provide details below)	
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).	
Zoning is incorporated into Master Planning for land use	

176. Has your country undertaken measures to reduce the threats to, and mitigate its impacts on forest biodiversity?		
Options	X	Details
a) Yes		Please specify below the major threats identified in relation to each objective of goal 2 and the measures undertaken to address priority actions
	x	Land use planning procedures including URA Master Plan; protection of all primary forest in protected areas network; consultation between development and biodiversity agencies
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).		

177. Is your country undertaking any measures to protect, recover and restore forest biological diversity?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities</p> <p>X Protection of all primary forest in protected areas network; forest restoration programmes undertaken; Plant Conservation Strategy</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>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).</p>		

178. Is your country undertaking any measures to promote the sustainable use of forest biological diversity?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please specify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities</p> <p>X Management of recreational pressures, visitor controls, provision of low-impact facilities, monitoring of forest health</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>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).</p> <p>Use of forest resources in Singapore is non-consumptive recreational, educational and scientific use. These are governed by protected area legislation, regulations and permit systems.</p>		

179. Is your country undertaking any measures to promote access and benefit-sharing of forest genetic resources?		
Options	X	Details
a) Yes	<input checked="" type="checkbox"/>	<p>Please specify priority actions in relation to each objective of goal 5 and describe measures undertaken</p> <p>Facilitating research; establishment of permit system, with assistance to researchers where appropriate; sharing of published information via hard copy and websites.</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>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)</p>		

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	<input checked="" type="checkbox"/>	<p>Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities</p> <p>Capacity-building of National Parks Board and Biodiversity Centre within the Board; enhanced staff strength and training for management of Nature Reserves.</p>
b) No	<input type="checkbox"/>	<p>Please provide reasons below</p>
<p>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).</p>		

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 Further input of biodiversity considerations into land use planning and development proposal evaluations.
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).		

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 National Parks Board has roving exhibitions; produces educational posters; conducts talks on biodiversity-related topics. Incorporation of biodiversity-related topics into school and university curriculum.
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).		
Ministry of Education works with a number of partners from the public and private sectors in promoting biodiversity education programmes e.g. Sembawang Shipyard, Singapore Environment Council, National Institute of Education, National University of Singapore, Singapore Science Centre, Hongkong and Shanghai Bank, etc.		
In schools, our teachers have the capacity to deliver the biodiversity components of the curricula in Primary Science, Lower Secondary Science, 'O' level Science, 'O' level Biology, 'O' level Geography and 'A' level Biology.		
The National University of Singapore and the National Institute of Education have sound biodiversity programmes. Likewise, efforts from National Parks Board and Singapore Environment Council are		

relevant.

School students have a wide range of opportunity to receive education and participate in biodiversity programmes at the local level. Teachers lead students on field trips to nature conservation sites like Bukit Timah and Sungei Buloh to raise awareness of the importance of conservation of such sites. Schools are also involved in re-forestation programmes that are led by biodiversity experts from tertiary institutions such as the National Institute of Education. The Raffles Museum of Biodiversity Research, which is located at the National University of Singapore, initiates collaborations with school students on biodiversity programmes.

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
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).

National Parks Board has developed a habitat classification. This is applied during biodiversity surveys, and in mapping.

There is a collaboration between National Parks Board, National Institute of Education and Centre for Tropical Forest Science (CTFS) on forest tree population biology. This can be used for long term monitoring in permanent plots.

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 Application of IUCN criteria to rarity assessments Centre for Tropical Forest Science permanent tree plots
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).

Non-governmental organizations conduct regular censuses of birds, including forest birds.

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 Research activities in forest ecology
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).

A wide range of research topics is undertaken by undergraduates, graduates and academics of local institutions of higher learning.

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 Participation in international mechanisms such as FAO Forest Resources Assessment, Millennium Development Goals, and ASEAN State of Environment Report; revision of Singapore Red Data Book; production of checklist of Singapore plants; Clearing-house Mechanism with listing of species of flora and fauna
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).

Singapore is further developing an integrated system of databases and mapping resources

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.

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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	N/A
b) Yes (please provide details below)	

Further comments on scientific, technical and financial support, at the national and regional levels, to the activities identified in the programme of work.

N/A

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	N/A
b) Yes (please provide details below)	

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.

N/A

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	N/A
b) Yes, some linkages established (please provide details below)	
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.	
N/A	

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	N/A
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.	
N/A	

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	N/A
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.	
N/A	

192. Has your country taken measures to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work?	
a) No	N/A
b) Yes, some measures taken (please provide details below)	
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.	
N/A	

Box LXXII.

<p>Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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.
N/A

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	N/A
b) No, but relevant measures are being considered	
c) Yes, some measures taken (please provide details below)	
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	
N/A	

194. Has your country taken any measures to protect, recover and restore mountain biodiversity?	
a) No	N/A
b) No, but some measures are being considered	
c) Yes, some measures taken (please provide details below)	
d) Yes, many measures taken (please provide details below)	
Further comments on the measures taken to protect, recover and restore mountain biodiversity	
N/A	

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	N/A
b) No, but some measures are being considered	
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	
N/A	

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	N/A
b) No, but some measures are being considered	
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	
N/A	

**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) | |
| 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.

N/A

198. Has your country been involved in regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity?

- | | |
|---|--|
| a) No | |
| b) No, but some cooperation frameworks are being considered | |
| c) Yes (please provide details below) | |

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

N/A

**Programme Element 3. Supporting actions for conservation,
sustainable use and benefit sharing**

199. Has your country taken any measures for identification, monitoring and assessment of mountain biological diversity?

- | | |
|--|--|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some measures are in place (please provide details below) | |
| d) Yes, comprehensive measures are in place (please provide details below) | |

Further comments on the measures for identification, monitoring and assessment of mountain biodiversity

N/A

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)	
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	
N/A	

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)	
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	
N/A	

Box LXXIII .

<p>Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:</p> <ul style="list-style-type: none"> 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.
N/A

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.	
Singapore participates in meetings of the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) and ASEAN Senior Officials on Environment (ASOEN), which prepare for, and report back on, national, regional and subregional activities related to CBD.	

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.	
Singapore is committed to its role in ASEAN forums and welcomes the establishment of the ASEAN Centre for Biodiversity.	

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	X

206. Has your country contributed to the assessment of the regional and subregional mechanisms for implementation of the Convention? (decision VI/27 B)

a) No

b) Yes (please provide details below)

X

Further comments on contribution to the assessment of the regional and subregional mechanisms.

Singapore contributes through the ASEAN Centre for Biodiversity (formerly ASEAN Regional Centre for Biodiversity Conservation)

Box LXXIV.

Please elaborate below on the implementation of the above decisions specifically focusing on:

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

F. COMMENTS ON THE FORMAT

Box LXXV.

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