Please provide the following details on the origin of this report

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Submission	
Signature of officer responsible for submitting national report:	
Date of submission:	

Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report

Draft prepared by Environment Australia in consultation with other national government agencies. Draft circulated for comment to State and Territory governments, relevant industry groups and non-government organisations.

Material used as a basis for the report included the Australian case study prepared for the CBD Secretariat pursuant to COP decision V/4 and other publicly available information prepared during the Regional Forest Agreement process.

Decision IV/7 on Forest biological Diversity

1. What is the relative priority afforded to implementation of this decision by your country?					
a) High		b) Medium	x	c) Low	

2. To what extent are the resources available adequate for meeting the obligations and recommendations made?							
a) Good		b) Adequate	x	c) Limiting		d) Severely limiting	

3. Has your country assessed the status and trends of its forest biological diversity and identified options for its conservation and sustainable use? (Decision IV/7, paragraph 12)	
a) no	
b) assessment underway (please give details below)	x
c) assessment completed (please give details below)	
d) not relevant	

If a developing country Party or a Party with economy in transition -	
4. Has your country requested assistance through the financial mechanism for projects that promote the implementation of the focused work programme a forest biological diversity? (Decision IV/7, paragraph 7)	
a) no	
b) yes (please give details below)	

Programme element 1: Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations

5. Has your country identified methodologies for enhancing the integration of forest biological diversity conservation and sustainable use into an holistic approach to sustainable forest management at the national level? (Work Programme, paragraph 13)	
a) no	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not applicable	
6. Has your country developed methodologies to advance the integration of traditional forest-related knowledge into sustainable forest management, in accordance with Article 8(j)? (Work Programme, paragraph 14)	
a) yes, limited extent	x
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	
d) not applicable	
7. Has your country promoted cooperation on the conservation and sustainable use of forest biological resources at all levels in accordance with Articles 5 and 16 of the Convention? (Work Programme, paragraph 15)	

a) no	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not applicable	
8. Has your country promoted the sharing of relevant technical and scientific information on networks at all levels of protected forest areas and networking modalities in all types of forest ecosystems? (Work Programme, paragraph 17)	
a) no	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not applicable	

Programme element 2: Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences

9. Has your country promoted activities for an enhanced understanding of positive and negative human influences on forest ecosystems by land-use managers, policy makers, scientists and other relevant stakeholders) (Work Programme, paragraph 29)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not relevant	
10. Has your country promoted activities to assemble management experiences and scientific, indigenous and local information at the national and local levels to provide for the sharing of approaches and tools that lead to improved forest practices with regard to forest biological diversity? (Work Programme, paragraph 30)	
a) minimal activity	
b) yes – limited extent (please give details below)	x
c) yes – significant extent (please give details below)	
d) not relevant	
11. Has your country promoted activities with the aim of providing options to minimize or mitigate negative and to promote positive human influences on forest biological diversity? (Work Programme, paragraph 31)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not relevant	

12. Has your country promoted activities to minimize the impact of harmful alien species on forest biological diversity? (Work Programme, paragraph 32)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not relevant	
13. Has your country identified means and mechanisms to improve the identification and prioritisation of research activities related to influences of human activities, in particular forest management practices, on forest biological diversity? (Work Programme, paragraph 33)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	x
d) not relevant	
14. Does your country hold research results and syntheses of reports of relevant scientific and traditional knowledge on key forest biological diversity issues and, if so, have these been disseminated as widely as possible? (Work Programme, paragraph 34)	
a) not relevant	
b) some relevant material, but not widely disseminated	
c) significant material that could be more widely disseminated (please give details below)	x
d) yes - already widely disseminated (please give details below)	
15. Has your country prepared case studies on assessing impacts of fires and alien species on forest biological diversity and their influences on the management of forest ecosystems and savannahs? (Work Programme, paragraph 35)	
a) no – please indicate below whether this is due to a lack of available case-studies or for other reasons	
b) yes – please give below any views you may have on the usefulness of the preparation of case studies for developing a better biological understanding of the problem and/or better management responses.	x

Programme element 3: Methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest biological diversity

16. Has your country assessed experiences gained in national and regional processes, identifying common elements and gaps in existing initiatives and improving indicators for forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes – limited assessment made (please give details below)	
c) yes – significant assessment made (please give details below)	x
d) not relevant	

17. Has your country carried out taxonomic studies and inventories at the national level which provide for a basic assessment of forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes – limited assessment made (please give details below)	
c) yes – significant assessment made (please give details below)	x
d) not relevant	

If you have ticked any of the boxes in questions 5 to 17 above which invite you to provide further details, please do so here.

(Information can include descriptions of methodologies and of activities undertaken, reasons for success or failure, outcomes and lessons learned)

Introduction

In Australia, State and Territory governments have primary responsibility for forest management while the Commonwealth (national) Government coordinates a national approach to environmental and industry development issues. The Australian Commonwealth, State and Territory governments are all signatories to the 1992 National Forest Policy Statement (NFPS). The policy pursues broad national goals within a regionally based planning framework that integrates environmental and commercial objectives. The goals cover:

- conservation;
- wood production and industry development;
- integrated and coordinated decision making and management;
- private native forests;
- plantations;
- water supply and catchment management;
- tourism and other economic and social opportunities;
- employment, workforce education and training;
- public awareness, education and involvement;
- research and development; and
- international responsibilities.

To implement this national policy, governments agreed to:

- provide interim protection to forest areas which may be required for a Comprehensive, Adequate and Representative forest reserve system;
- undertake Comprehensive Regional Assessments of environment, heritage, economic and social values of forests; and
- negotiate Regional Forest Agreements between the Commonwealth and State Governments about the long term management and use of forests in particular regions.

Regional Forest Agreements are 20 year agreements between the Commonwealth and State governments which aim to establish:

- a world class Comprehensive, Adequate and Representative forest reserve system which includes the protected area estate (formal national parks and reserves) and three zones within the remaining forest estate *viz* General Management Zones, Special Management Zones and Special Protection Zones;
- certainty for industries and regional communities, enabling the development of internationally competitive and ecologically sustainable industries; and
- ecologically sustainable management of the whole forest estate, both on and off reserves.

Ten Regional Forest Agreements are now in place covering most of the major production areas of native forest in Australia.

The definition of forest used in Australia goes beyond CRA/RA forests to include some 112m ha of woodlands. Biodiversity related activities in these areas include a firewood initiative and threat abatement plans eg , root-rot fungus Phytophthera. cinnamomi)

Question 3
A number of processes have assessed the status and trends of Australia's forest biodiversity at a national level and identified options for conservation and sustainable use. These have included:

- The Resource Assessment Commission Forest and Timber Inquiry 1992
- The Australian State of the Environment Report 1996 (http://www.erin.gov.au/soe/soe96/index.html)
- Comprehensive Regional Assessments carried out as part of the development of Regional Forest Agreements

The Comprehensive Regional Assessments were, by far, the most comprehensive of these processes but were only undertaken in areas in which Regional Forest Agreements were being negotiated (see above). These assessments included the environmental, heritage, economic, and social values of forests.

A principal objective of the Regional Forest Agreement process was to establish a reserve system based on nationally agreed principles and criteria. Data collected from the Comprehensive Regional Assessments on biodiversity and heritage in each Region provided the basis for designing the reserve system. Forest flora and fauna species and ecosystem attributes and distributions were mapped at regional, sub-regional, catchment and local scales. Independent scientific panels assessed species conservation requirements based on life histories, habitat requirements, forest-community attributes and their response to disturbance, including risk of extinction. Gaps in knowledge resulting from these assessments were also identified for purposes of research. The final reserve system design, for each region, was determined on the basis of integrating outcomes of the above studies and assessments with those of social and economic assessments to achieve an appropriate balance and integration of the conservation and use of biological diversity.

Question 5
Crucial to achieving the Regional Forest Agreements was the need for decision-makers to be able to consider a range of different land use options that would meet environmental, social and economic objectives. To do this, the Government developed a suite of concepts, methods and software to assist with biodiversity assessments and land use planning including those now known as EcoPlan. Some State governments also developed planning tools to assist in their State planning process, eg the NSW Government developed Cplan and those developed in Tasmania.

Innovative aspects of these tools include:

- Extension of the traditional protected area approach to biodiversity assessment to a multiple-use framework;
- Development of rapid species viability assessment techniques suitable for application to a large number of species in a regional planing context;
- Development of a trade-off tool which simultaneously optimises economic values, environmental values and reserve design factors at landscape and individual level in the building of a reserve system;
- Incorporation of relational databases, geographic information system software, and statistical and mathematical modelling tools into an integrated decision support system with a common user-environment;
- Incorporation of management options and alternatives into the consideration of sustainable use options for forest resources.

Question 7
Regional Forest Agreements provide an agreed framework for cooperation between the Commonwealth Government and State and Territory governments on the conservation and sustainable use of forest biological diversity. Civil society was also strongly involved through public participatory arrangements in the Comprehensive Regional Assessment and Regional Forest Agreement processes. Arrangements and mechanisms varied between regions and included regional forest stakeholder forums and workshops, representation on technical and steering committees, and involvement in integration and option development. Stakeholders and the general public commented on the information collated through the Comprehensive Regional Assessment process and options that were to be

considered in arriving at a Regional Forest Agreement.

Commonwealth and State Ministers responsible for forestry also promote consideration of the conservation and sustainable use of forests across land tenures through a Ministerial Council for Forestry, Fisheries and Aquaculture, and, at the officials level, through its Standing Committee on Forestry. Environment Ministers play a similar role through the Australian and New Zealand Environment and Conservation Council and its Standing Committee on Conservation.

Australia also promotes international cooperation on the conservation and sustainable use of forest biological diversity through active involvement in regional and global fora such as the Asia-Pacific Forestry Commission, the International Tropical Timber Organisation, and the Convention on Biological Diversity. A number of government agencies also support international cooperation on conservation and sustainable use of forest biodiversity through a range of projects. Some examples are: the Australian Agency for International Development (AusAID), through projects such as the South Pacific Regional Initiative on Forest Genetic Resources; and the Australian Centre for International Agricultural Research, through projects such as the Domestication of Australian Trees, Development of Domestication Strategies for Commercially Important Species of Meliaceae, and Domestication and Conservation of Papua New Guinea Indigenous Trees projects.

Question 8

A core objective of a Regional Forest Agreement was to establish a world class reserve network based on nationally agreed principles and criteria. These included principles of comprehensiveness (covering the full range of forest communities across the landscape), adequacy (maintenance of ecological viability and integrity of populations, species and communities), and representativeness (biodiversity of forest communities reserved is reasonably reflected across the landscape). Components of the reserve system included dedicated reserves (protected by legislation), informal reserves within approved management plans, protection of areas outside dedicated or informal reserves by codes of practice or management plans, and protection of areas on private lands by a range of voluntary strategies including conservation covenants.

Criteria for reserving key forest values involved setting area-based conservation targets. A target of fifteen percent of the pre-1750 distribution of each forest ecosystem was set for reservation in dedicated reserves. This compares favourably with a minimum of ten percent of biomes identified by current world practice (Caracus Action Plan 1992). A target of sixty percent of forest ecosystems recognised as vulnerable, and all remaining occurrences of rare and endangered forest ecosystems were to be reserved or protected by other means (as above), as far as practical. All viable examples of rare or depleted old-growth forest within a forest ecosystem were to be completely protected, with a target of sixty percent of old growth of other forest ecosystems. Ninety percent or more, if practicable, of the area of high quality wilderness that met minimum area requirements was to be protected in reserves.

The above criteria, whilst seen as a desirable objective, however, required flexibility in implementation, for instance where socio-economic impacts were not acceptable or where, for extensive ecosystems, a lower level of reservation was considered adequate. There were many possible configurations within any particular region and therefore considerable scope to satisfy reserve criteria while optimising economic and social outcomes.

The reserve criteria were developed jointly between the Commonwealth Government and State/Territory governments and in consultation with other stakeholders. They have been made widely available, including through the web (http://www.rfa.gov.au/rfa/national/janis/index.html). Australia also contributed to the outcomes on protected areas within the Intergovernmental Forum on Forests through the development of a discussion paper, *International forest conservation: Protected areas and beyond* (http://www.environment.gov.au/psg/international/forests/forests-iff3.html).

Commonwealth-State mechanisms including those under the Standing Committee of Forestry and Standing Committee of Conservation also promote technical and scientific networks and dialogue across the forest estate.

Question 9

The Regional Forest Agreement process was a highly transparent process with information, including on positive and negative human influences, made available to stakeholders at all stages (see 7 above for information on

stakeholder involvement and 11 below on information collected on threatening processes). This was also addressed in the Australian State of the Environment Report 1996.

Commonwealth-State Regional Forest Agreement steering committees communicated the findings of comprehensive regional assessments to enhance understanding of human influences on forest ecosystems.

Question 10

Australia is signatory to the Montreal Process (1994) for developing and implementing internationally agreed criteria and indicators for monitoring and reporting on sustainable management of forests for all types of tenures. A key part of this process for Australia includes promoting a range of activities (including conferences, seminars, workshops and working groups) to improve scientific knowledge, methods and tools, sharing of experiences, and increasing capabilities for achieving sustainable forest management, including forest biological diversity.

Commonwealth and State Governments of Australia also have recently completed Regional Forest Agreements for the major commercial forest regions for a period of twenty years. These involve ongoing comprehensive processes (including annual reporting, monitoring, review, and consultation) for assembling management experiences and scientific, indigenous and local information at regional and local levels. In addition to these two key processes, Research Working Groups (see Question 13) provide a key mechanism by which management experiences and scientific information is shared and improved at national and local scales.

Based on the Montreal Process Criteria and Indicators, Australia has developed a *Framework of Regional (sub-national) Level Criteria and Indicators of Sustainable Forest Management In Australia* which provides the basis for progressing the measurement and assessment of sustainable forest management, including for forests outside the RFA areas. This work also has applicability to Questions 9, 11-13 and 16-17 of this report.

Question 11

Scientific assessments of species distributions and biology in relation to threatening processes and risk of species extinction were used in the Regional Forest Agreement process to evaluate the effects (actual and potential) of management activities on adjacent and other ecosystems in the reserve design process. Spatial and temporal factors affecting the conservation and management of species and their communities were also taken into account. These assessments also contributed to the development of strategies for the management of forest ecosystems within their functional limits and maintenance of ecosystem structure, function and ecosystem services. Regional Forest Agreements provided an opportunity to improve legislative and regulatory frameworks for the conservation and sustainable management of biodiversity and other forest values, such as wood supply, soil and water, forest health and vitality, and cultural heritage. This was achieved through the application of approved national park and forest management plans on public lands (including species recovery plans and plans for management of threatening processes), designated forest management zones, codes of practice, and regional and localised prescriptions for key forest values. These management arrangements are considered critical to protecting and maintaining ecosystem structure and function and ecosystem services. Individual property management plans and voluntary conservation agreements were suggested for forested areas on private lands.

The Commonwealth established a Natural Heritage Trust in 1997 to fund projects aimed at achieving the conservation, sustainable use and repair of Australia's natural environment. Several of these Trust programs have contributed significantly to the mitigation of negative and promotion of positive influences of human activities on forest biodiversity associated with private lands. regions.

Question 12

The management of invasive species in Australia is primarily the responsibility of individual landowners or land managers. Local and State Governments have a range of legislation and regulatory mechanisms covering invasive species management primarily focussed on managing species because of their threat to both economic and environmental values. Expenditure on control, however, generally favours management of economic invasive species. The Commonwealth approach to invasive species management is based on a 'partnership approach' by industry, government and the wider community to achieve the objectives of invasive species management. A risk assessment, risk management and risk communication approach is being adopted to obtain a clearer definition of the

problems caused by invasive species, with management efforts focusing on managing the problems resulting from an invasive species rather than on the species itself.

- Australia has instituted the following specific alien species strategies and/or programs that are relevant to forest biological diversity, National Weeds Program to reduce the detrimental impact of nationally significant weeds on the sustainability of Australia's productive capacity and natural ecosystems;
- National Weeds Strategy to provide a strategic approach to weed problems of national significance; and
- National Feral Animal Control Program to ensure effective management of the impact of feral animals on the natural environment and on primary production.

Australia has also instituted a range of specific actions at both Commonwealth and State levels of government. For instance, cooperation on alien invasive species between the two levels of government occurs through Ministerial Councils on environment and resource management and related mechanisms.

Question 13

In Australia, there is a permanent Research Priority and Co-Ordination Committee (RPCC) which focuses on research and development as a primary force in innovation in the sustainable management of Australia's forests. The RPCC advises the Standing Committee on Forestry that reports to the Ministerial Council on Forestry, Fisheries and Aquaculture on matters of forest policy and forestry operations. The aim of the RPCC is to optimise the national benefit from investment in forest research and to maintain an overview of forest research activities in Australia. Research Working Groups (RWGs) are the means and mechanism by which research activities related to influences of human activities on forest biological diversity are identified and prioritised. RWGs were formed in 1966 to report to the RPCC and meet every two years. They cover seven specialist disciplines within forestry and forest management, including forest genetics, native forest management (silviculture of indigenous forests, forest wildlife and habitat management), forest measurement and information, forest health, fire management, land and water resources and plantation management. All consider forest biological diversity in one way or another.

Question 14

Substantial holdings of research results and reports on forest biological diversity are held across Commonwealth and State agencies and academic institutions. Findings are published in journals, books and conference proceedings. Examples of where information can be found include:

- Information on forest biological diversity issues collected during the Regional Forest Agreement process at: http://www.rfa.gov.au/
- Information on forest biodiversity from Australia's main scientific research body, the Commonwealth Scientific and Industrial Research Organisation at: http://www.csiro.au/

Question 15

Some information on fires and forest biological diversity is available at:

http://www.erin.gov.au/life/general_info/biodivser_8/contents.html

Case studies are available on assessing impacts of fires and alien species on forest biodiversity, many of which are in the process of being published.

Question 16

Australia has been an active participant in the Montreal Process and has developed a regional framework of indicators, based on the Montreal Process, to be used in Regional Forest Agreements. These are described in a report available at: http://www.affa.gov.au/docs/forestry/sustainability/national/framework_dl.htm

This report also identifies the research needed to improve the ability to apply each indicator.

Australia's First Approximation Report (1997) against the Montreal Process criteria and indicators is available at: http://www.affa.gov.au/docs/forestry/sustainability/national/far_dl.htm

Question 17

The Australian Biological Resources Study (ABRS) has been working since 1973 to provide the underlying

taxonomic knowledge necessary for the conservation and sustainable use of Australia's biodiversity. It has achieved this through providing grants to support taxonomic research and by publishing consolidated and comprehensive catalogues and descriptive handbooks, CDs and Web facilities on individual groups of organisms. ABRS outputs are a cooperative effort with taxonomists and taxonomic institutions of Australia and overseas.

The main outputs from ABRS are:

- Flora of Australia - a classic Flora containing keys, descriptions, notes on ecology, distribution, maps, line illustrations and colour photographs. It covers the vascular flora, bryophytes and lichens. Twenty-three of a planned 60 volumes have been published, with four more about to go to press. The information in the Flora is also to be incorporated into ABIF (see below).
- Fungi of Australia - similar in concept to the Flora of Australia. Two introductory volumes have been published providing essays on fungal biology, distribution, ecology, utilisation, taxonomy, etc. and the first volume of a census of species recorded in Australia has been published, with another two in preparation. At least 60 volumes are planned for the whole series. The information in this flora is also to be incorporated into ABIF (see below).
- Interactive identification tools -ABRS is soon to publish on CD the interactive key '101 Forest Fungi of Eastern Australia'. ABRS is also currently funding the development of a comprehensive interactive key to Australian macrofungal genera.
- The Zoological Catalogue of Australia - A bibliography, nomenclator and census of animal groups within Australia. Twenty volumes published, with 6 more in preparation. This series is to be phased out, to be replaced by the Fauna component of ABIF (see below).
- The Fauna of Australia - a series of volumes containing in depth reviews of animal groups to the family level, covering all aspects of their biology, behaviour, distribution and taxonomy. Seven volumes published, of which the Introduction, Mammalia, Reptiles/Amphibians and Molluscs are the most relevant to Forest Biodiversity. Series discontinued. Information to be transferred to ABIF (see below).
- Australian Flora & Fauna Handbooks series - miscellaneous works providing bibliographic, nomenclatural, phytogeographic and ecological information on selected taxa. Fifteen volumes published 1984-91, of which the following are particularly relevant to forest biodiversity: Census of Australian Vascular Plants, Australian Plant Name Index, Southern Australian Liverworts, Phytogeography of Eucalyptus in Australia, Catalogue of Mosses of Australia and its External Territories, Atlas of the Elapid Snakes of Australia. Series discontinued.
- Flora of Australia Supplementary Series - Occasional publications similar in concept to the Flora & Fauna Handbooks. Ten volumes published 1994 onwards. Of particular relevance to Forest Biodiversity are: Atlas of the Vascular Rainforest Plants of the Northern Territory, Register of Type Specimens of Mosses in Australian Herbaria, Checklist of Australian Lichens, Vegetation of Tasmania, Lichens of Rainforest in Tasmania and Southeastern Australia.
- Interactive identification tools. - ABRS has published on CD-ROM The Families of Flowering Plants of Australia An Interactive Guide. This allows anyone to identify Australian plants (native or introduced) to family level, and provides over 1500 illustrations of exemplar species and information on the range of genera found in each family, brief descriptions of 'spot' family characters, and more extensive family descriptions. Other CD identification tools to a range of organisms are in preparation.
- Australian Biodiversity Information Facility (ABIF) - web-based census of Australian biodiversity currently under development. Descriptive and identification information will be progressively added to this site. It can be accessed at www.anbg.gov.au/abrs/abif.htm

Other Australian State and Commonwealth institutions also generate outputs relevant to forest biodiversity. These include State and regional Floras, Faunas and handbooks, interactive CD products and websites. Of particular importance is the work of the State and regional museums and herbaria, some university departments, State government instrumentalities and Commonwealth bodies such as CSIRO.