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148. Has your country developed mechanisms to involve the private sector and indigenous and local communities in initiatives on sustainable use, and in mechanisms to ensure that indigenous and local communities benefit from such sustainable use?	
a) no	
b) mechanisms under development	
c) mechanisms in place (please describe)	X
149. Has your country identified areas for conservation that would benefit through the sustainable use of biological diversity and communicated this information to the Executive Secretary?	
a) no	
b) yes	X

Decision V/25. Biological diversity and tourism

150. Has your country based its policies, programmes and activities in the field of sustainable tourism on an assessment of the inter-linkages between tourism and biological diversity?	
a) no	
b) to a limited extent	X
c) to a significant extent	
151. Has your country submitted case-studies on tourism as an example of the sustainable use of biological diversity to the Executive Secretary?	
a) no	X
b) yes	
152. Has your country undertaken activities relevant to biodiversity and tourism in support of the International Year of Ecotourism?	
a) no	
b) yes	X
153. Has your country undertaken activities relevant to biodiversity and tourism in support of the International Year of Mountains?	
a) no	X
b) yes	
154. Has your country undertaken activities relevant to biodiversity and tourism in support of the International Coral Reef Initiative?	
a) no	
b) yes	X
155. Has your country established enabling policies and legal frameworks to complement voluntary efforts for the effective implementation of sustainable tourism?	
a) no	
b) to a limited extent	X
c) to a significant extent (please describe)	

Further comments on implementation of this Article

Question 139.

There are a number of programmes of the Brazilian government which address the conservation and sustainable use of biodiversity:

- *Amazônia Sustentável* [Sustainable Amazon]. Numerous projects concerned with the conservation and maintenance of the forest cover while also offering development options which benefit particularly the local populations. The programme also requires the participation of the states, municipalities, non-

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governmental organizations and local communities, under the coordination of the Ministry of Environment (MMA). Budget for 2000-2003: R\$179.2 million. See: www.mma.gov.br/port/sca/capa/index.html.

- *Desenvolvimento da Amazônia Legal* [Development of Legal Amazon]: Objectives includes promoting the socio-economic development of the Amazon region, while conserving environmental resources. Budget 2000-2003: R\$2.4 billion. The main results achieved by the program include support for more than 27,000 projects, attending about 18,000 rural families; the creation of more than 36,000 jobs through financial concessions; and occupational opportunities in family agriculture made available to approximately 75,000 people.
- *Desenvolvimento da Região Centro-Oeste* [Development of the Central-west Region]. The Brazilian Central-west has undergone a major transformation since the 1980s. In the 1970s, extensive cattle breeding was the major economic activity in the region. Today, the Central-west leads Brazil in the production and export of cereals, mostly soybean and corn. A number of factors contributed to this change: the creation of a transport infrastructure; improvement of the Cerrado soils resulting from the research efforts of EMBRAPA; investments in the modernization of agricultural practices; and increasing numbers of migrants with experience in agriculture. This new economic and social structure requires a strategy for sustainable development, integrating small-scale, family-based production in the regional economy, while respecting the environment. The principal result of the project was the conception and implantation of the *Agência de Desenvolvimento do Centro-Oeste* [Development Agency of the Central-west], as required in the *Plano Estratégico de Desenvolvimento do Centro-Oeste* [Strategic Plan for the Development of the Central-west]. Budget for 2000-2003: R\$1.6 billion.
- *Desenvolvimento da Região Nordeste* [Development of the North-east Region]. The Sustainable development of the region is the overarching aim of this project, promoting the establishment of enterprises which involve local communities and respect the environment. Principal measures include: financing of industrial and agricultural development projects; support for the small rural producer; training and capacity building; and studies for the planning and administration of the development of the region. The principal achievement of the programme was the credit provided for more than 48,000 producers and small businesses through contracts with the *Fundo Constitucional de Financiamento do Nordeste - FNE* [Constitutional Loans Fund of the Northeast - FNE]. Businesses classified as small to very small were recipients of 45.4% of the credit. Budget for the period 2000-2003: R\$5.5 billion.
- Florestar. This programme promotes the sustainable use of forest resources. Principal activities include: support for projects providing technical assistance to settlers farming in the forest, as well as for forest extension services and those promoting forest technology; research and development in conservation, management, the transformation and use of forests, agroforestry, and reforestation. Principal achievements include: reforestation of about 5,000 ha through agreements with states; technical and financial assistance for about 7,000 small rural property owners; and employment and income generation through agreements with the state of Santa Catarina, attending to almost 6,000 small farming families in difficulties. Themes of the *Programa Nacional de Florestas - PNF* [National Programme for Forests - PNF]: expansion of planted forests; expansion and consolidation of forest management on public land; management of native forests on private land; monitoring and control; traditional and indigenous populations; education, science and forest technology; forest ecosystem services; institutional strengthening and forest extension; modernization of forest-based industries; and marketing and commerce of forest products. Budget for the period 2000-2003: R\$162.5 million. See www.mma.gov.br/port/sbf/pnf/acoef.html.
- *Florestas Sustentáveis* [Sustainable forests]. The aim of this programme is to promote the sustainable use of Brazilian forests, with emphasis on forest management practices. Principal activities include: supporting and encouraging projects for the sustainable exploitation of forest resources; management of natural resources in tropical forests - (*Programa Piloto para a Proteção às Florestas Tropicais do Brasil PPG7* [Pilot Program for the Protection of the Tropical Forests of Brazil PPG7]); support for traditional communities in extractivist reserves; control of the commerce and transport of forest products; monitoring management plans for sustainable forests; ordination, planning and management of forest resources. Results include: a training programme - "*Capacitação de Recursos Humanos às Tecnologias Apropriadas às Comunidades Extrativistas*" ["Capacity-building for Human Resources in Appropriate Technologies for Extractive Communities"] - and a support programme "*Apoio às Populações Tradicionais em Reservas Extrativistas*" ["Support for the Traditional Populations in Extractive Reserves"]. The outcomes have exceeded expectations with the participation of community organizations in planning seminars, training and special courses, propitiating the adoption of new techniques which accrue value to extractive production within the Extractive Reserves. With regard to the resources of the National Forests, multiple-use has been achieving productive forests in areas much larger than was foreseen in the Programme thanks to their Management Plans. Programme budget: R\$69.2 million. See www.mma.gov.br/port/sbf/pnf/acoef.html.

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- *Programa Pantanal* [Pantanal Programme]. The aim is to promote the conservation and sustainable use of environmental resources in the Pantanal of Mato Grosso, and improve the infrastructure for tourism, by creating highway parks, for example. Support is also being provided for other economic activities such as aquaculture. Principal activities include: enlargement and improvement of the sanitary drainage systems of the upper Paraguay basin; enlargement and improvement of the water supply systems of the upper Paraguay basin; implementation of highways-parks in the upper Paraguay basin; construction of a system for the treatment of solid residues; and monitoring and management of the water resources of the upper Paraguay basin. Programme budget for 2000-2003: R\$261.5 million. See www.mma.gov.br/port/sqa/pantanal.html.
- *Programa Proteção da Amazônia (Sistema de Proteção da Amazônia - SIPAM / Sistema de Vigilância da Amazônia - SIVAM)* [Amazon Protection Programme (SIVAM/SIPAM)]. See comments on Question 30 and 31 (Article 7).
- *Programa Turismo Verde* [Green Tourism Programme]. The aim of this programme is to stimulate ecotourism in Legal Amazon, with emphasis on partnerships with private initiatives. Principal activities include: training and capacitating, and technical and financial assistance for ecotourism projects in Amazon (*Programa de Desenvolvimento de Ecoturismo da Amazônia Legal - PROECOTUR* [Programme for the Development of Ecotourism in Legal Amazon - PROECOTUR]); development of infrastructure for tourism. The principal results achieved by the programme include: implementation of the technical and managerial structure in Brasília and in the nine states of the Programme; creation of new tour itineraries and programmes on the national and international market. Programme budget for 2000-2003: R\$317 million. See www.mma.gov.br/port/sca/capa/index.html.
- *Programa Zoneamento Ecológico Econômico* [Programme of Economic Ecological Zoning]. See comments on Article 8.
- *Programa BIOVIDA* [BIOVIDA Programme]. See comments on Article 6.
- *Instituto de Desenvolvimento Sustentável Mamirauá - IDSM* [Mamirauá Institute of Sustainable Development - IDSM]. Created in May 1999 to guarantee continuity in the implementation of the Mamirauá Project. Its status as a "Social Organization" was made official by Presidential Decree on 7th July, 1999. The mission of the IDSM is the development of a model for very large protected areas in tropical forests where, through participative management, biodiversity, and ecological and evolutionary processes can be conserved.
- *Projeto Plataforma Plantio Direto* [Direct Planting Platform Project]. This programme arose from the expectations of a number of sectors regarding the development of the Direct Planting System, also referred to as the agricultural "chain of sustainability". Included in this chain are rural producers, rural extension workers, researchers, teachers, technical assistants, agricultural industry (chemical defensives, correctives, fertilizer and machines), and federal, state and municipal ministries and agencies involved in regulating and financing agriculture. The main goal of the Direct Planting Platform Project was to provide the basis for improving the efficiency and effectiveness of the Direct Planting System, contributing decisively as such to an agriculture which is environmentally sustainable, economically competitive, and socially just. See: www.embrapa.gov.br.

The *Programa de Desenvolvimento Socioambiental da Produção Familiar (Proambiente)* [Program for Social-Environmental Development of Family Production] and the *PRONAF Florestal* can be mentioned. They present actions integrated to strengthen and to stimulate projects of multiple use sustainable management, of silviculture and agroforest systems. Both programmes are developed and implemented through a partnership between the Ministry of Agrarian Development (MDA) and the Ministry of the Environment (MMA):

- Proambiente. Proposal of the representative organizations of rural family producers, already included in the Pluri-annual Government Plan (PPA), which proposes the implementation of a social-environmental development strategy for the rural family producers. This would be accomplished through the introduction of new production systems and productive techniques that permit the generation, certification and the payment of environmental services. In order to achieve the goals, the families interested in being part of the program should organize themselves into territorial units that join a mean of 250 to 500 families.
- PRONAF Florestal. Aiming at the suitable management of natural resources, the PRONAF Florestal stimulates the forest species planting, supporting the family producers on the implementation of sustainable management projects of multiple use, reforestation and agroforest systems. Thus, the Government intends to satisfy the demand for forestal products, preserving the environmental ordering of rural properties.

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Question 140.

Sistema Nacional para Prevenção e Combate de Incêndios Florestais - PREVFOGO [National System for the Prevention and Control of Forest Fires – PREVFOGO]. See comments on Question 203.

Programa de Prevenção e Controle de Queimadas e Incêndios Florestais na Amazônia Legal - PROARCO [Prevention and Control Programme for Forest and Savannah Fires in the Legal Amazon - PROARCO]. See comments on question 203.

Projeto de Apoio ao Manejo e Comercialização da Palmeira Mururu no Vale do Alto Juruá [Support Project for the Management and Commercialisation of the Mururu Palm in the Upper Juruá Valley]. The goal of this project is to support the management plan and the development of modern technologies for the exploitation of Mururu oil, considering especially the socio-economic and environmental impacts. The *Departamento de Comunidades Sustentáveis - DCS* [Sustainable Communities Department - DCS] of the *Secretaria Executiva de Florestas e Extrativismo - SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project (e-mail: dc@ac.gov.br). Budget: R\$37,406.00. Supported by the Ministry of Environment (MMA) (No.99CV00005), and the Government of the State of Acre. Project duration: January-December, 1999.

Projeto de Apoio ao Desenvolvimento do Setor de Produtos Florestais Não-madeireiros no Estado do Acre [Support Project for the Development of the Non-timber Forest Products Sector in the State of Acre]. Support for management, processing, commercialisation and cooperative organization in the development of non-timber forest product centres in the state of Acre. The *Departamento de Comunidades Sustentáveis - DCS* [Sustainable Communities Department - DCS] of the *Secretaria Executiva de Florestas e Extrativismo - SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project (e-mail: dc@ac.gov.br). Budget: R\$414,569.55. Supported by the Ministry of Environment (MMA) (No.2001CV00011), and the Government of the State of Acre. Project duration: January-November 2002.

Manejo Florestal Sustentável de Mogno (Swietenia macrophylla, King): Uma Iniciativa Piloto do Governo do Estado do Acre [Sustainable Forest Management of Mahogany (*Swietenia macrophylla* King): A Pilot Initiative of the Government's of the State of Acre]. The *Instituto do Homem e Meio Ambiente da Amazônia - IMAZON* [The Institute of Man and Environment of the Amazon – IMAZON] is responsible for the project, in collaboration with the World Wildlife Fund (WWF) and the US Forest Service. Budget: US\$1.7 million, initially for five years. For further information: def@ac.gov.br and amazon@amazon.org.br.

Question 141.

See comments on Question 8j.

Projeto Reservas Extrativistas (RESEX) [Extractivist Reserves Project (RESEX)]. Besides those already created in the Amazon, efforts have been made to establish further extractivist reserves in coastal and marine zones in order to stimulate the sustainable exploitation of fishery resources. *Centro Nacional de Desenvolvimento das Populações Tradicionais - CNPT/IBAMA* [National Centre for the Development of Traditional Populations- CNPT/IBAMA]. For further information: www.unilivre.org.br/centro/experiencias/experiencias/334.html.

EMBRAPA-Krahô. This project of the *Empresa Brasileira de Pesquisa Agropecuária - EMBRAPA* [Brazilian Agricultural and Cattle-Breeding Research Company – EMBRAPA] involves ethnobiological research, the conservation of genetic resources, and support for the agricultural practices and nutritional welfare of the Krahô people. The Krahô project is managed through an agreement between the *Fundação Nacional do Índio - FUNAI* [National Indian Foundation – FUNAI] and EMBRAPA in 1997, and Kapey, the Krahô Organization in 2000. From 2000 to 2002, results of the Krahô Project included the recovery of their traditional technologies, the management of agricultural systems in Krahô villages, training, and the collection, identification and conservation of genetic resources. Budget for 2000 to 2002: R\$270,000. Consolidation of the first three-year phase.

Pesquisa Seleção de Linhagens de Fungos Capazes de Degradar Compostos Orgânicos Poluentes do Solo e de Efluentes Industriais (Organoclorados, Corantes Têxteis, Entre Outros) [Selection of Fungi for the

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Degradation of Soil-Polluting Organic Compounds and Industrial Effluents (Organochlorates and Textile Dies, Among Others)]. Research in progress in the Xixová-Japuí State Park, municipality of São Vicente, São Paulo. A project of the *Instituto de Botânica* [Institute of Botany] of São Paulo www.ibot.sp.gov.br and the *Companhia de Tecnologia e Saneamento Ambiental – CETESB* [Technology and Environmental Sanitation Company – CETESB], São Paulo.

Projeto Adaptação de Tecnologia para Exploração Sustentável do Óleo de Copaíba [Technology for the Sustainable Exploitation of Copaíba Oil]. The goal of this project is to encourage the rational exploitation of alternative forest resources by traditional populations, through training courses for management and plant identification, processing and commercialisation. The *Departamento de Comunidades Sustentáveis – DCS* [Sustainable Communities Department - DCS] of the *Secretaria Executiva de Florestas e Extrativismo – SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project. Budget: R\$93,748.00. Supported by the Ministry of Environment (MMA) (No.CV00003) and the Government of the State of Acre. Project duration: June-December 1999. Further information: dcs@ac.gov.br.

Projeto Desenvolvimento Sustentável do Setor de Produtos Fitoterápicos no Estado do Acre [Sustainable Development of the Phytotherapeutic Products Sector in the State of Acre]. The goal of this project is to promote the production of phytotherapeutic products in Acre, focusing on market aspects, ecology, processing, regulation, and marketability at regional and national levels. The *Departamento de Comunidades Sustentáveis – DCS* [Sustainable Communities Department - DCS] of the *Secretaria Executiva de Florestas e Extrativismo – SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project. Budget: R\$203.244,09. Supported by the Ministry of Environment (MMA) (No.99CV0043) and the Government of the State of Acre. Project duration: January-December 1999. Further information: dcs@ac.gov.br.

Projeto de Racionalização da Extração Gomífera em Áreas de Reservas Extrativistas através da Implantação de Ilhas de Alta Produtividade (IAPs) [Rationalization of Gum Production in Extractive Reserves through the Creation of "High Productivity Centres" (IAPs)]. The aim is to generate a proposal which applicable in biological, socio-environmental, economic, cultural and technical terms for the creation of "High Productivity Centres" in Extractive Reserves, which improve production and productivity of extractive activities and promote product diversification. The *Departamento de Comunidades Sustentáveis – DCS* [Sustainable Communities Department - DCS] of the *Secretaria Executiva de Florestas e Extrativismo – SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project (e-mail: dcs@ac.gov.br). Budget: R\$134,475.00. Financial support: World Wildlife Fund (WWF-Brazil) No.CBR – 053-00 (September/99 - February/00), No.CBR-084-00 (August/00 - February/01) and No.CBR-111-2001 (September/01 - February/02) and Government of the State of Acre.

Programa Estadual e Federal de Subvenção da Borracha Natural Bruta [State and Federal Program for the Subvention of Natural Rubber]. In 1999, the Federal Government and the Government of Acre created and implemented the *Subsídio Estadual da Borracha Natural Bruta* [State Subsidy for Natural Rubber]: the payment of environmental services directly to rubber-tappers in Acre upon commercialisation their production), as determined by Law No.9479, 12th August, 1997, and the "Chico Mendes Law", No.1277, 13th January, 1999 (R\$0.40 per kg of rubber). The *Secretaria Executiva de Florestas e Extrativismo – SEFE* [Executive Secretariat of Forests and Extractivism – SEFE] is responsible for the project. Budget: rubber subsidies (state and federal) R\$5,267,122.68.

Question 142.

See comments on Article 8j.

Question 143.

The *Secretaria de Desenvolvimento Sustentável* [Secretariat of Sustainable Development] of the Ministry of Environment provides incentives for sustainable practices in the business sector. They include the development of economic tools for environmental administration and management, incentives for environmental labelling through the *Programa Brasileiro de Rotulagem Ambiental* [the Brazilian Program of Environmental Labelling], and incentives for ecotourism.

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The *Sistema Nacional de Unidades de Conservação – SNUC* [National System of Protected Areas – SNUC] (Law No.9985, 8th July, 2000,) makes the creation of participative management committees obligatory for all protected areas. According to Decree No.4340 which regulates the law, they should include the participation of the private sector in the region. These committees can be advisory or deliberative. DAP-MMA/IBAMA/OEMAs are responsible for overseeing the creation of these committees. In the development stage. For more information see: www.mma.gov.br/port/sds/capa/.

The *Secretaria de Coordenação da Amazônia* [Amazon Coordination Secretariat] of the Ministry of Environment provides incentives for sustainable practices in a number of sectors of society. They are:

- Political agreements. Political agreement with productive sectors, non-governmental organizations (NGOs), social actions and state and municipal government, through the creation of three working commissions and the elaboration of positive agendas for the state of Amazonas. Positive agenda of Acre, Amapá, Mato Grosso, Rondônia and Roraima.
- *Programa Piloto para a Proteção das Florestas Tropicais do Brasil - PPG7* [Pilot Programme for Protection of the Tropical Forests of Brazil – PPG7]. This programme was conceived to conserve biodiversity, reduce carbon emissions, and increase our understanding of sustainable activities in tropical forests.
- *Programa de Apoio ao Agroextrativismo* [Support Programme for Agro-extractivism]. This programme supports initiatives to improve infra-structure for the production and commercialisation (including new markets) of extractivist resources, through the creation of mechanisms which give agro-extractivist populations access to formal lines of credit.
- *Turismo Verde* [Green tourism]. Ecotourism exploits the natural and cultural patrimony in a form which is sustainable, encouraging its conservation and promoting an environmentalist conscience, and the welfare of populations involved. The development of ecotourism in the Brazilian Amazon is recognized as one of the key components of its sustainable development. The *Programa de Desenvolvimento de Ecoturismo da Amazônia Legal – PROECOTUR* [Programme for the Development of Ecotourism in Legal Amazon – PROECOTUR] and *Diretrizes para uma Política Nacional de Ecoturismo* [Guidelines for a National Ecotourism Policy].
- PROAPAM. The proposition is to expand and consolidate the system of protected areas in the Brazilian Amazon, prioritizing protected areas of sustainable use, introducing changes in the approach to land use and occupation and the exploitation of natural resources, to ensure biodiversity conservation and sustainable development in the region.

See: www.mma.gov.br/port/sca/.

Question 144.

Programa sobre Turismo [Tourism Programme]. The *Instituto Brasileiro de Turismo - EMBRATUR* (Brazilian Institute of Tourism – EMBRATUR) is carrying out an innovative tourism programme with local communities which takes into account environmental concerns. See: www.embratur.gov.br.

Question 145.

Reports and documents for Rio+10. Information is already available (see the journal of the *Secretaria Executiva - SECEX – MMA* [Executive Secretariat– SECEX – MMA]).

The Brazilian Agenda 21 is currently being implemented. It is based on six themes: Sustainable Agriculture; Sustainable Cities; Science and Technology for Sustainable Development; Infrastructure and Regional Integration; Administration of Natural Resources; and Reduction of Social Inequalities. Meetings have been held in all of the Brazilian states, and the *Fundo Nacional do Meio Ambiente – FNMA* (National Environment Fund – FNMA) has supported projects for municipalities to elaborate their own Agenda 21s in 2001. More information at: www.agenda21.org.br.

Question 146.

Indicators of Sustainable Development. The *Instituto Brasileiro de Geografia e Estatística – IBGE* [Brazilian Institute of Geography and Statistics – IBGE] published *Indicadores de Desenvolvimento Sustentável do Brasil* [Indicators of Sustainable Development in Brazil] with information and analyses integrating data on social, environmental, economic and institutional parameters. The complete document is available at: www1.ibge.gov.br/home/geografia/ambientais/ids/ids.pdf. For the definitions of criteria and indicators of sustainability in the use of forest resources, see the home-page www.mma.gov.br/florestas. The National Forest Programme Directorate (DIFLOR)/Secretariat of Biodiversity and Forests - SBF/*Programa Nacional*

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de Florestas – PNF [National Programme for Forests – PNF] – definition and establishment of mechanisms for forest use concessions. *Sistema de Monitorização da Biodiversidade das UC Federais – SIMBIO* [Biodiversity Monitoring System for Federal Protected Areas SIMBIO]/IBAMA/GTZ – definition of Biodiversity Indicators by IBAMA (in progress).

Ecological ICMS. See comments on Question 158

Question 147.

Technical cooperation with developing countries. The *Agência Brasileira de Cooperação – ABC* [Brazilian Cooperation Agency - ABC] of the Ministry of Foreign Affairs provides for cooperation with projects in education, health and agriculture. (South-South/Africa and Latin America). Coordination: CTPD (in execution). See www.abc.mre.gov.br.

The Ministry of National Integration has programmes for the reduction of regional inequalities. Two, the *Programa Sub-regiões Diferenciadas* [Differentiated Sub-regions Programme] and the *Programa Nacional de Geração de Emprego e Renda – PRONAGER* [National Programme for the Generation of Employment and Income – PRONAGER] are the most important: both seek greater social and economic equity among the different regions of Brazil.

Question 148.

See comments on Article 8j and Article 15 (*Conselho de Gestão do Patrimônio Genético* [Council for the Administration and Management of Genetic Patrimony]).

Natura Cosmetics/Acre and the *Centro de Educação e Documentação para a Ação Comunitária – CEDAC* [Centre for Education and Documentation for Community Action – CEDAC] (partnership agreement). Private Companies use raw materials extracted in ways which are sustainable. They purchase them from traditional and indigenous populations, while investing in training and capacitating for sustainable exploitation.

Processing Forest Products in the Xapuri Extractive Reserve, Acre. The Directorate of the *Programa Nacional de Florestas – DIFLOR/PNF* [National Programme for Forests– DIFLOR/PNF]. Budget: R\$500,000.00 (*Centro de Educação e Documentação para a Ação Comunitária – CEDAC* [Centre for Education and Documentation for Community Action – CEDAC]). See: www2.ibama.gov.br/resex/cmendes/visite.htm.

Banco da Amazônia – BASA (Bank of Amazon - BASA). The Bank of Amazon offers credit for activities linked to the conservation and sustainable use of natural resources in the Brazilian Amazon. The following activities receive credit:

- Sustainable forest management for the timber industry;
- Restoration of degraded forests, through
 - a. Agroforest Systems, sustained production systems involving mixed native forest trees, and perennial and short-cycle crops,
 - b. Reforestation using plants with short and average growth times, both timber and non-timber for firewood;
- Fine chemistry and bioindustry;
- Forest-based industries with certification of the forest production (including extraction, processing and commercialisation, but excluding isolated grants for sawmills);
- Agroindustries of non-timber products, including the processing of raw materials *in natura*, originating from managed forests, produced partially or totally by the enterprise itself, as well as by a third party;
- Applied technological research and the diffusion and transfer of advanced technologies for management, reforestation and industrialisation, with special preference for cooperatives which exploit for forest resources rationally.

For more information see www.basa.com.br.

The following publication contains several case studies of companies, which incorporate environmental approach in their practices, aiming at a sustainable production: Almeida, Fernando. 2002. *O bom negócio da sustentabilidade*. Rio de Janeiro, Nova Fronteira. 192p.

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Question 149.

Avaliação e Ações Prioritárias para Conservação e Uso Sustentável da Biodiversidade nos Biomas Brasileiros [Assessment and Priority Actions for the Conservation and Sustainable Use of Biodiversity in the Brazilian Biomes] (See Chapter 3).

Question 150.

Ecotourism. *Diretrizes para a Política Nacional de Ecoturismo* [Guidelines for a National Ecotourism Policy]. This is a document put together by the *Instituto Brasileiro de Turismo – EMBRATUR* [Brazilian Institute of Tourism – EMBRATUR] in partnership with the Ministry of Environment. Available at: www.embratur.gov.br.

Proposta de Turismo Sustentável [Proposal for Sustainable Tourism]. This involves the 73 municipalities of the Cinturão Verde da Cidade de São Paulo Biosphere Reserve.

Question 154.

The Ministry of Environment (MMA) held a "*Campanha de Conduta Consciente em Ambientes Recifais*" ["Campaign for Conscientious Behaviour in Reef Environments"]. Recognizing the potential impact of tourist visitation on coral reefs, the *Diretoria do Programa Nacional de Áreas Protegidas - DAP* [Directorate of the National Protected Areas Programme – DAP] developed this campaign to promote conscientious behaviour and reduce coral reef depredation and damage. The first stage targeted the marine protected areas (Federal, State and Municipal) of the Brazilian northeast, but it will later be expanded to other areas. Informative material was distributed in the following form:

- Pamphlets for visitors;
- posters for tourist boats and hotels;
- Booklets for local school students.

See www.mma.gov.br/port/sbf/dap/index.cfm.

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Article 11 Incentive measures

156. What is the relative priority afforded to implementation of this Article and the associated decisions by your country?

a) High		b) Medium	X	c) Low	
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157. To what extent are the resources available adequate for meeting the obligations and recommendations made?

a) Good		b) Adequate		c) Limiting	X	d) Severely limiting	
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Further comments on relative priority and on availability of resources

Questions 156 and 157.

Brazil is in a transition phase in the sense that command and control instruments still prevail, but there are some initiatives for the implementation of economic instruments, and there is clear evidence of a tendency for their broad acceptance. The following documents can be accessed at www.mma.gov.br/port/sds/instrec/corpo.html.

- *Aplicación de instrumentos económicos en la gestión ambiental en América Latina y el Caribe: desafíos y factores condicionantes* [Application of economic instruments in Environmental Management and Administration in South America and the Caribbean: Challenges and Conditional factors];
- *ICMS Ecológico: Experiências nos Estados do Paraná, São Paulo, Minas Gerais e Alternativas na Amazônia* [Ecological ICMS: Experiences in the States of Paraná, São Paulo, Minas Gerais, and Alternatives in the Amazon];
- *Instrumentos Econômicos de Gestão das Águas - Aplicações no Brasil* [Economic Tools for the Administration and Management of Waters - Application in Brazil];
- *Instrumentos Econômicos para a Gestão Ambiental no Brasil* [Economic Tools for Environmental Administration and Management in Brazil];
- *Gestão de Resíduos Sólidos na América Latina e no Caribe: Instrumentos Econômicos para Políticas Públicas* [Administration and Management of Solid Residues in Latin America and the Caribbean: Economic Tools for Public Policies].

158. Are programmes in place to identify and ensure the adoption of economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity?

a) no	
b) early stages of development	X
c) advanced stages of development	
d) programmes in place	
e) review of implementation available	

159. Do these incentives, and the programmes to identify them and ensure their adoption, cover the full range of sectoral activities?

a) no	
b) some sectors	X
c) all major sectors	
d) all sectors	

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Decision III/18. Incentive measures

160. Has your country reviewed legislation and economic policies to identify and promote incentives for the conservation and sustainable use of components of biological diversity?	
a) no	
b) reviews in progress	
c) some reviews complete	X
d) as far as practically possible	
161. Has your country ensured the development of mechanisms or approaches to ensure adequate incorporation of both market and non-market values of biological diversity into plans, policies and programmes and other relevant areas, <i>inter alia</i>, national accounting systems and investment strategies?	
a) no	
b) early stages of identifying mechanisms	
c) advanced stages of identifying mechanisms	
d) mechanisms in place	X
e) review of impact of mechanisms available	X
162. Has your country developed training and capacity building programmes to implement incentive measures and promote private-sector initiatives?	
a) no	
b) planned	
c) some	X
d) many	
163. Has your country incorporated biological diversity considerations into impact assessments as a step in the design and implementation of incentive measures?	
a) no	
b) yes	X
164. Has your country shared experience on incentive measures with other Contracting Parties, including making relevant case-studies available to the Secretariat?	
a) no	
b) yes - previous national report	
c) yes - case-studies	
d) yes - other means (please give details below)	X

Decision IV/10. Measures for implementing the Convention [part]

165. Is your country actively designing and implementing incentive measures?	
a) no	
b) early stages of development	
c) advanced stages of development	
d) measures in place	X
e) review of implementation available	

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166. Has your country identified threats to biological diversity and underlying causes of biodiversity loss, including the relevant actors, as a stage in designing incentive measures?	
a) no	
b) partially reviewed	X
c) thoroughly reviewed	
d) measures designed based on the reviews	
e) review of implementation available	
167. Do the existing incentive measures take account of economic, social, cultural and ethical valuation of biological diversity?	
a) no	
b) yes – limited extent	X
c) yes – significant extent	
168. Has your country developed legal and policy frameworks for the design and implementation of incentive measures?	
a) no	
b) early stages of development	X
c) advanced stages of development	
d) frameworks in place	
e) review of implementation available	
169. Does your country carry out consultative processes to define clear target-oriented incentive measures to address the underlying causes of biodiversity loss?	
a) no	X
b) processes being identified	
c) processes identified but not implemented	
d) processes in place	
170. Has your country identified and considered neutralizing perverse incentives?	
a) no	
b) identification programme under way	
c) identified but not all neutralized	X
d) identified and neutralized	

Decision V/15. Incentive measures

171. Has your country reviewed the incentive measures promoted through the Kyoto Protocol to the UN Framework Convention on Climate Change?	
a) no	
b) yes	X
172. Has your country explored possible ways and means by which these incentive measures can support the objectives of the Convention on Biological Diversity in your country?	
a) no	
b) under consideration	
c) early stages of development	
d) advanced stages of development	
e) further information available	X

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Further comments on implementation of this Article

Question 158.

ICMS Ecológico [Ecological ICMS]. The ICMS is the principal state tax: the *Imposto Sobre Circulação de Mercadorias e Sobre Prestação de Serviços de Transporte Interestadual e Intermunicipal e de Comunicação* [Tax on the Circulation of Commercial Goods and Transport Services Among States and Municipalities and on Communications]. Once levied, a portion is returned to the municipal governments, and is their main source of income. In 1999, the country's ICMS Revenue was approximately R\$62 billion. As established by Article 158, subsection 4, of the Federal Constitution, 75% of the ICMS levied remains with the state, and 25% is distributed among the municipalities. The criteria as to how it is apportioned among them vary from state to state. In some, the criteria include compensation for (and stimulation for, as a result) the conservation and sustainable use of environmental resources. The states of Paraná, São Paulo and Minas Gerais include environmental criteria in the distribution of ICMS funds:

- Paraná: Law No.9491/90 and Complementary Law 59/91.
- São Paulo: Law No.8510/93
- Minas Gerais: Law No.12040/95.

Ecological ICMS in the state of Mato Grosso do Sul. The Programme was begun in 2001 and took force in 2002. It consists of: 1) the creation of protected areas and demarcation of indigenous territories; 2) the evaluation of environmental quality and the objectives of the protected area for the *Cadastro Estadual de Unidades de Conservação* [Register of State Protected Areas]; 3) monitor and evaluate programmes in the municipalities which improve environmental quality; and 4) elaboration an environmental index for apportioning the Ecological ICMS. The programme requires juridical changes which are expected to be finalized in 2004, with a gradual adjustment of the percentage ascribed: 2% in 2002, 3.5% in 2003 and 5% in 2004.

A number of states besides Paraná, São Paulo and Minas Gerais have already begun to incorporate environmental criteria in the distribution of the ICMS. Rondônia and Rio Grande do Sul (currently being regulated) have already adopted the scheme, and Mato Grosso, Santa Catarina, Ceará, Bahia and Goiás are beginning to do so. Ecological ICMS systems in operation in Paraná, São Paulo and Minas Gerais work to stimulate two basic measures for improving environmental resources or services: Protected areas and the restoration of degraded areas. Ecological ICMS experiences in the states of Paraná, São Paulo and Minas Gerais indicate that for many municipalities in regions where protected areas, with their associated constraints on economic activities, predominate, the funds are a significant part of the municipal revenue. Rather than being just compensatory, the application of the Ecological ICMS has been a strong stimulus for conservation and the sustainable use of environmental resources and deserves further study and refinement. By aggregating economic value to environmental protection measures, the Ecological ICMS has been contributing to an increase and a broadening of municipal initiatives in the conservation of natural areas and in environmental recuperation, as well as stimulating the articulation and development of the environmental administration of the states and municipalities involved. Experience has shown that the Ecological ICMS, be it through protected areas or through environmental restoration, is resulting in the solid integration of the administration and management of environmental resources and services in the agenda of mayors, town councillors and municipal government, in terms of budget, management structure and the training of human resources.

The Private Natural Heritage Reserve (RPPN) Initiative. The *Sistema Nacional de Unidades de Conservação - SNUC* [National System of Protected Areas - SNUC], Law 9985/02, consolidated the RPPN as a protected area category. RPPNs are areas of private land which, through the initiative of the owner, receive official protection in recognition of their significance in terms of biodiversity or landscape features, or environmental characteristics which justify measures for their restoration and protection. Once registered, the area of the RPPN is exempt from Rural Real State Tax - IPTR [*Imposto sobre a Propriedade Territorial Rural - IPTR*]. The RPPN determines protection in perpetuity.

Seguro para Pescadores no Período de Defeso [Insurance for Fishermen During the Off-season]. Law No.8287, 1991, provides for unemployment benefits for fishermen during periods when fishing is prohibited. Article 1 of the Law determines the following: "*O pescador profissional que exerça sua atividade de forma artesanal, individualmente ou em regime de economia familiar, sem contratação de terceiros, fará*

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jus ao benefício de seguro-desemprego, no valor de um salário-mínimo mensal, durante o período de proibição de atividade pesqueira para a preservação da espécie. ["The professional fisher that fishes in a way which is artisanal, individually or as a component of family income, without any third party contract, will be eligible for the unemployment assistance benefit of a monthly minimum wage during the prohibition period of fishing for the species' conservation".]

Question 160.

Some revisions on specific legislation have been done creating economic incentives (e.g. hydrological resource legislation, forestry legislation, Ecological ICMS in several states, scientific and technological legislation, constitution regional funds, access to genetic resources and sharing of benefits).

Question 162.

There have been advances in training human resources in appreciating and ascribing value to biodiversity. The Ministry of Environment has promoted a number of training courses based on a publication, "*Manual de Valoração Econômica da Diversidade Biológica*" ["Manual for Evaluating the Economic Benefits of Biological Diversity"], produced in 1998 by the economist Ronaldo Serôa da Motta with the collaboration (case studies) of José Ricardo Brun Fausto (Research Assistant of the *Coordenação de Meio Ambiente - CEMA* of Instituto de Pesquisa Econômica Aplicada - IPEA), Carolina Defrauds Schmidt Dubeux (Master's student at the *Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia - COPPE/UFRJ*), Gustavo Márcio Gontijo Albergaria (CNPq Grantee) and Andrea Coutinho Pontual (CNPq Grantee). Available at: www.mma.gov.br/port/sbf/chm/relpub.html#manual.

Question 163.

Environmental licensing and Environmental Impact Assessments / Environmental Impact Reports (EIA or RIMA) for major development projects require that biodiversity loss be considered. See comments on Question 82.

Question 164.

There are publications dealing with economic tools for environmental administration and management. See: www.mma.gov.br/port/sds/instrec/corpo.html.

Question 166.

Avaliação e Identificação de Áreas e Ações Prioritárias para Conservação, Utilização Sustentável e Repartição de Benefícios da Biodiversidade Brasileira [Assessment and Identification of Areas and Priority Actions for Conservation, Sustainable Utilization and Benefits Partition of the Brazilian biodiversity]. See Chapter 3.

Monitoramento de Queimadas [Monitoring of Forest and Savannah Fires]. This programme, developed by the *Instituto Nacional de Pesquisas Espaciais - INPE* [National Institute for Space Research - INPE], provides daily information on fire hotspots and areas affected by fires throughout the country. See: www.cptec.inpe.br/products/queimadas/.

Question 168.

Brazil has yet to develop a legal structure/framework to create and implement incentive measures specifically for the conservation and sustainable use of biodiversity. There are initiatives of localized mechanisms like the ecological ICMS (see comments on question 158).

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Question 171.

Brazil has prepared the following documents on the Clean Development Mechanism of the Kyoto Protocol (see www.mct.gov.br/clima/quioto/mdldoc.htm):

- *O CDM e o Mecanismo de Flexibilidade Implementação Conjunta (JI)/Atividades Implementadas Conjuntamente (AIJ)* [The CDM and the Joint Flexibility Implementation Mechanism of (JI)/Activities Implemented Jointly (AIJ)] – José Goldemberg (University of São Paulo) and José Domingos Gonzalez Miguez (General Coordinator for Research on Global Changes, Ministry of Science and Technology), January, 2000.
- *Ponto de vista do Brasil sobre o Mecanismo de Desenvolvimento Limpo* [Brazil's Perspective on the Clean Development Mechanism] – General Coordination for Global Changes, Ministry of Science and Technology (MCT), presented by Haroldo Machado Filho at the "Workshop on Flexible Mechanisms" in Dakar, 6th May, 1999.
- *Um Fast Track para a implementação do Mecanismo de Desenvolvimento Limpo CDM no Brasil* [A Fast Track for the Implementation of the Clean Development Mechanism (CDM) in Brazil]- José Goldemberg (University of São Paulo), March 1999.

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Article 12 Research and training

173. What is the relative priority afforded to implementation of this Article and the associated decisions by your country?

a) High b) Medium c) Low

174. To what extent are the resources available adequate for meeting the obligations and recommendations made?

a) Good b) Adequate c) Limiting d) Severely limiting

Further comments on relative priority and on availability of resources

Question 173.

There are disparities in Brazil that inhibit the fulfilment of this article.

Question 174.

Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq [*National Council for Scientific and Technological Development - CNPq*]. The CNPq was created in 1951, and plays a significant role, with important repercussions, in the field of biological diversity. Stated goals include: (1) to promote, support and carry out scientific and technological research, and allow for the formation of human resources in all fields of knowledge; and (2) to promote, implement and maintain mechanisms of support, analysis, storage, diffusion and exchange of data and information on the development of science and technology in the country. One of the principal mechanisms by which the CNPq accomplishes these goals is scholarship quotas. These are provided for Degree programmes (Master's and Doctoral degree levels), for those beginning their scientific careers (undergraduate level), for productivity in research, technical support, visiting researchers, regional scientific development, recently graduated doctoral students and post-doctorate scholarships. The CNPq also grants scholarships overseas for senior internship/training, post-doctorates, doctoral sandwich-courses, full doctorate courses, and specialisation and advanced specialisation courses.

During 1998-1999, the number of scholarships granted by CNPq for doctoral studies related to biodiversity in Brazil increased, totaling 1783.30 in 1999 (see Table 1).

Table 1. Number of postgraduate scholarships granted by CNPq in areas related to biodiversity. Each scholarship corresponds to 12 (twelve) monthly payments paid in a year to one or more students.

Área	Master's Degree		Doctoral Degree	
	1998	1999	1998	1999
Chemistry	240.50	225.50	407.30	414.40
Oceanography	37.20	33.80	15.80	18.00
General Biology	5.40	12.20	14.90	22.60
Genetics	74.20	59.80	81.20	74.80
Botany	77.50	64.10	65.30	61.10
Zoology	87.40	79.50	103.00	95.30
Ecology	108.70	101.60	82.60	93.30
Biochemistry	108.90	96.60	158.50	169.40
Pharmacology	60.80	57.10	26.50	31.50
Microbiology	38.70	38.00	50.70	55.60
Parasitology	25.40	23.40	28.70	29.20
Chemical Engineering	105.00	99.80	78.00	91.40
Pharmacy	30.70	29.80	11.50	21.20
Agronomy	425.60	409.70	344.00	377.40
Forest Resources and Forest Engineering	54.90	46.30	26.90	23.70
Multidisciplinary	281.10	237.20	204.40	204.40
Total	1762.00	1614.40	1699.30	1783.30