

## Article 7 Identification and monitoring

### 30. What is the relative priority given to the implementation of this Article and the associated decisions by your country?

a) High		b) Medium	X	c) Low	
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### 31. 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 30 and 31.**

Through an initiative of the federal government, T. M. Lewinsohn and P. I. Prado carried out a synthesis of current knowledge of Brazilian biodiversity (UNDP Project BRA/97/G31). A full report was presented to the SBF/MMA, and part of the results was published as a book in 2000 (Lewinsohn, T. M. and Prado, P. I. 2000. *Biodiversidade Brasileira: Síntese do Estado Atual do Conhecimento*. [Brazilian Biodiversity: A Synthesis of Current Knowledge]. Editora Contexto, São Paulo. 176pp). The study involved consultants who assessed taxonomic groups and/or specific environments. The main source of information was a questionnaire of the status of the taxonomy of specific groups in Brazil and globally, the importance of the group, genetic studies, human resources, state and scope of biological collections, and the needs and priorities for progress in our understanding of each. In general terms, the study concluded that the time required for Brazil to achieve a satisfactory level of knowledge of its biodiversity is in the order of decades or centuries. The most serious problems are related to the enormous regional differences in taxonomic research and collections.

The PROBIO/MMA supported rapid inventory projects in the areas indicated as unknown in the biome priority-setting workshops.

Sistema de Proteção da Amazônia - SIPAM [Amazon Protection System – SIPAM]. SIPAM integrates, evaluates and disseminates information vital for the planning and coordination of global government actions in the Amazon, to promote the sustainable development of the region. SIPAM is unique in its complexity and coverage, being responsible for the acquisition of data and the monitoring of 60% of the country. The largest environmental project in the world, it is also of great strategic importance, especially at the present time considering the pressures created by problems in neighbouring Amazon countries. In addition, the operation of the System creates a new paradigm for public administration, where the organizations will work together, using shared information, besides integrating their actions. The complexity, coverage and strategic importance mean that a continuous operational process for the System will be vital. To address this, the *Centro Gestor e Operacional do SIPAM – CENSIPAM* [Operational Managing Centre of SIPAM - CENSIPAM] was created by Decree No.4200, 22<sup>nd</sup> April, 2002. CENSIPAM as such replaced the Executive Secretariat of SIPAM, and has the autonomy to sign agreements and accords, train personnel for the Operational Centres, and coordinate the production of operation manuals, beside other attributes. For further information: [www.sipam.gov.br](http://www.sipam.gov.br).

An initiative of a non-governmental organization worth mentioning is the Rapid Assessment Programme (RAP) of the Centre for Applied Biodiversity Science at Conservation International, and of Conservation International do Brasil, which currently focuses on the Pantanal. See question 42 (comment).

### 32. Does your country have an ongoing inventory programme at the species level (7a)?

a) minimal activity	
b) for key groups (such as threatened or endemic species) or indicators	
c) for a range of major groups	X
d) for a comprehensive range of species	

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<b>33. Does your country have an ongoing inventory programme at ecosystem level (7a)?</b>	
a) minimal activity	
b) for ecosystems of particular interest only	
c) for major ecosystems	X
d) for a comprehensive range of ecosystems	
<b>34. Does your country have an ongoing inventory programme at genetic level (7a)?</b>	
a) minimal activity	
b) minor programme in some sectors	
c) major programme in some sectors	X
d) major programme in all relevant sectors	
<b>35. Does your country have ongoing monitoring programmes at species level (7a)?</b>	
a) minimal activity	
b) for key groups (such as threatened or endemic species) or indicators	X
c) for a range of major groups	
d) for a comprehensive range of species	
<b>36. Does your country have ongoing monitoring programmes at ecosystem level (7b)?</b>	
a) minimal activity	
b) for ecosystems of particular interest only	X
c) for major ecosystems	
d) for a comprehensive range of ecosystems	
<b>37. Does your country have ongoing monitoring programmes at genetic level (7b)?</b>	
a) minimal activity	X
b) minor programme in some sectors	
c) major programme in some sectors	
d) major programme in all relevant sectors	
<b>38. Has your country identified activities with adverse affects on biodiversity (7c)?</b>	
a) limited understanding	
b) threats well known in some areas, not in others	X
c) most threats known, some gaps in knowledge	
d) comprehensive understanding	
e) reports available	
<b>39. Is your country monitoring these activities and their effects (7c)?</b>	
a) no	
b) early stages of programme development	
c) advanced stages of programme development	
d) programme in place	X
e) reports on implementation available	X

<b>40. Does your country coordinate information collection and management at the national level (7d)?</b>	
a) no	
b) early stages of programme development	X
c) advanced stages of programme development	
d) programme in place	
e) reports on implementation available	

**Decision III/10. Identification, monitoring and assessment**

<b>41. Has your country identified national indicators of biodiversity?</b>	
a) no	
b) assessment of potential indicators underway	X
c) indicators identified (if so, please describe below)	
<b>42. Is your country using rapid assessment and remote sensing techniques?</b>	
a) no	
b) assessing opportunities	
c) yes, to a limited extent	
d) yes, to a major extent	X
e) reports on implementation available	X
<b>43. Has your country adopted a "step-by-step" approach to implementing Article 7 with initial emphasis on identification of biodiversity components (7a) and activities having adverse effects on them (7c)?</b>	
a) no	
b) not appropriate to national circumstances	X
c) yes	
<b>44. Is your country cooperating with other Contracting Parties on pilot projects to demonstrate the use of assessment and indicator methodologies?</b>	
a) no	
b) yes (if so give details below)	X
<b>45. Has your country prepared any reports of experience with application of assessment methodologies and made these available to other Contracting Parties?</b>	
a) no	
b) yes	X
<b>46. Is your country seeking to make taxonomic information held in its collections more widely available?</b>	
a) no relevant collections	
b) no action	
c) yes (if so, please give details below)	X

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## Decision V/7. Identification, monitoring and assessment, and indicators

<b>47. Is your country actively involved in co-operating with other countries in your region in the field of indicators, monitoring and assessment?</b>	
a) no	
b) limited co-operation	X
c) extensive co-operation on some issues	
d) extensive co-operation on a wide range of issues	
<b>48. Has your country made available case studies concerning the development and implementation of assessment, monitoring and indicator programmes?</b>	
a) no	
b) yes - sent to the Secretariat	
c) yes – through the national CHM	X
d) yes – other means (please specify)	X
<b>49. Is your country assisting other Parties to increase their capacity to develop indicator and monitoring programmes?</b>	
a) no	
b) providing training	
c) providing direct support	
d) sharing experience	X
e) other (please describe)	

### Further comments on implementation of this Article

#### Question 32.

The previously mentioned study of Lewinsohn and Prado (2000) is a first stage in the process of creating a system of national inventories. There is still a lack of coordination among inventory projects such as REVIZEE (see comments on Questions 194 and 195) and the Biota Project, São Paulo (see comments on Question 40).

#### Question 33.

There are numerous studies which classify Brazilian vegetation types and the structures of its biological communities. The RADAM-Brasil Project carried out in the 70s, provides an extensive database on Brazilian ecosystems. A book by L. Azevedo Cochrane - *As Terras da América Tropical* (1985, CIAT, EMBRAPA-CPAC) - describes the Brazilian vegetation types. The *Programa Nacional do Zoneamento Ecológico e Econômico* [National Program for Ecological and Economic Zoning] produced maps of land use for a number of Brazilian states. The *Sistema de Proteção da Amazônia - SIPAM* [Amazon Protection System -SIPAM] is described in the previous comments on this Article. The *Projeto de Monitoramento de Áreas Desflorestadas na Amazônia Legal* - PRODES [Project for the Monitoring of Deforested Areas in the Amazon Region - PRODES] is carried out by the *Instituto Nacional de Pesquisas Espaciais - INPE* [National Institute for Space Research - INPE], the goal of which is to map human impacts on the Amazon forest within the limits of Legal Amazon through the classification and interpretation of LANDSAT images obtained from a satellite receiving station in Cuiabá, Mato Grosso. Comparing images in successive years allows for an evaluation of the extent and rates of deforestation. The results are expressed in the form of maps, scale 1:250,000, with vegetation maps of the same scale of the *Instituto Brasileiro de Geografia e Estatística - IBGE* [Brazilian Institute for Geography and Statistics - IBGE] as a reference. The data allow for carbon emission estimates and studies of other biochemical cycles ([www.dpi.inpe.br/prodes/home](http://www.dpi.inpe.br/prodes/home)).

The *Empresa Brasileira de Pesquisa Agropecuária - EMBRAPA* [Brazilian Agricultural and Cattle-Breeding Research Company] - EMBRAPA is executing a number of projects using the remote sensing for ecosystems monitoring. Twenty-nine projects have been concluded and 11 are being implemented. Further information at [www.cnpm.embrapa.br](http://www.cnpm.embrapa.br).

The *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - IBAMA* [Brazilian Institute for the Environment and Renewable Natural Resources – IBAMA] runs a nationwide programme, the *Sistema Nacional de Prevenção e Controle aos Incêndios Florestais – PREVFOGO* [National System for the Prevention and Control of Forest Fires – PREVFOGO], for the prevention and combat of forest and savannah fires.

## Question 34.

There are some projects which are still in their initial phases:

- The *Programa Brasileiro de Ecologia Molecular para o Uso Sustentável da Biodiversidade da Amazônia – PROBEM* [Brazilian Program of Molecular Ecology for the Sustainable Use of Amazon Biodiversity - PROBEM] of the Amazon Coordination Secretariat of the Ministry of the Environment has a budget of R\$47.6 million for 2000-2003.
- The Brazilian GENOMA Project, a major project for genetic sequencing, is funded by the *Fundação de Amparo à Pesquisa do Estado de São Paulo - FAPESP* [São Paulo State Research Support Foundation - FAPESP], the *Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq* [National Council for Scientific and Technological Development – CNPq], and the *Ministério de Ciência e Tecnologia – MCT* [Ministry of Science and Technology – MCT]. Further information at [www.fapesp.br](http://www.fapesp.br).
- The *Empresa Brasileira de Pesquisa Agropecuária – EMBRAPA* [Brazilian Agricultural and Cattle-Breeding Research Company – EMBRAPA] has a special unit for genetic studies, the *Centro Nacional de Pesquisa de Recursos Genéticos e Biotecnologia - CENARGEN* [National Research Centre for Genetic Resources and Biotechnology – CENARGEN]. See [www.cenargen.embrapa.br](http://www.cenargen.embrapa.br).

## Question 35.

IBAMA has a number of programmes for monitoring threatened species and promoting research and action plans for their conservation, including such as marine turtles through the projects of the *Centro Nacional de Conservação e Manejo de Tartarugas Marinhas – TAMAR* [National Centre for Conservation and Management of Marine Turtles – TAMAR] of IBAMA (see [www.tamar.org.br](http://www.tamar.org.br)), manatees, marine mammals especially humpback whales, and the four species of lion tamarins endemic to the Atlantic forest ([www.ibama.gov.br](http://www.ibama.gov.br), see *Centros, Projetos e Programas*).

As a non-governmental initiative, it is notable the acting of *Fundação SOS Mata Atlântica* [SOS Mata Atlântica Foundation], a private entity whose main goals are to protect the Atlantic Forest remnants, in order to value the physical and cultural identities of human communities that live at them, as well as to conserve the rich natural, historical and cultural patrimony existent in these regions, aiming at their sustainable development.

## Question 37.

*Avaliações de Áreas e Ações Prioritárias para Conservação e Uso Sustentável da Biodiversidade Brasileira* [Assessments of the Areas and Actions for Conservation and Sustainable Use of Brazilian Biodiversity]. A summary report with recommendations for priority areas and actions for the conservation and sustainable use of the biodiversity of the country's biomes. Available at [www.mma.government.br/biodiversidade/doc/biodivbr.pdf](http://www.mma.government.br/biodiversidade/doc/biodivbr.pdf).

*Reports on deforestation and forest fires*. Available at [www.cptec.inpe.br/products/queimadas/](http://www.cptec.inpe.br/products/queimadas/).

## Question 40.

Lewinsohn, T. M. and Prado, P. I. 2000. *Biodiversidade Brasileira: síntese do estado atual do conhecimento* [Brazilian Biodiversity: synthesis of the current state of knowledge]. Final report presented to the *Secretariat of Biodiversity and Forests - SBF /MMA* (UNDP Project BR/97/31).

The Biota Programme is prominent. The Virtual Institute of Biodiversity begun in 1999 aims to create a system for the acquisition, organization and dissemination of information on biodiversity in the state of São Paulo. The main objective of BIOTA-FAPESP is to inventory and classify the biodiversity of the state of São Paulo, defining the mechanisms for its conservation, economic potential and sustainable use. The programme supports 37 scientific projects related to biodiversity in the state of São Paulo. Further information at [www.biota.org.br](http://www.biota.org.br).

## Question 42

The Rapid Assessment Programme for Aquatic Ecosystems (AquaRAP) of the Centre for Applied Biodiversity Science (CABS) at Conservation International (CI). A three-week expedition was carried out to survey the

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springs and floodplains of the southern portion of the Pantanal, in Mato Grosso do Sul from 24<sup>th</sup> August to 14<sup>th</sup> September, 1998. This expedition was planned based on the preliminary results of the workshop "Priority areas for Conservation of Biodiversity of the Cerrado and Pantanal, held in March 1998 with the support of PROBIO. Information was obtained on water quality, aquatic flora, benthonic invertebrates, crustaceans, fishes, amphibians and reptiles. Based on the experience of AquaRAP, in 2002 the MMA/PROBIO supported further projects for rapid biodiversity inventories.

## Question 43.

Lewinsohn, T. M. and Prado, P. I. 2000. *Biodiversidade Brasileira: síntese do estado atual do conhecimento* [Brazilian Biodiversity: synthesis of the current state of knowledge]. Final report presented to the *Secretariat of Biodiversity and Forests - SBF /MMA* (UNDP Project BR/97/31).

## Question 45.

The publication of a book, Garai, I. and Dias, B. 2001. *Conservação da Biodiversidade em Ecossistemas Tropicais* [Conservation of Biodiversity in Tropical Ecosystems]. Editora Vozes, Petrópolis, Rio de Janeiro. This publication was supported by the MMA.

*Programa de Avaliação do Potencial Sustentável dos Recursos Vivos da Zona Econômica Exclusiva/MMA (REVIZEE)* [Programme for Assessing the Sustainable Potential of the Live Resources of the Exclusive Economic Zone/MMA (REVIZEE)].

Clearance Report for Fires. See: [www.obt.inpe.br/prodes](http://www.obt.inpe.br/prodes).

## Question 48.

Garai, I. and Dias, B. 2001. *Conservação da Biodiversidade em Ecossistemas Tropicais* [Conservation of Biodiversity in Tropical Ecosystems]. Editora Vozes, Petrópolis, Rio de Janeiro.

## Question 49.

Brazil is collaborating with Bolivia in the transfer of monitoring technology for forest fires.

## Decisions on Taxonomy

### Decision IV/1 Report and recommendations of the third meeting of SBSTTA [part]

<b>50. Has your country carried out a national taxonomic needs assessment, and/or held workshops to determine national taxonomic priorities?</b>	
a) no	
b) early stages of assessment	
c) advanced stages of assessment	
d) assessment completed	X
<b>51. Has your country developed a national taxonomic action plan?</b>	
a) no	
b) early stages of development	X
c) advanced stages of development	
d) action plan in place	
e) reports on implementation available	
<b>52. Is your country making available appropriate resources to enhance the availability of taxonomic information?</b>	
a) no	
b) yes, but this does not cover all known needs adequately	X
c) yes, covering all known needs	
<b>53. Is your country encouraging bilateral and multilateral training and employment opportunities for taxonomists, particularly those dealing with poorly known organisms?</b>	
a) no	
b) some opportunities	X
c) significant opportunities	
<b>54. Is your country investing on a long-term basis in the development of appropriate infrastructure for your national taxonomic collections?</b>	
a) no	
b) some investment	X
c) significant investment	
<b>55. Is your country encouraging partnerships between taxonomic institutions in developed and developing countries?</b>	
a) no	
b) yes – stated policy	X
c) yes – systematic national programme	
<b>56. Has your country adopted any international agreed levels of collection housing?</b>	
a) no	
b) under review	
c) being implemented by some collections	
d) being implemented by all major collections	X



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<b>57. Has your country provided training programmes in taxonomy?</b>	
a) no	
b) some	X
c) many	
<b>58. Has your country reported on measures adopted to strengthen national capacity in taxonomy, to designate national reference centres, and to make information housed in collections available to countries of origin?</b>	
a) no	
b) yes – in the previous national report	X
c) yes – via the clearing-house mechanism	
d) yes - other means (please give details below)	
<b>59. Has your country taken steps to ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable?</b>	
a) no	X
b) under review	
c) yes for some institutions	
d) yes for all major institutions	
<b>60. Has your country assisted taxonomic institutions to establish consortia to conduct regional projects?</b>	
a) no	
b) under review	
c) yes – limited extent	X
d) yes – significant extent	
<b>61. Has your country given special attention to international funding of fellowships for specialist training abroad or for attracting international experts to national or regional courses?</b>	
a) no	
b) under review	
c) yes – limited extent	X
c) yes – significant extent	
<b>62. Has your country provided programmes for re-training of qualified professionals moving into taxonomy-related fields?</b>	
a) no	
b) some	X
c) many	

*Decision V/9. Global Taxonomy Initiative: Implementation and further advance of the Suggestions for Action*

<b>63. Has your country identified its information requirements in the area of taxonomy, and assessed its national capacity to meet these requirements?</b>	
a) no	
b) basic assessment	X
c) thorough assessment	



<b>64. Has your country established or consolidated taxonomic reference centres?</b>	
a) no	
b) yes	X
<b>65. Has your country worked to increase its capacity in the area of taxonomic research?</b>	
a) no	
b) yes	X
<b>66. Has your country communicated information on programmes, projects and initiatives for consideration as pilot projects under the Global Taxonomy Initiative to the Executive Secretary?</b>	
a) no	X
b) yes	
<b>67. Has your country designated a national Global Taxonomy Initiative focal point linked to other national focal points?</b>	
a) no	X
b) yes	
<b>68. Has your country participated in the development of regional networks to facilitate information-sharing for the Global Taxonomy Initiative?</b>	
a) no	
b) yes	X
<b><i>If a developing country Party or Party with economy in transition -</i></b>	
<b>69. Has your country sought resources through the financial mechanism for the priority actions identified in the decision?</b>	
a) no	
b) applied for unsuccessfully	X
c) applied for successfully	

**Further comments on implementation of these decisions**

**Question 50.**

Seven documents were produced in 2000, which review knowledge of Brazilian biodiversity: freshwater biodiversity, vertebrate biodiversity, marine invertebrates, terrestrial invertebrates, genetics, terrestrial plants, and microorganisms (see at [www.mma.gov.br/port/sbf/chm/relpub.html#biodiv](http://www.mma.gov.br/port/sbf/chm/relpub.html#biodiv)). They are summarized in the document *Biodiversidade Brasileira: síntese do estado atual do conhecimento* [Brazilian Biodiversity: synthesis of the current state of knowledge], T. M. Lewinsohn and P. I. Prado, 2000. Final report presented to the Secretariat of Biodiversity and Forests - SBF/MMA (UNDP Project BR/97/G31).

**Question 51.**

*Programa de Pesquisa em Biodiversidade – PPBio* [Biodiversity Research Programme –PPBio]. Developed by the Ministry of Science and Technology (MCT), this program is based on three working groups: collections, inventories and information dissemination. Among its objectives are the guarantee of the maintenance, growth and qualification of collections, and the systematic generation of information on biological diversity. Further information at [www.mct.gov.br](http://www.mct.gov.br).

*Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq* [National Council for Scientific and Technological Development – CNPq]. “Science and Technology for the Atlantic Forest” is a cooperative programme between Brazil and Germany (launched in 2002). One of the project support themes of interest is the characterization of the Atlantic forest’s diverse ecosystems. This focuses on addressing the gaps, contrasting degrees of knowledge and uneven geographic coverage in terms of biological inventories. A greater understanding of the biogeography of the Atlantic forest will generate the competence needed to

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identify indicator species and species groups and allow for the establishment of micro-scale monitoring programmes. Also important is the need to develop a national capacity to manage the information. See [www.cnpq.br/servicos/editais/ct/index-mata-atlantica.htm](http://www.cnpq.br/servicos/editais/ct/index-mata-atlantica.htm).

*Programa Plantas do Nordeste / Subprograma de Informação, Disseminação e Treinamento* [Plants of the Northeast Programme / Sub-programme for Information, Dissemination and Training]. The principal goals of this programme focus on increasing our knowledge of the taxonomy of the flora in the Brazilian Northeast. They are:

- a) To benefit people in Northeast Brazil through the generation, dissemination and application of knowledge about the plants and natural vegetation of the region;
- b) To promote the conservation of the flora and natural vegetation of the Brazilian Northeast; and
- c) To broaden, through capacity-building and training, the region's understanding of its flora and potential for sustainable use.

The project is funded by the United Kingdom, and the institutions involved include: *Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq* [National Council for Scientific and Technological Development – CNPq]; *Associação Plantas do Nordeste – PNE*; the Royal Botanical Gardens, Kew, UK; and the Federal University of Pernambuco (UFPE), Recife. See [www.abc.mre.gov.br](http://www.abc.mre.gov.br).

## Question 54.

There are a number of independent programmes and initiatives. Most Brazilian initiatives are remedial rather than long term. The most important are related to informatics and the electronic cataloguing of museum collections. There are projects of the *Programa Piloto para a Proteção às Florestas Tropicais do Brasil PP-G7* [Pilot Program for the Protection of the Tropical Forests of Brazil PP-G7] which finance infrastructural improvements for taxonomic collections.

The *Jardim Botânico do Rio de Janeiro - JBRJ* [Rio de Janeiro Botanical Garden – JBRJ] is the reference centre for botanical collections, and has given priority to the quantitative and qualitative improvement of its collection, as well as research on methods and conditions for its preservation.

*Programa de Pesquisa em Biodiversidade – PPBio* [Biodiversity Research Programme –PPBio]. See comments on Question 51.

*Programa Brasileiro de Pesquisas Ecológicas de Longa Duração - PELD* [Brazilian Programme of Long-term Ecological Research - PELD]. It is supported by the Ministry of Science and Technology (MCT), *Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq* [National Council for Scientific and Technological Development – CNPq], and is part of the International Long-Term Ecological Research Programme (ILTER). The PELD has 12 research sites distributed all over the Country. More information at: [www.icb.ufmg.br/~peld/](http://www.icb.ufmg.br/~peld/).

*Programa Ciência e Tecnologia para Gestão de Ecossistemas - PCTGE* [Programme of Science and Technology for the Administration and Management of Ecosystems - PCTGE] - See comments on Question 127.

## Question 55.

Guiding Rules to enable partnerships among taxonomical institutions in developed and in developing countries are being established.

## Question 56.

There are no taxonomic norms and regulations in the country, but the larger national collections follow international standards.

## Question 57.

There are numerous training programmes in universities (undergraduate and postgraduate), supported by the *Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq* [National Council for Scientific and Technological Development – CNPq] and the *Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – CAPES* [Higher Education Authority - CAPES] of the Ministry of Education and Culture (MEC). However, there are significant regional differences in taxonomic expertise and capacity, and taxonomists are lacking, or very few in numbers, for many groups.

**Question 60.**

The *Projeto de Conservação e Utilização Sustentável da Diversidade Biológica Brasileira - PROBIO* [Project for the Conservation and Sustainable Use of Brazilian Biological Diversity – PROBIO] is divided into subprojects carried out through institutional partnerships. Some of these projects involve taxonomic research. There are no Brazilian regional, national or global initiatives.

**Question 61.**

Brazil is in a process of establishment of clear rules that guide the international exchange. There are institutions for stimulating research at federal level (CNPq and CAPES) and at state level (state foundations for research support) as well as institutions with their own programs. They stimulate the formation and training of specialists at Undergraduation, with the Scientific Initiation Program, at Graduation and Post Doctoral, with specialization scholarships, as well as with scholarships to foreign visitor researchers at Institutions for Teaching and Research. Although insufficient, these programs are attending an annually increasing number of beneficiaries. See complementary and detailed information on comments of question 174.

**Question 62.**

The re-training is done through the spontaneous specialists demand to the programmes of scientific capacity-building, but there are no programmes to stimulate the changing of thematic areas.

**Question 63.**

Incipient programmes are still in the development phase.

**Question 64.**

Principle taxonomic centres of reference include: the Museum of Zoology and the Institute of Botany of the University of São Paulo; Butantã Institute, São Paulo; Museum of Natural Sciences of Rio Grande do Sul, Porto Alegre; Museum of the Federal University of Paraná, Curitiba; Museum of Natural Sciences of the Pontifical Catholic University of Minas Gerais, Belo Horizonte; National Institute for Amazon Research (INPA), Manaus; Emilio Goeldi Museum, Belém; *Centro de Pesquisa Agroflorestal da Amazônia Oriental – CPATU* [Centre for Research in Agro-forestry in the Eastern Amazon - CPATU, of the Brazilian Agricultural and Cattle-Breeding Research Company – EMBRAPA]; *Centro Nacional de Pesquisa de Recursos Genéticos e Biotecnologia – CENARGEN* [National Research Centre for Genetic Resources and Biotechnology - EMBRAPA-CENARGEN]; University of Brasília; National Museum of Rio de Janeiro (MNRJ); the Rio de Janeiro Botanical Garden (JBRJ); and the Oswaldo Cruz Foundation, Rio de Janeiro.

**Question 65.**

Although there has been considerable progress in recent years, taxonomic research is still well behind the country's needs.

**Question 66.**

The project *Flora Neotrópica* [Neotropical Flora] is still in the phase of negotiation - under consideration by the Global Environment Facility (GEF). The project is a Brazilian initiative in partnership with Colombia and Mexico, which will be the leading countries in its execution. It covers the entire Neotropics, from southern Mexico to northern Argentina, and includes sites recognized as globally significant in terms of species richness and endemism.

**Question 68.**

Brazil is a member the *Rede Latino-Americana de Botânica* [Latin American Botanical Network]. Relevant also is the Neotropical Flora Project (see comments on Question 66).

**Question 69.**

Neotropical Flora Project, still under negotiation for funding (see comments on Question 66).