



## Chapter V

# The Brazilian Contribution to Progress in the Convention on Biological Diversity in a Multilateral Context

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**B**razil has played an important role in all the meetings of the Convention on Biological Diversity - CBD, with a large number of delegates who have been active in making important and welcomed contributions.

Brazil is the tenth largest contributor to the Convention Fund administered by PNUMA, and the first ranking of the developing countries. The contributions have been made regularly.

Brazil took an active part in the negotiations which resulted in the re-structuring of the Global Environment Facility - GEF and in the signing of the Memorandum of Understanding between the CBD and the GEF which dealt with the provisional financial mechanisms of the Convention. Brazil takes part in the GEF, both as a contributor and as a member of its Council.

Over the period 1995-97, Brazil was a member the initial "bureau" of the Subsidiary Body on Scientific, Technological

and Technical Advice - SBSTTA of the CBD, and occupied one of the two vice-presidencies, representing the Latin America and Caribbean Group (Grupo da América Latina e Caribe - GRULAC).

### 5.1. Clearing-House Mechanism

Brazil has made some important contributions in developing the Convention's Clearing-House Mechanism - CHM.

From 17th to 19th October 1995, the Brazilian Government, through the Ministry of Environment - MMA, and the André Tosello Foundation for Tropical Research and Technology, organised an international workshop 'Clearing-House Mechanism on Biological Diversity - The Role of Special Interest Networks' at the Foundation's headquarters, The Tropical Database (Base de Dados Tropicais - BDT), in Campinas, São Paulo.

This workshop resulted in a document which contributed much to the final draft of Decision II/3 of the Conference of the Parties. The participants in the workshop recommended the following:

- that a co-ordinating unit be set up for the CHM;
- that liaison between national focal points should be improved;
- that clear directives be established;
- that a methodology should be developed for the use of data banks on the Internet;
- that regional training be available twice a year;
- participation and training in developing countries in communications and information technology; and
- that a survey should be carried out to assess information needs of the countries.

The Clearing-House Mechanism - CHM should be decentralised, insuring that active partners, (international, national and regional institutions) avoid duplication of their work.

Links between the Parties should be set up, with developing countries, particularly, receiving financial support for this purpose. An independent evaluation of the CHM should be carried out during its pilot phase. The Secretariat should serve as a focal point to co-ordinate its efforts and guarantee its efficiency. Recommended also was the establishment of directives for drawing up thematic focal points.

The document 'Roles of the Clearing-House Mechanism in Promoting and Facilitating the Implementation of the Convention on Biological Diversity', was presented by Brazil at the 'Expert Workshop on Building the Clearing-House of The Convention on Biological Diversity', held in Bonn, Germany, 25th - 29th June 1997. It highlighted the importance of the CHM in the implementation of the Convention and the increase in the number of functions attributed to the CHM since its creation, making it the principal vehicle for information exchange. The public coverage has become much larger than was originally intended, and in order for the CHM to fulfil its obligations, the document proposed a structure for the national, thematic and international focal points (the CBD Secretariat).

The national focal points should provide clear translations of all the documents of the Conference of the Parties and have them made available through the CHM. National legislation pertinent to the themes of the Convention, scientific and technological data, research, and programmes and national reports should also be made available. In short, at the national level, the principal task of the CHM is to

publicise all that is being done within the country, the relevant international partnerships, and the results obtained in all that refers to the themes and articles of the Convention.

The role of the international focal point (the Secretariat) is to divulge all the documents of the Conference of the Parties, to establish links with the national and thematic focal points, to divulge the financial mechanisms available to developing countries for the implementation of the Convention, and to establish guidelines for standards, information technology and technical training.

The thematic focal points should make use of data banks, meta-data, directories and/or virtual libraries on themes of interest for the Convention.

Finally, the document points to the CHM's Critical role in stimulating and facilitating the participation of the different interest groups in detailing the Convention and implementing its requirements in the member countries.

This document was presented at a workshop during the meeting of The Subsidiary Body of Scientific, Technological and Technical Advice - SBSTTA of the CBD, in Montreal, in September 1997, and had an important influence on the drafting of Recommendation III/6 of the SBSTTA 3.

### **5.1.1. Biodiversity Information Network - BIN 21**

The Brazilian contributions in this field preceded the creation of the CHM.

A document concerning this was drawn-up as a result of a workshop sponsored by the Brazilian Government through IBAMA and UNEP, 'International Needs and Specifications for a Biodiversity Information Network', held at the Tropical Database - BDT, Campinas, São Paulo, 26th-31st July 1992, and presented at a CBD preparatory meeting in Nairobi.

Likewise, another international workshop sponsored by the Brazilian Government through MMA, MCT, and UNEP, 'Linking Mechanisms for Biodiversity Information', also held at the Tropical Database - BDT, Campinas, São Paulo, 23rd-25th February 1994, resulted in a document which proposed the structure for an information network on biodiversity. Twenty-five network specialists from 10 countries formulated the principles which resulted in the BIN 21, a voluntary experimental network which served as a pilot experiment for the CHM. The Tropical Database - BDT took on the role of permanent secretariat for BIN 21, and the results of the workshop, defining the working groups, were published. The homepage of BIN 21 has been available on the Internet since 1994, with 10 nuclei from six countries, Australia, Brazil, Canada, Costa Rica, the United States and Finland, taking

part, and five international agencies, the United Nations Industrial Development Organization - UNIDO (biosafety), the International Centre for Genetic Engineering and Biotechnology - ICGEB (biotechnology), the World Data Centre on Micro-organisms (WDCM/WFCC) (micro-organisms), the World Conservation Monitoring Centre - WCMC (conservation), and the Organization for Tropical Studies - OTS (ecology), participating as thematic nuclei.

Since then, general themes have been available for discussion through BIN 21 on the list server <biodiv-1@bdt.org.br>. Also as a result of the workshop, in 1994, two specialised discussion lists were set up, <bin-tech@ftbt.br> and <bin-reach@ftbt.br>. The first was concerned with technical aspects such as hardware, software and administration systems related to BIN 21. The second discussed methods and strategies for disseminating information on biodiversity to diverse communities in order to obtain feed-back on the kinds of services and information required. They were terminated on 12th June 1996.

### 5.1.2. Inter-American Biodiversity Information Network - IABIN

The establishment of an Inter-American Biodiversity Information Network - IABIN was agreed at the Summit of the Americas on Sustainable Development, held at Santa Cruz de la Sierra, Bolivia, in December 1996.

The initial proposal for this network was defended by Brazil, represented by the MMA, in the preparatory meetings and especially at the technical meeting in Santa Marta, Colombia, in June 1996, where it was endorsed by the Inter-American Commission on Biodiversity and Sustainable Development. This Commission had the support of the Central American Commission for the Environment and Development, the IUCN South American Regional Office, the Bolivian Ministry for Sustainable Development and the Environment, the Fundación Pro-Sierra Nevada de Santa Marta and the Biodiversity Support Program. The proposal was adopted in the Declaration of Santa Cruz de La Sierra and in the Action Plan for Sustainable Development in the Americas (Initiative 31) approved at the Summit Conference on Sustainable Development in December 1996.

The approved text of Initiative 31 is:

“Seek up to establish an Inter-American Biodiversity Information Network, primarily through the Internet, that will promote compatible means of collection, communication, and exchange of information relevant to decision-making and education on biodiversity, and that builds upon such initiatives as the Clearing-House Mechanism provided for in the United Nations Convention on Biological Diversity, the Man and Biosphere Network (MABNET Americas), and the

Biodiversity Conservation Information System (BCIS), an initiative of nine programs of the World Conservation Union (IUCN), and partner organizations.”

It is a mechanism for the discussion of threats to biodiversity and sustainable development in the Americas, and the means by which they can be tackled. They include such themes as:

- The standardisation of data to facilitate analysis and information exchange;
- The promotion of information exchange, communication and co-operation between countries in the Americas;
- The establishment of a network on the Internet as a means to promote communication links between the different countries and regions;
- Measures for increasing co-operation in the administration of resources in common (such as water) and related biodiversity;
- Measures to promote dialogue and education on conservation and the sustainable use of biodiversity.

An offer by Brazil to act as host to a meeting planned for September 1998 specifically to set up this mechanism was formally accepted at the first meeting of the Inter-American Commission on Sustainable Development of the Organization of American States - OAS in March 1997.

## 5.2. Biodiversity Indicators

This is another theme in which Brazil has made important contributions towards the implementation of the Convention.

In 1996, the Brazilian Government sponsored a workshop ‘Assessment, Monitoring and Indicators for Biological Diversity: Methods from a Perspective of Tropical Ecosystems’. It was held at the Federal University of Rio de Janeiro - UFRJ from 24th-27th July, 1996, and organised by the MMA, the UFRJ and the International Union of Biological Sciences - IUBS.

The document produced by the workshop was presented, with recommendations, at the Second meeting of the Subsidiary Body on Scientific, Technological and Technical Advice - SBSTTA, held in Montreal in September 1996. The recommendations were also published in the International Union of Biological Sciences - IUBS Journal *Biology International*. The publication of the entire text is in the final stages of preparation.

The principal recommendations arising from the workshop are as follows:

Concerning inventories and the evaluation of genetic diversity:

- Measures to promote research on the genomes of selected species;
- The establishment of gene banks for samples of populations which have been subjected to modern molecular techniques;
- The selection of key organisms for research on genotypic and taxonomic variability; and
- The establishment of research centres for genomic/molecular variability, support for existing research groups, and training new research workers in this field.

Concerning inventories and the evaluation of species diversity:

- Measures to provide electronic access to currently available data;
- The collection of additional field data, giving priority to key groups in ecosystem functioning, such as pollinators, nitrogen-fixing organisms, and structural species;
- The promotion of biogeographical analyses;
- The promotion of biological surveys;
- The consolidation of national museums, herbaria and collections of micro-organisms; and
- Training.

Concerning inventories and the evaluation of ecosystem diversity:

- The establishment of environmental zones for land-use, taking into account information on biodiversity;
- The development of remote sensing and Geographic Information Systems - GIS to classify biodiversity stocks at the ecosystem level; and
- Determination of the impact on biodiversity caused by human activities in areas with known land-use patterns.

Concerning the integration of information on biodiversity:

- The establishment of the necessary guidelines;
- Measures to promote the integration of programmes for assessing biodiversity;

- The establishment of decentralised and integrated information networks; and
- Provision of access to data generated through public funding.

Concerning the monitoring of biodiversity, recommendations first dealt with landscape diversity:

- Monitoring of the world's vegetation;
- Monitoring the world's coastal and marine ecosystems;
- Monitoring species distributions;
- Monitoring species' diversity;
- Monitoring genetic diversity; and
- General recommendations on monitoring.

A third part of the document deals with the indicators of the effectiveness of conservation measures, including:

- Different types of conservation measures;
- Operational mechanisms for conservation;
- Indicators for *in situ* conservation and conservation areas;
- Indicators for *ex situ* conservation and gene banks;
- Indicators for the recovery of endangered species, and the recovery of endangered habitat and ecosystem services;
- Indicators for the restoration of degraded areas;
- Indicators for environmental protection policy and the management of natural resources;
- Indicators for safeguarding biodiversity;
- Indicators for environmental education; and
- General recommendations for the international community.

In addition, a Brazilian delegate co-ordinated the first meeting of the 'Liaison Group', created by the CBD Secretariat in Wageningen, Holland, in March 1997, which influenced Recommendation III/5 of SBSTTA 3.

The Brazilian Government was also responsible for promoting an 'International Workshop on Monitoring Biodiversity in Federal Conservation Areas'. It was organised by the German Agency for Technical Co-operation - GTZ, sponsored by the MMA, and held in Pirenópolis, Goiás, 22nd-25th June, 1997. Recommendations from this workshop were published by IBAMA and the GTZ and distributed

during the SBSTTA 3 (Montreal, September 1997). The final document, including all contributions, was published in November 1997.

The principal recommendations arising from this workshop were:

- Monitoring should be an integral part of management, at both local and ecosystem levels, and should take into account the specific management objectives;
- The monitoring system should establish links between local indicators and those of the ecosystem;
- IBAMA should be ultimately responsible for the administration of the System of Monitoring of Conservation Areas;
- IBAMA should work towards guaranteeing funds and resources for the planning, implementation and continuity of the System;
- Partnerships should be sought with such as universities, research institutes, state and municipal governments, NGOs, local communities, and the business sector;
- Partners should be involved in all stages of planning, data collection, analysis, and assessment;
- The monitoring system should include different indicators for different purposes (i.e., biological, physical, socio-economic);
- The Monitoring System should operate at different levels: genetic, specific, ecosystem and biome;
- The Monitoring System should cover socio-economic and biophysical aspects, giving equal importance to each;
- Socio-economic monitoring should include buffer zones and settlements, bearing in mind national conditions and tendencies;
- The Monitoring System should use a wide spectrum of technologies, from the simplest to the most advanced;
- The Monitoring System should begin with the simplest methods available before using the most complex and difficult;
- The Monitoring System should start with existing information and techniques, and optimise the use of resources so as not to duplicate efforts;
- The Monitoring System should also result in improved protection for parks and reserves, besides contributing to our understanding of Brazilian biodiversity and its representation in protected areas.

### 5.3. Biosafety Protocol

Brazil has also been active in international negotiations concerning the Biosafety Protocol.

An *Ad Hoc* Open Working Group of Biosafety Specialists - GTAEB was set up during the Second CBD Conference of the Parties, in Jakarta, November 1995. This working group dealt specifically with Article 19 of the Convention (Handling of Biotechnology and Distribution of Its Benefits), especially paragraphs 1, 3 and 4, and considered also pertinent aspects of Article 8°(j) (Conservation *in situ*: knowledge and practices of indigenous and communities). Decision I/9 of the Conference of the Parties (COP 1) held in Nassau, Bahamas, 28th November - 9th December 1994, and the report and recommendations prepared for the 2<sup>nd</sup> Meeting of the Open Working Group to be held in Madrid from 24th to 28th July 1995, were also discussed.

It was decided that the Biosafety Protocol should focus specifically on the movement across national boundaries of any genetically modified organism (GMO) resulting from modern biotechnology; traffic which is potentially harmful to the interests of conservation and the sustainable use of biodiversity.

Acting on decision 11/5 of the COP II, Brazil presented a proposal for a Biosafety Protocol at the 3rd Meeting of the GTAEB in Montreal, Canada, 12th-17th October 1997. The proposal recommended that:

- Each Party should maintain or develop an institutional structure for the execution of whatever is agreed in the Protocol;
- The Parties that import GMOs may make additional demands for the safe trans-frontier movement of these organisms and their products, as long as they are detailed in the national legislation;
- Each Party should designate an executive secretariat (in the case of Brazil, the National Technical Commission for Biosafety - CTNBio), a responsible authority (CTNBio), and inform the Clearing-House Mechanism which institutions are involved within three months of the Protocol coming into force;
- The proposed Protocol specifies the procedures to be followed by the countries exporting and importing GMOs. When importing for the first time, the country must carry out a scientific survey of the risks involved, with the methodology clearly explained. The survey is optional for subsequent imports, but notification must be given for all. Notification may also be required in the case of GMOs in transit;

- The Parties, according to their own national legislation, shall establish a Clearing-House to promote and contribute to the sharing of information relevant to the safe use, manipulation, and the transport of GMOs and their products across national boundaries. The Parties shall respect the need for secrecy of information of commercial value;
- The proposal also defines procedures for cases of involuntary trans-frontier movements. It establishes that each Party will develop human and institutional resources that facilitate the implementation of the Protocol, as well as decisions on risks;
- Under Article 14 of the proposal, the Parties importing GMOs will be responsible for their use and that of their products within their country. The exporting Parties, however, will be held responsible for any negative or harmful effects not foreseen in the information provided on the occasion of the first importation, or which result from other circumstances that can be attributed to them, such as inadequate packaging, fraud, falsification of approval, or exportation not in accordance with the information provided;
- The Parties will also keep the public informed on all the relevant issues related to the movement of GMOs across frontiers, and encourage public participation in decisions on risks.

## 5.4. International Commitment for Phytogenetic Resources for Food and Agriculture

Brazil has taken an active role concerning genetic resources and the CBD and the Food and Agriculture Organization of the United Nations - FAO. Numerous proposals have been submitted for negotiation concerning commitment reviews.

The CBD represents an extraordinary step forward in its provision of opportunities for debating policies, strategies and directives to strengthen co-operation and integration between the signatory countries. The most controversial issues, requiring specific protocols, were, however, left to be resolved in later negotiations. Articles concerning access to genetic resources and to technology transfer and the sharing of the benefits (the most complex) still require regulation. They have been discussed at the Conferences of the Parties as well as other forums, with their regional and national implications.

The text of the CBD was adopted by the countries on 22nd May 1992, during the last meeting of the

Intergovernmental Negotiating Committee. A number of resolutions were approved, notably Resolution 3 of the Final Record of the Proceedings of Nairobi. This gave the Food and Agriculture Organization (FAO) the mandate of negotiating with the countries in order to resolve the impasse still existing in relation to 1) genetic resources acquired by countries prior to the CBD and 2) farmers' rights.

World-wide, there are currently some six million samples of phytogenetic material of agricultural interest maintained *ex situ*. Of these, 50% are held in developed countries, 38% in developing countries, and 12% in the International Research Centres of the System co-ordinated by Consultative Group for International Agricultural Research - CGIAR. Of the total, about 75% were obtained before the CBD came into force and therefore not regulated by it.

Resolution 7/93, which aligned Resolution 3 of Nairobi with the International Commitment for Phytogenetic Resources for Food and Agriculture, was approved at the 27th Conference of the FAO in November 1993.

Although adopted by many of the member countries of FAO, the International Commitment was not adopted by many of the larger industrial nations nor the principal megadiversity countries. This was due mainly to the controversy regarding control over genetic resources and the principle of the International Commitment that they are the property of all mankind and should be made available to all for any purpose.

The revision of the International Commitment has been the subject of considerable and intense debate by the member countries of FAO's Commission for Genetic Resources since 1993. Little progress has been made despite the efforts of the Commission. Brazilian participation in the meetings has had a marked and decisive role, both in defending the interests of developing countries as well as in discussions for furthering negotiations.

At the last meeting of the Commission, in December 1997, Brazil put forward a conciliatory proposal involving the establishment of a shortlist of species, including those of primary or secondary importance in world food supplies and the principal commodities. It was well received and, by stimulating dialogue between the countries, will hopefully lead the way to the consensus required to finalise negotiations on the revision of the International Commitment and, perhaps, its eventual adoption by the CBD as an associated protocol.

## 5.5. Working Programme on Agrobiodiversity

A new challenge for agriculture in the light of current world economic expansion is that of stable production on a

sustainable basis. This demands the technology and management necessary to ensure a healthy environment, economic efficiency and a fair sharing of social benefits. Biodiversity is inseparable from the concept of sustainability and is essential for agriculture, just as agriculture should be an essential element of biodiversity conservation. This relation may be accomplished through several ways:

- Genetic stocks provide a safeguard against pests and environmental stress in so much as they are the source for genetic resistance;
- Crop diversification is a protection against market fluctuations, important especially for low-capital farmers;
- Diversity in environmental terms provides a shield against natural or human disturbance in agricultural systems; diversity of species and habitats ensures alternatives in structure and function and resistance to environmental pressures.

Numerous benefits and irreplaceable services to agriculture are provided by biodiversity. Vital to ensure productivity and environmental quality are:

- A stock of organisms which allow for natural biological control;
- The participation and use of organisms in maintaining the natural cycles for such as water, energy, nitrogen, and carbon;
- Pollinators;
- Symbiotic associations;
- Genetic resistance present in wild forms;
- New species of economic importance.

In view of this, the Brazilian Government presented a proposal to the second meeting of SBSTTA in Montreal, 2nd-6th September, 1996, which aimed to reduce the impact of agricultural practices on biodiversity, including such as reduced landscape diversity, loss of species, and negative effects on ecosystem functioning and natural cycles. The proposal also aims to provide opportunities within the CBD for developing procedures which could allow for compatibility between the conservation of biodiversity and economic activities, especially in the sharing of the benefits derived from the use of genetic material.

The Brazilian proposal included the following specific recommendations:

- The third Conference of the Parties should establish a five-year **Global Program of Action on Agricultural Biodiversity** coordinated by the SBSTTA with support from the CBD Secretariat and the GEF, in close

cooperation with leading international agencies, such as the CSD, FAO, CGIAR, IUCN, IICA, World Bank, regional banks and ODAs, with the following elements:

- Establish an **International Pollinator Conservation Initiative**, to measure and monitor the loss of pollinators worldwide, to identify the specific causes of pollinator decline, to estimate the economic cost associated with reduced pollination of crops, to identify and promote best practices and technologies for more sustainable agriculture and to identify and encourage the adoption of conservation practices to maintain pollinators or to promote their re-establishment.
- Establish an **International Initiative on Symbiotic Soil Microorganisms** to measure and monitor the worldwide loss of Symbiotic Soil Microorganisms - SSM, in particular Nitrogen-fixing bacteria and Mycorrhizal fungi, to identify and promote the transfer of technologies for the detection of SSM and their use to enhance Nitrogen fixation and Phosphorous absorption, to estimate the potential and actual economic gain associated with reduced use of chemical N and P fertilization of crops with enhanced use and conservation of SSM, to identify and promote best practices for more sustainable agriculture and to identify and promote conservation measures to conserve SSM or to promote their re-establishment.
- Establish an **International Initiative on the Conservation of Biological Control Organisms** to measure and monitor the worldwide loss of Biological Control Organisms - BCO, to identify and promote the transfer of technologies for the detection of BCO and their use through Integrated Pest Management - IPM, Habitat Management, BCO Release and other approaches, to estimate the potential and actual economic gain associated with reduced use of pesticides in crops with enhanced use and conservation of BCO, to identify and promote best practices for more sustainable agriculture and to identify and promote conservation measures to conserve BCO or to promote their re-establishment.
- The GEF should be instructed to finance and leverage projects on agrobiodiversity, particularly those under the above initiatives and those under the following guidelines.
- Parties and international organizations, development banks, bilateral and multilateral funding agencies and other development agencies should be urged to adopt measures for the conservation and sustainable use of agricultural biological diversity and the equitable sharing of the benefits resulting from the use of

genetic resources according to the following guidelines, and should be invited to report to the Conference of the Parties at its future meetings on progress made:

- Emphasize a long-term and sustainable approach to agricultural production, with an integrated and systemic view that contemplate conservation and sustainable use of biodiversity, equitable sharing of benefits and the needs of future generations. Regard must be given to the irreversibility of biodiversity losses when managing natural resources. Consider that biodiversity conservation must contribute and be linked to rural development strategies, with emphasis on welfare of people in a long term and sustainable basis.
- Foster development of new and revision of current agriculture policies, adopting regulatory measures and incentives to promote conservation and sustainable use of biodiversity in agroecosystems and in areas under their influence and the equitable sharing of benefits from the use of genetic resources.
- Consider the representation of biodiversity and ecosystem services of agricultural interest in the creation of conservation units. Also promote on-farm conservation of biodiversity and improve *ex situ* conservation of useful and endangered genetic resources.
- Stimulate the development, transfer and adoption of alternative practices and technologies, such as organic farming, integrated pest management, biological control, no-till agriculture, multicropping, intercropping, crop rotation, agroforestry, among others, aiming at conserving biodiversity in agroecosystems and their surroundings, as well as at recovering disrupted areas. Efforts should also be driven to validate and disseminate practices and knowledge used or retained by indigenous and traditional communities.
- Require *ex ante* and *ex post* evaluation of impacts to biodiversity of agricultural development projects, to assure the use of best practices to promote the conservation and sustainable use of biodiversity and a fair sharing of benefits. So far little attention has been paid to biodiversity in agricultural development projects. For example, less than 2% of 377 agricultural projects financed since 1988 by the World Bank dealt explicitly with biodiversity (Srivastava *et al.*, 1996).
- Support development and adoption of methods to assess and predict impacts on biodiversity of agricultural technologies, practices and production systems, with emphasis on high input farming, as well as support the development of indicators for

agrobiodiversity to allow the evaluation of biodiversity in agricultural production systems and of conservation and remediation measures.

- Develop new and apply existing methods of economic valuation of biodiversity, in order to better assess the impacts of research and development projects and initiatives on sustainable agriculture and agrobiodiversity conservation.
- Identify key components of biodiversity in agricultural production systems responsible for maintaining natural processes and cycles, evaluating the effects of different agricultural practices and technologies on those components and stimulating the adoption of repairing practices to attain appropriate levels of biodiversity.
- Support the establishment/enhancement of quarantine facilities to ensure the safe exchange of organisms for practical uses and research, minimizing risks of adverse effects on native organisms and on the stable functioning of food chains. The use of biosafety guidelines should also be promoted.

This Brazilian proposal, together with another by the Swedish Government, formed the basis for a detailed recommendation submitted by SBSTTA to the COP 3 (Recommendation II/7). It also served as a basis for internal discussion in other countries, in the preparations for the COP 3, and for the stand taken by the European Union. The Brazilian delegation co-ordinated the contact groups and drafting groups during discussions on this theme in Buenos Aires, and played a major role in reaching the results obtained.

As a result, the COP approved the important and detailed Decision III/2, which:

- Recognised agricultural biodiversity as one of the key themes of the CBD;
- Established a broad work programme with the participation of the relevant countries and international agencies;
- Resolved that the focus should initially be placed on pollinators and symbiotic soil micro-organisms;
- Determined that the GEF give priority to financing the activities arising from this decision; and
- Requested that the member countries consider a series of recommendations and topics in the development of strategies, plans and national programmes which affect agricultural biodiversity.

The decision also recognised the progress and the deficiencies of the FAO World Action Plan for Conservation



and Sustainable Use of Phylogenetic Resources for food and Agriculture, and noted the wish of the CBD that the FAO International Commitment on Phylogenetic Resources for Food and Agriculture should be made compatible with the Convention, and eventually included as an associated protocol.

This decision of the COP 3 should have important repercussions at national and international levels in the promotion of sustainable agriculture, in the revision of agricultural policy which might be contrary to sustainability or harmful to biodiversity, in the revision of conservation priorities and practices, in the promotion of co-operation between conservation groups and agricultural entities, and in the promotion of conservationist practices among farmers and local communities.

This is an extremely important decision for Brazil, where about 40% of the GNP is associated with farming and agribusiness. Two examples indicate its potential:

- Savings through the use of nitrogen-based fertilisers in soybean production totals US\$1.6 billion a year, thanks to the technique of nitrogen fixing bacteria inoculation developed by EMBRAPA, co-ordinated by Dr. Joanna Dobereiner who was nominated for a 1996 Nobel Prize for her research;
- Biological control by means of viruses developed by EMBRAPA allows for an annual saving of over US\$ 200 million to farmers who have adopted the practice, besides the collateral benefits arising from a reduction in the use of pesticides.

Such measures are not just beneficial to Brazil, but contribute to the development of models and technology for a sustainable tropical agriculture world wide. Lastly, the MMA is preparing an international workshop on pollinators, to be held in Brazil in 1998.

## 5.6. Working Programme on Forest Biodiversity

This theme is of particular strategic interest to Brazil since a large part of the country is covered by native forest rich in biodiversity. Indeed, Brazil holds more than one-third of the remaining tropical forests in the world.

For this and other reasons, it was the Brazilian Government that proposed the creation of an Intergovernmental Panel on Forests within the UN Commission for Sustainable Development, during its 3rd session in May 1995.

Despite the little time available (four sessions, the most recent in February 1997), the Panel has managed to give a

balanced treatment to the theme of forests, while recognising the complexity of questions related to protection and sustainable use of forest resources on a global scale.

The mandate of the Panel includes five programmatic areas, combining 12 programme components:

- Implementation of UNCED decisions on forests, involving five components
  - national plans for forests and land-use;
  - identification of the underlying causes of deforestation, including patterns of consumption, poverty, terms of exchange and sectorial policies;
  - protection of the traditional knowledge of local populations and indigenous communities;
  - support measures for reforestation;
  - the special situation of countries affected by desertification and those with little forest cover;
- International co-operation, with two components
  - financial assistance;
  - technology transfer;
- Scientific research, with two components:
  - review of methodologies for the assessment of the global state of forests and enhancement of the value of forest products and services;
  - criteria and indicators for the sustainable management of forests;
- Trade in forest products and services;
- Institutional questions, with two components:
  - evaluation of the work of the relevant international organizations and conventions;
  - examination of the need or otherwise for new international instruments in this field.

The Brazilian Government is accompanying the negotiations in the ambit of the CBD with great interest in order to establish a working programme on forest biodiversity. The Government fully understands that international discussions on forests should take into account not just the quantitative aspects related to environmental protection (reduction of deforestation and increase in forest cover), but also the economic, social and cultural aspects relevant to the sustainable exploitation of forest resources.

## 5.7. Working Programme on Biodiversity in Inland Waters

Brazil also played a significant part in the decisions that led to the recommendation of the Subsidiary Body on

Scientific, Technological and Technical Advice - SBSTTA on inland waters (III/I).

At the Montreal meeting in September 1997, Brazil felt that it was necessary to give more emphasis to the institutional aspects that comprise the basis for the protection of biological diversity. The integrated management of water resources with the watershed as a management unit was included in the final document to address this concern.

Other highlights included in the resolution on the basis of Brazil's proposal, include:

- The use of appropriate, low-cost technologies for water resource management;
- The need for efforts to review the taxonomy of, and identify, threatened and economically important species, or those which could be used as indicators;
- Criteria for the assessment of water quality should take into account natural variability of water bodies;
- Recommend the GEF to consider, in all areas of its programme, the question of biodiversity in inland waters.

The Brazilian delegation also worked hard to increase the scope of the GEF so as to allow greater flexibility in the presentation of projects.

Likewise, Brazil proposed the establishment of basin committees for trans-frontier waters. This will be considered in future negotiations, but the Brazilian position is that discussion concerning this aspect should always be bilateral, and without conditions arising from international instruments that might be limiting to them.

## 5.8. Knowledge of Traditional Populations

Article 8°(j) of the Convention on Biological Diversity states that each Contracting Part should, "subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices;"

In its third meeting in Buenos Aires, 1995, the Conference of the Parties decided to establish an Open Contact Group in order to consider aspects inherent in the implementation of Article 8°(j) and related Articles.

The Contact Group considered, fundamentally:

- The need of the Parties to implement Article 8°(j) and related aspects;
- The importance of biodiversity for indigenous communities;
- The need for dialogue with representatives of these communities;
- The need for the Parties to initiate projects for the training of indigenous and local communities.

The COP also decided to establish an inter-sectorial process to promote the implementation of Article 8°(j) and related actions, with the prospect of a report being submitted to the IV Conference of the Parties.

As part of this process, it was decided that a workshop should be organised with the aim of seeking greater participation of indigenous organizations, the identification of needs, the development of an action plan for the implementation of Article 8°(j) and related articles, as well as consideration of the need to set up an Open Inter-sectorial Working Group or even a Subsidiary Body.

Brazil played a decisive part in conducting the debates and in the results obtained by the Contact Group during the COP 3. Brazilian participation allowed for the drafting of a text considered by the various sectors represented at the meeting to be a significant advance for future discussion of this subject.

## 5.9. Biodiversity Assessment and Inventory

Together with Mexico and Colombia, Brazil is presenting a project, initiated by the MMA, to the Global Environment Facility - GEF for a major floristic survey of the American tropics. It is an innovative proposal which could serve as a model for other initiatives.

There are approximately 250,000 species of flowering plants (angiosperms) in the world, of which 170,000 are native to the tropics. The richest and least known tropical flora is in the Americas, including about 90,000 species of flowering plants - more than Africa (c. 35,000 species) and Asia (c. 40,000 species) combined.

The tropics hold the vast majority of the world's living species, subject to intense biological research. The Neotropical flora is estimated to comprise about 90,000 species, besides some 30,000 yet to be described, which, however, at the present rate will take three to four centuries to accomplish.

Despite their biological wealth, only 6% of scientists work in the developing countries which detain 80% of the world's biodiversity. Our ignorance and the lack of a scientific basis for the taxonomy of this flora are directly reflected in the high cost and limited efficacy in the implementation of projects for biodiversity conservation in Latin America, and restrict the opportunities for sustainable use and for the sharing of benefits which this plant diversity can provide.

The project seeks to meet this need, with the participation of the Neotropical Flora Organization - OFN and the Latin American Botany Network, two non-profit institutions that work in this field.

The project gives priority to vascular plants, given their fundamental role in structuring terrestrial ecosystems and as providers of ecological services, as well as their economic potential. It aims to complete our knowledge of at least 75% of this flora over a period of 15 years, at an estimated cost of US\$ 30 million. Of this total, 40% is for training new specialists.

The Project falls within the scope of Decision III/5 (item 2[b]) and Decision III/10 (items 3, 8 and 10) of the COP. It will provide the vital information and the highly specialised personnel necessary to take decisions concerning conservation, sustainable use (including bioprospection), and the sharing of the benefits of floristic diversity at local, regional and national levels in the 33 developing countries which share the rich flora of the American tropics. They are: Brazil (half the American tropics in terms of area), Mexico (part), Colombia, Peru, Bolivia, Venezuela and Argentina (part) (these 6 countries, together, cover almost 40% of the area), Ecuador, Paraguay, Chile (part), Guyana, Surinam, Nicaragua, Cuba, Honduras, Guatemala, Uruguay (part), Panama, Costa Rica and the Dominican Republic (the latter 13 together account for 12%). Completing the list are Haiti, Belize, El Salvador, Bahamas, Jamaica, Trinidad and Tobago, the Dominican Republic, Santa Lucia, Antigua and Barbados,

Saint Vincent and Grenadines, Grenada, Saint Kitts and Nevis (the last 13 together account for around 1% of the American tropics). France, the United States, Holland and the United Kingdom administer territories that cover about 1% of the American tropics.

An international workshop is being organised for the first semester of 1998 as the next step in the execution of the project.

Two factors limit the rate of production of new monographs on taxonomic revisions: 1) the small number of taxonomists studying the Neotropical flora, and 2) the scarcity of resources for taxonomists to carry out their research. For these reasons, the principal objectives of the proposal are:

- Identify the plant groups for which taxonomic appraisals are particularly important for decisions on conservation and sustainable use;
- Encourage and provide total support for new taxonomic revisions, and support those currently underway;
- Increase the number of botanists studying the taxonomy of the Neotropical flora and guarantee the continuity of their research by training young taxonomists;
- Make taxonomic data available for use by conservationists and decision-makers; prepare texts and distribution maps from existing monographs (*Flora Neotropica Monographs* and similar publications); promote their publication on the World Wide Web;
- Make the taxonomic data freely available to individuals in all tropical American countries; promote the repatriation of data on plant collections to their countries of origin.

