Brazil covers 70% of continental Amazonia and plays a leading part in improving the governance of Amazonian biodiversity. Past initiatives depended on foreign funds and the Ministry of the Environment, and received little research support. Economic policy and regional development instruments did not take sufficient account of the environmental aspect. Policy for promoting sustainable development was barely beyond the experimental stage. On the strength of these lessons, the new Ministry for National Integration is coordinating the actions of 13 ministries so that each will take the environmental aspects into account and positive synergies will arise. Brazil now also has a Sustainable Development Plan for Amazonia which recognises its natural, economic, social and cultural diversity. The recent creation of the Juruena national park, a huge area of 30 million hectares between the Mato Grosso and Amazonas, is one of the latest stages in the struggle to protect Amazonian megadiversity.

The clash between conservation and the presence of human communities is gradually losing ground, although the protected areas have not increased enough to improve biodiversity conservation. Not all plant ecology regions are represented; this would require 80 further units covering 68 million hectares. The new National System of Conservation Units (SNUC) also encourages mosaics of protected areas. Throughout continental Amazonia, discussions to find satisfactory methods of joint management are making good progress. Colombia talks of ethnic conservation units. Ecuador's indigenous people refuse to have their lands included in national parks for fear of being dispossessed. It is now recognised that protected areas must be integrated into the local and regional economic fabric and that local communities must be the primary beneficiaries of their environmental services. Throughout Amazonia, there are increasing numbers of participatory experiments to draw the boundaries of new protected areas, work out management plans and draw up contracts for access to resources.



2/ Biodiversity legislation

Biodiversity legislation is gradually taking shape. Set up under the 1992 Convention on Biological Diversity (CBD), it has been strengthened by government action in countries that are henceforth sovereign States responsible for managing natural resources within their boundaries. It is based on general principles governing the normative capacity of States (precaution, prevention, cooperation and conservation). Its purpose is to organise flows in a way that allows payment for genetic resource transfers, and to ensure greater security in relations between resource suppliers and users, between custodians and consumers of natural resources, and between biodiversity-rich Southern countries and industrialised Northern countries. Biodiversity legislation is being negotiated internationally, transcending rural and environmental legislations, intellectual property rights, trade legislation, and is intended to be imaginative and creative. It takes a variety of forms.

In the debate over genetic resources, CIRAD, in coordination with the Bureau des Ressources Génétiques and the Institut Français de la Biodiversité, has adopted a voluntary strategy of respecting the principles of biodiversity governance, in partnership

with developing countries. It has produced a handbook on genetic

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resource transfers and a charter on intellectual property rights. It undertakes to abide by the rules of access to biological resources and has made it a rule to draw up agreements for biological resource transfers. One voluntary measure is to mention the origin of the biological resources in any application for intellectual property rights over the results of scientific research. CIRAD's biodiversity databases are produced in a clear and open manner, by studying the rights of each contributor, local communities particularly, over the traditional knowledge associated with the biological resources. Participation in setting up biological resource centres is a way of conserving resources. In choosing to voluntarily implement the principles of biodiversity rights even where there are no restrictive rules, CIRAD intends to make meaningful the general goals of biodiversity conservation and utilisation, and so bolster biodiversity legislation.

In their farm and forestry policies, stakeholders approach the conservation and sustainable use of biodiversity in various ways. Under its mission to assist public policy, CIRAD recommends an overall, territorial approach and focuses attention on such varied issues as conserving agrobiodiversity, upkeep of landscapes, pest control, reducing human pressure on land, and certification of farm and forest products. Its researchers consider the representations, discourse and practices of stakeholders so as to understand the living world at different scales. These approaches are partly based on the management of biodiversity as heritage, and they put into perspective the incompatibilities and complementarities that can arise between property rights, access rights and utilisation claims.

CIRAD therefore works in the field and assists stakeholders involved in managing biodiversity to negotiate the establishment of innovative, integrative intervention frameworks. In practice this means working at the local, national and international levels, making scientific knowledge available and introducing mediation processes that foster discussion and knowledge sharing among stakeholders. By developing tools and methods adapted to the specific features of a locality, CIRAD thus aims for dialogue between stakeholders and greater stakeholder responsibility in managing biological resources under severe human pres-

sure. On the strength of

numerous experiments conducted in tropical environments under a variety of legal and regulatory frameworks, CIRAD means to stimulate the production of viable laws and to foster stakeholder ownership of norms and regulations.



DK 531705 3/ Biodiversity and tropical islands

Islands are distinctive ecosystems. Because of their small, clearly demarcated land area, these ecosystems are highly sensitive to natural factors and the impact of human activity. Tropical islands are often subject to violent climatic events, and also enjoy exceptional biodiversity. For example, the Canary Islands are home to more than 12,600 species, 3,545 of which are endemic. The Caribbean islands rank fifth among the world's biodiversity hotspots. The French tropical islands are home to five times as many endemic plant species and 26 times as many fish species as continental France, with a high proportion of endemics and also a high degree of vulnerability: 13% of their plant species

are endangered and there are 60 times as many extinctions as in continental France.

