President Cardoso Announces Plan to Conserve 10% of Brazil's Forests

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During a visit to the United Kingdom in December 1997, President Fernando Henrique Cardoso announced that the Brazilian government will set aside at least 10% of the country's forest ecosystems for protection. This is one of the most important environmental protection initiatives ever announced for Brazil. A deadline for the achievement of this goal has been set for the year 2000.

The goal of protecting at least 10% of the world's forests by the year 2000 was originally defined at the Fourth World Parks Congress held in Venezuela in 1992 as the minimum amount needed for the protection of biodiversity in each ecosystem. On average, only 6% of the world's forests are currently protected. Other institutions have since adopted the 10% goal, including the International Union for the Conservation of Nature, of which Brazil is a member state, and WWF, which has made this goal the primary objective of its "Forests for Life" campaign. The World Bank supports the objectives of this campaign and, together with WWF, intends to support the Brazilian government in its efforts to carry out its pledge. The WWF campaign aims to reverse the growing rates of deforestation and degradation of the world's forests by the year 2000.

With 30% of the world's tropical forests within its borders, Brazil will play a strategic role in the Forests for Life campaign. In order to fulfill President Cardoso's pledge, the country will need to triple the area of conservation units in the Amazon alone. Conservation units, which currently make up only 3.8% of the Brazilian Amazon, include national parks, ecological stations and biological reserves. Furthermore, the government will need to strengthen environmental agencies at the federal as well as at the state and local levels through greater budgetary support and participation in the design of regional development policies. The Pilot Program's Parks and Reserves Project, which aims to protect biodiversity in broad belts (ecological corridors) of the Amazon and the Atlantic Rain Forests, will make an important contribution towards the realization of this goal. (See related article on the Pilot Program's Parks and Reserves Project, page 3.)

It is important to point out that these areas will coexist with other types of conservation units, such as national forests and extractive reserves. These units promote the sustainable use of the forest and serve to complement strict protection units, which are essentially designed to maintain local biodiversity.

WWF recently published a Map of the World's Forests, which paints an alarming picture. Essential for the regulation of climate, biodiversity, soil conservation and the protection of watersheds, forests are being

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About the Pilot Program

The Pilot Program to Conserve the Brazilian Rain Forest supports an integrated set of projects that will contribute to a reduction in the rate of deforestation of Brazil's rain forests in a manner consistent with the sustainable development of the area's natural and human resources, and that will provide lessons for designing future activities. The Pilot Program was launched at the request of the Group of Seven (G-7) industrialized countries and also enjoys financial support from the Commission of the European Communities and the Netherlands. The total volume of financial and technical assistance pledged to the Pilot Program to date, including associated bilateral projects, is about US$250 million. The Pilot Program is coordinated by the World Bank, in accordance with agreements reached by the Pilot Program Participants (the donors and Brazil).

The Pilot Program is designed to address the underlying causes of deforestation in Brazil's rain forests through a three-pronged approach. Projects will help strengthen the capacity of the public sector to set and enforce sound environmental policy; improve management of special protected areas, including parks, extractive reserves, national forests and indigenous lands; and increase the knowledge base on conservation of the rain forest and sustainable utilization of its resources.
Project Updates

This issue of the newsletter features an update and review of all Pilot Program projects currently under preparation.

**FIRE AND DEFORESTATION CONTROL**

Despite initial delays in project concept development, preparation of the Fire and Deforestation Control Project (PRODESQUE) has proceeded smoothly. PRODESQUE is being designed to assist both federal and state environmental agencies in the Amazon to develop a unified system of monitoring and surveillance for deforestation, burning and forest degradation. The project will also help strengthen local capacity to control illegal fires and deforestation. Following recommendations made by the Pilot Program’s International Advisory Group, PRODESQUE will focus on priority areas chosen by the states for their Integrated Environmental Management Projects under the Natural Resources Policy Project.

Based on the project concept and the draft logical framework proposed by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA) in November 1997, the project will support the collection and dissemination of information on deforestation in the Amazon. The project will also seek to control illegal forest activities in certain priority areas (to be decided jointly with Amazonian states) by establishing integrated systems for licensing and monitoring forest activities; strengthening the legal capacity of state and federal environmental agencies to enforce the law and prosecute offenders; conducting field verification of remote sensing imagery; and coordinating aerial and ground surveillance of strategic areas to identify illegal forest activities.

The final PRODESQUE proposal will be ready in April 1998. Project appraisal is scheduled to take place in July 1998.

**FOREST RESOURCES MANAGEMENT**

The grant agreement for the Forest Resources Management Project was signed with the Brazilian government in April 1997. In order to initiate project activities, however, additional grant and technical assistance agreements still need to be signed between the Brazilian government and the German Bank for Reconstruction and Development (KfW), the British Department for International Development (DFID, formerly known as the Overseas Development Agency-ODA) and the U.N. Development Programme. Negotiations with KfW were concluded in December 1997.

In the meantime, work has proceeded apace on the preparation of subprojects and sustainable resource management plans by local communities in the Tapajos National Park, with the technical assistance of a consultant from the German Agency for Technical Cooperation (GTZ). All 16 participating communities have prepared subprojects for review and eventual funding under the project. In addition, a meeting of community representatives, IBAMA, NGOs and the Attorney General’s office took place to discuss the preparation of resource utilization plans as a prerequisite for receiving Use Concession rights from IBAMA. Each community is currently in the process of drafting and reviewing a utilization plan, with the help of IBAMA and the Rural Workers Union of Belterra, Pará.

There have been intensive discussions in the Tapajos region regarding the implementation of a project supported by the International Tropical Timber Organization (ITTO), which would allow the logging of 5,000 ha of the Tapajos National Forest by private firms. The area reserved for the ITTO project, to be implemented by IBAMA, overlaps with approximately 1,000 ha claimed by two of the 16 communities in the region. During a meeting with local community members in August 1997, IBAMA president Dr. Eduardo Martins pledged that no logging would take place under the ITTO project in areas claimed by the communities.

**MONITORING AND ANALYSIS**

Preparation of the Monitoring and Analysis Project (AMA) was completed with the successful conclusion of project appraisal in March 1998. With a budget of US$2.6 million (US$2.0 million from the Rain Forest Trust Fund and US$0.6 million from the Brazilian government), the project will be implemented by IBAMA, overlaps with approximately 1,000 ha claimed by two of the 16 communities in the region. During a meeting with local community members in August 1997, IBAMA president Dr. Eduardo Martins pledged that no logging would take place under the ITTO project in areas claimed by the communities.

Envisioned as a critical part of the Pilot Program, the AMA project crosscuts the program as a whole. It aims to generate and disseminate strategic information and lessons about the program that can help guide project managers, resource users and policy makers.

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**Monitoring and Analysis (Cont. from page 2)**

The AMA project has three components. First, the project will establish an integrated monitoring system that provides managers with rapid feedback on program and project performance. To encourage cooperation, UMA will assist other projects in developing coherent and practical sets of indicators. In addition, the project aims to establish a user-friendly data base system that should promote information exchange among program and project managers.

In its second component, the AMA project will generate strategic lessons based on studies and analyses of information derived from project monitoring and other sources. This component will be carried out largely by independent institutions or researchers contracted by the project. Each study or analysis under the project would be formally presented for review by the Pilot Program's International Advisory Group, as part of its oversight function for the project.

The AMA project's third component will disseminate the lessons learned to key target audiences in Brazil and abroad, including: (i) donors and executors of the Pilot Program; (ii) policy makers at the national, state and municipal level in the Amazon and Atlantic forest regions; (iii) economic agents that utilize natural resources in these regions; and (iv) local communities dependent on those resources for their livelihood. In addition to improving the performance and future design of the Pilot Program, the project is expected to provide broader lessons contributing to the sustained use and protection of tropical forests in Brazil and other countries.

**PARKS AND RESERVES**

Over the past several months, important steps have been taken to advance the Parks and Reserves Project. The Brazilian government and the Bank have reached broad consensus on the objectives, outcomes and components of this project, which will aim to contribute to the effective conservation of biodiversity through the implementation of "ecological corridors" in the Amazon and Atlantic forest regions. The ecological corridors will include a variety of protected areas, the zones around them and linkages between the areas.

To attain this objective, the project is being designed to achieve four major outputs: (1) establishment of a participatory management system for two ecological corridors in the Amazon and Atlantic Forest regions; (2) an increase in the size and linkage of protected areas in the corridors by establishing public and private protected areas and defining priority activities for biodiversity conservation on indigenous lands; (3) effective conservation of biodiversity in protected areas within the corridors by strengthening protected areas, stimulating natural resource management by local populations, and identifying new financial and fiscal mechanisms for long-term support of biodiversity conservation; and (4) promotion of the ecological corridors concept in the Amazon and Atlantic Forest regions.

Although some questions remain about the administrative structure of the project, consensus has been reached by the Brazilian government, the Bank and the donors on a "multi-layered" approach to project management. Coordination of the project as a whole would be anchored in a specific unit at IBAMA headquarters, and decentralized units would implement project activities in each ecological corridor, in collaboration with regional oversight committees of public and private stakeholder representatives. Conservation subprojects would be carried out by specialized implementation "nuclei" within the corridors.

In light of its complexity, the project will be implemented in two phases. The first phase, lasting 12-18 months, would focus on achieving maximum local support for the corridor concept and establishing the institutional arrangements for their long-term administration. The second phase would take place during the following three to four years, and would focus on the implementation of activities to achieve the four major project outputs.

The final project proposal was submitted for Bank review in February 1998. Appraisal of the project will take place in June 1998.

**FLOODPLAIN (VÁRZEA) MANAGEMENT**

Preparation of the Várzea Management Project has made good progress over the past year. In July 1997, an initial project proposal was submitted by the project preparation team to IBAMA and the Bank for review. The presentation and subsequent discussion between IBAMA, the Bank and the project preparation team reconfirmed the overall design of the project, which will include the following three major components: (1) support for strategic studies, the results of which will be used to help define public policy in the várzea; (2) identification of and support for promising initiatives for the sustainable management of várzea resources; and (3) monitoring, control and enforcement activities, which will aim to provide essential baseline information and indicators for the sustainable management of várzea fisheries.

Following review of the project by a broad range of project stakeholders and peer reviewers, a final draft proposal was prepared and submitted to IBAMA in September 1997. Remaining issues to be addressed in the project design include the development of a workable project management and monitoring structure; the need to

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Brazil Forest Conservation  (Cont. from page 1)

threatened throughout the world. Almost two-thirds of the original global forest area has already been destroyed. Unless serious measures are taken to interrupt this degradation, we run the risk of losing much of what remains during the next 50 years. Unfortunately, in terms of totally deforested area, Brazil is the country with the largest forest loss in the world today. The trends are not encouraging: in 1995, deforestation in the Amazon reached 29,000 km², the highest rate registered, surpassing the 1970s and 1980s when international public opinion rallied against Brazil's deforestation rates. (See related article on this page.)

Forests are central to two principal environmental crises throughout the world: biodiversity loss and global warming. Tropical forests, which cover 7% of the earth's surface, contain 50% of the genetic wealth of the planet. Their destruction inevitably translates into increased biological poverty of our planet.

In the Forests for Life campaign, every country should take appropriate action to fit their own specific national requirements. Brazil has already taken a step in this direction. Besides strengthening environmental agencies, another fundamental step would be the completion of the economic and ecological zoning of the Amazon region. The existence of this instrument and its effective utilization in planning regional development policies are essential for the realignment and movement of the Amazon towards its true economic and environmental vocations. It is also urgent that the National Congress pass legislation to establish the National System of Conservation Units (PL 2.892/2), a vitally important tool for increasing the efficiency of the environmental agencies, under deliberation since 1992.

The Atlantic Forest has already lost 93% of its original area. The Amazon, despite the last three or four decades of continuous deforestation, still has a large portion of intact forest. WWF believes that with this and other measures, Brazil will successfully guarantee a sustainable future for the Amazon, and avoid the creation of a new Atlantic Forest of even greater proportions.

**DEFORESTATION RATES ANNOUNCED**

The Brazilian government announced on January 23, 1998 the long-awaited Amazon deforestation rates for the years 1995, 1996 and 1997. Prepared by the National Institute for Space Research (INPE), the data are based on the interpretation of 229 LANDSAT satellite images. (More detailed information is available from INPE's website at http://www.inpe.br/amz.htm.)

According to INPE, deforested areas in the Amazon increased by 29,059 km² in 1994-95; 18,161 km² in 1995-96; and 13,037 km² in 1996-97 (estimated). (See table on this page.)

In comparison, the area deforested in 1990-91 was 11,130 km², and during the two-year period from 1992-94, the average annual deforestation rate was 14,896 km². By 1996, the cumulative deforested area amounted to 517,069 km², or about 12.9% of the Amazon's original forest cover of about 4 million km². The most deforestation continues to occur in the states of Mato Grosso, Pará and Rondônia (83% of the total deforested area in 1996).

INPE's data only include cleared areas that are visible from LANDSAT images (>6.25 ha). While the current data do not include areas with forest damage from selective cutting or from fires that occur underneath the canopy, INPE is studying how to include this kind of damage in future assessments. The estimated rate of deforestation from 1996-97 is based on the interpretation of about 20% of those satellite images that have historically shown the greatest deforestation, representing about 77% of total annual deforestation in 1996. The complete data for 1996-97 should be available by June 1998.

For the first time ever, the new INPE figures distinguish deforestation by forest type and by the size of cleared plots. In 1996, about 57% of deforestation occurred in forests classified as "dense or open rain forest," and another 26% in areas classified as "contact" forest (transition between dense/open rain forest and savannah types). With regard to the size of cleared plots, about 41% of the area was made up of plots smaller than 50 ha, and about 14% of plots larger than 1,000 ha.

While there is as yet no convincing explanation for the extraordinarily high rate for 1995, a more detailed analysis of the size distribution of burn plots through the years could provide a key for understanding this phenomenon. A forthcoming publication from the Pilot Program entitled "Blames in the Rain Forest: Origins, Impacts and Alternatives to Amazonian Fires" (available in July 1998) examines the issues of clearing, fire and the reasons for burning in more detail.

**Deforestation in the Brazilian Amazon**

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<tr>
<th>Year</th>
<th>Annual Rate of Deforestation</th>
<th>Percentage of Total Forest</th>
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<tr>
<td>1994-95</td>
<td>29,059 km²</td>
<td>0.72</td>
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<tr>
<td>1995-96</td>
<td>18,161 km²</td>
<td>0.45</td>
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<tr>
<td>1996-97</td>
<td>13,037 km² (est.)</td>
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Source: INPE, 1998

**Floodplain Management**  (Cont. from page 3)

strengthen the role of the states in the monitoring and control component through possible linkage with integrated subprojects under the Natural Resources Policy Project; and definition of financing mechanisms and levels for the strategic studies and promising initiatives components.

Full financing of the estimated US$14 million in project costs has not yet been secured, although interest has been expressed by two possible donors (KfW and DfID). The proposal was formally submitted to the Bank and donors in March 1998, and the project is slated for appraisal in May 1998.