

he Atlantic Rain Forest in Brazil is not a single ecosystem, but one of the world's most diverse and of ecosystems. Well-known

rich groups of ecosystems. Well-known scientists and leading bodies, such as Conservation International, describe it as a veritable "hot spot" of biodiversity with its numerous endemic species and its significant environmental functions.

The very large number of endemic species (i.e. species that only occur in these ecosystems) to which the Forest is home, includes primates, orchids and a wide variety of trees. Among its environmental functions are soil protection, water production and carbon sequestration – not to mention beautiful landscapes for recreational

activities and tourism in Brazil!

Unfortunately, changes in method and type of land use have shrunk the Atlantic Rain Forest from its original cover of 136 million hectares to approximately 9.5 million hectares, part public and part privately owned. In chronological order, the main driving forces which have caused this reduction have been, and continue to be:

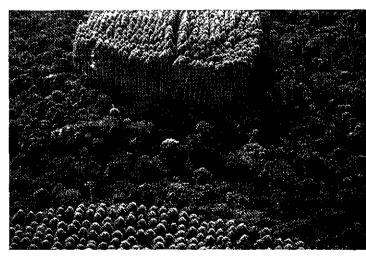
- the extraction of timber, color pigments and resins from highly valuable trees;
- the introduction of sugar cane and coffee plantations;
- the expansion of agriculture and cattle farming; and
- Increased urbanization and industrialization.

Even before the first Portuguese settlers arrived in Brazil in the 16th century, the Atlantic Rain Forest was a source of raw materials, fiber, food. traditional medicines, oils and resins and other wood and non-wood forest

Conservation of the Atlantic Rain Forest and Private Land

By Weber Amaral

products. Supply of these materials continues today on a scale that is much smaller, but which is sufficient to provide the main source of income and livelihood for many people – in particular local communities and indigenous groups that live along the coast.



With the Atlantic Rain Forest reduced to around 7% of its original cover, the ecosystems within it are today some of the most threatened in the world. They are ranked a priority area for conservation by several international organizations, including the IUCN,

UNESCO, the World Bank, and several NGOs from Brazil and around the world.

Basic research still needs to be done to understand what causes the biodiversity within these many separate and fragmented areas, and the effect that the break-up of the Forest through land clearance has had on the dynamic functioning of the ecosystems and on the resilience of various species. It requires long-term ecological research and monitoring, which demands adequate funding.

Several initiatives are being undertaken to enable policy-makers, researchers and environmentalists to set priorities for conservation. A good

example was the workshop on "Evaluation and Priority Actions for the Conservation of Biodiversity in the Atlantic Rain Forest and in the Southern Pampas of Brazil", held in 1999, in Atlania (SP). After several years of collecting and compiling data, more than 198 scientists and policy-makers sat down together to discuss their findings and to make recommendations for future research and activities

These ranged from regional planning and the creation of new conservation units, to the implementation of forest corridors and changes in environmental policies.

Despite being reduced to isolated and small forest fragments and despite its

NATIVE FORESTS OWNED/CONSERVED BY PULP, PAPER AND MINING SECTORS IN THREE BRAZILIAN STATES

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State -	Total current area covered by the Atlantic Forest* (ha)	Area owned by the private sector** (ha)	% of total Atlantic Forest area being conserved by the private sector
Espírito Santo	408,924	103,000	25.2
Bahia	1,263,000	121,000	9.5
Minas Gerais	813,635	269,000	33.0

^{*} Workshop of evaluation and priority actions (1999, Atibaia, SP) / ** Examples from the pulp and paper and mining sectors



ecological and social-economic importance, the Atlantic Rain Forest continues to disappear. This makes it vitally urgent for all the players, policy-makers and stakeholders – including those in the private sector who own important areas of native forests along the Brazilian coasts – to take organized and co-ordinated action to conserve the biodiversity of what remains.

Much needs to be done, both at local and regional levels, to understand the consequences of the fragmentation of the Forest on its biodiversity. In studying these effects, there is an important role for the privately-owned native forests.

The existence of these private fragments is also essential for the future scientific study of fundamental questions in biology – where biodiversity meets biocomplexity and vice versa – to which the established long-used measure of the status of conservation for particular terrestrial ecosystems (i.e. the amount of forestation), no longer provides the full answer.

We are facing new challenges in a world where inter-disciplinary research is mandatory and where resources are scarce. All stakeholders and policy-makers must be involved in contributing better solutions to this major ecological issue.



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