
SUMMARY OF SITE VISIT: MARKET BASED CONSERVATION (FUNDECOR)

Guide: Marcela Ramírez

Rapporteurs: Frederique van Zomeren, Carolina Mauri, Lawrence Pratt

1 INTRODUCTION

In the beginning of the 1980's, the Costa Rican government decided to protect national primary forest. Instead of regulation, it created market-based incentives. The government developed a system of environmental services payment, based on the economic theory of externalities. Among others, the system focuses on water and biodiversity protection. The governmental funds improve forest owners' income through a market forest policy that acknowledges natural values provided by forest to society.

The Foundation for the Conservation of the Central Volcanic Mountain Chain (FUNDECOR) is a non-profit organization whose mission is to maintain and protect forests, biodiversity and the sustainable use of natural heritage in the Central Volcanic Mountain Range (Central Volcanic Conservation Area - CVCA).

FUNDECOR's strategy for carrying out this mission is to define objectives and policies for protection of natural heritage in the form of national parks, and develop financially and environmentally sustainable activities in the buffer zones. This strategy made it possible for FUNDECOR to rapidly reduce loss of natural forest during the 1992-1996 period, reducing the rate of deforestation from 7000 to 1000 hectares a year. In addition, the foundation became established as an organization with world-class standards, dedicated to the design and implementation of financial and environmental technologies that contribute to the sustainability of development efforts.

FUNDECOR's principal orientation is in the following areas:

National Parks:

- Formulate management and administration plans
- Establish and demarcate the boundaries of park areas
- Improve protection programs and infrastructure
- Promote financial self-sufficiency, offering local communities opportunities for improving and participating in profits from park-generated activities.

Buffer Zones:

- Sustainable management of forests
- Reforestation, protection and regeneration of forest cover
- Promote the profitability of forest conservation and sustainable logging through the application of management systems ensuring that tree planting is successful and impact from timber extraction is minimal

2 FUNDECOR AND MARKET BASED CONSERVATION IN COSTA RICA: A GLOBAL INNOVATIVE APPROACH

FUNDECOR had designed a strategy of creating profitable green market alternatives for forest owners, respecting and strengthening at the same time the existing property structure of small-scale forest dwellings. In doing so, FUNDECOR has empowered forest owners not only to take advantage of the new emerging markets for global commons and increase their income, but most of all to make their own

educated decisions about the forest as an asset for their future social and economic development.

This incorporation of informal productive activities—of Costa Rican small-scale forest owners—to the mainstream local and global economic realms was possible through the linkages created by FUNDECOR between the small forest dwellers and the local international communities. These linkages were established at three levels:

- With the international community via joint implementation projects designed to reduce global climate change emissions or fix carbon in forest resources;
- With the local mainstream production of clean energy via participation in hydro electrical production; and
- Third, to global corporations via production of sustainable wood to supply transnational forest industries and access to global standards like the Green Seal certification of the Forest Stewardship Council.

Particularly, FUNDECOR laid the bases for the creation of a whole new market for carbon sinks. The CARFIX project is recognized as the world's first joint implementation project for the international trade of emissions reductions. Likewise, FUNDECOR designed and organized the Costa Rican Office for Joint Implementation through which the Costa Rican Government sold US\$2,000,000 carbon offsets to the Government of Norway, an event that showed the world viability of a global market for environmental services.

The strategy followed by FUNDECOR to preserve the Costa Rican forest has shown as well that empowering citizens, and particularly forest owners, to take control of their own development is the best approach for forest conservation and development. Among the activities jointly implemented by FUNDECOR with forest

owners, it is important to highlight the following:

- Preparation of sustainable forest management plans, transfer of technology, and provision of technical support to guarantee the sustainable harvesting of wood.
- Provides forest owners with an advance cash flow for their wood production through an advance wood purchase system designed and executed by FUNDECOR
- Sells wood production in timber auctions designed to guarantee the forest owners the highest market price for their harvests.
- Cooperates with investors in hydro electrical production by protecting the watersheds in which their projects are located through the financial compensation of forest owners that are located in the surroundings of the hydro electrical plants.
- Executes environmental education programs with elementary and high school students from public and private educational centers throughout the country.
- Creates market mechanisms to add more value to sustainable managed forests.
- Helps consolidate the property rights of forest dwellers through the registration of their lands in the National Property Registry.

In terms of the people affected by the initiatives of FUNDECOR, the institution has subscribed 450 contracts with small forest dwellers to provide technical assistance to manage their forest under the strictest standards of environmental sustainability. The total extension of the land under FUNDECOR's supervision is 40,000 hectares. The direct beneficiaries of FUNDECOR's projects are approximately 2,600 people, considering that the average family of forest owners has 5.2 members.

The indirect beneficiaries of FUNDECOR's activities include 40.000 persons that live in FUNDECOR's area of influence, as well as 350.000 international and domestic tourists that visit the Costa Rican national parks in the conservation area every year. Other indirect beneficiaries are the Costa Rican sustainable forest industry, and the 50% of the Costa Rican population that lives in the Central Valley and that benefit from the water and energy services provided by the programs designed by FUNDECOR and implemented in the region by the private sector.

At the same time, local and foreign investors in hydro electrical production have benefited from FUNDECOR's project to pay the environmental services that forest owners provide by feeding the watersheds. The producers pay into a fund that compensates landholders for maintaining forest cover. This serves a two-fold purpose: preserving the forest and guaranteeing the long-term sustainability of private investments in hydro electrical production. FUNDECOR has also helped the Costa Rican State design a system to manage the payment of these environmental services provided by privately owned forests. Finally, because the environmental services of preserving biodiversity and carbon sinks have a global character, the beneficiaries are also global and can be quantified as the total population of the world that benefits from these two privately produced goods.

3 STARKE'S FOREST MANAGEMENT FARM

FUNDECOR provides technical assistance by developing a general forest management plan. To start with, all trees, rivers, hills etc. are mapped. Protected zones were created near rivers (15 meters) and hills (>30 %, 50 meters) to prevent and control erosion. Secondly, the different for-

est species were studied. This included both flora and fauna, in quantity and quality. Then trees were marked. It is only allowed to harvest 60 % of the trees with a diameter of 60 cm or more. Rare species are also marked, and will not be harvested. The next step is an assessment of causable environmental damage. Research will be done on the exact location of the cut tree and the access roads that need to be built to transport the wood. Heavy equipment is used for the transportation, because no other means are feasible. The whole process will take approximately 2 months for 2 technicians and 3 co-workers.

The forest owner receives an environmental services payment of 45 USD per hectare per year. The forest owner only has to pay 50 USD per hectare to FUNDECOR once. The price of the wood will be higher as the wood will be certified by FSC. Every 12 to 14 years there will be a harvest. The profit is about 1000 USD per m³. The overall result is a sustainable forest reservation and a higher income for the private forest owners.

4 FUNDECOR'S FUTURE

Within the framework of prevailing currents in sustainable development, FUNDECOR stands out as a world leader in the field of new environmental technologies and financial mechanisms for conservation of natural resources and biodiversity.

The key to FUNDECOR's strategy is creativity in generating markets that make conservation profitable for the owners of forests. The foundation is also notable at the world level for its capacity in conceiving new environmental services that give substance to the concept of joint implementation. One example is Project CARFIX, the first in the world to sell the carbon-fixing capacity of forest.

Currently FUNDECOR is preparing to extend its activities to the Tortuguero

Conservation Area, and is designing a strategy for transfer of its technologies to the Costa Rican State, particularly to the Ministry of Environment and Energy. In addition, these technologies will be made available to other private organizations and NGOs as a means of extending their application to new areas of the country.

FUNDECOR also places its knowledge and technologies at the disposition of other nations interested in replicating these experiences in the field of conservation and the development of environmental services.

5 DISCUSSION QUESTIONS AND ISSUES

- To many in Costa Rica and elsewhere, the activities carried out by FUNDECOR are controversial because they involve promoting economic activities on sensitive lands. It is at the heart of the fight in the “conservation versus sustainable use” debate. To some, these lands should be in the National Park system since they are biologically important. Is what FUNDECOR does a perverse substitute to the role of the state in protecting sensitive lands? Could it or should it be a viable complementary strategy? How and why?
- Much of the income flow to the landowners has come from international sources. This is appropriate, since the compensation is in exchange for protection of global commons (climate change and biodiversity protection). However, the local forests provide a great deal of local value in terms of scenic beauty, water capture, local climate control, etc. To date, a handful of hydroelectric operators are the only ones compensating landowners for maintaining forest. What other parts of local society should be involved in this type of payment activity? Why, and for what specific benefit?
- How does FUNDECOR enforce their agreements with the local landowners? What could be a good sort of agreement? How does FUNDECOR guarantee to the international partners their mission? What is the office of FUNDECOR and how many people are working there? How does FUNDECOR guarantee that the levels of preservation are kept at a desired level?