EQUATOR INITIATIVE



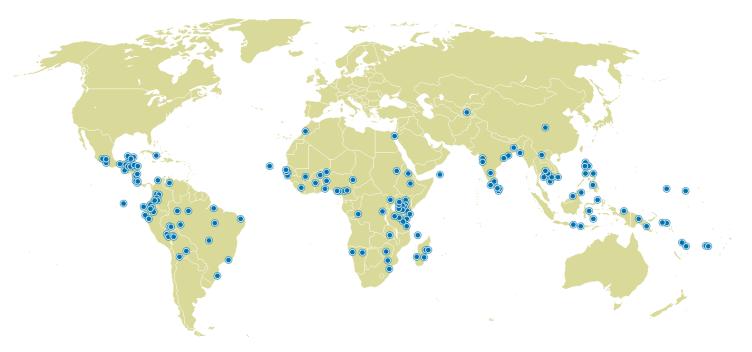


Equator Initiative Case Studies
Local sustainable development solutions for people, nature, and resilient communities

UNDP EQUATOR INITIATIVE CASE STUDY SERIES

Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

To mark its 10-year anniversary, the Equator Initiative aims to fill this gap. The following case study is one in a growing series that details the work of Equator Prize winners – vetted and peer-reviewed best practices in community-based environmental conservation and sustainable livelihoods. These cases are intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication. Case studies are best viewed and understood with reference to 'The Power of Local Action: Lessons from 10 Years of the Equator Prize', a compendium of lessons learned and policy guidance that draws from the case material.



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Acknowledgements

The Equator Initiative acknowledges with gratitude the Talamanca Initiative, and in particular the guidance and inputs of Diego Lynch. All photo credits courtesy of the Talamanca Initiative. Maps courtesy of CIA World Factbook and Wikipedia.

Suggested Citation

United Nations Development Programme. 2012. Talamanca Initiative, Costa Rica. Equator Initiative Case Study Series. New York, NY.

TALAMANCA INITIATIVE

Costa Rica

PROJECT SUMMARY

Since the late-1970s, local NGO Asociación ANAI has promoted sustainable farming practices in rural communities living within the Talamanca region of Costa Rica. Home to one-third of the country's indigenous people, the canton ranks lowest in many key socioeconomic indicators, including human development, yet is home to some of the country's richest biodiversity. This natural heritage was threatened by overreliance on cacao farming as a monoculture, which has contributed to a vicious cycle of forest clearance and loss of soil productivity.

Asociación ANAI has acted as an incubator for community-based action that seeks to address these persistent social and ecological challenges. Chief amongst these local initiatives have been sustainable agricultural approaches, inspired by ANAI's regional Finca Educativa training centre. Peer-to-peer learning has also been applied in marine and coastal settings, through endangered turtle species conservation, and in developing ecotourism ventures.

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KEY FACTS

EQUATOR PRIZE WINNER: 2002

FOUNDED: Late 1970s

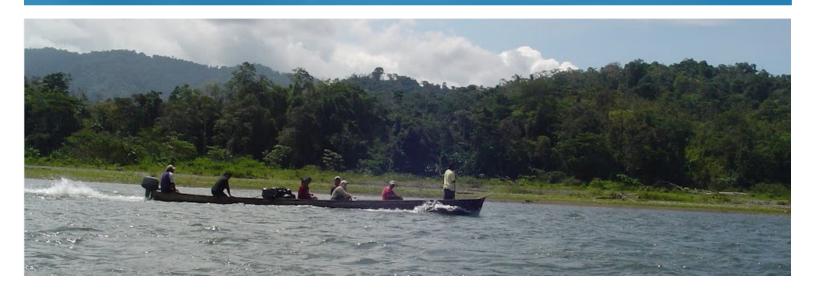
LOCATION: Talamanca, south-east Costa Rica

BENEFICIARIES: Over 20 grassroots organizations

BIODIVERSITY: Wildlife refuge & marine turtle conservation



Background and Context



The canton of Talamanca lies in the south-east of Costa Rica, bordered by Panama and the Caribbean. It is the country's poorest region in socioeconomic terms and the richest area in terms of biodiversity and tropical forest ecosystems. Stretching from the highest point in the country to sea level, the 2,800-square kilometre region is home to approximately 32,500 people, as well as many plant and animal species that are found nowhere else in the world. The area that straddles Costa Rica and Panama, La Amistad International Park, was declared a World Heritage Site in 1983, and, along with Chiripó and Cahuita National Parks, covers approximately 55 per cent of the canton's territory. In total, 88 per cent of the region is under official protection. Yet Costa Rica has one of the highest deforestation rates in the world. Tropical rainforests maintain almost all their nutrients in the trees and animals, unlike temperate forests where much of the nutrient wealth is in the soil. Consequently, when a forest is cleared almost all the nutrients are lost and the original forests cannot be regenerated.

Pervasive poverty and over-reliance on cacao

Talamanca is home to around one-third of Costa Rica's indigenous population, numbering more than 11,000, primarily from the Bribri and Cabécar groups. The canton suffers from pervasive poverty. In 2009, its human development index was the lowest-ranked of all Costa Rican cantons. The infant mortality rate was 12.89 per thousand in 2009, but as recently as 2003 it had been as high as 22.5 per thousand. In 2010, only just over half of Talamanca inhabitants had access to either piped or septic tank sanitation. One of the main sources of income is agriculture, and particularly cacao; traditionally, farmers have relied heavily on the intensive cultivation of cacao in monoculture plantations. When, in 1979, cacao trees became infected with a fast-spreading fungal disease, the local agricultural economy in Talamanca was left devastated. Farmers were forced to clear the land to raise cattle, cut the trees for timber, and introduce intensive farming methods to produce short-cycle cash crops, contributing to a vicious cycle of widespread deforestation.

Asociación ANAI

Recognizing that this would only lead to the destruction of the region, however, a local initiative has worked to re-introduce indigenous agricultural techniques, diversify farming and develop ecotourism, among other alternative livelihood activities, to conserve the region's natural environment and improve local wellbeing. In 1978, to stop tree harvesting and the selling of land for ranching, a local NGO called Asociación ANAI began encouraging farmers to put into practice methods that both conserved the environment and generated income.

Asociación ANAI had begun as a loose coalition of North American biologists and Talamancan farmers dedicated to raising awareness among the region's agrarian community of sustainable farming practices. Efforts were initially focused on an experimental farm, and in the surrounding community of Gandoca. Through experiential learning and ongoing assessments of local needs, the association's work became entrenched in its beneficiary communities, and, as local people began to exercise an increasing level of "ownership" over its projects, conservation-development linkages became more apparent to its member farmers. As confidence in ANAI grew, these linkages gained more attention. The first formal recognition of the group's work came in 1985, when the association partnered with local communities and the Costa Rican government to establish the 25,000-acre Gandoca Manzanillo National Wildlife Refuge in the coastal part of Talamanca.

The Talamanca Initiative

From 1985 onwards, the association evolved from a loose coalition of founders with a very local and thematically-limited focus to a consolidated organization with a regional focus, working with rural communities of all of the region's ethnic groups. ANAI promoted a broad menu of sustainable development alternatives and projects that were embraced by the canton's local and indigenous campesi-

nos. Due to its close association with local people, this work came to be known collectively as The Talamanca Initiative, and gained national and international credibility for its pioneering integration of sustainable development and community-led conservation.

One of the goals of ANAI's work in Talamanca has been to act as a support agency for the incubation of local and regional initiatives, facilities, and grassroots organizations, the management of which is transferred to local communities over time. Over the course of several years, ANAI's staff would meet on a weekly basis with farmers from a particular community, and monthly with representatives from all of Talamanca's communities, designing a regional programme to address sustainable development and conservation issues. Among the first initiatives sponsored by ANAI in this way were the Association of Small Producers of Talamanca (APPTA) and the Talamanca Caribbean Biological Corridor Association (CBTCA), both leading actors in the Talamanca Initiative. The association also sponsored the creation of Finca Educativa, a regional training centre, and the establishment of several community savings and loan groups.

Many of these groups are now self-sustaining organizations, carrying out the initiative's activities independently from ANAI's supervision. The association continues to act in its self-designated role as an intermediary or "Grassroots Support Organization". ANAI acts as a facilitator, providing strategic and managerial support, and has branched out into activities such as biomonitoring.

A common core belief of the Talamanca Initiative is that the key to conservation and sustainable development is the successful management of these issues by the local people. The work of the Talamanca Initiative is guided by five core principles: i) no inherent contradiction exists between economic development and environmental conservation (if communities and nations are to thrive, development and conservation must take place together); ii) the best stewards of the tropical lowlands are the region's campesinos and Indian farmers who have dedicated their lives to these lands; iii) all natural tropical areas that are not protected will be radically altered during our lifetime and we must work to protect these areas and preserve their biodiversity for future generations to enjoy; iv) the natural forest and other unique primary ecosystems are Talamanca's most economically valuable asset in the long term; and v) a successful strategy to address these issues must successfully integrate environmental, social, economic and organizational needs.



"If communities and nations are to thrive, development and conservation must take place together"

Diego Lynch, Asociación ANAI

Key Activities and Innovations



The primary project catalyst was the need to find an alternative to cacao as a source of income. This built on widespread recognition during the 1980s among Talamancan farmers that diversification was the answer to sustaining their livelihoods. ANAI's vision was to minimize destructive practices by establishing diversified agroforestry systems which would not only mimic the function of the natural forest (as does traditional cacao farming) but also produce enough income from a small area to enable each farmer to preserve a portion of natural forest. This combination of agroforestry and natural forest would also provide for the sustainable harvest of wood or other products such as medicinal plants for watershed protection, tourism and the farm family's own use.

ANAI began by planting crops on its experimental farm in 1978, eventually planting more than 150 species of fruit, nut and spice crops that they identified from the world's lowland rainforest areas as having potential to be integrated into Talamanca's small farm systems. This included bananas and many types of fruit trees which were not previously common, such as araza, sapoti and jackfruit. Between 1985 and 1990, more than two million cash crops, food crops and trees for timber were planted on the region's family farms, creating a larger and much more diverse resource base. The variety of plants and trees mimicked the variety in natural forests and so helped to support biological diversity – a key to sustaining insect life and allowing the surrounding forest to thrive.

Using the information gathered during the crop trials, ANAI helped local farmers establish tree nurseries in every community of Talamanca, an innovative approach that allowed the distribution of the new crops and new varieties of cacao to communities far from the nearest road. ANAI learned early in the process that most communities had little experience in coming together in groups to make decisions and solve problems, so the nurseries became a focal point for completing work, learning about crops and allowing the community to work together.

Adding value to local harvests

To make crop diversification economically viable, the Association of Small Producers of Talamanca developed local processing infrastructure and marketing strategies. Markets were secured by applying for and receiving fair trade and organic certification from internationally recognized organizations. ANAI then worked to: identify the potential for growing and marketing organically grown crops; identify markets, both locally and internationally; and establish an organic certification programme (the first of its kind) for small farmers in Costa Rica, ultimately arranging certification for the first 500 farms.

This approach has been so successful that over 1,000 farmers have established organic agro-ecosystems, combining commercial crops with food security strategies. The Association of Small Producers of Talamanca has become the largest volume producer and exporter of organic products in Central America, generating an average annual income of USD 500,000 to date. Revenues are channeled into the local economy through a large number of family farmers. In fact, demand for organic cacao has outgrown supply, so the programme is being expanded to neighboring countries to meet demand.

A regional centre of excellence

In 1991, a locally-run regional training centre known as Finca Educativa was established in the Talamanca Indigenous Reserve. It was constructed by tits users and is managed by a local board of directors and executive committee. It serves over 2,000 people per year, providing courses and workshops in agriculture, health, appropriate technology, and conservation – for example, the concept of endangered species, reforestation, and the relationship of individual animal species with their habitats. Leadership training programs have focused on empowering local people to function as community leaders, and this has served, among other things, to strengthen community-based organizations. Environmental education in local primary schools has been undertaken since the early 1990s.

Forest conservation

To conserve the region's forest and avoid the extraction of timber at the lowest negotiable price, the initiative developed low-impact operations that would produce a value-added product in the community. In addition, they purchased land as a last resort to save the land from immediate deforestation; provided legal assistance in matters ranging from resolution of land tenure disputes to enforcement of forestry and wildlife laws; replanted native species; and developed integrated land management plans.

As an example, members of ASACODE, a local group which focuses on sustainable forestry, have all been trained to develop management plans for selective sustainable logging, to navigate the complex permit processes, to harvest trees so as to minimize damage, to extract logs using animal traction (water buffalo), and to process the wood at their own sawmill. Unlike conventional loggers, ASACODE members also consider conservation needs and alternative options, such as non-traditional forest products and ecotourism. As a testament to the success of their work, the farms being managed by ASACODE have been certified as meeting all the criteria for sustainability set out by SmartWood, an international certification agency for sustainable forestry.

Ecotourism

Costa Rica had been exploited in the past by businesses and entrepreneurs that developed the land for tourism with little regard for the environment or the local people. In contrast, the Talamanca Initiative recognized the potential to draw further income into the region by developing a sustainable ecotourism market. The growth





of tourism in Talamanca has exploded since 1985 and has been recognized as a double edged sword, representing both destructive elements and opportunities. Therefore, the emphasis has been placed on proper planning and management of activities by local people. The early work of two ecotourism lodges informed and guided ecotourism activities by other groups. The pioneers demonstrated that locally controlled ecotourism can make their organizations stronger and more sustainable.

In 1998, 17 associations and businesses formed the Talamancan Community Ecotourism Network to facilitate close organizational relations, product development, information and idea sharing, training, collaborative planning, production of promotional media, and participation in ecotourism fairs. There are now five ecotourism lodges, which are all owned and managed by community organizations. The revenue earned goes directly to the families in the community who have set up small family businesses. The tangible benefits from conservation have been an essential part of the process of developing support for conservation among the rural poor. The Talamanca Network also decided to create a conservation fund, into which they contribute a percentage of all ecotourism income.

Scaling out: 1998 to present

The initiative currently involves collaboration and cooperation between more than 20 grassroots organizations, representing around 1,500 small producer households, and Costa Rica's Ministry of Environment and Energy. Participants include men and women of all the social and ethnic groups of the southern Caribbean region of Costa Rica, including Afro-Caribbean, indigenous, and mestizo peoples.

Impacts



BIODIVERSITY IMPACTS

The initiative's conservation impacts have included both terrestrial and marine ecosystems. The Gandoca-Manzanillo National Wildlife Refuge, stretching for 30 km along the Caribbean coast, was established in 1985 as a direct result of Talamanca Initiative actions, in partnership with the Costa Rican Ministry of the Environment and Energy. This refuge (now an officially recognized RAMSAR site) protects many species of endemic plants and animals, serves as Costa Rica's last remaining refuge for manatees and other endangered species, and contains a diversity of unique wetland ecosystems found nowhere else in the country. A co-management plan implemented in the refuge, the first of its kind in a Costa Rican protected area, has served as a model of communities, NGOs, and governments working together for the benefit of local people and the area's unique biological resources. The reserve has provided a stimulus for the local ecotourism trade, bringing economic benefits to neighbouring communities.

Protecting an endangered marine species

The Talamanca Marine Turtle Conservation Program, started in 1992 in the community of Gandoca, has saved thousands of leatherback, green, and hawksbill turtle eggs from predation and poaching, bringing stability back to the local populations of these endangered animals. Sea turtle conservation has become the economic motor for this community, generating six times more income than was previously generated from the harvesting and selling of turtle eggs, through the provision of services to the project volunteers and tourists. As one of the most successful projects of its kind in the world, Gandoca has become a center for the training of turtle conservationists throughout Central America and the Caribbean. Talamanca is one of the few places in the world where leatherback sea turtle populations are growing.

Quantifying the benefits of agro-ecology

Scientific validation of the role that small farm agro-ecosystems can play in biodiversity conservation has been achieved through various research initiatives, the most notable having been published jointly with The Nature Conservancy in a study which illustrates the importance of these agro-ecosystems as integral parts of an overall conservation strategy that simultaneously protects biodiversity and improves economic prospects. As habitat for a wide variety of plants and animals, these systems are an important complement to primary and secondary forest habitats, and create wildlife corridors linking conservation areas. The opportunities that this presents for marketing certain products as "environmentally friendly" and "bird friendly", with consequently higher revenue for small farmers, are being actively pursued.

Ecosystem restoration and biomonitoring

Reforestation with native tree species has been carried out by more than 1,600 farm families. A total of 115 small farmers are currently receiving carbon offset payments for conserving over 6,000 hectares of their forests. This programme area, along with other conservation projects currently being implemented as part of the Talamanca Initiative, have benefitted from rigorous monitoring by Asociación ANAI. Through a participatory biomonitoring initiative focused on fresh water streams, for instance, local communities are gathering valuable information for appropriate land-use planning and decision making. Other monitoring efforts have focused on particular species: Central America's only permanent raptor migration monitoring programme has recorded more than 2.9 million birds of prey per season, becoming not only the second highest count in the world, but also a living laboratory for conservation education and a new opportunity for integrating conservation with ecotourism initiatives. Numerous scientific, conservation and sustainable development-oriented studies have been carried out, including a Rapid Ecological Assessment, Site Conservation Planning, the identification of new species, the ecology of estuarine habitat use by the Atlantic tarpon (Megalops atlanticus), sustainable forest management planning, and biological inventories of different taxa and ecosystems.

SOCIOECONOMIC IMPACTS

A key factor in the success of the initiative's projects, and their high degree of local ownership, has been the benefits brought to local farming and fishing communities.

i. Turtle conservation

For years in Talamanca, local people took sea turtle eggs from nests and sold them throughout Costa Rica, a tradition that has had a serious impact on the endangered reptiles. Virtually all sea turtle eggs were being lost to either poachers or domestic animals. The Talamanca Marine Turtle Conservation Programme was designed as a response to this situation. ANAI worked with a local fishing community to plan and implement a new approach which both protects the turtles and provides income. Traditional conservation measures, which attempt to protect turtles and their eggs, are normally undermined by local community members incensed at losing an important source of income. This problem affects most of the world's turtle beaches and in Talamanca the community initially resisted limitations on their access to the eggs. To address this, it was neces-

sary to: i) create better economic alternatives that are dependent on the conservation of the sea turtles; ii) educate, train and empower the community; and iii) enroll volunteers to patrol the beach nightly to protect eggs from poachers from outside of the community.

By generating six times more income than was previously realized from the harvesting and selling of turtle eggs, the project has brought about significant social and economic benefits. It has brought stability back to the endangered turtle populations; losses are now less than five per cent and local people are strong supporters of the research and conservation programmes that have made this possible. The model is being shared throughout Central America and the Caribbean.

ii. Crop diversification

Organic crop diversification for Talamanca's family farms was a main focus of work in the early to mid-1980s. Previously, small farmers had been dependent on cacao as their only cash crop. After the arrival of a new fungal disease, monilia, many local farmers, left without any other resources or options, were forced to sell their land or harvest their trees for lumber. Using community nurseries as a means of producing seedlings locally, as community training centers, and as focal points for community organization, local farms were diversified, creating new opportunities to allow small farmers to stay on their land and maintain their traditional way of life. Now, over 1,500 Talamancan farmers have established organic agro-ecosystems, com-





bining commercial crops with food security strategies, in a multistorey planting system that mimics the structure and function of the rainforest. Additionally, farmers have been trained in managing the new crops and agricultural systems, creating many new jobs on their productive, labor-intensive family farms while providing significant environmental benefits such as improved soil and water quality, biodiversity habitat, carbon dioxide fixation and improved community health.

iii. Value-added processing

APPTA has developed a local processing infrastructure for organic cacao and bananas, quality control checks, marketing strategies, and an organic certification program, becoming the largest volume producer and exporter of organic products in Central America. In addition to creating completely new markets for some products, the price premium farmers are receiving for their certified organic products ranges from 15-60 per cent. In addition, eight community credit and loan associations have been established.

iv. Ecotourism

For over 10 years, ANAI has given valuable training to local communities to help develop the skills necessary for community-based ecotourism initiatives, including training in financial management, small business operation, computer technology, ecology, biology, natural history, and tourism management. As a result, 13 community ecotourism ventures have been established in Talamanca, and are a growing source of income for local people and their organizations. Five ecotourism lodges (CASACODE, Kekoldi, ACODEFO, ASODECC, and Yorkin) are all owned and managed by community organizations whose objectives include conservation, sustainable economic development, community development, and, in the case of the indigenous community groups, protection of cultural traditions. The Gandoca community ecotourism venture, managed by local families, provides home-stays, hotels, and services for ecotourists and volunteers in the ANAI Sea Turtle Conservation programme. The Nature Guides Association for the village of Manzanillo, managed by an executive committee of member guides, provides local guide services. Six other community-based ventures are beginning to provide services of different kinds. All of these groups are committed to the ideal of ecotourism as both a livelihood and a means for biodiversity and ecosystem conservation.

In 1998, the formation of the Talamancan Community Ecotourism Network, a collaborative effort which facilitates close organizational relations, product development, information and idea sharing, training, collaborative planning, production of promotional media, and participation in ecotourism fairs. Communities have seen the tangible results of their earlier work, which has helped them develop a proactive approach and empowered them to change their social and economic situations.

POLICY IMPACTS

On a local level, the work of the Talamanca Initiative has led to environmental advocacy and citizen participation in environmental activities. Conservation of biodiversity and ecosystems is now an understandable, even commonplace, concept in much of Talamanca. The most recent sustained action by the local population and their organizations forced the Costa Rican government to reject an environmental impact estimate and effectively end oil drilling off the Caribbean coast. Local people are committed to creating new approaches that will provide sustainable socioeconomic development while protecting their natural environment and unique biological resources.

The Gandoca-Manzanillo National Wildlife Refuge was established in 1985 as a direct result of the work of ANAI and the Talamanca Initiative, in partnership with the Costa Rican Ministry of the Environment and Energy. Co-management of the Gandoca Manzanillo National Wildlife Refuge is empowering local communities and NGOs, new decision-makers in what was once the exclusive domain of the government. Training of many kinds is helping people prepare for new jobs and better manage their family enterprises. Training and strategic support has resulted in stronger organizations and bettermanaged community initiatives.

Sustainability and Replication



SUSTAINABILITY

The Talamanca Initiative has brought about the creation and growth of more than 20 grassroots conservation and development organizations, dedicated to maintaining thriving human communities and a healthy environment. Significant participation and leadership by women has been achieved in most of these organizations.

Almost all these organizations are based on entrepreneurial activity, providing financial stability, while supporting and subsidising environmental and social aspects of the work. Each activity, project, and program integrates environmental, economic and social aspects while maintaining both a community and a regional perspective.

The development of new community initiatives focuses on activities that provide tangible benefits. A culture of collaboration and has been fostered. Key stakeholders have made long-term commitments that are not limited by time or external funding. Local people have received theoretical and practical training, developing capability to effectively design, manage and consolidate their own projects. There is deep mutual respect for the cultural and social heritage of Talamanca's various groups, and initiatives are tailored accordingly.

There are active partnerships with almost all local community organizations, relevant governmental institutions, private businesses and landowners. The long-term commitment to Talamanca has slowly cultivated a sentiment of loyalty to the region's natural resources by many of its people, based not only on financial gain but on an appreciation of its inherent value.

REPLICATION

Talamanca Initiative actively participates in various forums, conferences and workshops to promote strategies, actions, policies and laws that further the integration of socioeconomic development

and biodiversity conservation throughout the Neotropics. By sharing and disseminating the Talamanca model, lessons learned, and knowledge and experience gained through this process, the Talamanca Initiative strives to inspire, encourage and support other organizations and communities to develop similar processes.

Tangible results of partnerships beyond Talamanca include organic certification and higher prices for more than 2,000 mostly indigenous farmers in Bocas del Toro, Panama, through work with the Cooperativa de Cacao Bocatoreña (COCABO), and the establishment of community-based sea turtle conservation programmes in nine other sites throughout Central America. Carbon offset payments for conservation initiatives by small farmers have been extended to the entire Atlantic drainage area of La Amistad International Park.

PARTNERS

Talamanca Initiative has provided leadership at many levels, including the main creative energy for the establishment and consolidation of organizations such as the Costa Rican Sea Turtle Conservation Network and the Central American Sea Turtle Conservation Network. Other organizations in which key members from the Talamanca Initiative provide leadership include the National Campesino Forestry Board (Junta National Forestal Campesina – JUNAFORCA), the UNDP-implemented GEF-Small Grants Programme for Costa Rica, the Atlantic Regional Environmental Council, ACTUAR (the National Association of Community Ecotourism Initiatives), WIDECAST (Wider Caribbean Sea Turtle Conservation Network), and the Latin American Network for Alternative Development.

The most important partnerships are those that have been developed within and between the communities of Talamanca. These ties are the result of real exchanges evolving from cooperation. Talamanca Initiative fosters an environment where project staff, communities, grassroots organizations, local authorities, businesses, academics and professionals work together in pursuit of common aims.

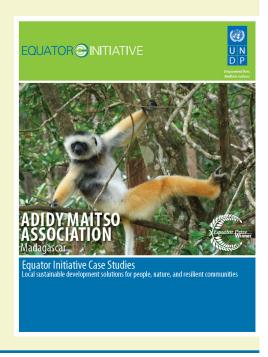
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