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

COURO VEGETAL DA AMAZÔNIA
Brazil

Empowered lives. Resilient nations.
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.
PROJECT SUMMARY

Couro Vegetal da Amazônia began operating in the Brazilian state of Acre in 1996, in an attempt to improve the livelihood opportunities and wellbeing of Amazonian rubber-tapping communities. This project brought together more than 200 local and indigenous families in three forest communities, providing training in an innovative processing method to produce sheets of vulcanized rubber. This material, made of cotton fabric drenched in natural latex extracted from wild rubber trees (Hevea brasiliensis), was sold in fabric sheets to textile corporations and marketed as an alternative to leather.

The enterprise overcame the challenge of falling prices for natural rubber and took advantage of growing market demand for ecologically sound and sustainably produced fashion items. By adding value to the raw latex they harvested, participating communities benefited from higher prices for their rubber, contributing to poverty reduction and community empowerment.

KEY FACTS

EQUATOR PRIZE WINNER: 2002
FOUNDED: 1996
LOCATION: Acre, Brazil
BENEFICIARIES: Over 200 rubber tapping families
Biodiversity: Incentive to protect forest ecosystems

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During the 1990s, the Amazon Rainforest was decimated by deforestation driven by a number of processes including forest clearance for agriculture and cattle-ranching, and the construction of large highways, such as the Belém-Brasília and Trans-Amazonian. This process destroyed habitats and endangered the integrity of the Amazonian ecosystem. Despite Brazil’s advanced forest protection laws, poor enforcement hampered their effectiveness, and in practice, indigenous and forest-dwelling communities were often the only line of defence to protect the forest on which their livelihoods depended. Communities of rubber tappers, in particular, became de facto protectors of the Amazon’s remaining forest cover, often coming into conflict with loggers.

In the Brazilian Amazon, as many as 63,000 families depend on rubber tapping for their living, producing vegetal latex - a natural resource that has been managed sustainably by indigenous peoples and rubber tappers in the Amazon for centuries. Today, the activity is conducted mainly in extractive reserves: protected areas of forest established by the Brazilian government that cover approximately one per cent of the Brazilian Amazon.

In the states of Acre and Amazonas, however, traditional and artisanal small-scale rubber production was harmed during the 1990s when rubber treatment plants and urban merchants ceased purchasing rubber from indigenous communities. As a result, these rubber tappers were forced to sell their product to regatões (traveling merchants) who paid low prices for raw rubber. This market shift decreased the viability of rubber tapping as an economic activity for forest-dwelling communities.

Supporting indigenous livelihoods

Couro Vegetal da Amazônia began operating in Acre in 1996, in an attempt to improve the situation of rubber tapping communities. This partnership project brought together over 200 rubber tapping families in the Brazilian Amazon and trained them in an innovative processing method to produce sheets of vulcanized rubber. This material, made of cotton fabric drenched in natural latex extracted from wild rubber trees (Hevea brasiliensis), was marketed as an alternative to leather under the name Treetap.

The material was sold in fabric sheets to textile corporations, and used to manufacture a range of products including bags, backpacks, briefcases, garments and footwear, which were sold to Brazilian retail outlets. By adding value to the raw latex they harvested, participating communities benefited from higher prices for their rubber. The enterprise not only overcame the challenge of falling prices for natural rubber, but also took advantage of a growing market demand for ecologically sound and sustainably produced fashion items.

The Treetap® product

The Treetap product was derived from a traditional handicraft product called ‘saco encauchado’ - bags made of fabric rendered waterproof by rubberizing - which were traditionally used by rubber tappers for carrying latex and personal belongings. In 1992, EcoMercado, a business specializing in ecological products from the Amazon, purchased 1,500 sheets of this rubberized fabric from Amazonian rubber tappers and used them to make nags and briefcases which were showcased and sold to an enthusiastic reception at the United Nations Conference on Environment and Development held in Brazil in June 1992. Following two years of research and development by Couro Vegetal, the rubberizing process was perfected in 1994, giving rise to the production of Treetap and its use in the manufacture of variety of artisanal handicrafts.

This process is an example of successful combination of scientific expertise and traditional knowledge, and it helped to refine a customary method of rubber processing while adding value to the end product. For example, early rubberized products would become sticky with oxidation. With a USD 1,000,000 loan from the Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social – BNDES) in 1994, Couro Vegetal da Amazônia was able to invest in production technology and infrastructure that helped to overcome this defect, creating a rubberized fabric that met quality standards for international consumer markets.

After signing cooperative agreements with its three producer associations (Associação de Produtores de Artesanato e Seringa, Associação dos Seringueiros Kaxinawá do Rio Jordão, and Associação dos Seringueiros e Agricultores da Reserva Extrativista do Alto Juruá), Couro Vegetal da Amazônia merged with Amazon Life, a Brazilian eco-friendly fashion brand, in 1998. This merger resulted in Treetap products being marketed through a store in Rio de Janeiro, and the successful creation of the internationally recognized Treetap brand.

Ultimately, the success of Couro Vegetal da Amazônia was short-lived. In 2008, the company was forced to close when it found itself unable to repay its BNDES loan. In 2004, the bank began the process of executing the USD 1,000,000 debt, and although the company found some international support, it was unable to raise the necessary finance. This outcome reflects the challenges faced by small rubber tapping communities in attempting to compete with industrial rubber producers on price, while bearing the high costs of transporting goods from rural Amazonia to urban markets. High costs, along with the sometimes variable quality of the goods produced, ultimately made the business financially unsustainable. Nevertheless, through its lasting effects on public policy and the difference it made in the lives of the communities it served, this enterprise can be considered an important chapter in the story of rubber tapping in Brazil.
The chief activity of Couro Vegetal da Amazônia was its production of Treetap, encompassing the sustainable harvesting of latex from native rubber trees by rubber tappers through its processing into rubberized fabric and its transport to market. This method is still employed by Associação de Produtores de Artesanato e Seringa, who produce rubber under the trademark ‘Seringueiro’ for sale in local and regional markets.

To produce the Treetap product, raw latex, nicknamed ‘leite’ (milk) by rubber tappers, is extracted from the trunks of the *Hevea brasiliensis* tree using two tap cuts. To allow trees to recover and ensure that extraction remains sustainable, a minimum of two years is left before another tap cut may be made on the same tree. This raw latex is filtered and ‘seasoned’ with a chemical composition to promote vulcanization (harden. This mixture is then strained before being painted on to both sides of a sheet of cotton canvas stretched over a frame. The canvas is then smoke-cured using a traditional method. This process of painting and smoking is repeated six times. The smoked laminate is then vulcanized inside a simple brick kiln, where it is ‘cooked’ for two days at 60-80°C. After two days, the latex mixture on the canvas turns a deep brown colour, giving it the appearance of leather. When completely dry, the laminates are cut, each frame producing two sheets measuring approximately 80 cm by 60 cm.

During Couro Vegetal da Amazônia’s years of operation, these sheets were stacked and stored, to be collected three or four times a year and carried by boat to Boca do Acre, and from there on to Rio de Janeiro. Some laminates were also kept in Boca do Acre, where a small factory produced bags for the local tourist market.
Impacts

BIODIVERSITY IMPACTS

Because rubber tapping does not require that rubber trees be cut down in order for the latex to be extracted, traditional and indigenous communities can maintain the well-being of the forest ecosystem while generating a sustainable income. Taking advantage of this innovative vulcanization method enabled rubber tappers in Acre to continue to pursue their traditional livelihood activity, and provided continued incentive for the conservation of the forest that supports the rubber trees.

In areas of rainforest inhabited and directly used by the participants of this initiative, 55,800 hectares of land were directly protected by strengthening the economic incentive for the protection of rubber trees and their surrounding ecosystems. If indirect use and protection are considered for the four larger areas in which these producer associations live – the Mapiá Inauini National Forest (311,000 ha), Kaxinawá Indigenous Lands of Rio Jordão and of Independência Wild Rubber Tree Forest (a combined total of 102,043 ha) and Alto Juruá Extractivist Reserve (506,186 ha) – the project contributed to the conservation of 1,178,229 ha of rainforest.

The project successfully demonstrated the integration of biodiversity conservation into productive landscapes, and that the use of forest ecosystems by indigenous communities in protected areas can contribute to their sustainable management. Since the closure of the company in 2008, however, the Alto Juruá Extractivist Reserve has come under increased pressure from a cattle-ranching project. Rubber tapping is nonetheless still carried out by both Associação de Produtores de Artesanato e Seringa and Associação dos Seringueiros e Agricultores da Reserva Extrativista do Alto Juruá, although the latter employs a slightly different method for curing rubber, known as FDL (Folha Desfumada Liquida – Liquid Smoked Sheet).

SOCIOECONOMIC IMPACTS

By adding value to create handicrafts that could compete in international markets, thereby improving the economic viability of traditional rubber tapping, Couro Vegetal da Amazônia improved the economic situations of more than 200 families. The development, production and commercialization of Treetap vegetal leather generated work and income for more than 1,000 people during the lifetime of the project.

The new vulcanized rubber product secured higher prices for producers. In 2002, rubber tappers were receiving BRL 8.00 (USD 3.08) for a kilogram of Treetap vegetal leather, compared to between BRL 0.80 (USD 0.31) and BRL 1.10 (USD 0.42) per kilogram for raw natural rubber. This had the potential to dramatically improve incomes, with a tenfold increase in revenue per kilogram, thereby directly contributing to poverty reduction and greater community wellbeing. Many producers used their increased earnings to make improvements to their dwellings and to purchase durable goods essential for jungle life, such as engines, boats, power saws, and guns for hunting.

Furthermore, the initiative is an excellent example of the successful combination of traditional and indigenous knowledge with modern, technological innovation. Local livelihoods were improved without compromising traditional livelihoods or altering customary techniques of forest management. On the contrary, the rubber tappers’ traditional skills and knowledge formed the basis for the Couro Vegetal project, thereby instilling a strong sense of local ownership and involvement in the project.
Couro Vegetal da Amazônia was a pioneer in the development of partnerships between Amazon communities, the private sector, NGOs and state and federal government. In particular, strong institutional links were established with the Acre state government and with federal agencies. These partnerships benefitted the project by providing continued financial and institutional support and capacity building for producers and their associations, and ensuring improved working conditions in production areas. Examples of this collaboration include work agreements jointly established with the federal Ministry of the Environment and with the Secretary for Amazon Coordination.

By the time it concluded in 2008, the policy landscape regarding the Brazilian Amazon had changed a great deal, and Couro Vegetal da Amazônia along, with similar projects, no doubt contributed in some ways to these developments. Relations between small-scale traditional and indigenous producers and government entities improved drastically between 1992 and 2008, and financial incentives for producing locally-harvested and sustainable rubber grew. The activity has now been accepted as a viable option for the long-term sustainable development of the Amazon region.

In partnership with the state government of Acre, the Couro Vegetal da Amazônia project was replicated in two further locations, with the aim of transferring acquired experiences and technologies to other producer associations. Ultimately, however, the Couro Vegetal da Amazônia initiative came to an end in 2008. Despite receiving some international support from NGOs such as Environmental Defense Fund, Greenpeace and Friends of the Earth who promoted Treetap products and championed the project’s work in sustainable forest management, while the World Wildlife Fund (WWF) assisted in identifying new markets and product certification, with funding from the Ford Foundation.

The Brazilian Ministry of the Environment assisted in helping the project to diversify and promote its products. The initiative also worked with the indigenous people's organizations Comissao Pro Indo do Acre and Nucleo de Cultura Indigena. Finally, the Brazilian Biodiversity Fund (Fundo Brasileiro para Biodiversidade – Funbio) provided financing for the identification of new markets for Treetap products.

In the end, attempting to compete with industrial rubber producers on price proved to be an unsustainable endeavour given the high costs involved in transporting the end product from isolated, rural Amazonian communities to the urban markets where it was to be sold. This factor was compounded by issues of inconsistency in the quality of the goods produced. The story of Couro Vegetal da Amazônia offers an insight into the range of challenges facing rubber tapping communities in attempting to develop sustainable and meaningful livelihoods in their remote communities.

**PARTNERS**

Couro Vegetal da Amazônia worked cooperatively with a range of partners. NGOs including the Environmental Defense Fund, Greenpeace and Friends of the Earth promoted Treetap products and championed the project’s work in sustainable forest management, while the World Wildlife Fund (WWF) assisted in identifying new markets and product certification, with funding from the Ford Foundation.
FURTHER REFERENCE

- Couro Vegetal da Amazônia video (Vimeo) [vimeo.com/27248409](vimeo.com/27248409)

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The United Nations Development Programme (UNDP) is the UN’s global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life.

The Equator Initiative brings together the United Nations, governments, civil society, businesses and grassroots organizations to recognize and advance local sustainable development solutions for people, nature and resilient communities.

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