

Michelin Sustaining its Sources and the Environment

Michelin is primarily a tyre manufacturer based in France and having operations around the world. With an employee base of 113,500 and revenue of 16.87 billion euros the company is currently the second largest in the world.

Case Background: Natural rubber is a renewable raw material produced by the *hevea* tree. Its unique characteristics include malleability, elasticity, waterproofing, mechanical and thermal resistance, insulation from electricity, and grip on all types of surfaces. Natural rubber accounts for 10 to 20% of the weight of a passenger car tire, and 30 to 40% of a truck tire.

Michelin's Bahia rubber plantation is located in a coastal area of southern Bahia State, Brazil. Encompassing some 9,800 hectares, including 5,500 hectares of cultivated areas and 3,000 hectares of forest, it produces some 3,000 tonnes of natural rubber annually. The rubber factory, which also processes the rubber of local farmers, produces 10% of total Brazilian output. It is ISO 14001 certified and employs some 600 people.

At the end of 2001, several factors pushed Michelin to take dramatic steps. In light of the sharp decline in rubber prices and the yield of the site's 2.5 million trees as they reached the end of their productive lives, the need to invest in replanting to ensure production levels, the low productivity in the area due to its topography and the mountainous nature of the terrain, Michelin being the main employer in the region, was forced to decide if it should stay and suffer the consequences, or leave and suffer the consequences.

Michelin took the bold decision of staying in the area, but under different circumstances.

Case Description: To protect the health of the rubber tree crop in Brazil, Michelin invested in a sustainable agriculture program, to generate strategic social, environmental and economic results.

The basic idea was to divide the original plantation in 12 medium-sized plantations of 400 hectares each and sell them to Brazilian Michelin managers, enabling them to replant with the new varieties of rubber tree resistant to *Microcyclus*, and to develop other types of culture between the lines of *hevea*, such as cocoa and banana. At the same time, it created the supporting infrastructure, governance and systems required for the rehabilitation of the local community and the management and sale of these farms' cocoa production.

In effect, Michelin decided to maintain 1,800 hectares of land as well as the basic infrastructure (processing units, roads, logistics, etc.), the research laboratory looking into combating the *Microcyclus Ulei* leaf disease, and to buy the rubber from the 12 new plantations.

The company also created "ecological corridors" that link the three patches of Atlantic forest in order to create continuity from the ocean coast to the inland areas covering some 3,000 hectares. Michelin is working closely with the local government and biodiversity groups to develop these corridors. The rubber tree plantations that flourish in this area will be temporarily exploited, while efforts of replanting forest in the corridor will be continuous.

In addition to these actions, the company has developed family-owned rubber plantations by providing small neighboring farms (1,000 families) with resistant varieties of *hevea* produced by the breeding research program led by Michelin and CIRAD (Centre International pour la Recherche Agronomique et le Développement). Michelin also decided to donate 18 hectares of land for the construction of a new village, named Nova Igrapiuna, mainly for the tappers and their families. The construction was financed by a federal loan organization and is managed as a partnership by Michelin and the municipal government. The village is equipped with modern water processing units and includes green open spaces, medical facilities and schools. In the

plantation, more than 200 kilometers of paths and road infrastructure were renovated or constructed.

These investments and projects were made possible by the many partnerships forged by Michelin with local officials, non-governmental organizations, regional associations, unions, banks and public authorities, such as the State of Bahia and Banco Nordeste do Brasil for the loans granted to the new owners to buy the land and invest in replanting.

After a survey of the territory and its species, a re-forestation program was also initiated. The project has also reintroduced animals and encouraged eco-tourism in the area surrounding the waterfall to better protect the environment.

Achievements: The 12 medium-sized plantations are in operation, there are 500 hectares of cocoa plantation, the original 600 employees are still working, and 150 new jobs have been created. Moreover, natural rubber production has increased by 11%.

The plantation had a total turnover of US\$ 3.1 million in 2006, beating the forecasted US\$ 2.5 million. It aims to increase that to US\$ 10 million in 2023, with US\$ 8 million of that coming from rubber and the rest from cocoa. The project aims to bring in about US\$ 40,000 a year for a medium-sized landowner.

Michelin is continuing its research into Microcyclus with CIRAD, which is now part of a research program led by the International Rubber Research and Development Board (IRRDB). Several Asian institutes are to receive 14 resistant varieties of rubber tree selected for testing on experimental plots of land in 2008. The station, which is still on site, continues to develop family-run rubber cultivation by supplying neighboring small-scale farmers with resistant young rubber trees. After having donated 20,000 plants in 2005, 200,000 plants per year have been supplied at cost since 2006.

By empowering the people who depend on it for their livelihoods, the plantation is now in better condition than when Michelin was in charge. And with prices climbing along with other commodities, the local community sees that it makes sense to be a producer, giving a guaranteed source of supply.

Reference: www.wbcsd.org