

Cocoa: harvest to save the forest



COCOA CULTIVATION can be a major driver of rainforest destruction. Clearance to plant cocoa has for a century or more opened up the forests of West Africa, with Ghana and Côte d'Ivoire at the forefront. Reports in 2001 that cocoa plantations were being worked by child labor, so-called "chocolate slaves", only enhanced the industry's unsavory reputation.

But in Cameroon, cocoa farms employ no slaves and scientists say cocoa could be the key to saving the Central African rainforest. Now, in an attempt to clean up their act in the wake of the slave scandal, some chocolate manufacturers are backing a new development strategy.

Joseph Essissima first planted his cocoa trees in the bush outside Yaounde, the capital of Cameroon, 60 years ago. He hacked down the jungle to fill the confectionery shelves of Europe and North America. Ever since, many ecologists have branded Joseph and his fellows as environmental pariahs. But now the ecologists are praising him. Even more remarkably, they want to help him make more money out of his trees so that he can plant some more. They say that planting cocoa could be the best way to save Africa's greatest surviving rainforest, which stretches southwards from Cameroon into the Congo basin.

"Cocoa has been an important agent of deforestation during the 20th century," says Francois Ruf of France's Center for International Cooperation in Agronomic Research and Development in Paris. "But in the 21st century, cocoa may switch from being an agent of deforestation to an agent for reforestation."

Cameroon farmers harvest some 120 000 tons of cocoa a year, most of it grown on smallholdings of a hectare or less close to the forests. But cocoa cultivation here is unusually benign to the environment. Joseph's plantation is typical. It feels more like a rainforest than a farm: dark, dank and full of life. There are cocoa trees, but also many others, some natural and some planted. Various fruit trees are dotted around: orange and mango, avocado and cherry. Some original rain-

forest trees have been kept for their timber, for medicinal bark and to provide additional shade. Of one tree he says: "We keep this one because it attracts caterpillars that we eat."

Cameroon's cocoa forests are quite unlike the monocultures of Côte d'Ivoire. They are biologically very diverse, with more than half as many species as a natural forest, says Jim Gockowski of the International Institute of Tropical Agriculture (IITA) in Yaounde, who has studied the methods of the local farmers. What is more, Joseph's smallholding is as fertile as when he first planted. The number of earthworms – a key test of the forest floor's ability to recycle nutrients – is almost as high as in a natural rainforest.

"By maintaining a shady canopy of diverse forest species, these farmers manage one of the most biologically diverse landuse systems in Africa," says Gockowski. It may not be virgin rainforest, but "if the farmers didn't plant cocoa, they would be doing slash-and-burn farming." The country's fast-growing population would be clearing the forest wholesale, and planting maize or oil-palm or turning it over to cattle.

Across southern Cameroon, large areas of former rainforest land now lie fallow after the exhaustion of their soils by farming. Yet in their midst the cocoa forests, which were once dismissed as just another scar on the natural landscape, are green oases.

"In many ways, the environmental benefits of a closed, natural forest are now being provided by cultivated forests of cocoa and fruit trees," says the IITA's station chief in Yaounde, Stephan Weise. "So why not convert the large areas of unused former forest into cocoa forest? If we can do that, we will create a physical and economic buffer to protect the surviving natural rainforest."

A few farmers are taking up the challenge. Not far from Joseph's smallholding, Madame Abomo is growing cocoa trees and bananas in abandoned maize fields. But most farmers are moving in the opposite direction.

For many years, cocoa was a profitable crop in Cameroon. The government guaranteed good prices. But in the past decade, the privatization of the marketing system and a collapse in the international price of cocoa have impoverished cocoa farmers here. "The government used to be like a father to us," one of Joseph's neighbors, Mani Alexandre, says. "Now buyers can pay what they like."

According to Gockowski, the fall in cocoa prices "led directly to a very significant increase in forest clearing" in Cameroon in the 1990s. Thousands of farmers left their cocoa forests to decay and cleared forest to plant maize, groundnuts or palm-oil.

Today, they call cocoa an "old man's crop". "Young people don't have cocoa production in their heads. Prices are too low," says Mani. The tragedy is that at the very time when cocoa emerges as an environmentally friendly crop, its profitability has slumped. Soon, maybe the chocolate slave-masters will be in business here.

Enter the chocolate companies. Firms like Mars and Cadbury's buy cocoa through the big trading and milling conglomerates that trade here. And they are growing worried. They fear the current market free-for-all could ultimately jeopardize their supplies, and may create more PR disasters. Martin Gilmour, UK-based cocoa research manager for Mars, says: "We would like to see farmers get higher prices for their cocoa. It would be better for both of us."

Like the farmers, Mars claims an interest in ethical and environmentally sustainable production of the crop. "We find it interesting that they appear to grow cocoa in Cameroon in a more sustainable way. Agroforests are ecologically speaking almost as good as natural mature forest," says the man from Mars. "That is why we are funding research into these systems."

That research is aimed at improving cocoa and fruit tree varieties and fighting the diseases that are running rampant through the ill-tended cocoa forests. But it will be useless, unless the farmers can win a proper price for their product.

Many ecologists believe that agroforestry on the model of the Cameroon cocoa forests is the only way that many of the world's rainforests can be saved. And yet there is a real risk that the model itself will expire before it can be properly researched and copied.

As I left the forest one young boy, the son of a farmer, came up to me and asked simply: "What does chocolate taste like?" His family, he said, could not afford the price of a bar.

Article by Fred Pearce

Additional sources

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