

Promoting the diversity of crop plants and animal breeds through marketing

Example: Fine flavour cocoa from Ecuador



Once used as a currency among the Aztecs, cocoa beans continue to be a key export of Ecuador. Photo: Bianca Untied

“Food of the gods” was the epithet given to the cacao tree in 1753 by the Swedish botanist and cocoa lover Carl von Linné. And it is still known as such today, for that is the meaning of its scientific name *Theobroma cacao*. The cacao tree comes originally from the tropical regions of South America; its home is in the Amazon rainforest, where it flourishes in the shade of the gigantic trees of the virgin forest. The first reports of cultivation of the cacao tree come from the Olmecs, who settled along stretches of the Caribbean coast in what is now southern Mexico around 3,000 years ago. Cocoa was particularly popular among the Mayas and later among the Aztecs, who even used cocoa beans as a form of money. The Spanish conquerors of the Aztec empire brought the fruits back to the Old World, and cocoa began its triumphal march that was to sweep the world.

Varieties and origins

The fruits of the cacao tree grow directly from the trunk and contain the cocoa beans themselves. It is the substances contained in these beans – the various flavourings and also the high fat content (around half the bean consists of cocoa butter) that made cocoa a sought-after product among consumers and traders even in early times.

On the basis of taste and quality cocoa can be divided into two types: “fine flavour beans” and “ordinary” cocoa, also known as “bulk beans”. Varieties such as “Criollo” and the traditional Ecuadorian variety “Cacao Nacional”

(also known as “Arriba”) belong to the fine flavour type. They are distinguished by their special flavour and low content of bitter constituents. Fine flavour cocoa is used for refining; this has given it the name “flavour cocoa”. These varieties are very delicate and have low yields; they are therefore being replaced increasingly frequently by high-yield bulk beans. Only 5 % of global cocoa production is fine flavour cocoa, and around two-thirds of that comes from Ecuador.

The most important cacao-growing countries today are in West Africa. Around 70 % of global production takes place in Africa; only 14 % comes from Latin America, where the most important producing countries are Brazil and Ecuador.

The traditional value chain – from small farmers to the chocolate factory

In Ecuador the majority of the cocoa is grown by small family businesses. The cacao trees are mostly hybrids of traditional fine flavour cacao varieties – chiefly “Nacional” and bulk bean varieties, which are gradually displacing the fine flavour genotype.

Pests and susceptibility to disease often lead to serious harvest failures, but the small farmers are unable to afford either expensive pesticides or artificial fertilisers that would boost yields. One solution, alongside the use of assorted varieties, would be to grow cacao in a mixed culture, for example with bananas, papaya or coco palms. This would imitate the natural ecosystem in which cacao is at home. This method of cultivation not only reduces susceptibility to pests and diseases, but also increases the yield of the fields and thus improves the income of the farming families.

Harvesting is carried out entirely by hand, as is the further processing. The cacao pods are split open; the beans are removed, fermented and then dried in the sun. In the course of fermentation and drying important flavour-forming processes take place in the beans. Because of inadequate infrastructure and limited technical knowledge among the farmers, the raw cocoa often suffers considerable loss of quality at this stage. Once the preparation process has been completed the crop is sold.

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A board used to grade the beans.
Photo:
Bianca Untied

Marketing the raw cocoa

Dealers usually buy the raw cocoa either direct from the farmers or at collecting points; the farmers are typically paid according to the quantity and not the quality of the crop they sell. This means that there is no incentive to improve quality. Via middlemen the raw cocoa then arrives at the export port of Guayaquil – around three-quarters of Ecuadorian raw cocoa is exported to Europe and the USA.

After oil and coffee, cocoa is among the most-traded raw materials on the world market. It is sold primarily on the commodity futures markets in London and New York, where the world market price is also determined. This price fluctuates strongly and is presently falling; in recent years the price – principally on account of the mass product coming from Africa – has averaged around 1,500 USD per ton.

Processing and distribution

The raw cocoa is processed further at special processing centres most of them in the Netherlands, the United States and Germany or by the large chocolate manufacturers. Cleaning, roasting and grinding the cocoa beans are the main operations. Grinding produces what is known as the cocoa mass, some of which is used directly in the production of chocolate. Further separation of the cocoa mass yields cocoa butter and cocoa powder. Most of the cocoa powder goes to the confectionery industry, while the cocoa butter is used in chocolate production and also in the pharmaceutical and cosmetics industries.

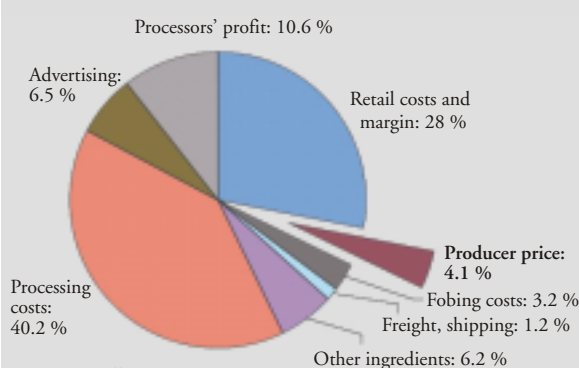
Most cocoa is consumed in the form of chocolate in the industrialised countries. But for some years demand has been stagnant, except for particularly high quality chocolate and fairly traded or environmentally friendly brands sold mostly by specialist shops and over the Internet.

Chocolate for mass consumption, by contrast, is usually sold through normal wholesale and retail channels.

The winners are the processors

The proceeds received by the producers for the sale of their raw cocoa are low and often scarcely cover the costs of production. The value added at producer level is therefore very small. There has as yet been no precise analysis of the value chain for Ecuadorian cocoa, but research into the cost structure of milk chocolate in England carried out by Gilbert (s. chart) indicates that in the production of milk chocolate the proportion of costs attributable to the raw cocoa material is less than 5%. (For more on value chains cf. the Issue Paper “*Value chains and the conservation of biodiversity*” in this series.)

Chart: Cost structure for milk chocolate in England



Source: Gilbert 2006

According to this study, the chief costs and also the main profit lie in the areas of processing and distribution, both of which take place in Europe and the USA. The considerable profit made by the processors is particularly striking and reflects the power position in this part of the value chain. The cost structure described also makes it seem likely that a chocolate manufacturer will be particularly interested in processing high-quality raw cocoa, since significantly higher prices can be obtained for high-quality chocolate than for mass goods and the raw material costs are almost insignificant.

Measures for promoting production and marketing

Cocoa production in Ecuador has declined significantly in recent decades. Only very recently has more consideration been given to the opportunities and possibilities associated with cacao cultivation. On account of cocoa's importance in the nation's history it has been declared the country's “symbolic product”. In addition, as part of a concerted campaign involving organisations such as UNCTAD, GTZ and the Inter-American Development Bank, a number of initiatives designed to revitalise cocoa production and marketing have been set up. Part of the



A fruit pod contains 25 to 60 seeds – the cocoa beans.

Photo: GTZ

reason for this is that cocoa is still one of the country's most important export products. The planned analysis of the value chain will play a useful role in this and will help identify weak points and enable plans for specific improvements to be drawn up. As part of the process GTZ is providing advice to the cocoa producers' cooperatives and communication and coordination between those involved at different stages of the value chain is being improved.

The aim of the project is to increase the cocoa farmers' income by improving access to the market, conserving natural resources and maintaining biological diversity. GTZ's measures aim to strengthen the value chain, linking it to the national export promotion programme and the national agricultural strategy. GTZ is helping to draw up a national strategy for the cocoa sector and for the tapping of new markets. In addition GTZ supports advice and training in the field of cocoa production and marketing; it has mobilised the resources of other stakeholders to help towards attainment of the goals that have been set.

Measures that directly benefit the farmers include the strengthening of cocoa producers' organisations, promotion of product quality and support of certification procedures for environmental and social standards. GTZ is also involved in creating direct links between producers' organisations and the market its staff initiate contact between these organisations and the manufacturers of special types of chocolate.

Close cooperation with the private sector is a significant element of plans to promote the cultivation of Ecuadorian fine flavour cocoa. A number of public-private partnerships with Ecuadorian and European firms play an important part in this, as does the involvement of organisations and bodies from the private sector (such as the National Cacao Exporters Association) in almost all promotional activities (more on public-private partnerships cf.

the Issue Paper "*Partnerships for agrobiodiversity*" in this series). Emphasis is placed on the formation of alliances between the different parties involved in the chain and between the supporting organisations. GTZ is planning the necessary measures, working with other donors – such as the Inter-American Development Bank and official development organisations in Switzerland, the United States and Canada – and with private-sector and governmental bodies in Ecuador.

New products and higher incomes

Cocoa quality has been improved, the export volume has risen. That is the outcome of eleven PPP measures. Kraft Foods is now buying Ecuadorian fine flavour cocoa produced in accordance with the strict standards of the Rainforest Alliance. The French company KAOKA has undertaken to purchase organic and Fairtrade cocoa. The cocoa processors Felchlin and PRONATEC (Switzerland), and ICAM (Italy) have entered into six new, long-term marketing agreements with small producers' organisations in Ecuador. As a result of direct marketing links between small farmers in Ecuador and chocolate processors and the support provided by GTZ, ten new cocoa products are now available on the international market.

With GTZ support 9,500 hectares of cacao have so far been certified to organic standards and 10,000 hectares have been certified in accordance with Rainforest Alliance standards. The number of producers working to Fairtrade standards has risen from zero in 2003 to more than 1,600 last year. A further 600 producers are currently in the process of being certified to Fairtrade standards.

Around 10,300 cocoa producers profit from the activities supported by GTZ; they will be able to improve their incomes significantly in the medium term. Between 2003 and 2006 some 4,500 producer families acquired direct access to the market because they were cultivating high-quality, organic or Fairtrade-certified cocoa. In the same period the volume of exports from these producers rose by 250 % to 1,880 tonnes of raw cocoa. The prices received by the farmers were 30 % higher than previously; the incomes of the producer families rose by between 120 and 1,025 USD per year.

Conserving agrobiodiversity and the rainforest

The involvement of small producers in the lucrative international markets has also had a positive impact on agricultural and natural biodiversity in Ecuador. As a result of the "Nacional" cacao variety's specific requirements in terms of site and growing conditions, it is grown in only very localised areas. Since this variety has in addition been

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The raw cocoa is bought up at collecting points before embarking upon its long journey as one of the most-traded commodities on the world market. Photo: Bianca Untied

supplanted on a large scale by other types, the very fact of its conservation contributes to the maintenance of biodiversity. Products made from this cacao variety can therefore be termed biodiversity products. In addition, the cultivation of cacao in intercropping systems using agroforestry methods in which some of the large trees of the virgin rainforest can be left standing enables a wide range of animal and plant species to be conserved. This diversity is even greater if the land is managed to organic standards.

The improved incomes of the producer families are also a factor contributing to the conservation of agricultural and natural biodiversity. For only when families can earn an adequate income from the cultivation of cacao do they continue the tradition of growing cacao in a way that

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maintains species diversity and dispense with other types of cultivation, such as oil palms in monoculture. Adequate incomes from cocoa production also help to prevent the felling of intact rainforest. This is all the more important because cacao is often grown in the buffer zones of protected rainforest areas, the conservation of which is of incalculable value for global species protection.

Poverty reduction and species conservation go hand in hand

The Ecuadorian “Cacao Nacional” is a high-quality biodiversity product that is sought-after on the market. Promoting the environmentally sound and socially equitable cultivation of this variety in particular by linking the producer families to lucrative niche markets, such as the markets for particularly high-quality chocolate specialities, organic cocoa products, products of specified origin or Fairtrade products makes an important contribution towards improving the incomes of small family farming businesses in the cropping regions of Ecuador. In addition, the genetically valuable cacao variety itself is being conserved, and at the same time an important contribution to the maintenance of natural biodiversity in Ecuador is being made. Promotion of the marketing of the Ecuadorian “Cacao Nacional” provides a good example of the way in which poverty reduction and the sustainable conservation of natural resources – especially the maintenance of agricultural and natural species diversity – can be brought into harmony with each other.

Further Information:

Asociación Nacional de Exportadores de Cacao:
www.anecacao.com

Bio Trade Facilitation Programme – BTFP (2005):
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www.biotrade.org/National/Ecuador/Ecuador-docs/Diagnostico_Cacao_Arriba_Ecuador.pdf

Gilbert, C. L. (2006): Value chain analysis and market power in commodity processing with application to the cocoa and coffee sectors. Discussion Paper No. 5. Università degli Studi di Trento – Dipartimento di Economia.

International Cocoa Organization: www.icco.org
www.ecuadorcocoaarriba.com

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Text: Dr. Josef Haider
Editor: Beate Wörner
Contact: Annette von Lossau,
Dr. Marlis Lindecke
E-mail: annette.lossau-von@gtz.de,
marlis.lindecke@gtz.de
Website: <http://www.gtz.de>

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