

# Cocoa chain in Indonesia (Island of Flores)

## VECO/Vredeseilanden

Current practice of sustainable agricultural chain development shows that the initiative of converting chains towards sustainability is owned by a variety of chain actors and chain supporters. In this case VECO contributes to a link between a private sector enterprise (Mars PT) and local cocoa farmers in Flores, Indonesia.

### 1. Context and background

#### 1. Cocoa subsector in Indonesia

Cocoa is one of the most attractive crops for farmers around the equator because of the specific climate and the certainty of income in the long term. The Indonesian cocoa sector has experienced tremendous growth during the last 25 years and is now the third biggest cocoa producer with about a 15% share of the total world cocoa bean production. Cocoa is cultivated in Indonesia on over 1.5 million hectares, providing the main source of income for over 1,400,000 smallholder farmers, generating over USD 1.2 billion in exports annually. The country's cocoa plantations are among the most productive in the world, with each hectare able to produce between 400 and 800 kilograms of cocoa. Up to now, smallholders contributed 93% of national production.

Despite the importance of cocoa cultivation in Indonesia's economy, productivity, bean quality and farm profitability have declined. This declining trend is being reversed the last few years with on-farm investments in tree rejuvenation, replanting and sustainable farming practices. Such investment did not happen earlier due to the limited access to credit, to knowledge on sustainable farming practices and due to poor transmission of quality price signals to farmers. This latter failure is due to the fragmentation in Indonesia's cocoa supply chain, with over 90% of the cocoa production on smallholder farms that sell into poorly regulated and highly competitive marketing chains.

The population of Flores is growing and farmers are owning increasingly smaller plots of farmland, incomes are steady while costs are increasing. There is hardly local knowledge about cocoa farming, because cocoa is not endemic to this region. The farmers of the districts Ende and Flores Timur have organized themselves in small farmer organizations. They were informal groups of farmers, setting up credit systems for their members. The farmer organizations function as facilitators, helping their members gain access to information and to provide small amounts of working capital.

VECO Indonesia is the Indonesian branch of the Belgian NGO Vredeseilanden working on Sustainable Agriculture Chain Development. Its mission is to enhance the position of the organized family farmers. VECO Indonesia started in 2009 with the funding and strengthening of the organizational capacity of JANTAN and in 2010 with the partnership with PT Mars. PT Mars is one of the biggest companies in the global cocoa industry and results of the VECO-PT Mars partnership illustrate how working together with the private sector can create new opportunities and resources for farmers.

JANTAN is a business-oriented farmer organization in Eastern Flores. They focus their activities on the cocoa and copra commodities. The overall aim of the organization is the realization of good (economical) quality of life for the communities of East Flores district, through the development of collective marketing of potential commodities, backed by a strong and independent organization.

SIKAP is a newly established farmer organization founded by 9 village in Ende district. The overall aim of SIKAP is the achievement of a fair and sustainable welfare of cocoa farmers by strengthening the

bargaining position of farmers receiving a fair price. From the start they had good relations with the local government and were able to secure support from the government in the form of a warehouse and a drying facility of Cocoa managed by the new Processing Unit (UPH).

Main bottlenecks/problems faced by the cocoa farmers in the chain.

First there is the problem of poor quality of beans and low productivity of the trees. Low productivity is mainly caused by limited micro-credit and very little knowledge on improved technologies. Furthermore, farmers have very little knowledge of the right processing techniques, which results in low quality of beans. The second problem is the very weak bargaining position of the farmer in the chain. This is caused by the limited capacity of farmers groups to organize collective marketing.

## 2. Underlying business model

Private companies, like Mars, are confronted with an end-market demanding high quality cocoa. Another challenge for these companies is how to secure the supply over longer periods, knowing that there is an increasing demand all over the world and a decreasing cocoa production due to declining soil fertility and neglected genetic resources. Long term relationships with producers and their organizations, and investing in farmer organisations to ensure quality, sustainability claims and sufficient supply in the future, is crucial for their own survival.

At Mars, sustainability of the cocoa industry is part of the strategy and business practices, with focus on the viability of smallholder farmers and the needs of communities. Many issues threaten the sustainability and the livelihoods of smallholder cocoa farmers that can only be addressed through large programs in which industry collaborates with governments of producing and consuming countries, as well as institutes and NGO's. Furthermore, consumers around the world are increasingly concerned about the origin of their food and aware that the cocoa they consume is produced with little consideration for the well-being of cocoa farmers and the environment. This requires the traceability of cocoa and Mars now demands traceability of the cocoa beans from farmer organizations. In April 2010, Mars Inc. announced that by 2020, all of their cocoa beans would be from sources certified as sustainable.

VECO, Mars and other stakeholders in the cocoa chain share a common interest in assisting Indonesian farmers to reach this goal. On farmer level, farmers will need to organize themselves into farmer organizations, since certification of small individual farmers is not cost efficient. In collective marketing, availability of working capital at level of the farmer organization, is crucial to buy cocoa from farmer members. Improving the members' skills and knowledge in good cultivation techniques, on collective marketing, and post-harvest processing of cocoa is also very important.

PT Mars, along with Business Watch Indonesia (BWI), Armajaro, VECO Indonesia, Cocoa Sustainability Partnership (CSP), the Rainforest Alliance and UTZ Certified, announced in May 2010 the launch of the national indicators for the certification criteria of sustainable cocoa production. They set out the criteria to be used for certification of sustainable cocoa, enabling farmers, trainers and auditors to follow a uniform set of criteria for growing and certifying this crop.

It is important for PT Mars to get good quality and sufficient volume of cocoa beans from the farmers. Therefore, they set up pilots to train cocoa farmers in Indonesia to improve soil nutrient supplies, trim tree canopies to manage light and nutrients, rehabilitate and rejuvenate older trees, reduce post-harvest losses through processing and storage improvements, and diversify their farms to include other crops. By reducing production costs, raising productivity, and removing market and policy inefficiencies, farmers are able to substantially increase their income.

### 3. Evolution of the initiative

The last two years, VECO Indonesia played an important facilitation role in making the cocoa farmers of the Flores Timur and Ende districts more organized and business minded, by transforming small farmer groups (25 to 50 members) into large farmer organizations with around 500 to 2,000 members. These farmer organizations need additional capacity building and organizational strengthening. In the beginning of 2011, VECO Indonesia agreed to focus on the increase of cocoa production, the increase of capacities of the farmer organizations as business organization and the facilitation of the contacts between farmers and private actors with relation to the marketing of cocoa. The previous years, VECO also facilitated the cooperation with PT Mars for the implementation of cocoa farmer field schools (FFS) and worked with them to train farmers to sort fruit and seeds properly by organizing study visits to PT Mars' factory in Makassar. There is still space for improvements of VECO Indonesia towards their marketing management and quality control training for village collection point team leaders, which would make it easier for SIKAP and JANTAN to reach the quality goals set by PT Mars.

The farmers of JANTAN and SIKAP participated in cocoa Farmer Field Schools (FFS) organised by VECO Indonesia and PT Mars, in cooperation with Swiss Contact. They conducted 5 series of FFS in 2010 and 1 in 2011. In 2011 they also organised a training for preparation of a business plan. PT Mars partially paid JANTAN and SIKAP to let their farmers participate in the FFS and they also sent cocoa experts to the field schools to lecture. This field school covered harvesting, post-harvest management, fermentation, drying and quality control of cocoa seeds, and collective marketing.

Actions to create good marketing conditions for the farmers:

In 2009, PT Mars opened a buying/fermentation station in Central Flores, as a pilot program. The aim was to buy wet beans of the farmers and to ferment it by themselves, to be sure of the quality of the fermented beans. This pilot program was quite successful since farmers sold large quantities of wet cocoa beans, but farmers could not deliver the total amount requested and the station was considered as not cost effective.

To improve the quality of the farmers' cocoa, PT Mars offers premium prices for good quality. The target for PT Mars for the year 2010 was to purchase 60 tons of wet cocoa from JANTAN. Sales criteria for quality have not been met due to insufficient quality control at the villages' cocoa collection point level and the work systems in JANTAN and SIKAP.

JANTAN and SIKAP organized the purchase of wet cocoa beans from farmers, funds for buying were provided by PT MARS. However, in 2011, PT Mars has changed its policy of buying wet cocoa directly from farmer organisations towards buying dry cocoa through local traders. PT Mars has indicated that they are willing to buy directly from FO's (Including JANTAN and SIKAP) when they are able to provide them with dried/fermented cocoa beans of a good quality. A minimum shipment of 8-10 MT dried Cocoa beans is needed and the shipment has to be organized by the FO's.

After changing the purchase policy, PT MARS is continuously present in Flores with 2 staff members based on the island. They will implement a system for local Traceability of Cocoa beans, they will check whether the price setting for purchasing cocoa beans from the farmers through weighing, moisture content, mould and waste de-termination is transparent and honest, provide JANTAN and SIKAP with technical assistance/training, and they will facilitate the Internal Auditing process of Cocoa beans bought from business partners.

Through the multi stakeholder involvement that is the basis of this project, guidelines in several areas have been formulated or applied. The national sustainability criteria encourage future cocoa

production that rehabilitates agricultural lands and forms part of a strategy to preserve remnant forests and develop habitat corridors. Farmers have to obey to criteria that minimize the use of agrochemicals as insecticides, herbicides, fungicides and chemical fertilizers.

Both at the FFS and trainings as well at the CSP-forum, the farmers learn that biodiversity on their farms is necessary and need to be preserved. The multicultural systems that are applied by the farmers consist mostly of intercropping cocoa with seasonal and long-term plants, such as corn, and annuals such as coconut. The only negative effect is that the cocoa yields per hectare are lower. At the trainings of PT Mars, farmers also learn how they can get a safer farming environment with respect to exposure risks to pesticides and other risks.

#### 4. Impact

The perspectives of moving towards sustainability of chain actors differ and often are an expression of own survival in the long run. In that sense, the efforts of PT Mars of securing their supply of cocoa, has resulted in sustainable changes in the cocoa chains on Flores.

##### 1. Farmers' organizational and marketing abilities improved

a. To do business, both FO's realized that registration is a basic requirement if you want establish a sustainable trading relationship with buyers. The opportunity of selling Wet Cocoa Beans to PT Mars, gave a boost to JANTAN as a business organization. Later in 2010, SIKAP also entered this field facilitated by VECO-Indonesia and received the status of association. JANTAN is recognized as Multi-Purpose Cooperative, which makes it easier to start business activities and to investment as it is able to accumulate some capital. Also the government tends to be more supportive to cooperatives.

b. The negotiation position of farmer families improved a lot. A good example is the negotiation of the farmer organizations with the government to obtain a cocoa seedling nursery. They also obtained land use rights to build a cocoa processing unit in Nangapanda district. In East Flores, through JANTAN, farmer families successfully negotiated a price with local traders of USD 1.18 to 1.42 per kilogram dried beans.

##### 2. Farmers' organisations resilience for coping and adapting to new situations has increased.

a. JANTAN has to adjust to the new situation (no more wet beans), but should be able to sell dried beans during 2011. The changes in PT MARS policy to buy dry beans has motivated SIKAP to process its own beans more systematically with the needed moisture content. The fermentation is another possibility but takes some time to be organized both for SIKAP and JANTAN. The fermentation boxes (JANTAN) are only covering part of the capacity needed for members, but serve as a model to introduce this technology in the area. These boxes are easy to construct and materials are cheap.

b. With the new situation, the farmers are facing changes that need to be tackled very fast. PT Mars change of policy has encouraged them to train the farmers to do their own processing. This has resulted in processed, better quality Cocoa beans for which a better price will be paid.

c. Farmers' organizations have the capacity to attract new business partners. Through this development they are able to sell larger volumes of Cocoa beans to different buyers.

d. As a result of the change in PT MARS purchasing policy, JANTAN and SIKAP do not have sufficient funds to purchase wet cocoa beans from farmers, the funds which were previously provided by PT MARS. The number of farmer members paying membership fees is still low because the administration systems are still inefficient. However, thanks to the collaboration and negotiation with the new traders, the collective marketing activity of the organisation continued.

##### 3. The skills of farmers are strengthened (technical, economical, organizational)

Farmers of JANTAN and SIKAP have been trained on different issues. This has resulted in changes:

- At the farmer level: more frequent harvesting, pruning, fertilizing and sanitation activities as a result of the dissemination of last year's farmer field school results.
- At the processing level: at SIKAP processing units are used to process the cocoa, while at JANTAN the processing is done by the farmers. This means their knowledge and skills in processing quality cocoa is growing.
- At the marketing level: Several members of farmer groups that are members of SIKAP and JANTAN are able to negotiate prices for the Indonesian National Standard quality cocoa with local traders.
- At Organizational level: Women are starting to play a clearer role in JANTAN, above all in marketing. This is partially because of the sustainability criteria that PT Mars helped to develop and partially because of the program that VECO developed with the farmer organizations. However, the role of women in the cocoa production stays more centred around the initial stages, while men have the control over farm planning, selling and decisions concerning new technologies.

#### 4. Consumer's demand is better satisfied

Mars Incorporated's business value is to consistently deliver quality and value for money that customers want with efficient and reliable service. They try to do this by satisfying the consumer's demand for chocolate and chocolate products and by predicting this demand in the future.

### 5. What are the key implications for scaling inclusive business?

The case of the cocoa farmers in Flores is very much a case of scaling up the production that meets new product demands. The private sector, in this case PT Mars, has the interest of acquiring cocoa beans of a certain quality in order to meet consumer demand. VECO contributed in bringing local farmers and a global enterprise together, benefitting the farmers by increasing their income and securing their livelihoods and benefitting PT Mars by providing them with more cocoa beans that meets PT Mars' standards. The case shows that this kind of cooperation can trigger positive results.

Before the cooperation farmers got USD 0.92 per kilogram of wet beans and this has now become USD 1.13. The partnership between JANTAN and PT Mars is unwritten, because the price of cocoa fluctuates with the dollar exchange rate. Since the new system of 2011, the farmers have to negotiate with the middlemen about the prices of their beans, instead of with PT Mars. Besides these better prices, farmers can get large quality fees if they are able to meet PT Mars' production and quality standards. The farmers have gained skills to negotiate and they are able to deal with different buyers. This and the fact that they are able to deliver higher volumes, and better quality of the beans are supporting issues that ensure a good/better price on the long term.

The intercropping yields in a more secure income for farmers because when the cocoa harvest is poor, the farmers still have an income from the other crops. Also, before the participation in the farmer field schools, the production was only 30 fruits per tree. After the training this became 40 fruits per tree because of the implementation of the P3S's technique and losses were lower.