Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

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Sustainable Palm Oil Production

Partnership Farming in Thailand

Rationale

It is a global challenge to feed a growing population in the face of climate change, limited land area, and food insecurity. Given that palm oil is the most competitive vegetable oil crop in terms of price and productivity -yields per hectare are almost ten times higher than those of soy-, the world demand of palm oil for food, fuel and chemical industry is steadily increasing. While palm oil is usually associated with big plantations it is estimated that one third of global palm oil is produced by approximately three million smallholders. Their farms, in general, yield only less than half of those larger and professionally managed plantations and entail fluctuations in quality and quantity of fresh fruit bunches.

Thailand shares only about three percent of global palm oil production and about 80 percent of palm oil fresh fruit bunches (FFB) are produced by smallholders. A good managed oil palm farm can provide about one FFB (weight approximately 15-35 kilogram) per tree per month throughout the year, which is a unique crop specific characteristic that distributes farm income to all seasons and increases income security compared to other annual or seasonal crops. However, Thai palm oil millers struggle with utilizing their full capacity especially in low yielding seasons. Low quality of FFB from unripe fruit harvesting and post-harvest mishandling by middle men further reduce efficiency of palm oil production resulting in a loss from the market failure of about 0.6 billion U.S. dollar per year. Thus, collaboration between the parties is important and could be accomplished through a business model in which consumers and producers form a partnership. This approach has great potential to increase palm oil production without further land use changes and deforestation and, at the same time, it will strengthen local economy and smallholder farmers' livelihoods.

Objective

Against the backdrop of increasing demands for certified palm oil, a partnership has been initiated between four oil mills and their associated local smallholder suppliers in southern Thailand. The project **Sustainable Palm Oil Production** is commissioned by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) under the International Climate Protection Initiative and encourages farmers to adapt sustainable farming practices and receive certification from the Roundtable for Sustainable Palm Oil (RSPO). The bilateral Thai-German project is being implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the Thai Office of Agricultural Economics (OAE), and the Thai Ministry of Agriculture and Cooperatives.

Project name	Sustainable Palm Oil Production
Commissioned by	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
Project region	Thailand
Lead executing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Thai Office of Agricultural Economics (OAE), Thai Ministry of Agriculture and Cooperatives
Duration	2009 to 06/2012

The objective is to improve smallholders' well-being, optimize value chains and sustainability and reduce greenhouse gas emissions. Partnership farming allows the farmers to work as a homogenous group and creates a formal structure under the principle of internal control. The farmer groups are structured to receive support, trainings and capacity building by the GIZ project and their trading partner, and to comply with the RSPO standard.

Photos: Farmer trainings in the training center (left) and in the field (right) – hands-on trainings are a vital contribution to increased farm productivity.

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Underlying Business Model

Partnership farming is based on the awareness that the paradigm change towards a closer interaction between agribusiness and smallholders is about to expand from upscale niche products into commodity markets. Farmers are selected, trained by the GIZ project and certified under RSPO standard in order to forge two outcomes. Firstly, farm productivity is increased through improvements in farm management practices, fertilizer application, harvesting and fruit handling, leaf and soil analysis, pest and quality control, farmer group development and loan availability. Secondly, a participatory partnership agreement is established by consolidating farmers' commitment, namely regular delivery of fruit bunches and enhanced plantation management. Additionally, the milling facilities support farmers through the establishment of express delivery channels, premium prices based on quality, provision of high-quality fertilizers and seedlings, as well as technical training and support. Increases in yields and enhanced resilience of the farming system enable the farmers to deliver high-quality fresh fruit bunches directly to the palm oil mills resulting in direct income gains for farmers and millers. From the processor's point of view the partnership agreements reduce the dependence on middle men, increase constancy and quality of the supplied fruits and RSPO certification provides access to international sustainable market segments.

Results and Impact

In the pilot implementation phase, the project strategically selected four Thai palm oil millers with the greatest potential and willingness to support smallholders towards sustainability and who were located in major palm oil plantation regions in southern and eastern Thailand. 100 oil palm farmers, both project participants and non-project participants, were surveyed in order to compare yields of various palm oil trees before and after the two-year project intervention. Results showed a statistically significant increase of palm oil yield of the project-participating farms from 17.17 to 19.75 tons per hectare FFB. Taking an average FFB price at five Thai baht per kg, the farmers earned about 80,498 Thai baht (2,012 euros) more per year, exclusively from palm oil yield increase. Premium price payments for high-quality FFB increased farmer earnings by 6,172 Thai baht (154 euros) per year. The study also indicates that farmers were able to purchase discount fertilizer (15 percent less than at retail) from the millers. This cut agricultural input costs by 11,000 Thai baht (275 euros). Improved water retention in soils and reduced application of chemicals benefited not only the farmers but also the environment. Within the project, a database management system was developed, which served as a monitoring tool for the group and supports auditing processes.

The project Sustainable Palm Oil Production in Thailand empowers farmer groups to have an equal position for farm business negotiation where both parties are doing business with transparent and fair conditions, which is fundamental for long-term sustainability of local economic development. After closing of the project the partners have mobilized resources to further up-scale the initiative. An international brand, Johnson & Johnson, has agreed to purchase all the RSPO certificates from the project pilot groups for the next three years and continues to support the farmer groups to upkeep the standard compliance. The Thai Agricultural Research and Development Agency is interested in funding the up-scaling of the project in cooperation with a regional University, the pilot farmer groups and former staffs of the project. Inspired by the project, Shell Thailand and Patum Vegetable Oil Company Limited, the largest palm oil refinery in Thailand, have kicked off a joint project to drive sustainable palm oil production in Thailand by supporting and preparing eight palm oil millers and more than 1,000 associated smallholders in achieving RSPO certification.

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