

Greasing the way to sustainable palm oil

With support from provincial authorities and a German technical assistance agency, farmers in Krabi are learning eco-friendly methods in the hopes the industry will see continued growth

By Songpol Kaopatumpit

Kuakoon Siangtaen starts the day by unlocking his tool room and taking out a small plough. He then heads for his oil palm plantation a short walk from his home. Dawn is breaking as he walks slowly, savouring the peace and quiet of the green surroundings.

"A modern oil palm plantation needs a grower who has learned how to cultivate oil palms," said the 35-year-old native of Krabi. "I am still learning to do my work well." Mr Kuakoon spent more than 10 years studying and working in Bangkok, where he met his wife, before returning to his hometown in Plai Phraya district four months ago. It was the right move, he says. Life is not so hard in Krabi, and they earn more income from oil palm than they would as office workers in Bangkok.

When he was five years old, Mr Kuakoon's father had already established himself as a successful rubber farmer, cultivating 70 rai (11.2 hectares) of rubber trees. Mr Kuakoon knows how to tap rubber, but oil palm cultivation is a whole new experience for him. He was in Bangkok when his father decided to set aside 40 rai of the rubber plantation for oil palm cultivation in 2001.

In the old days, no one cultivated oil palms. They simply picked the clusters of fruit from the oil palms that grew in the



PHOTO: REUTERS

THE COLOUR OF MONEY: A verdant oil palm nursery outside Plai Phraya district in Krabi.



PHOTOS: SONGFOL, KAOPATLIMPIE

forest. But these oil palms produced little. The oil was extracted by traditional methods, and a lot of oil was left in the pulp and the kernel.

These days selected oil palms with big yields are grown on plantations around Thailand, which bring in money for the growers, the mill owners and their workers, as well as tax collectors.

Despite the enthusiastic endorsement of growers like Mr Kuakoon, there is a lot of criticism of the expansion of oil palm cultivation in Thailand and elsewhere around the globe. In Indonesia and Malaysia, the world's first and second largest producers of palm oil, the rapid growth in production has been blamed for the destruction of rainforests, loss of biodiversity and the rising price of food commodities.

In Thailand, the German International Cooperation (GIZ), a federally owned enterprise that assists the German government in the field of international cooperation for sustainable development, is supporting its Thai partners in taking full account of the ecological issues and socioeconomic impact of palm oil cultivation. A major component of this support is the adoption of the Roundtable for Sustainable Palm Oil (RSPO), a standard developed by producers, industry, non-governmental organisations, businesses and banks. >>



TOP TEN PALM OIL PRODUCERS IN 2010

Province	Total area of mature oil palm trees (rai)	Total fresh palm fruit harvest (tonnes)	Harvest per rai (kilogrammes)
1. Krabi	928,769	2,390,651	2,574
2. Surat Thani	897,797	2,218,456	2,471
3. Chumphon	709,861	1,648,297	2,322
4. Prachuap Khiri Khan	167,063	393,935	2,358
5. Nakhon Si Thammarat	146,929	356,744	2,428
6. Trang	105,435	258,316	2,450
7. Satun	101,444	210,298	2,083
8. Phang-nga	100,959	197,511	1,947
9. Chon Buri	79,352	197,507	2,489
10. Trat	67,096	149,020	2,221

Source: The Office of Agricultural Economics

Sundaygraphics

Note: 1 hectare = 6.25 rai

» To comply with the RSPO standard, no areas of rainforest may be cut down to make way for cultivation. This means that Thai oil palm growers must adopt new organisational and management methods to optimise their production techniques. From its office in Krabi, the GIZ has been working with provincial officials, environmental groups, palm oil producers and small-scale farmers in preparation for certification under the RSPO framework. Training courses have been organised to educate and inform Thai growers and officials on the issues and requirements.

The Thai-German project on Sustainable Palm Oil Production for Bioenergy has also been launched with GIZ support. The three major goals of the project are increased productivity, improved quality and internalised sustainability. The project is currently working in Krabi with four palm oil mills and providing training in sustainable farm management to about 1,000 small landholders and their workers, who benefit from the workplace health and safety regulations.

At one such training session at the main office of Univanich Palm Oil Plc in Plai Phraya district on Aug 10, Krabi Governor Prasit Osathanon said the initiatives taken by all stakeholders in the province have proven that tourism and the agro-industry can coexist in harmony.

Krabi is the biggest producer of fresh palm fruits in the country, with a total output of nearly 2.4 million tonnes in 2010, according

to the Office of Agricultural Economics (see graphic). Commercial oil palms are also grown in the northern province of Chiang Rai and several northeastern provinces. Chon Buri, which is less than an hour's drive from Bangkok, produced nearly 200,000 tonnes of fresh palm fruits in 2010.

Mr Prasit praised palm oil mills whose operations are carried out in a sustainable manner. He gave an example of one such

practice: During the milling process, large volumes of wastewater are released into enclosed ponds, where it ferments and releases methane, which is subsequently used to generate electricity.

"As these biogas plants help reduce greenhouse gas emissions, it benefits the tourism industry as well," said the governor.

Additionally, the use of biogas technology enables palm oil mills to achieve very good greenhouse gas balances, which are crucial for attaining the greenhouse gas mitigation targets set

by the UN-Redd (Reducing Emissions from Deforestation and Degradation).

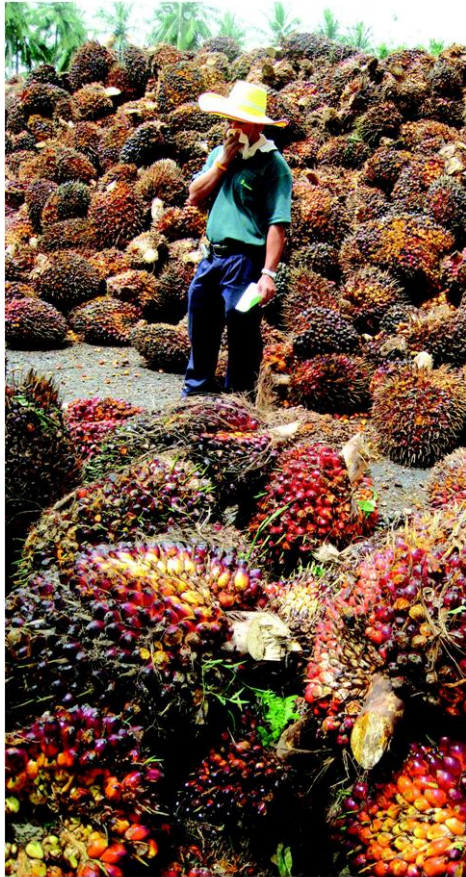
GOVERNOR SAYS 'AIM HIGH'

Mr Prasit says the government, farmers and millers should set their sights on higher yields and a higher oil extraction rate (OER) in palm oil production.

Last year, there were about 3.5 million rai of cultivated oil palm plantations in Thailand. They produced 8.4 million tonnes of fresh fruit bunches (FFB). The volume is expected to increase to 9.7 million tonnes of FFB this



STILL GROWING: Kuakoon Siangtaen is still improving his palm oil farming practices.



PALM CALM: Above, palm oil farmer Suwan Thongprasert enjoys the serenity of his farm. Left, palm oil fresh fruit bunches at a crushing mill in Ao Nang district of Krabi.

year, according to the Office of Agricultural Economics (OAE).

It is estimated that palm oil mills lose about seven billion baht annually from sub-optimal OER. This is mainly due to poor practices and low production standards.

When the governor arrived in Krabi two years ago, the OER was 13%, which was far below the rate achieved in many other palm oil producing countries. Now the OER is 17%, but Mr Prasit still wants to see improvement. Some experts have estimated that Krabi could earn an additional revenue of 1.5 billion baht a year simply by improving the yield by three percentage points, he said.

Farmer Suwan Thongprasert said growing selected oil palms is not just a matter of picking the fruit. The grower must learn how to do his work well. In his opinion, the problem of low OER is due mainly to the insufficient supply of water and fertiliser and the harvesting of unripe fruits — problems that could be overcome by improving farmer education and quality control systems.

The 53-year-old farmer also explained that palm oil growers have to invest a lot of time and effort before they see any rewards, because an oil palm does not begin to produce fruit until three or four years after it has been planted. During that time the grower must spend money and work hard, without earning any money.

“Most often you will have to pay workmen to clear the site of the plantation. Then you must buy seedlings and fertilisers. Unless you apply fertilisers to the oil palms when they are still young, they will not grow well

and you will have to wait a longer time before you can begin to harvest,” said Mr Suwan.

The grower may also have to pay workers to help him look after the young plantation. Weeds must be removed regularly, and the trees must be protected from damage by rats and insects.

All this work takes a lot of time, and this means that the grower may not have enough time to look after other food and cash crops. He may have to buy food for his family.

“Before you start an oil palm plantation, you must calculate carefully whether you will be able to incur all these expenses. Then it takes a lot of time to dig holes in the plantation, take the seedlings out of the nursery, carry them to the plantation and plant them,” said Mr Suwan.

All this work needs to be carefully done. The farmer must take his time. Once the oil palms are planted, he must put wire netting around the young trees, spread fertiliser and keep watch over the plantation.

Young oil palms need a lot of care, so it is better to make a smaller plantation, but look after it carefully, said Mr Suwan, who owns a 40-rai plantation.

An FFB is ripe for harvesting when the fruits begin to turn red, and when five or six drop to the ground. “If you wait too long before harvesting the clusters, it takes much more time, because you must pick up all the fruits that have dropped to the ground,” he said. “The fruits will also yield less oil, and the oil will be of low quality.

“However, if you do not wait long enough before harvesting the clusters, the fruit will not be ripe enough. It will be more difficult to separate the fruits from the clusters and the clusters will yield less oil.”

As labour services are based on the quantity of FFBs harvested, unripe fruits are often picked and FFBs are sprayed with water or mixed with sand to increase their weight.

Asked why low-quality FFBs are accepted, an industry source who spoke on condition of anonymity said: “Crushing mills have a much higher capacity than the available feedstock supply, so they have to accept low-quality FFBs.”

Mr Suwan said this situation is beyond his control, as he and his wife cannot harvest the fruits by themselves. In his opinion, it is essential for local circumstances to be taken into account, especially those of small-scale farmers like himself, in order to implement the sustainability standards promoted by the RSPO.

Despite the difficulties, Mr Suwan is content with life. “I always pray before I sleep, for myself and my family, including our four sons who live in Bangkok,” said Mr Suwan. “Since I set up this plantation 22 years ago, I have never felt dissatisfied with my life. I am surrounded by nature, I eat well and I am free.” ■



Roundtable on Sustainable Palm Oil

According to the German International Cooperation, the Roundtable on Sustainable Palm Oil (RSPO) is the most important international initiative on sustainably certified palm oil established to date.

The RSPO was formed in 2004 as a joint initiative by the World Wildlife Fund (WWF) and companies in the palm oil sector, food companies, banks and representatives of civil society with the aim of ensuring sustainable production of palm oil.

The RSPO has more than 350 ordinary members. A large number of international non-governmental organisations, including WWF,

Oxfam International and Sawit Watch, are represented in the RSPO. The members of RSPO account for about 50% of global palm oil production and also include the most important buyers and the processing industry.

RSPO members commit themselves to transparency and the release of information, and to the compliance to local, national and international laws and regulations. RSPO certification is based on economic, ecological and social criteria:

- **Economic criterion:** Continuous efficiency improvements, documentation on the improvement of production conditions and continuous yield increases that lead to employment.

- **Ecological criterion:** Rainforest or other areas of high conservation value may not be destroyed to make way for new plantations.

- **Social criterion:** Working conditions must be consistent with industry standards and minimum wages must be paid. The RSPO also addresses health and safety at work.

In July 2010 there were already two million tonnes of RSPO-certified palm oil available on the world market, with an upward trend.

Experience shows that certification can contribute to lessening the problem of deforestation, but is not able to solve it completely on its own.