

## CHAPTER 4

### EUCALYPTUS PLANTING PROJECT AND RURAL SOCIETY

#### 4.1. The Site of Eucalyptus Plantation

##### 4.1.1. Northeastern Thailand

The Northeast, which is known in Thai as Isan, comprises one-third of the population and the area of the country. It covers 170,000 square kilometres and is divided into 19 provinces. Its topography is different from that of the other regions, and most of the land are the high plains known as the Khorat Plateau, which is an average of 120 to 180 meters above sea level. Geologically, the plateau is composed of fine-grained sandstone with layers of salt deposits from ancient seas. Thus, the soil there is mostly sandy and salty. Consequently, the northeastern region is highly unfavourable for cultivation. Although the region has some fertile areas which are fed by two main rivers, the Mun and Chi and their numerous tributaries, and the fertile land by the Mekong, these are relatively small compared to the rest of the land which is arid. Therefore, most of the lands are poorly drained and have low water holding capacity. Hence, the northeastern region is often described as the "barren Northeast" (The Fine Arts Department 1989).

Actually, floods and droughts are regular features of northeastern Thailand. Annual rainfall is over 1,000mm, on the

average, but it varies greatly in amount and intensity, both within the rainy season and from year to year. Rainfall occurs only occasionally in the dry season (KKU-FORD Cropping System Project 1982). Sanitsuda (1991)\* also reports that less than half of the region receives sufficient rain for agriculture: *a contributing factor to erratic and fewer rainfalls has been the clearing of the tropical forests over the past two to three decades to grow cash crops, such as maize, tobacco, and tapioca, which is mainly sold to the animal feed markets of European Economic Community. The loss of the forest has also caused soil erosion, lowering the quality and fertility of the land still further*<sup>1</sup>.

As a result, very few crops can be grown in the northeastern region. Most of the land is under a monoculture of rice, kenaf, or cassava. Rice, which is the subsistence crop in the region, is grown on 80% of the total cultivated land. Of the remaining land, 90% is occupied with field crops such as cassava, kenaf and corn. Fruit trees and vegetables occupy less than 3% of the total cultivated land (KKU-FORD Cropping System Project 1982).

Rice, especially glutinous rice, is the staple food crop in the region. Therefore, its cultivated acreage is relatively huge even though its productivity is not high. Further, even though rice is the major farm product in the region, it does not bring cash to the rural farmers. KKU-FORD research mentions that, in the early 1980s, more than 80% of harvested rice was consumed by the northeasterners

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\* The author of Behind The Smile: Voice of Thailand

1. Sanitsuda 1991, pp.20.

themselves and only 7% of it was sold for cash (KKU-FORD Cropping System Project 1982). Sanitsuda (1991) describes the situation as follows: *when they can, villagers grow one crop of rain-fed rice annually, but need about 15 - 20 rai per family to grow enough for their own needs for the year<sup>2</sup>.*

During the past several decades, the growing of cash crops has been much more popular than the growing of traditional crops for their own consumption. For instance, KKU-FORD research mentions that maize and cassava production had trebled between 1973 and 1980, largely in response to demand on the world market, particularly in the European market. Kenaf was the most important field crop in the 1960s, but its production slumped in the early 1970s due to declining prices in the world market, but recovered partially in 1979. Thus, it is clear that the northeastern farmers suffered from its exclusive planting of three major cash crops which fluctuated in terms of the price in the world market (KKU-FORD Cropping System Project 1982). Furthermore, the price drop of these crops in recent years has worsened poverty in most rural communities.

Even though most of the rural people in the northeastern region are locked into a cycle of debt\*, low crop prices and poor crop yields make it impossible for them to pay off even the interest on debts. To do this, many farmers take out more loans or increase their cultivation

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2. Sanitsuda 1991, pp20.

\* Rural people borrow money for intensive modern agriculture - machinery and chemical fertilisers and pesticides - and for basics such as food, housing and clothing (Sanitsuda 1991).

areas illegally in the hope of having additional productions. Sanitsuda (1991) reports that a growing population and increased cultivation of crops for sale rather than family consumption has brought about the situation that all suitable arable lands in the Northeast are under cultivation although many villagers do not have legal rights to these lands.

Additionally, in the 1980s, cash income became more important in the northeastern region.\* Since then, many people have left their homes to work elsewhere. They go to other nearby provinces in the region or further afield in Thailand, and some go to other countries, such as Singapore and those in the Middle East. Even if the people who don't go to other provinces, they go to Khon Kaen to work. Thus, people started to concentrate on increasing cash income and to work as full time wage labourers. Sanitsuda (1991) points out these peoples are estimated to be two million on the average each year.

As a result, surplus labourers in the rural society have decreased and this has it caused a raise in labourers' wages in the agricultural sector. The families who have relatively large areas of land are short of labourers to sustain the farmlands because the younger generations have left, so their society is composed of mostly elderly people and young children. Consequently, the quality of labourers is degraded. Therefore, the net profits from crops are decreased for farmers who have to hire others for cultivation. Eucalyptus came to the rural society because of such conditions.

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\* Electricity was popularized in the region at that time. Local peoples started to have electric household appliances.

## 4.2. Farmers and Eucalyptus

Masaki (1991) categorised farmers according to their response to eucalyptus planting into four types. The first type are farmers who willingly planted eucalyptus. The second type are those who had not planted eucalyptus but now have planted it. The third type of farmers are those who had planted eucalyptus before and stopped for some reason. The last type are farmers who have never planted and are against the eucalyptus project. He commented on the last type as the most crucial because these farmers sometimes burn eucalyptus seedlings and RFD offices, and demonstrate (Masaki 1991). Actually, such anti-eucalyptus movement incidents have occurred many times in several northeastern provinces (Figure 3). However, present eucalyptus planting conditions are much different from those at the time when anti-eucalyptus movements were initiated. No anti-eucalyptus movements have occurred since 1992.

### 4.2.1. Present Conditions

As mentioned in the former chapter, farmers are seen as taking the initiative in current eucalyptus planting. Presently, they have a positive attitude toward eucalyptus. According to REX research, eucalyptus plantations of the private sector in the Northeast were increased by 10 thousand hectares per year from 1986 to 1992.\* However, farmlands which were transformed into eucalyptus plantations were estimated at 40 thousand hectares in 1996 (REX 1997). These plantations has rapidly increased since the early 1990s.

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6. Source: the data of Siam Tree Development Co. Ltd..

Thus, the areas of eucalyptus planting by farmers are considerably bigger than the areas which have been planted by the government and the private companies from the end of 1980s to the early 1990s. Because plantations were implemented by these farmers themselves, no anti-eucalyptus movements by farmers nor criticism by the mass-media has been seen since 1992.

Although the planting areas by farmers are relatively large, these plantations are relatively young. Most of them have been planted within the past 5 years (Ubukata 1997, REX 1997).<sup>\*</sup> This overlaps with the duration of the reforestation project which was implemented in northeastern Thailand.

Farmers grow eucalyptus on the land around their paddy fields, farmlands, and homes. Then, they expand the plantations to the farmlands. In most cases, cassava had been planted on the land beforehand. However, it has been replaced by eucalyptus within the past 5 years, because 1) the soil was degraded after several decades of cassava planting, 2) consequently, farmers can no longer have good harvests of cassava, and 3) the price of cassava has dropped seriously in the market.<sup>\*\*</sup>

To replace cassava with eucalyptus, some farmers buy seedlings

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\* In my field research, only one in 30 cases has long experience (14 years) in eucalyptus planting.

\*\* According to the villagers in Mahasarakham, cassava has recently been traded at 0.5 baht per kilogram (based on interview).

from private nurseries. Presently, eucalyptus seedlings are traded at 1 baht per tree. Others get seedlings from the nurseries of the reforestation project for free. As was mentioned in Chapter 3, the REX contributes a lot to distributing the eucalyptus seedlings to farmers.

Most farmers in villages where eucalyptus has been planted have positive opinions and attitude toward eucalyptus. They praise its fast-growth and strong characteristics as much as the fact that they do not have to take care of eucalyptus after planting them. In most cases, fertilizer is used only in the first year of planting, and weeds are cut out only when eucalyptus is young. Eucalyptus can be cut and sold after two to five years of growth. According to villagers, each tree can be cut every two to five years, at least for three to five times. On the other hand, the planters who have little experience in eucalyptus planting insist that they can cut eucalyptus as many times as they want. In their opinion, eucalyptus can grow over and over until it dies.

As was stated in Chapter 1, this eucalyptus is usually sold to the big pulp and paper companies around Khon Kaen.\* Most planters in many villages have contracts with such private enterprises. In exchange for having privileges, including advanced payment, the planters enter into agreements to deliver trees when the trees grown enough (two to five years).\*\* In the Mahasarakham villages, these

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\* For instance, the villages which I researched were under contract with Suan Kittipaper and Pulp Company in Khon Kaen.

\*\* Usually, there is a middleman who is in charge of transporting trees. The middleman hires people to cut the trees and then delivers

trees are dealt with at 600 baht per ton or 20 baht per tree (in the case of three-year old trees). Thus, it can be estimated that the planters in the area will earn at least 1,000 baht per rai per year on an average, regardless of the weather they have. Considering that they can earn 1,400 baht per rai through rice cultivation, the profits from eucalyptus do not seem very attractive. However, it is no wonder that farmers choose eucalyptus because they can expect additional income as wage labourers in their free time. Besides, they do not have to invest much for eucalyptus plantations.

Not many planters commented negatively about eucalyptus plantations. Only a few mentioned its impacts on the environment, such as the soil getting solid, drier and less nutritive after several years of planting. The biggest problem that the planters have is that money is not delivered to them immediately, even after they deliver trees to the company: they usually have to wait for at least one month.

Although they know that eucalyptus is not the perfect crop, eucalyptus seems to promise better conditions for the farmers. Therefore, planters are going to keep growing eucalyptus as long as the companies buy it. What is more, most of the planters have desires to expand their plantations in the future. Even the farmers who do not plant eucalyptus at this time hope to grow it when they have land available.

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them to the company. The middleman is usually a villager who lives in the village or in a neighbouring one. Ubukata (1997) says the middleman can have an average net profit of 2,000 baht per one harvest.



When the planters start to grow eucalyptus or expand their plantations, they first make use of the land around their houses, the paths between paddy fields or farmlands, and then go to the farmlands and paddy fields. As a result, eucalyptus plantations bring the diminution of farming activities.\*



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\* Some farmers said that they would start to work as full-time wage labourers in cities after diminished rice cultivation by eucalyptus planting.