

Studies on the Utilization of National Forest Lands by Rural Communities
in East Kalimantan—Indonesia

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1. Introduction

Most rural communities in East Kalimantan depend on forest land, wood and other tree products. The objectives of this studies are to find out the role of national forests for rural communities neighbouring national forests.

2. Situation and information of forest problems in East Kalimantan—Indonesia

Population. East Kalimantan has an area of 211.440 Km² and occupies about 10% of the total area of Indonesia. Considering the vast and sparse population, it is necessary to transmigrate from Java and other islands in Indonesia. Efforts transmigration have been made since 1954, and are still going on. Among the 26 transmigration projects, 5 projects are organized by the central government and the rest by the regional government. The number of transmigrants in East Kalimantan from 1969 is 2,739 households or 11,257 persons, occupying a total area of about 8,500 ha. In 1980, the population of East Kalimantan amounted 1.22 million, and about 60% of the population lived in the rural areas.

Forestry. Forestry is one of the most important economic activities of East Kalimantan, behind oil and natural gas. The total area covered with forests are 17,292,000 ha and all of these forest lands are Government property. It is divided into three categories: (a) Production forest (12.912 million ha), (b) Protection forest (4.105 million ha), and (c) Forest reservation (0.275 million ha). Moreover, the East Kalimantan forest management is facing problems of shifting agriculture which they have not overcome satisfactorily yet.

3. Methods of the study

Secondary data, such as the number of household and land utilization, were obtain from the Office of Local Transmigration and the Office of Rural Administration and demographic literature. Primary data, such as the land holding areas, livelihood and income of household, were obtain through questionnaires and by direct interview with each households.

4. Results

A. Lempake village

Before 1960, the Lempake area was mostly covered with a dense jungle (primary forest) and part was dry-land farm. Earlier settlers, mostly consisted of Banjarese, had been clear-cutting the primary forest for shifting agriculture and pepper plantations. On the 27th of February 1969, the Government of East Kalimantan Province

Table 1. Land utilization in Lempake village

	Homestead garden	Cultivated dry-land farm	Cultivated wet rice-field	Wet rice-field and dry land which is not yet cultivated	Total
Areas (ha)	254.90	895.60	445.50	479	2,073
Percentage	12.30	43.20	21.39	23.11	100

Source : The office of Local Transmigration, 1980.

issued a decree under Code No. 25/T.H. Pem/1968. By this decree, Lempake village with the area of 6,000 ha was appointed a transmigration framework was put into practise since 1970 and was carried out yearly until 1975. In 1980, the settlers of Lempake village amounted to 1,098 households or 6,207 persons.

The land of Lempake village is 6,000 ha, and only 34.55 % of the area has been used for settlement purposes. Land use of the respective areas is given in table 1.

Livelihood. The main source of livelihood of the communities are garden culture and agriculture on wet rice-fields and dry-land farms. The dry-land are cultivated using the slash and burn system. Besides farming, a few households are trading, working as labours, etc. Another important source of income is cutting timber, particularly Borneo Ironwood (*Eusideroxylon zwageri*), Meranti (*Shorea* spp) and Kapur (*Dryobalanops* spp) on the national forests, mainly for sale. Indonesia Law permits communities living near national forests (Concession areas) to collect forest products suitably by local regulation.

Based on the source of income, communities living in Lempake village are divided into three categories of households. Their land areas by type of household is given in table 2.

Table 2. Type of household and land areas (in ha)

	Average area of cultivation				Average area of land not yet cultivated	T o t a l
	H-g	D-l	W-r	S-t		
Farming only	0.28	1.00	0.51	1.79	0.22	2.01
Farming and collecting forest products	0.18	0.63	0.31	1.12	0.63	1.75
Farming, Trading, Laboring, and other	0.22	0.76	0.38	1.36	0.54	1.90

Remarks : (H-g: Homestead garden); (D-l: Dry land); (W-r: Wet rice-field); (S-t: Sub-total)

Income. Table 3 shows the number of households and average income per month for each type of household, according to the source of livelihood, in 1980.

Table 3. The number of households and average income per month of the respective types of households

Type of households	Number of households	Source and average amount of income			T o t a l
		Agriculture land (Rupiahs)	Forest products (Rupiahs)	Trading, Laboring and other (Rupiahs)	
Farming only	459	138,378	—	—	138,378
Farming and collecting forest products	404	78,984	51,759	—	130,743
Farming, Trading, Laboring and other	235	101,413	—	26,247	127,660

Note : in 1980, value of US \$ 1.00 equal to Rp. 645.00

B. Betuah village

Before 1960, Betuah area was mostly a dense jungle (primary forest) and part was a dry-land farm. Earlier Buginese settlers have been clear-cutting the primary forest for shifting agriculture and for pepper plantations. These activities are still going on. In the middle of the 1960s, the government started to build a main road be-

tween Samarinda and Balikpapan, and finished it in the early 1970s (the main road through Betuah area).

Betuah village has a total land area of about 4,700 ha, of which 18.82 % is agriculture land and 82.18 % is national forest lands. Land utilization data is given in table 4.

Table 4. Land utilization in Betuah village

	Homestead areas	Wet rice field	Dry-land farm	National forest land			T o t a l
				Sh-Ag	Sc	Pr	
Areas (ha)	28.90	98.26	710.94	1,560.05	1,715.50	568.35	4,700
Percentage	0.6	2.09	15.13	33.20	36.50	12.48	100

Source : The Statistics Agriculture Office of District Loa-Janau, 1980

Remark : (Sh-Ag: Shifting agriculture); (Sc: Secondary forest); (Pr: Primary forest)

Livelihood. The main source of livelihood of the communities is agriculture on wet rice-fields, dry-land farms and national forest lands. On dry-land farms and national forest lands, all of households have been practicing slash and burn agriculture and clear-cutting the primary/secondary forests for shifting agriculture. There are many pepper plantations, and they make use of the land for paddy during the 1st or 2nd year and after that, pepper are cultivated until the 12th or 15th years. Other sources of livelihood are cutting Ironwood to make poles for stakes for pepper plantations, and cutting other timber such as Merati and Kapur for their houses, and a few for sale.

Income. Table 5 shows the number of households classified according to the number of persons in a household and income per month in 1980.

Table 5. The number of household classified according to the number of persons in a household and income per month in 1980

Number of person in a household	Range of income per month in ten thousand rupiahs					Number of households	Average income per household (Rp)	Income per capita (Rp)
	6-10	11-15	16-20	21-25	26-30			
2-4	41	52	61	38	24	216	168,888	56,296
5-7	2	18	27	59	156	262	246,603	41,101
8-10	—	—	2	9	82	93	273,011	30,334
11-13	—	—	—	3	9	12	267,500	22,292
T o t a l	43	70	90	108	271	582	222,835	31,867

5. Discussion

Before transmigrants from Java came to East Kalimantan, there were many spontaneous immigrants, mainly the Buginese from south Celebes and the Banjarese from south Kalimantan. They have been clear-cutting the Primary forest for shifting agriculture. Since 1954 the Government has been conducting an operation to remove people from Java to East Kalimantan and this is called transmigration.

Generally, transmigrants are peasants. According to regulations, each household is given a house, 2.5 ha of farming land and agriculture facilities. They are subsidized by the Government on things such as fertilizers, rice and other food stuffs during the 1st year. However, spontaneous immigrants are not given any assistance from the Government.

Lempake village is a village which is planned by the Government. Since there are many rivers in this area, it was predicted that this place is good for paddy field. With this view, the Government has allocated Lempake as good for transmigration. But other factors as the topography of the Lempake area were not taken into consideration. Flat lands occupy only 33.69 % of the total land area and 66.31 % are undulating to hilly, with an altitude of 30-70 m and slopes of 15-30 degree. Flat lands are used for homestead gardens (12.30 %) and wet rice-field (21.39 %), while hilly lands are used for dry-land farms (43.20 %) and the rest are as yet not cultivated (23.11 %). Also, this area lacks irrigation facilities.

The program of transfer was put into practice in 1970 and it was carried out yearly until 1975. The transmigrants who came earlier were able to obtain larger farming land in better condition than the transmigrants who came later. It is likewise for spontaneous immigrants who came to the Betuah village.

The topography of Betuah consists of 3.69 % flat land and 96.31 % undulating to hilly with an altitude of 40-80 m and slopes of 10-45 degree, and a few river. Flat lands are used for homesteads (0.6 %) and wet rice-fields (2.09 %). Hilly lands are used for dry-land farm (15.13 %), national forest lands for shifting agriculture (33.20 %), and the rest are unused national forest lands (48.98 %). 82.18 % of the hilly lands are national forest.

In both of these villages, the main source of livelihood is agriculture. In Lempake village there are three types of households: (a) Farming only (41.80 %), with each household earning an average Rp. 138,378 per month (farming land area 1.79 ha); (b) Farming and collecting forest products (36.79 %), with each household earning Rp. 78,984 per month from farming (farming land area 1.12 ha) and earning Rp. 51,759 per month collecting forest products; (c) Farming, trading, working as laborers, etc. (21.41 %), with each household earning an average Rp. 26,247 per month from trading, working as laborers or etc. However, all of the farm-households in the Betuah village use shifting agriculture, with each household earning an average Rp. 222,835 per month (farming land area 4.12 ha).

6. Suggestions

For development of the rural communities neighbouring the forest in East Kalimantan--Indonesia, the following factors should be considered:

- (a) The farm land of the transmigrants should be increased for each household to 3 ha.
- (b) Land ownership disputes between the government and people in the Betuah area or other spontaneous immigrants (in rural area) should be decided quickly.
- (c) In these villages (Lempake, Betuah and other rural areas) aid should be given by the Government, especially in field irrigation.
- (d) In the neighbouring area of the rural communities, reforestation should be made by the aid of government. Plantation of oil palm, coffee, cocoa, clove, etc. and wood plants such as Ironwood, Merati, Kapur, Pine etc. can be planted, and then the profits thus obtained should be shared between the Government and the rural community.

7. References

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