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Contract Farming in Tobacco Production: Opportunity for Small-Holders? – Comparative
Study from North Sumatra

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Abstract

This paper presents results of the field research which was carried out in the North Sumatra province in Indonesia in May 2006. Three villages were investigated and two tobacco production systems were compared: traditional market chain and contract farming. Due to the worse natural and social conditions and low negotiating power, farmers under contract in villages Lobu Tua and Sosorgonting are facing the problems with lack of cash, credit, and uncertainty with their sales have a negative impact on their living standard conditions. Long distance from local large markets and weak transportation possibilities put the farmers under contract into isolation. Children are involved in the field works or any off-farm job. Short-time contracts causes uncertainty for future sales. On the other hand, traditional market chain system, based on traditional norms and manners, ensures for local farmers better living conditions and higher economic efficiency, despite of low level of mechanization, farm inputs (e.g. fertilizers) and low educational status. High demand for tobacco and proximity to the market ensures those farmers high sales. Among these farmers occurs higher social capital what is mainly seen family planning and higher interest in education of their children and healthcare of family members.

Key words: Contract farming; small holders; tobacco; market price; North Sumatra, Indonesia

1. Statement of the problem

The North Sumatra province is one of the less developed parts of Indonesia and as compared with the national average, farmers in this area deal much more with related problems – insufficient capital accumulation, uncertainty of the sale and stable income, dependence on the own resources etc. The way how to deal with these ailments is to orient on at least some part of the production for cash-crops. Tobacco is a typical crop-plant rather in seaside areas but in the North Sumatra province it is cultivated far in the mountain regions round the lake Toba. During the last years, here originated side-by-side two systems of tobacco production, processing and distribution: (a) a traditional system based on the habits of local inhabitants

and (b) participation of the private capital, so called contract farming. The research objective was to find out which one of these systems is more profitable for the farmers and which one has a more positive influence on their living standard.

2. Objectives

The paper aims to explore the aspects of tobacco cultivation on socio-economic situation of the households in three villages situated in the areas with different natural and economic conditions in the North Sumatra province. Regarding to this, main objectives of this work are:

- Monitoring of tobacco production in the North Sumatra province
- Socio-economic impact of tobacco cultivation as “cash crop” on rural households

Specific objectives are as follows:

- To compare the socio-economic differences, decision-making process and living standard conditions among the focused villages (contracted farmers vs subsistence farmers with increasing level of market orientation);
- To point out the advantages and disadvantages for improving living standard of contracted farmers.

3. Methods

3.1 Data collection

Firstly, head of villages (Sosorgonting, Lobu Tua and Desa Payung) and local representatives were interviewed and study areas were observed. Secondly, data regarding the socio-economic situation of the North Sumatra province and tobacco production were taken from the local statistical institutions. This enables to fit the gaps in official statistics from international organization. Thirdly, farmers in target areas involved in tobacco production were interviewed by semi-structured questionnaires. Data related to the both decision-making process and family analysis were gathered, e.g. family size, farm size, cultural habits, labor force, household's income, off-farm jobs, credit accessibility as well as to the living standard categories (education, health status etc.). Finally, crucial indicators influencing the living standard of families were compared within two groups – farmers growing tobacco under contract (Sosorgonting and Lobu Tua) and those, who produce tobacco under traditional conditions (Desa Payung):

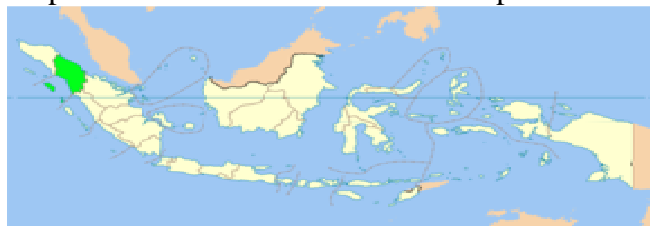
- price for processed (dried) tobacco,
- credit accessibility, and,
- independence from resource owners (farm inputs, water, land).

3.2 Economic analysis (Data processing) (Indicators)

Farming System Approach (FSA) and comparative analysis tools were used in order to analyze gathered data and to understand the process of decision-making in allocation of human and natural resources and position of farmers in two different types of market chains.

3.3 Study area

Map 1. Position of the North Sumatra province in Indonesia



Study area is situated to the mountain range in the central part of North Sumatra province, dominated by volcano lake *Danau Toba*, in altitude of 1,500 m a.s.l. Tropical climate predetermine dry and wet seasons during the year and related agricultural products (e.g. paddy, peanut, soybean, cassava, corn), fruit commodities (e.g. oranges, salak, banana, pineapple) and plantation commodities (e.g. rubber, palm oil, cocoa, coconut, coffee). Three villages were chosen for data collection: Desa Payung (Karo district), Lobu Tua (Tapanuli Tengah district) and Sosorgonting (Tapanuli Utara district).

Population density in target areas is very low, less than 147 inhabitants per sq. km and average annual population growth in the whole province is also very low, 1.14 percent only. Life expectancy exceeds 68 years and there appears a high tendency in urbanization. Per capita income in the North Sumatra province was estimated at 290 USD in 2003, while the highest values (388 USD) reached Karo district. Agriculture represents the main activity and the source of income for more than half of the province population. In target areas, more than 80 percent of labor force is involved in agricultural production.

4. Results

4.1 The main socio-economic characteristics of each group can be divided in:

Table 1. Socio-economic characteristics of families and farmers' perception

Indicator/Village	Desa Payung	Lobu Tua	Sosorgonting
Family size	5.1	8.2	6.5
Average years of schooling	9.1	7.9	8.7
Farms size (ha)	2.5	4.0	3.5
Area of cultivated tobacco (ha)	0.5	0.8	0.5
Land ownership	farmer	farmer's parents	farmer's parents
Farm's cultivated crops	tobacco, rice, corn, chili, vegetable	tobacco, rice, coffee, vegetable, onion	tobacco, paddy, vegetable
Purpose of tobacco planting	<ul style="list-style-type: none"> • local market • own consumption (cigarettes, chewing) 	export	export
Framers' perceptions			
Income sufficiency	yes	no	no
Government subsidies	no	no	no
Access to bank loan	no	no	no

4.2 Disadvantages and advantages of two different market approaches

The research proved high inefficiency of the contract farming as compared with the traditional market chain. Contracts in Lobu Tua and Sosorgonting were concluded between small-holders and the private company, which bought out the tobacco leaves, this is running for five years. Dominant position of the company in this area is the reason for setting the low prices, which are at the very efficiency threshold of the farmers (price for the high-quality tobacco does not exceed 11,000 Rp per kg)¹. This put further pressure on family labor used in different off-farm activities as well as on involving children during the labor peaks (harvest). Poor machinery, infrastructure and remoteness make farmers fully dependent on company's transportation, disadvantage them from price negotiation and make them more dependent on resource owners, e.g. moneylenders. Contracts, signed between the company and farmers, are of short-term character (for one harvest) causing a huge uncertainty for farmers' future decision-making process. Nowadays any farmers associations or government effort is not able to improve the contracts in the way of annually supporting inputs. Smallholders from Desa Payung have a local market in walking distance of the administrative town Brastagi and sell tobacco leaves or self-produced tobacco for smoking. Collective effort of farmers is higher in this area, as farmers are selling their production directly on the market or to the middle-man. Traditional culture ensures the functioning of such system, while no agreements are necessary to be signed. Price of tobacco in Desa Payung reaches almost 30,000 Rp per kg. This income is sufficient for the households and no small holders are forced to work outside the farm or involve children in farming activities.

5. Conclusions

Research shows that small-holders using traditional production chain have a basic knowledge about market environment and they have higher profits than those under contracts. Traditional market chain provides sufficient income for the households, so it ensures investments to both education and health care and farming inputs. On the contrary, small-holders under contracts can not control their tobacco business themselves and further due to short-term contracts they are in a high uncertainty of their future product purchasing. Even without contracts, farmers can participate on the local market worse due to the longer distance and poor transportation possibilities.

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¹ Official Exchange Rate as of May 2006: 1 USD = 7,850 IDR