THE PERCEPTION OF FARM HOUSEHOLDS ON SMALL SCALE CATTLE FARMING

(Case Study in the Village Kanigoro in Pagelaran District, Malang Regency)

PERSEPSI RUMAHTANGGA TANI TERHADAP USAHATANI TERNAK SAPI POTONG (Studi di Desa Kanigoro Kecamatan Pagelaran-Malang)

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ABSTRACT

The research was conducted at Kanigoro Village in Pagelaran Sub-District, District of Malang from May to July 2003. The Objectives of the research are (1) describing the perception of farm household about small scale cattle farm, (2) studying about the factors which influence farm household's access to cattle in Kanigoro Village. Forty five farmers were selected using purposive random sampling method. Descriptive and economic farming system analysis were applied to the data available. The research found that farm households who kept cattle have perception that rearing cattle could be used for saving, used for land cultivation (i.e *brujul*) and covered leisure as well. Farm households who did not keep cattle have perception that they had lack of family labour, preferring to rear other ruminants (i.e goats, buffaloes and milking cows) and did not have enough cash to buy cattle. The factors which influence farm household's access to cattle were difficulties in accessing feed resources (i.e grass), fluctuated cattle price and difficulties in finding the share holders (*penggaduh*). Based on these, it is suggested that preliminary research concerning the perception of the local farm households to cattle farming, feed resources and labour availability should be conducted prior to establish an area as the centre of cattle farming development.

Key words: perception, farm households, cattle

ABSTRAK

Penelitian kualitatif ini bertujuan untuk (1) mendeskripsikan persepsi rumahtangga tani di Desa Kanigoro terhadap usahatani ternak sapi potong, (2) mempelajari faktor-faktor yang mempengaruhi akses rumahtangga tani di Desa Kanigoro terhadap usahatani ternak sapi potong. Survei ini dilaksanakan di Desa Kanigoro, Kecamatan Pagelaran, Kabupaten Malang pada bulan Mei hingga Juli 2003. Jumlah sampel sebanyak 45 responden ditentukan secara *purposive random sampling* yaitu bermata pencaharian pokok sebagai petani dan menguasai lahan pertanian berupa sawah maupun tegalan. Data dianalisis memakai pendekatan *deskriptif eksplanatoris* dan analisa ekonomi usahatani. Hasil penelitian menunjukkan bahwa rumahtangga tani di Desa Kanigoro yang memiliki sapi potong mempunyai persepsi bahwa memelihara sapi merupakan salah satu cara menabung, sapi digunakan sebagai tenaga *brujul* dan untuk mengisi waktu luang. Sedangkan rumahtangga tani yang tidak memiliki sapi potong mempunyai alasan bahwa ketersediaan tenaga kerja keluarganya kurang, lebih senang memelihara ternak selain sapi potong dan kesulitan memperoleh modal awal. Adapun faktor-faktor yang mempengaruhi akses rumahtangga tani terhadap usahatani ternak sapi potong antara lain kesulitan mencari rumput, harga jual sapi yang fluktuatif dan kesulitan mencari penggaduh. Penelitian ini memberikan saran bahwa perlunya perhatian pada persepsi masyarakat setempat terhadap usaha budidaya ternak sapi potong, ketersediaan sumberdaya pakan hijauan dan ketersediaan tenaga kerja jika ingin menetapkan suatu kawasan pengembangan budidaya sapi potong.

Kata kunci : persepsi, rumahtangga tani, sapi potong

INTRODUCTION

Livestock development, cattle in particular could not be separated from the technical aspects (Soehadji, 1991; Satari *et al.*, 1991; Subagiyo, 1996). So, if the population of cattle decline from year to year, it will be related to breed, feed, land, infrastructure or market while non-technical aspects sometimes are neglected.

Farmers may not be interesting to raise cattle because of their bad experiences in the past such as selling price was low, cattle kept by the farmer was infertile or they met difficulties to fed them. Another possibility is that farmers may have more profitable alternatives works comparing to raise ruminants particularly cattle. These bad experiences make the farmer's perception on raising cattle becoming negative. This negative perception then influences farmer to not raise cattle.

How ever, each farmer have their own perception due to their own experience in raising cattle, so this research is aimed at describing the perception of farm household about small scale cattle farming and studying the possible factors which influence farm household's access to cattle in Kanigoro.

METHODHOLOGY

This research was conducted at the village Kanigoro in Pagelaran Sub-District, District of Malang from May to July 2003. This village has been chosen based on two criteria: (1) arable land in the village Kanigoro is the largest than other villages in the same district i.e. 24.47% of total arable area in Pagelaran (2) the population of cattle decline up to 57.9% during 1992 to 2001 (Dinas Peternakan, 2002).

Forty-five respondents were selected using purposive random sampling method based on two criteria: (1) farming is a primary work for the respondents without concidering whether they are raising cattle or not (2) farmers also cultivate their owned land such as irrigated land (sawah) or dry land (tegalan). The selected farm households were deeply interviewed regarding to their perception on cattle farming. Shaner *et al* (1982:16) has elaborated that household is a social organization in which members normally live and sleep in the same place and share their meals. Descriptive and economic farming system analysis were applied to the data available.

RESULT AND DISCUSSION

Location of research

The village Kanigoro is located on the Southern part of Malang regency. Its elevation is 2000 m above sea level (a.s.l). Average temperature varies from 28 ^{0}C to 30 ^{0}C; with annual rainfall of 350 mm per year (Anonymous, 2000). The total area of Kanigoro is 836 ha. Most (63.36 %) of the area are *sawah*. The crops grown on *sawah* include rice, maize and sugarcane. Another part of the village comprises *tegalan*, home garden *(pekarangan)*, houses and public facilities. Sugarcane and cassava were mainly cultivated by farmer in *tegalan* while bamboo and fruit tree such as jackfruit, coconut and snake fruit were grown by farm household on their *pekarangan.*

Characteristic of the respondents

The age of the respondents varies from 28 to 82 years old. Eighty percent respondents are classified as productive labours according to the standart of BPS 2000. Nevertheless, respondent with more than 64 years old still cultivate their own land. The education level of the respondents was low and 62.22% of the respondents just accomplished the elementary school. Most (75.55%) of family labour of the respondents varies from 2.00 to 3.75 Adult Worker Equivalent (AWE) according to Subagiyo (1996:44). This family labour comprises (husband), (wife) and a child in productive age. The land ownership of the respondents, *sawah* in particular dominantly (82.22%) are 0.06 to 0.5 ha. Eighty percent respondents do not have *tegalan;* remainings hold *tegalan* which varies from 0.005 to 0.75 ha. More over, the *pekarangan* of respondent have the largest (86.66%) proportion which ranges 0.004 to 0.10 ha.

The perception of farm household on small scaled cattle farming

The distribution of farm household according to different perception is shown in Table 1.

Farm household with cattle

Twenty three farm households are raising cattle. Most (65.22 %) of them opt as a form of saving *(tabungan* in Javanese*)* as their objective in rearing cattle, followed by providing drought power to cultivate land *(brujul sapi)* and covering leisure.

The form of saving means that by selling cattle, the farm households can earn a relatively large amount of cash that can be used to cover major expenses incurred in the household such as a religious festivities *(selamatan)*, build or renovate house and rent or buy land. Beside that, by raising cattle, the farm households also have financial benefit to fulfil unpredictable moments e.g medical expenses. Actually, borrowing some money from the local bank is another alternatives for the farm household at that moment. However, they will meet a complicated procedures prior to get some money from the local bank. They should give the local bank officer something as payment insurance e.g copy of land ownership certificate *(akta tanah)* as a collateral. They also worry in paying back the loan because of relatively high interest rate compared to inter personal lending system. As mentioned above that the level of education of the respondents is low. Hence, they do not want to borrow some money to the local bank.

The financial benefit from raising cattle can take into account. Three types of cattle ownership can be distinguished, i.e farm households keeping their own animals only, those keeping owned and shared animals *(bagi hasil)*, or those keeping the *bagi hasil* only. Table 2 shows the proportion of farm households keeping cattle according to the ownership status.

The average revenue of rearing cattle from three types of cattle ownership above in one year is Rp 3.610.869,565. If the average fixed cost of rearing cattle is Rp 59.874,64, while the average variable cost is Rp 1.545.291,89., the average profit in raising cattle will be Rp 2.005.703,035 per cattle.

In Kanigoro, land owners usually hired labour to cultivate their land using cattle *(tukang brujul sapi)* in planting season. They should pay Rp 17.500 per day to the *tukang brujul sapi* which work during four hour started at 07.00 to 11.00 am *(sekesuk* in local language*)*. There are three planting seasons per year. If farm households work as the *tukang brujul sapi* for five days in a week, they will get revenue at least Rp 1.050.000 per year excluding offspring *(pedet)*. FAO (1991); Nguyen (2003); Kumar *et al*. (2003) have stated that the purposes of rearing cattle are not only for meat and milk production, but also for cultivating marginal land, utilising crop residues as well as a form of insurance for farm housesold.

Three respondents still have enough time in finding forages. They allocate six hours per day to do on-farm activities from 07.00 to 11.00 am and for 02.00 to 04.00 p.m. The time between and after those two on-farm periods can be used to collect fodder. In one case for example, weeding activities *(matun)* need two hours only. Farm household then can bring the weeds back to their home as a feed for the cattle.

Farm household without cattle

Twenty two farm households shown in table 1 are not raising cattle. Most (68.18%) of them have a lack of labour. They have smaller size (3.08 AWE) of average family labour compared to respondents with cattle (3.37 AWE). Even though farm households have enough cash to buy cattle, they are confuse to make decision whether keeping their owned cattle or sharing out theirs. They may meet difficulty to find out the shareholder *(penggaduh)*. Even they have found a proper person as the *penggaduh*, they worry that the *penggaduh* are unable to maintain the shared cattle properly.

Table 1. Distribution of farm household according to different perception on small scale cattle farming

No	Items	Amount	
		Person (n)	Percent (%)
A.	Farm household with cattle :		
	1. Using as a form of saving	15	65.22
	2. Using as drought power to cultivate land *(brujul sapi)*	5	21.74
	3. Covering leisure	3	13.04
	Sub total	23	100
B.	Farm household without cattle :		
	1. Have a lack of labour	15	68.18
	2. Prefer raising other ruminants (goats, buffaloes, milking cows)	6	27.27
	3. Have a lack of capital	1	4.54
	Sub total	22	100

Primary data, 2003

Table 2. Proportion of farm households keeping cattle according to the ownership status

No	Cattle ownership status	Amount	
		(n)	(%)
1	Owned cattle	15	65.21
2	Owned and shared cattle	4	17.39
3	Shared cattle	4	17.39
	Sub total	23	100

Primary data, 2003

Six farm households prefer rearing other ruminants as the tabungan. Three respondents keep goats, one respondent keeps buffaloes and two respondents maintain milking cows. Respondents with goats reveals that raising goats are more flexible than cattle. When they need a little money, they can sell one goat only and they still have other goats to maintain. This cannot happen in cattle keeping practice. If farm households raise one cattle only, they will sell it even they just need a little money. It means that they do not have other cattle to maintain. Respondents with goats said that finding the forages is easier than finding the grass particularly in the dry season. Fruit tree such as jackfruit and mango as well as gliricidia are grown in their pekarangan. The leaves of these trees are mainly fed by farm households to their goats. Farm households are able to buy goat at any time they want since this animal just need smaller cash than cattle. The price of one Peranakan Ongole bull at 1.5 year age is similar with the price of five goats at the same age. However, farm households with cattle surely will receive higher cash than raising goats. Beside that, maintaining one cattle is easier than maintaining five goats.

One respondent surveyed has found as the tukang brujul kebo. Hence, he preferred raising buffaloes to provide drought power (brujul kebo). Same as cattle, he will be paid Rp 17.500 sekesuk as hired labour. In one case, buffaloes are able to work in a deeper land (lemah mbag) than cattle. Nevertheless, farm households with cattle argued that cattle have more endurance to the heat than buffaloes. Another reason emerged that cattle is more marketable than buffaloes since the cattle meat is prevalent to consume.

Two farm households prefer maintaining milking cows than raising cattle. By sending milk regularly to the milk collecting post, they will get enough cash per ten days to fulfil their daily expenses. If one lactation cow produce nine litres per day during seven months lactation period and the milk price is Rp 1.500 per litre in average, farm households will get average revenue at least Rp 3.037.500 excluding the offsping (pedet).

Respondents further explained that the tukang brujul sapi and kebo could work for three months only since there are three planting season in one year, while milking cows have two months dry period per year. So, maintaining milking cows have a higher income than raising cattle. Nevertheless, cattle farm households said that milking cows need complicated management as well as high cost than cattle. They argue that milking cows must be fed by elephant grass *(Pennisetum purpureum)* and concentrate to produce milk. In other words, milking cows do not like other grass-type, cane tops or lower nutrition feed such as rice straw and maize straw or *klobot*. Beside that, the selling price of milking cows is lower than cattle in this area.

Only one farm household mentioned that he did not have enough capital to buy cattle. He also met difficulty in finding the farmer whom want to share out *(menggaduhkan)* their cattle since almost all of the cattle rearer raise their own cattle. It seems too ridiculous to borrow some money from their neighbour to buy cattle because he sometimes has difficulties to cover their daily needs.

The constraint of the farm household's access to cattle

The cattle farm households reveal that forages availability, particularly grass was the major needs in raising cattle. But, the availability of grass would be scarce in dry season. The grass seeker must also compete with another seeker from outside Kanigoro to collect forages. Hence, farm households generally sell their cattle during this season.

Farm households with cattle have not used crop residues such as maize stem, cane tops or rice straw optimally; only 39.13 % of farm households feed their cattle using maize stem while 47.82 % of farm households use cane tops as cattle feed. Farm households use cane tops are noted as labourers in sugarcane fields. They have the right to take home the cane tops they harvested. Nevertheless, farm households mention that cane tops could reduce performance of the cattle i.e. make the hair of cattle stands *(jegrik)* and it influences the selling price.

Fluctuate selling price of cattle also make farm households to not raise cattle. They are not able to predict when they must sell their cattle even the peak performance has been achieved. If the selling prices are too low, farm households will keep their cattle until the selling price increase. This keeping period will increase a large production cost.

As mentioned above that in Kanigoro, most of farm households prefer raising their owned cattle compared to share their cattle. By raising their owned cattle, they can reap a higher income compare to share holding system. This reality cause the other farm households whom do not have enough labour but intend to raise cattle will meet obstacle in finding the *penggaduh*. So that, they do not have access in raising cattle.

Almost all of farm households want their children to not work in agricultural sector, particularly raising cattle in the future. They have opinion that raising cattle may not able to give them a life insurance. They said that as far as they work in their farm, they would live in uncertainty. Hence, they suggest their children to choose non-farm activities such as work as industrial labourers in the factory in a big city or abroad. This work will give them more regular income than plant rice or other staple food. This fact would be the answer why population of the cattle in Kanigoro always decline from year to year particularly during 1997 to 2001.

CONCLUSIONS

It was remarked that farm households kept cattle have perception that rearing cattle can be used as a form of saving, used to provide drought power to cultivate land (brujul) and covered leisure as well. Farm households without cattle have perception that they had lack of family labour; they preferred rearing other ruminants (i.e. goats, buffaloes and milking cows) and they did not have enough cash to buy cattle. The factors influenced farm household's access to cattle are difficulty in collecting forages especially grass, fluctuate

selling price of cattle and difficulties in finding the shareholders (penggaduh).

If livestock development will be held in a specific area, this research would recommend that the stakeholders should concern on the perception of the local community, availability of forages resources and availability of labourers as well.

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