

Livestock Commodities Income Contribution of Farming in the Village of Catur, Kintamani, Bangli

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ABSTRACT: The aim of this study is to see how big the contribution of the livestock sector to give effect to the structure of farm household income. The assessment carried out in the village of Catur, in 2012, was involving 30 farmers respondent. Data collected through survey method using a questionnaire interview. Data were analyzed by descriptive qualitative analysis of benefit cost ratio. The results showed: the dominant livestock grown/reared and impact on household income of farmers in the location assessment, is; cattle and free-range chicken. The average tenure of cattle farmer cooperator for Bali cattle breeding is one head with a composition of 33% ownership interest and 67.67% owned by farmers Ngadas (for results). The bulls were cultivated for fattening are 2 heads with only 50% ownership composition, 50% revenue sharing system. While the average number of domestic poultry farmer cooperator ownership is 21 heads. From the structure of farm household income in rural Catur per year total revenue received by the farmer cooperator IDR 11,047,841 which consists of income from the agricultural sector 78.64% (IDR 8,688,056) from outside of the agricultural sector as much as 16.40% (USD 1,812 million). Income from outside agriculture, such as traders or kiosk (11.46%), others (4.94%). In the agricultural sector of 78.64% of income, livestock sub-sector contributed the most as many as 39.18%, followed by oranges (26.34) and coffee (12.12).

Keywords: contributions, livestock, income, farm

INTRODUCTION

The importance of the role of livestock in farming system is getting more noticed in the last decade not only by researchers and the agricultural economy in Indonesia, but also in various Asian countries. Various types of livestock have long been used in farming activities in rural areas, among others, for plowing, transport agricultural produce, and as a provider of fertilizer for the production of crops. Besides, cattle also has the function as a provider of food (protein source) and a life savings. Because that livestock contribute so significantly to the welfare of farmers. However, until now the role of livestock in the farming system can not be utilized in the maximum level by the majority of the farming community. Although, farmers have the experience of generations, the principle of maximizing output with maximum profit, has not been widely applied. This may be caused by a low level of education and the influence of social factors-culture.

Agricultural sector, especially the livestock sector is a sector that plays an important role in economic development in the village of Catur. This sector has several important roles, namely as a provider of food needs of the community, was instrumental in the formation of Gross Domestic Product (GDP), employment in rural areas, play a role in generating foreign exchange and foreign exchange savings, and function in controlling inflation. The livestock sector is indirectly instrumental in creating a climate conducive to the development of other economic sectors.

Thus the livestock sector holds a very important role in the overall economy, because it has extensive connections with other economic sectors. The aim of this study was to see how big the contribution of the livestock sector in rural farm income in Catur, so capable as a sector / commodity dominant GCC has a very high tipping point for the local farmers' household income

RESEARCH METHODOLOGY

Locations assessment carried out in the village of Catur, Kintamani, Bangli regency determined intentionally (purposive sampling) which is the location of the development of integration cattle with coffee plants. The data collected in this study include primary data and secondary data. Primary data, the data obtained by visiting the respondents in the study site and conduct interviews directly by using a list of questions that had been prepared in advance (including the identity, number and type of livestock are dominant grown/reared and impact on household income of farmers in the study locations). To determine the level of farm income and revenue analysis is further described descriptively (Adnyana, 1989).

RESULTS AND DISCUSSION

Ownership of livestock in the village Catur.

The average tenure of cattle farmer cooperator for Bali cattle breeding is one heads with a composition of 33% ownership interest and 67.67% owned by farmers Ngadas (for results). The bulls were cultivated for fattening is 2 heads with only 50% ownership composition while 50% revenue sharing system. For non cooperator farmer average mastery of cattle for cattle breeding 1 heads with the composition of the farmers owned 62% and 38% revenue share, while the average feedlot cattle are maintained as much as two headss with a mastery of composition is 100% owned by farmers. While for most poultry is reared free-range chicken, generally are owned by farmers.

Contribution in kind Livestock and Household Income Cattle.

Cattle in the village of Catur maintained for the purpose of 1) fattening and 2) to produce children (nursery). The number of cattle that are an average of three animals per farmer. Specifically, the three of them, two for fattening and the other heads for breeding.

a) Fattening

Fattened seeds generally weighs around 257 kg beginning at 2 years of age 1,5 (incisors on 1-2 pairs). They generally fatten Bali for eight months (35 days in a month), or 280 days (10 months) to reach slaughter weight of 360 kg. If this location is calculated cattle grow 0.35 kg/day. Supplemental feeding as a pro biotic, mineral vitamin likewise never given. In accordance with the results of a study conducted by Guntoro (2002) said that the maintenance of fattening cattle with a traditional pattern, for example feed consists of grass and sometimes added potatoes or other forage depending on existing inventory at the site, only able to provide increased weight 0, 2 to 0.3 kg / head / day. Further explained that the low productivity in Bali cattle caused by lack of maintenance and management focus, where farmers do not pay attention to the quality of the feed, the age-sales, maintenance procedures, stables and disease prevention. Another common feed provided include cassava leaves in the form of fresh, fruit squash and leaves dadem. Dadem is a kind of forage that is commonly found in this area including in other highland areas, but hardly found in the lowlands. This area dadem plants functioned as a hedge plant. Budiari. (2009) reported that the average dadem production per tree / year is 200 kg. More (Sumantra, 2004) reported dadem used as a hedge plant and its leaves as feed cattle especially in the dry season when grass supplies are insufficient. Judging from the nutritional content dadem has a high protein content 15.65%. Budiari research results and Parvati (2012) reported that cattle fed 70% dadem can increase daily gain of 0.43 kg/head/day.

From the economic analysis obtained net income of farmers fattening cattle business cooperator is IDR 2,958,647 with B/C ratio of 0.17 means cattle farmers do not benefit or less efficient in terms of labor released. The most rapid growth phase meat cows if the initial weight is at least 300 kg, so as to achieve weight maintenance time sale like this now only need six

months of the calendar. That the net income of farmers calculated after repayment cost of the purchase of seeds by the investors (owners of cattle) is IDR 3,798,494, further divided to preserve the difference in value of 55% (farmer cooperators) and investors as much as 45. The outpouring of manpower required more maintenance than feedlot cattle farmer cooperators. Net income of farmers receive non cooperators was IDR 2,368,494. Generally cooperators and non-cooperator farmers was minimal use of feed the amplifier in triggering growth of fattened cattle. With the right dose of weight gain of cattle in the area of assessment can be further improved. Cattle to feed an additional 2 kg of waste bran fermented coffee growing faster than cows given only forage alone (Parvati *et al.*, 2009).

b) Cattle Breeding

Maintenance to sell puppies on average takes about 18 months, where the seeds were cultivated are still relatively young. Of the effort farmers earn net income in a year is as much as IDR 731,004 with B / C ratio of 0.28 which indicate that businesses do not benefit farmers (Table 4). This is supported by Krishna, R., *et al.* (2006), and Riszqina, L. *et al.* (2011) which states that based on the analysis of the B / C ratio, BEP for beef cattle breeding business, the business scale of 4-5 2-3 heads or the heads was still a loss. This is due to fixed costs (consisting of feed, seed, labor, medicine, herbal medicine, marketing, cost of insemination) were great and the price of cattle is low. The biggest component is the cost of feed, seed and labor, reinforced by Krishna, R., *et al.* (2006)

While in the non cooperators farmer average of cattle raising breeding is one heads, but the composition of ownership is smaller than the farmer cooperators is 62% owned and 38 percent are Ngadas (belonging to someone else). The analysis of non-cooperator farmers farming seen in Table 18. Average net revenue received in one year is IDR. 379,703 with a long maintenance of up to 20 months. B/C obtained was 0.18, which means breeding cattle farmers non cooperators was not worth continuing or unfavorable.

Chicken

The average number of native chicken ownership cooperators and non-cooperator farmers is 21 and 22 headss with a composition different sires and males. Chickens that are reared naturally produce farmer respondents estimated in one year occurred 2 times the production. Feed given quite varied between rice, leftover rice, corn flour or potato yam.

Net income received by the farmer cooperators and non-cooperator farmers is IDR. 638,500, - and IDR 530,000 with B / C <1, means of free-range poultry farmers are still in unfavorable circumstances. This is due to the maintenance of domestic poultry only as a sideline, farmer cooperators and non-cooperator either do not pay attention on the correct chicken farming, both in terms of housing, animal health and in terms of the feed is still very conventional. Local chicken farming when properly maintained will give maximum results. This is supported by some of the results of economic studies on local chicken farming in semi-intensive system and intensive maintenance turned out to provide a higher yield than in extensive maintenance. Results of the study Affandhy, *et al.* (2000) on a 15-25 ownership scale chicken breeding in Pacitan and Bondowoso generates an average profit of farmers in Pacitan between IDR 71,000 - 450,000 per 6 months with the B / C from 1.3 to 2.1; whereas in Bondowoso profit between IDR 223,000 - 353,000 per 6 months with the value of B / C 1.7 - 2. Meanwhile Subiharta, *et al.* (1994) from the study stated that the highest income earned on the maintenance of local chickens followed intensive semi-intensive and extensive systems.

Farmers' Income

From Table 1 looks total income received by the farmer cooperators per year is IDR. 11,047,841, - which consists of income from the agricultural sector 78.64% (IDR 8,688,056) as well as from outside of the agricultural sector as much as 16.40% (USD 1,812 million). Income from outside agriculture, such as trader/stalls (11.46%), others (4.94%). In the agricultural sector

which contributes most is from cattle farming as many as 26.78%, followed by oranges at 26.34%. Contributions from the coffee less when compared with revenue contribution of oranges, it is because coffee plants that are owned by farmers produce most of the 5-year-old (young) so that production is not maximized (potential / tree \pm 12 kg).

Table 1. Sources of income Respondents farmers in the district of Kintamani, Bangli Regency

No.	Farmers Bussines Activities	Cooperator farmers		Non Cooperator Farmers	
		IDR	Percentage	IDR	Percentage
1	Farming (on-farm)	8,688,056	78.64	8,256,142	44.02
	- Crops	231,808	2.10	-	0.00
	- Plantations (coffee)	1,218,125	11.03	3,922,445	20.91
	- Horti (Orange)	2,909,976	26.34	1,055,500	5.63
	- Livestock				
	Fattening cattle	2,958,647	26.78	2,368,494	12.63
	Breeding cattle	731,000	6.62	379,703	2.02
	Native Chicken	638,500	5.78	530,000	2.83
2	off-farm businesses	547,785	4.96	5,000,000	26.66
	- Agricultural worker	547,785	4.96	2,000,000	10.66
	- Post harvest	-		-	
	- Orion	-		3,000,000	15.99
3	Foreign Agricultural EntelIDRrises non-farm	1,812,000	16.40	5,500,000	29.32
	- Trade	1,266,000	11.46	2,000,000	10.66
	- Employees	-	0.00	-	0.00
	- Off farm labour	-	0.00	2,500,000	13.33
	- Other	546,000	4.94	1,000,000	5.33
	Total Revenue	11,047,841	100.00	18,756,142	100.00

Source: Primary Data Analysis

Non cooperator farmers earn net income of IDR 18,756,142 which consists of income from the agricultural sector, 44.02% and from outside the agriculture sector as much as 29.32%. Income from outside agriculture, such as traders (10.66%), work outside agriculture (13.33%), village office employees (5.33%), the agricultural sector is contributing most of the coffee farming as many as 12.63%, more fully shown in Table 1.

CONCLUSION

1. Livestock dominant cultivated/reared and impact on household income of farmers at the site assessment, is; cattle and free-range chicken. The average tenure of cattle farmer cooperator for Bali cattle breeding is one head with a composition of 33% ownership interest and 67.67% owned by farmers Ngadas (profit sharing). For non cooperator farmer average mastery of cattle for cattle breeding 1 head with the composition of the farmers owned 62% and 38% revenue share, while the average feedlot cattle are maintained as much as two heads with a mastery of composition is 100% owned by farmers.
2. In terms of feasibility is obtained that the activities of the farm in the Catur Village in terms

of feasibility is still very low with B / C ratio on average from 0.13 to 0.17 this means breeding or fattening activities that do not benefit farmers or less efficient than In terms of labor released. expected to be able to increase farmers' income from the livestock sector.

3. When viewed from the structure of the income of farm households in the Catur Village, the livestock sector contributed most, because most of the basic work of farmers in the village is cattle ranchers are integrated with coffee trees. So that the income from the livestock sector is bigger and deserves to be developed, the introduction of technology and thinking patterns towards agribusiness farmers should be encouraged and maximized, so that the role of researchers and extension is needed.

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