Building Animals Cattle Collective Farming Systems As An Alternative In Anticipation Of Impact Global Warming (Case In Taruna Tani Cocoa Farmers In East Kolaka)

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ABSTRACT

This study titled build cattle farming systems collectively as an alternative to mitigate the effects of global warming (the case of the cadets peasant farmers in East Kolaka), conducted in June - the month of September 2015, by choosing two districts, namely, District Lambandia and District Lalolae, East Kolaka Regency, Southeast Sulawesi Province, Indonesia.

The location determination is done by purposive, while sampling done by accidental (convenience sampling) as many as 80 young cadets peasants in each district that's selected. Data were analyzed using qualitative descriptive.

Research results show that the impact of global warming affect or result of a very broad and affects the lives of cocoa farmers in East Kolaka. This forced farmers to find alternatives to continue to generate revenue one is the development of beef cattle in groups plan administered by the cadets peasants.

Taruna farmer has a potential which is very encouraging when viewed from age, education and experience in farming. However, separately skills to manage the business of cattle still require intensive counseling. Meanwhile, regarding the opinion / feedback regarding the diversification of farm cattle with cocoa, they generally agree, with the exception of the use of capital still need support from the government. It is recommended to government still gives good relief of beef cattle farming technology and capital support.

Keywords: Diversification, Cattle, Cocoa, Cadets Young Farmer, Heating Global.

INTRODUCTION

The influence of improved incomes and welfare caused changing consumption patterns. One of the changes in consumption patterns are shifting demand for animal protein supplied from livestock meat, including beef. The fulfillment of such meat comes from local cattle and beef imports. The last few years the price of beef cattle climbed more than 100 percent. Previously only Rp. 45,000 / kg, up to Rp. 130,000. The high prices triggered by the imbalance between demand and supply. To replace the old government must import about 53 139 tons from Australia, an increase of approximately 35 percent.

To achieve food security in 2017, it needs to think about how to build centers capable of sustainable farm people. Breeders expected are breeders who have entrepreneurial skills, so that their business can actually be managed professionally. Potential candidates breeders that can be built are where family cocoa farmers generally have family members (children) aged teens but have the will pioneer patterned farm livestock business collective.

The consideration is, in addition to pioneering the cattle business, are also expected to give each other mutual advantage between cocoa farming with cattle farming (mutualism symbiosis) which have their parents wrestled.

Mutual benefit relationship in question is the waste product that has not been optimally economic value, it can be a valuable product for the farming between the two. In addition, the most

important is the presence of cocoa trees can create a suitable environment for the cattle to adapt due to the impact of global warming (climate change).

The purpose of this research is to study about the possibility of establishment of the cattle collective effort among the young cadets cocoa farmer, integrated with cocoa plants that had been managed sustainably in East Kolaka. Hope is to be achieved, can be useful for consideration by the government in involving young people participate in the realization of food self-sufficiency by 2017. At the same time become an additional job opportunities.

RESEARCH METHODOLOGY

This research is located in East Kolaka Regency, Southeast Sulawesi Province, Indonesia which took place in June - September 2015, by choosing two districts, namely, District and Sub-district Lambandia and Lalolae. Both districts are selected on the basis that both are centers of progression of cocoa plants and has a population of adolescent age category (cadets farmer). The location determination is done purposively.

The samples were done by accidental (convenience sampling) as many as 80 young cadets farmer in each s for the family the cocoa farmers in the area. Districts are popularly elected. Primary data were collected by interviewing the selected respondents using questionnaires that had been prepared in advance. While secondary data was obtained by collecting information from relevant agencies, both verbally and in writing of annual reports. The collected data were analyzed descriptively qualitative.

RESULTS AND DISCUSSION

The Potency of Beef Cattle on Cacao Plantations in The Southeast Sulawesi.

Southeast Sulawesi province has a huge potential to develop the cattle business. It is strongly supported by the availability of natural resources (land shepherd, natural food and agro-climate) is highly suitable as a condition of cultivation.

Large current livestock population in the form of cows and bulls totaled 902 144 tails. This indicates that there are still many lands untapped including cocoa plantation area which covers 196 884 ha by the number of cocoa farmers reached 103 297 people in 2007. The main problem facing the cocoa in Southeast Sulawesi is the declining productivity of the cocoa crop in the last 5 years who live productivity of 0.633 tons / ha.

Cocoa drastic decrease in productivity caused by plants that are no longer productive (plant age over 25 years) and the number of plant pests and diseases that attack cocoa crops. This greatly affects the interest of farmers to develop further from the plant. Whereas demands for cocoa beans are still very high in the world market, major in Europe. One seeks to recover such interest is to choose the cattle business as a business integration cattle-cocoa involving cadets farmer groups that exist in this region.

If this potential can be realized, 50%, then the number of livestock that can be accommodated is 29 million units of livestock. If the averaged results per cow of 150 kg means being able to produce 4350.000 tons, while national needs only 600,000 tons / year. Means when in Southeast Sulawesi can be maximized cattle business, and then Indonesia no longer needs to import cattle.

Global warming effect or result of a very broad and affect both human life on Earth, plants and animals. One of the things experienced by farmers in East Kolaka is the emergence of various pests and diseases in plants cultivated cocoa. As a result, the productivity of cocoa declined drastic, advanced farmer revenue slumped.

Resources are considered very potential in this area is the presence of young farmer cadets who took the initiative to form groups of cattle farmers, if there is government assistance for forging, moreover, the circle of biotic, abiotic, and farmers of cocoa in the region. Some examples

have been performed by cocoa farmers in Polewali Mandar difersificate cocoa-farming with the pattern of Beef Cattle.

Excess of cattle is their ability to adapt to the environment. Some of the nature of cattle that can be tailored to their global warming is the ability to regulate body temperature by changing behavior, such as reducing the activity during the day, shelter in the shade of trees to stabilize body temperature in the face of high temperatures or resting in a cage, using rocky places to withstand strong winds.

The nature of beef cattle are mentioned above, can be met in an environment of cocoa farming in Kolaka East, namely by way of herding under cacao trees during the day and stabled at night in a cage that has been made / prepared by groups of farmers.

Human Resource Potencial

East Kolaka District is one district in Southeast Sulawesi province, Indonesia. East Kolaka a result of expansion of Kolaka adopted at the plenary session of the Parliament on December 14, 2012 in the Parliament building on the Draft Law on the New Autonomous Region (DOB)

Subdivisions of East Kolaka District is divided into 13 districts, namely: Ladongi, Lalolae, Lambandia, Loea, Mowewe, Poli Polia, Tinondo, Tirawuta, Uluiwoi, Dangia, Aere, Ueesi and Iwoimendaa. The population inhabited these region as much as 123.507 inhabitants. A total of 15.24 per cent as the age group between 15-24 years are classified as cadets.

Based on this research, it was found that the younger age groups who belong to the farmer Taruna very encouraging or potential. In addition to young age, they also have high levels of which are classified as good educators that have average finish at the high school level and has had a relatively long experience of farming. To detail can be seen in Table 1.

Table 1. Distribution of respondents by age, education and farming experience, in East Kolaka, Sulawesi Tenggara, Indonesia, in 2015.

Number	item	Age (years)	Education Level	Farming Experience
1	Highs	24	College	4
2	Lows	16	High school	9
3	Average	19	High school	7

Taruna farm located in East Kolaka Kabupten highly of potential to be developed into a cattle farmer actors that are integrated with the cocoa farming. Taruna farmer are already expert on cocoa cultivation. Only when directed to cattle, it is expected that cross-department cooperation between agencies plantation and livestock services. Training on cattle farming is needed, so that the cadets have the skills of farmers in the cultivation of cattle and so become a professional breeder.

Cocoa Farming as A Business Partner

There are seven provinces, namely national Cocoa development areas of Southeast Sulawesi, Aceh, West Sumatra, Central Sulawesi, South Sulawesi, West Sulawesi and East Nusa Tenggara. Cocoa development areas nationwide in seven provinces, based on Agricultural Ministry Decree No. 46 / Kpts-PD.300 / 1/2015 deployed in 18 districts and most is Southeast Sulawesi, the five districts. The fifth district was Konawe, South Konawe, Kolaka Kolaka Kolaka North and East.

Southeast Sulawesi's cocoa crops were grown by farmers in almost all districts/cities. Other districts are expected to continue to provide support for the district and the potential can be proposed as the national cocoa development department. Currently, the government is finishing Southeast road map / master plan development of the cocoa region. The road map will be used as the basis for any development of the area district to develop a plan of action.

In Southeast Sulawesi, cocoa is the main plantation commodities and plays an important role in the regional economy, in terms of providing employment for 159 174 head of the family farm. In addition 66% of smallholder tree crop production in Southeast Sulawesi cocoa comes from. In the Year 2012, recorded a total area of 246 508 ha of cocoa plantations, production of 146 705 tons with a productivity of 810.8 kg / ha.

There are various problems that up to now there are at farming cocoa people in Southeast Sulawesi, namely: (1) the age of the plants that are old, (2) the attack borer cocoa (PBB), black pod disease and VSD, (3) low productivity (4) quality of cocoa produced is still arbitrary and (5) non-functioning farmer institutions.

These issues result low production of cocoa which is obtained by farmers, so that the income of farmers is declining. Various programs continue to be implemented to support the improvement and increased production of cocoa, including cocoa-based program implementation MP3MI conducted since 2013. The event was held in the district of East Kolaka, Southeast Sulawesi.

Opportunities emergence of centers of development of beef cattle are patterned collectively be better. The success achieved will give a positive effect to other young people in order to have its own source of income. As a result of government efforts to tackle unrest in cattle and cocoa sufficient community can be realized. All cadets peasants had ever attended formal education with an average have completed secondary education level. It's a potential, because in business operations can easily follow the training given by trainers, let alone supported by the experience of farming that is quite an average of 7.5 years.

The Response to The Cadets Farm Animal Breeding Cattle

Given the potential of human resources, in this case the peasant youth, it gives a sense of optimism to advance a wide range of farming in rural areas, particularly integrating cocoa farming as the main commodities supported by farming cattle. The second farm is suitable to be integrated because it has the nature of a mutually beneficial (symbiotic mutualism). Affluent of cocoa shells in the form of cocoa pods and leaves pruned from the cocoa plant can be fermented to be used as cattle feed. Instead, artists cow dung feces and urine can be used as manure for the cocoa plant fertility.

Regarding the opinion or feedback cadets farmer as respondents basically welcomes the plan where the cattle business, given that some 62% chose not to continue their studies to college level. They chose to help the elderly to maintain their cocoa plants along with other businesses that can generate money. To see how much the distribution of respondents to opinion / feedback regarding the cattle breeding, can be seen in Table 2.

Table 2. Responses of cadets farmer to plan where the business cattle in East Kolaka, 2015

Number	Response option	Opinion	
		Agree (%)	Disagree (%)
1	Agree you become cattle ranchers?	83.75	16.25
2	Agree the cattle business done collectively?	80.00	20.00
3	Agree raising livestock are integrated with your?	77.50	22.50
4	Agree when Venture capital is borne by you?	43.75	56.25

Based on Table 2, turns feedback/opinion regarding the willingness to become a cadet peasant farmers are very welcome, it is seen, as much as 83.75% (76 respondents) chose the answer agrees. This is supported by optimism that the breeding can increase household income, other than

income derived from cocoa products. Moreover, during this time they look at the fact the decline in cocoa farming products in the region. While choosing not agrees, they reasoned that do not have the skills / abilities in maintaining cattle.

Options 2 and 3 are generally those giving a positive response as well by answering agree, namely the 2nd option as much as 80.00 percent (64 respondents) and the 3rd option as much as 77.50 percent (62 respondents).

Option 2 all said in their opinion / response based on the ownership of capital and labor. They are limited in the ability to capitalize their business alone, because they are relatively not having sufficient savings to buy cows or calves. Similarly, in the care of his cattle in the future, cannot do alone because the other businesses that must be handled. For those who disagree, their parents generally considered able to capitalize cow cattle business in the future despite the limited amount. They assumed anyway, if the venture on their own, can more freely manage it.

Option to-3 that raising livestock in an integrated way, as much as 77.50 percent (62 respondents). Those who choose to agree assume that, if done in an integrated manner in addition to providing additional income, also can effectify free time during this quiet time is wasted on work activities in the cocoa fields they have. While those whom choosing not agrees assume that they do not have enough time to take care of everything.

In all four options, namely the imposition of capital had borne alone. More respondents disagreed that is 56.25 percent (65 respondents) on the grounds that they need support assistance from the government as an additional initial capital. While agreeing only 43.75 percent (35 respondents) for reasons not want to be burdened by debt or rules that can be a burden in the future in managing their business.

CONCLUSION

Based on these results, it can be concluded that, diversification cattle can be an alternative to cocoa farmers and their families to maintain the viability of cocoa farming in decline.

Taruna farmer as spearhead the development of beef cattle with a collective system can be realized given the potential of the peasant warriors when viewed in terms of age; education; farming experience and a strong motivation to manage it. This is supported also by the condition of natural resources and the support of humans.

There is need for extensive support from the government in the aspects of beef cattle farming technology and capital.

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