



## **Beef Cattle Business in Dry Land Area Parangloe District Gowa**

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### **Abstract**

The study was conducted in the village Payangkalang Parangloe District of Gowa in South Sulawesi in 2017, with the field survey method Substance himself to Bali beef cattle breeders, through interviews and questionnaires to 18 farmers, by the way (sample random sampling). Respondents beef cattle breeders, classified into 2 (two) business model with a scale of 2 adult males and 3 females scale adult stem, this data will be analyzed using economic analysis of income B/C. Based on the information that the beef cattle population of Bali is quite a many, so that the criterion for consideration for the study area. Beside that all cattle breeders Bali is already a member of a group of farmers. The results showed that net profit in the maintenance of Bali beef cattle female parent of \$13.381.250/year with B/C ratio of 1.2 and a gain on the maintenance of male cattle Bali for \$ 3.881.250 year, with B/C ratio of 1.1. To maintain a profitable cattle faremr cows, while the majority of beef cattle Bali parent can still be maintained as an investment for the procreation of children next year.

*Keywords: Beef cattle business, dry land*

### **Background**

In Gowa district the largest in the agricultural sector, and most of its inhabitants work as farmers, with crops in the form of food crops, in the form of rice, food crops, horticulture and livestock, (Agriculture and Livestock Service Office of South Sulawesi 2016, (Directorate of Database 2015), but it does not make a problem, because the land is utilized by local people, as agricultural, horticultural and animal husbandry livestock Conversion of fertile agricultural land because it is widely used as a settlement, Offices, and other public facilities It is necessary to control the rate of conversion of agricultural land through protection, to achieve sustainability, self-sufficiency and food sovereignty, in order to improve the welfare of farmers and society in general. Dry land is Rainforest land which can be cultivated in lowland, wetland or in upland areas.

Dry land is generally a superior field, the criteria that distinguish dry land is the source of water is expected from rain water. But now many people who use dry land as well as land crops and other crops, as well

as beef cattle business Drought lands into productive agricultural land for the efficient use of vacant land or land that is considered unproductive as one of the fulfillment of basic needs of life and community welfare, Can be done with the business of beef cattle. Dwiyanto *et al.* (2002), and Soedjana (2007), argue that, the business of ruminant livestock can be integrated with plantations, and food crops. In general, dry land in Indonesia can be divided into two categories. The first category of dry dry land, there is the eastern region of Indonesia and the second category of dry land wet climate, western part of Indonesia.

According to Bamualim (2004) and Bamualim and Widarhayati (2006) that the typology of dry land development areas in these two categories is dominant very, so it can be classified from several natural resources based on the potential and dominance of natural vegetation (Bamualim, 2004) Bamualim and Wirdahayati 2006). Such natural conditions, the efforts of breeder for beef cattle business can be done by way of breeding or fattening, both with small and medium scale. Seen from the

definition of environment, dry land, beef cattle business must be able to be taken into account the amount of maintenance, and production costs. The business of beef cattle in farmer with medium scale must be intensive with the use of technology that can support the success of his livestock business (Yusdja et al. (2004).

The more important the role of livestock in the farming system in the utilization of vacant land and labor of farmers, the higher the economic necessity. Andriati et al. (2007), argue that the potential of labor of farmers and agricultural land is mostly located in rural areas, including the development of horticultural crops, food crops, crops and livestock. Demitria *et al.* (2006), argues that, human resource development is a process to increase knowledge, creativity and skills, and the ability to work. Beef cattle business is a complementary business system, and is also a source of new growth to support the income of farmers in addition to other agricultural business. The development of livestock in the future will still be faced with the problem of natural resources, in the form of feed, increasing demands and needs of increasingly complex economic development.

Although farmers in cattle ownership have little cattle, but cows have a role as a socio-economic life for farmers. Cow as life saving, supporting social status, source of labor, and producer of meat and hope of breeder to get optimal accountability. Based on these problems above, then the need to calculate the cost of production and income earned ranchers during the cattle business in addition to other farm income. Usually the largest expenditure on cattle raising is concentrated on the fixed costs of purchasing seeds, feed and labor. This paper aims to determine the business of cattle in dry land areas in the District of Parangloe Gowa regency of South Sulawesi.

## Materials and Methods

### Research Sites

The research was conducted in Payangkalang Village, Parangloe Sub-District, Gowa District, South Sulawesi in 2017, with direct field survey method to

Balinese beef cattle farmer, through interviews and filling questionnaires to 18 farmers. Research location is dry land area or agriculture area of food crop, such as cassava, sweet potato, and vegetable, potency for beef cattle development. Based on the information that Bali beef cattle population is quite a lot, so of criteria as consideration for the research area. Besides that also all Bali beed breeders have become a member of the breeder group.

### Data analysis

Primary data was obtained through direct interviews with respondents who referred to the prepared questionnaires, while secondary data were obtained from the local Agriculture and Livestock Service Office. Research respondents are Bali beef cattle ranchers classified into 2 (two) maintenance business model that will be analyzed. Based on the scale business of 2 male Balinese cattle male and 3 cows of Balinese mature Balinese beef cattle, this data will be analyzed using economic analysis of B/C. To strengthen the data of this research, the data of qualitative information, perception of farmer, and the results of research both published through proceedings, journals and other data which according to the analysis of income economy (Soekarwati (1995); (Rusdiana and Bamualim 2010) and (Sugiyono., 2002).

## Results and Discussion

### The General Condition of The Region

In Gowa Regency is located at 12 ° 38.16' East Longitude from Jakarta and 5° 33.6' East Longitude from the North Pole. While the administrative area is between 12°33.19 'to 13° 15.17' East Longitude and 5°5 'to 5°34.7' The total area of Gowa Regency is 1,883.33 km<sup>2</sup> or equal to 3.01% of the total area of South Sulawesi Province. Gowa regency is divided into 18 districts with the number of definitive Villages/Sub-districts of 167 and 726 village/neighborhood. Region of Gowa Regency is mostly in the hilly plateau of 72.26%, covering 9 sub districts, Parangloe Subdistrict, Manuju, Tinggimoncong, Tombolo Pao, Parigi, Bungaya, Bontolempangan, Tompobulu and

Biringbulu. The remaining 27.74% are lowland with flat topography covering 9 sub-districts, Somba Opu sub-district, Bontomarannu, Pattallassang, Pallangga, Barombong, Bajeng, West Bajeng, Bontonompo and South Bontonompo. As with other regions in Indonesia, Gowa Regency is known only for two seasons, drought and rain.

The dry season starts in June – September, while the rainy season begins in December-March, half a year after the transition period, in April-May and October-November. Rainfall in Gowa regency is 237.75 mm with temperature 27,125°C. The highest rainfall monitored by several stations/observation posts occurred in December, reaching an average of 676 mm. While the lowest rainfall in July-September which can be said almost no rain. Theoretically, dry land in Indonesia is divided into two categories, namely: (i) dry land, many in eastern Indonesia, and (ii) wet dry land, mostly found in western Indonesia, (Agriculture and Animal Husbandry Department Gowa District, South Sulawesi. 2015). The dominant dry land development areas in Indonesia are classified based on vegetation potential and dominance.

Utilization of land or land requires proper management and as far as possible to prevent and reduce damage and can ensure the sustainability of these natural resources for the benefit of future generations. The soil environment system, the effort that needs to be done is the rehabilitation, preservation, planning and optimization of the optimum land. Efforts to optimize the potential of dry land should be done as an effort to realize food self-sufficiency through the diversification of food crops and livestock business. In areas with drought, land has the potential to be empowered by all local farmers to grow crops, tubers and ruminants, as it is suitable for land that does not have irrigation waterways.

### **Characteristics of Livestock Farmers**

In term of potency most of area in Payangkalang village is dry land and partly again paddy field, with main commodity of agriculture business of plant, corn chili, sweet potato, sweet potato and other plants.

Although the dry area turned out to be the level of business maintenance of beef cattle is quite and has long been in the company. Average ownership of Bali beef cattle between 2-4 tail/farmers, animal feed sources, especially forage is quite available around residential neighborhoods. Cattle are kept by grazing and left to feed themselves, and at times farmers take grass for supplies when cows are stalled. In general, the level of education of farmers is still relatively low, not graduated at elementary school level around 50.00%, elementary school graduates much 22.22%, and the rest of junior high school about 16.67% and 11.11% senior high school.

Average age of breeders 44.78 years and classified as still productive. It is hoped that in the future there will be a spread of new technology related to Bali beef cattle raising business, all breeders can more quickly accept the innovation, either through IB cattle or forage cultivation of forage. It will ultimately affect the adoption of technologies introduced by relevant agencies or institutions, that education and farming experience may affect the application of technology and income generation (Dorian *et al.*, 2009)

### **Assumption of price and asset of Bali Beef Cattle Farmers**

The value of Bali's beef cattle asset is one of the important indicators for farmers. Almost all breeders in the research location have yard land assets, Balinese cattle and beef cattle. It can be disclosed that the main job as duck farmer dominant, land tenure can be linked and give a positive impact for the development of Bali beef cattle business. In general, the business of farming and beef cattle is semi-intensive, so the control of the land allows the availability of grazing areas or otherwise exploited as the growth of the weeds as animal feed. Asset assets and sale value of Bali beef cattle in breeder, seen in Table.1.

Table 1. Average ownership and sale value of Bali beef cattle in farmers

Description	head	percent (%)	sale value (\$ 000)	the value of cattle assets (\$ 000)
mature females	29	55,78	11,7	339.300
young female	4	7,70	7,1	28.400
females child	5	9,62	3,4	17.000
adult males	6	11,54	14,4	86.400
young males	3	5,77	7,2	21.600
male males	5	6,62	4,1	20.500
total	52	100	-	513.200
average value of beef cattle assets	2,88	-	-	28.511

Table 1. Indicates that the assumption assumption of Bali beef cattle in breeders, the highest asset in adult female cattle with sale assets of \$ 339.300.000. The number of livestock raised by farmers is quite high and socio-economically in Bali beef cattle has a fairly high income contribution. Almost all breeders have the asset of beef cattle, based on the amount of beef cattle assets in the breeder as a savings of \$ 28.511.000 / breeders, quite high. Beef cattle Bali at any time can be sold easily, which can reduce production costs for food crops business. Some cattle manure farmers are returned to their own farming gardens, as well as fertilizers that can not be utilized because they are scattered on the grazing land, and are useful for the growth of grass.

### Farmer Activity is Beef Cattle

Farmers' activities in the business of beef cattle are still patterned as side business, principal, and savings, because the main business is farming. The number of livestock population in the farmers as much as +52 tail or as much as 2.8 head/breeder. Breeders in the ownership of beef cattle, in addition to their own, also have the property of others, who are called with the rowdy. The calculation is within > 1-5 years, a parent can give birth 1-3 times, then the first child for the owner and the second child for the murderer and so on, as the shepherd boy. This means that there is an agreement between livestock owners and bullies, both of them feel disadvantaged. Another obstacle often faced by breeders is that mothers who have been married can not be pregnant, causing farmers to feel loss and livestock are kept not produce profits. Despite this condition all the farmers keep doing business to maintain Bali beef cattle

well. Another thing when the dry season arrives, forage feed is very difficult to obtain, but the breeders still maintain the livestock, although in difficult circumstances forage feed. Basically farmers keep the spirit of cattle in do business. Livestock farmers have their own by maintaining 1 female beef cattle productive within a period of 1-2 years, will benefit from the sale of his son, so cows are said by all farmers as a survival.

### Economic Assumption of Bali Beef Cattle Business

The result of field survey shows that livestock farmers in doing business of Bali beef cattle by way of pasture. Where at the time of removing cattle to be grazed at 8 am, then stabled back at 4-5 pm. The cattle that are kept in bundles moved during the daytime farmers add an additional meal of natural grass, which is picked up from around the neighborhoods. Forage feeding is usually when cattle are tied under the shade of a tree or in a state of rest, and there is no concentrated feeding of concentrates. Balinese sponge beans are classified into 2 (two) business models based on the scale of 2 adult males and 3 adult female. Fixed costs in 2 business models are assumed to be the same production costs and fixed costs, while the cost of feed is assumed to be the labor cost of the livestock farmer's family.

Labor costs are calculated based on 7 hours/day 1 labor hok work, regardless of the number of beef cattle are kept, based on wages in Payangkalang Village \$.10.000-15.000/day. The assumption of the cost of making the cage for a scale of 2-3 tail between 1.500.000-2.000.000/unit, the cage is made of wood, the roof of the tile/ zinc.

Land rent is not calculated because the farmers own land. Assumption of live weight of female beef cattle weight of 250 kg/head and the estimated age between 2.5

years, the purchase price of parent seeds \$9.000.000-/head.

Table.2. Economic analysis of Bali beef cattle business male and female in farmers

Bali beef cattle	Adult males 2 head		Adult females 3 head	
	\$.	%	\$.	%
Variable costs				
- Purchase of Bali beef cattle	20.000.000	84,39	27.000.000	87,95
-drugs	100.000	0,42	100.000	0,33
- labor of the farmer	3.600.000	15,19	3.600.000	11,72
-woof	-	-	-	-
total	23.700.000	100	30.700.000	100
fixed cost				
-shrinkage cage	400.000		400.000	
- shrinkage equipment	18.750		18.750	
total	418.750		418.750	
Fixed cost + variable fixed	24.118.750		31.118.750	
-income				
- The selling value of adult bulls	28.000.000	100	-	
-Sale value of adult female cow	-		37.500.000	85,12
-Sale value of 2 calves in 4 months old	-		7.000.000	14,88
incam total	28.000.000	100	44.500.000	100
net income	3.881.250		13.381.250	
B/C	1,1	-	1,2	-

The assumption or the live weight of adult male cattle beef is 320 kg/head and age between 2.5-4 years, the purchase price is \$ 10.000.000/head. Cage depreciation assumptions are calculated based on 5 year/ maintenance effort. Depreciation of equipment is calculated on the basis of 1 year or equipment is considered consumable and drug purchases of \$ 100.000-150.000/year are consumable. The economic analysis of cattle livestock breeding business is assumed to be based on business scale for 1 year. To see the value of the business profits of Balinese adult beef cattle and adult female adult female seen in Table 2bTable.2. Show that, assuming the cost of purchasing of male and female Balinese beef cattle is the largest cost of 84.39-89.95% and the second largest cost of labor cost is 11.72-15-19%.

The net profit on the maintenance of Balinese female parent cattle is \$ 13.381.250/year with B/C ratio 1,2 and profit on male Balinese beef cattle raising of \$ 3.881.250/year, with B/C ratio 1, 1. The business of raising livestock raises the livestock breeder, while some of Bali's parent beef cattle can still be preserved as an investment to produce offspring of children the next year.

## Conclusion

Balinese Balinese beef cattle business in Payangkalang Village, Parangloe District, Gowa regency of South Sulawesi. Average ownership of Bali beef cattle between 2-4 head/farmers, forage as a source of feed available. Females cattle ranchers benefit farmers. The cost of purchase of male and female beef cattle is the largest cost of 84.39-89.95%, the second largest cost of feed and labor costs of 11.72-15-19%. The net profit on cow breeding is \$ 13.381.250/year B/C ratio 1.2, the profit on rearing bulls is \$ 3.881.250/year, B/C ratio 1.1. The result of Wahyuni research (2015), on the business of beef cattle with scale 3 (three) tail with duration of 3 months in dry land breeder get profit equal to \$ 2.786.500,00 with R/C ratio 1,129. Although the dry area turns out the level of cattle rearing Bali beef is pretty good. Almost all cows are still reared by breeders, as an investment to produce offspring of children the next year.

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