

Welfare and Control of Resource of Feed Ingredients Corn Farmers in Gowa Regency, South Sulawesi Province, Indonesia

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Abstract: *The purpose of this study was to analyze the effect of control of resources on the welfare of corn farmers in Gowa Regency of South Sulawesi Province. This study was conducted in Gowa Regency, South Sulawesi Province, with a construction period of 6 (six) months from May to October 2015. The population of corn farmers in Gowa Regency in South Sulawesi province, with samples to be used in this study were 50 farmer respondents. The results of this study indicate that, corn farmers in Gowa Regency has a land area varied. Farmers also have experience in farming. Corn farmer age level, categorized still productive with a range of between 25-55 years, and the average education level is still low. Control of resources for corn farmers in Gowa, there are four aspects: the aspect of labor is the biggest labor of planting and harvesting, further aspects of capital mostly corn farmers use their own capital to farming corn, then the aspect of land mostly maize farmers own their own land and last aspect of the equipment used include hoes, machetes, spraying pests, kored and embrad. So it can be said that farmers already take advantage of the resources they have.*

Keywords: Welfare, Resource Control, Farmers and Corn

1. Introduction

Classic assumption stating that the rural population is mostly subsistence farmers (who can produce for their own consumption) is no longer valid. However, often found in rural households sell better quality food ingredients are produced, so that the proceeds can be used to buy lower-quality food. This represents an attempt to maximize consumption in terms of quantity [4].

Many districts were unprepared decentralization and democratization. After 10 years, many local capacities have been developed, but still self-government understood more as a right and not a liability. Development efforts still do not have a long-term vision is important enough to achieve sustainability. Public participation in government land-use planning is still rare, as well as incentives and benefits relevant to the community [7].

The human race to dominate and have a ground plane is desirable, therefore, not surprising that every human being who wants to have and bring it into conflict with the land, such as the efficient use of land. Humans in the utilization of the land is not balanced with the state of the ground, this can lead to disputes between neighbors as the struggle for rights, the emergence of the problem of land damage and disruption to its sustainability. In order to organize and regulate land issues have issued various regulations land law which is the implementation of Agrarian Law as the National Land Law [5].

Trade commodities, maize occupies an important position in the national economy, because the benefits are versatile. Helpful corn as food, feed and fuel. In addition to direct consumption in the form of immature seed, are also consumed as a rice corn. As an industrial raw material, corn

processed for a variety of purposes, such as food and animal feed [10].

In the current economic developments, the corn has a strategic role in the national economy, the second largest contributor corn after rice in food crops. Donations corn to Gross Domestic Product (GDP) continues to increase every year, even during the economic crisis. These conditions indicate the magnitude of the role of corn in spurring the growth of food crops and the national economy in general [12].

Position corn as national food is the main staple food after rice, so that a buffer of national food security. Improvement of the national economy is marked by increasing income per capita, the proportion of maize as food tergeserkan be the main raw material feed industry. The main component (54 s.d 60%) in cattle feed rations are corn [8]. Most (55%) of national maize production is used as feed, the remaining 30% for food consumption and 15% for other industries needs and seeds ([3]; [9]).

The corn crop is very beneficial for human life in Indonesia alone, corn is a commodity crop that is fairly important second after rice crops, even today, there are still some small areas that utilize corn as their staple food daily [1].

The level of national maize requirement is estimated at 22 million tons, turned out to provide substantial profits for farmers in Indonesia. It is not surprising when these conditions make the cultivation of corn opportunities still remain profitable, and now has become one of the main livelihood for most people in Indonesia [1].

Increased demand for corn by feed industry, food and corn-based derivatives industry caused demand for maize in the

Volume 6 Issue 3, March 2017

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country continues to rise [3]; [6]. The rate of increase in corn demand is greater than the rate of growth of domestic corn production, as a result of domestic corn prices continue to increase from year to year [2]. Maize production in the country has not been able to meet the needs, so it is still needed. National corn production is projected to grow 4.63% per year. In 2015, corn production is expected to have reached 17.93 million tons [9]. Now the position of maize increasingly complex and strategically, because aside as a buffer food security, import substitution also become a commodity that can save foreign exchange [10].

Welfare of farmers (people) will not be realized without the development (development of agriculture). Development is a multidimensional process involving major changes in the social structure, mentality and national institutions, including the acceleration of economic growth, income generation, reduction of unemployment and the eradication of absolute poverty with environmental sustainability [11].

Improving the welfare of the people (farmers) aimed to achieve five (5) main targets [11]: (1) reduction of poverty and unemployment with economic development strategy that encourages growth in the quality and dimensions of equity through the creation of a healthy business environment, (2) reduced the gap between regions with priority on rural development, (3) increasing the human quality that is reflected in the fulfillment of the terms of people's social (education, health, religious life), (4) improvement in the quality of the environment and natural resource management with the principles of sustainable development, (5) increased infrastructure support.

Based on this, it is necessary to research titled "Welfare and Control of Resource of Feed Ingredients Corn Farmers in Gowa Regency, South Sulawesi Province, Indonesia".

2. Material and Methods

This research is quantitative descriptive. The population of corn farmers in Gowa Regency. Samples to be used in this study were 50 farmer respondents.

The purpose of this research : 1. Describe of farmer characteristics in Gowa Regency and 2. Allocation Resource of Corn Farming in Gowa Regency.

The collection of data through library research and field research using data collection methods in the study of the interviews, observations, questionnaires (Questionnaire) and documentation.

3. Result and Discussion

1) Characteristics of Farmers in Gowa Regency.

Farmers respondents are the main actors in the farming activity, especially in making maize farming. Some aspects that can support farming activities corn for farmers respondents, include: land area, farming experience, the age of the respondent farmers, educational level, and number of dependents.

a) Land Area

Land is a garden used by farmers in the production of corn. The land can be categorized as the status of arable land owned or owned by others. To determine the area of land used by farmers can be seen in Table 1.

Table 1: Total Land Area Corn Farmers Based in Gowa Regency

Land Area	Amount (person)	%
0,05 – 0,75	29	48,33
1 – 2	28	46,67
> 3	3	5,00
Amount	60	100,00

Source: Primary data after being processed, 2015

Based on Table 1, show that land use is the largest land area of from 0.05 to 0.75 ha farmers as much as 29 respondents or reached 48.33%, and the smallest farmers as much as 3 or 5% of respondents. This indicates that farmers in Gowa Regency has a land area varied.

b) Farming Experience

Experience farming is an activity experienced by respondents during the farmers do farming activities corn. For more details about farming experience can be seen in Table 2.

Table 2: Based on the number of Corn Growers farming experience in Gowa Regency

Experience	Amount (person)	%
1 – 19	32	53,33
20 – 29	15	25,00
30 – 40	13	21,67
Amount	60	100,00

Source: Primary data after being processed, 2015

Based on Table 2, illustrate that the majority of corn farming experience over 10 years, so it can be said farmers Tompobulu respondents in the District, District and Sub-District South BontonompoBiringbuluGowa Regency has a good experience in farming. So with the experience of older farmers, it will create more skilled farmers in cultivating corn.

c) Age Level

Age farmer respondents is one factor in determining the ability of farmers both thinking ability and physical ability. For more details, age of farmers can be seen in Table 3.

Table 3: Total Corn Growers by Level Age in Gowa Regency

Age Farmers	Amount (person)	%
25 – 35	21	35,00
36 – 45	24	40,00
46 – 63	15	25,00
Amount	60	100,00

Source: Primary data after being processed, 2015

Based on Table 3, show that farmers age levels Tompobulu respondents in the District, District and Sub-District South BontonompoBiringbuluGowa regency is between 25-55 years. The age level is the level of productive age in which

the spirit of trying and production is still high and is also easier to accept new innovations.

d) Level of Education

The level of education in question here is the formal education ever taken by the farmers during this respondent. The level of education obtained by the respondent farmers can be seen in Table 4.

Table 4: Total Corn Growers According to Education in Gowa Regency

Level of Education	Amount (person)	%
Not Elementary School	18	30,00
Elementary School	21	35,00
Junior High School	13	21,67
Senior High School	8	13,33
Amount	60	100,00

Source :Primary data after being processed, 2015

Based on Table 4 shows that the average - average level of education for farmers respondents are still low so it can affect the increase in corn production. In addition they will have difficulty in absorbing new technologies to improve the management of farming in general.

e) Productive Families

Families earning in question is a family member who helped in the process of farming corn. For more details about the productive families can be seen in Table 5.

Table 5: Total Productive Families Corn Growers Based in Gowa Regency

Productive Families	Amount (person)	%
0 - 2	30	50,00
3 - 4	20	33,33
5 - 7	10	16,67
Amount	60	100,00

Source: Primary data after being processed, 2015

Based on Table 5, show that the number of family dependents ranged between 0-2 people by the number of farmer respondents as many as 30 people or reach 50.00%, then the number of dependents 3-4 vote with the number of farmer respondents were 20 people or reaches 33.33% and the number of family dependents between 5-7 people by the number of farmer respondents as many as 10 people or reached 16.67%.

2) Control of Resource of Corn Farming in Gowa Regency

Resource is something that is absolutely owned by a farmer in a corn farm management and which is not related to farm management. Farmers have a variety of existing resources include: labor, capital, land, and equipment, this resource associated with farming corn. Besides that there are resources owned by farmers who are not related to maize farming are: home, home appliances, personal vehicles, electronic equipment and control information. For more details about these resources can be explained as follows.

a) Labor

Labor is a person or individual as the perpetrator in corn farming activity or activities. Labor question here is who did the planting preparation, planting, maintenance (including

giving water), eradication of pests and diseases, and the last to harvest. For more details about the labor used by farmers can be seen in Table 6 as follows.

Table 6: Total Corn Growers According to Labor in Gowa

No	Amount of Labor(person)	Amount (person)	(%)
1	1 - 10	3	6,00
2	10 - 20	28	56,00
3	> 20	19	38,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on Table 6 shows that the overall energy used in the farming of maize, where the number of farmers as many as 28 people (56.00%) with the largest number of workers 10-20 people, and then followed by the number of farmers 19 people (38.00%) with workforce > 20, and the last number of farmers 3 (6.00%) with the amount of labor used between 1-10 people. Based on the data obtained from the interviews, which were the largest labor used is when planting and especially harvesting.

b) Capital

Capital is an absolute requirement to make an effort. Capital has an important role in farm management. Soil or land, seed, labor, and other farming equipment could not have happened without the role of capital. For more details about the capital used by farmers can be seen in Table 7 as follows.

Table 7: Total Corn Growers Based Capital Resources in Gowa Regency

No	Modal	Amount (person)	(%)
1	Owner's equity	30	60,00
2	Cooperative capital	15	30,00
3	capital Bank	3	6,00
4	Non-bank loans	2	4,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on Table 7 shows that the majority of farmers in Gowa use their own capital to manage his farm with a percentage of 60.00%, and then use of capital through the cooperative farmers who are in the area of individual farmers with a percentage of 30.00%, and there is also farmers who use capital through a local bank for example, Bank Rakyat Indonesia with a percentage of 6.00%. And lastly, non-bank loans, where the farmers used to borrow capital to borrowers with the power of capital with a percentage of 4.00%. The amount of capital obtained from the Cooperative capital, the Bank's capital and the capital of non-bank loans, include: cooperative capital where the average corn farmers borrowed Rp. 2.500.000, -, to the Bank's capital the average farmer borrowed Rp. 4,000,000 - Rp. 5.000.000, -, furthermore where farmers borrow from the borrower who has the power of capital with an average loan of Rp. 3.000.000, -.

c) Land

Land is a container or place in producing agricultural products, especially corn farming. For more details regarding agricultural land cultivated maize farmers can be seen in Table 8 below.

Table 8: Total Corn Growers Land Use in Gowa

Long (year)	Property (person)	%	Lease (person)	%	Work On (person)	%	Total
< 5	12	31,58	5	83,33	2	33,33	19
5 – 10	21	55,26	1	16,67	4	66,67	26
> 10	5	13,16	-	-	-	-	5
Amount	38	100,00	6	100,00	6	100,00	50

Source: Interview Results, 2015

Based on Table 8, shows that most uses of land owned status alone as many as 38 people, while renting and working on other people's land respectively 6 and 6. This indicates that farmers with land has its own means to pay such rental fee. Besides that farmers can lease their land to other farmers or other farmers have to work on it and the result will be divided by two or according to mutual agreement. It becomes excess if it has the status of their own land.

d) Equipment

Equipment is an object or a tool used in farming activities corn. For more details about the equipment used by farmers can be seen in Table 9 below.

Table 9: Based on the number of Old Corn Growers Use Tools Hoes in Gowa Regency

No	Longusage (year)	Amount (person)	(%)
1	< 5	30	60,00
2	5 – 10	18	36,00
3	> 10	2	4,00
	Amount	50	100,00

Source: Interview Results, 2015

According to Table 9, based on the information data of Table 42 shows that farmers in Gowa using hoe equipment in the processing of agricultural land. And most of the farmers are using hoes for <5 years with the percentage of farmers 60.00%, over the next 5-10 years with a percentage of 36.00% and last for > 10 years with a percentage of 4.00%.

In addition to being used hoe corn farmers use the other tools are machetes, for more details on how long the use of a machete by farmers can be seen in Table 10 below.

Table 10: Total Corn Growers Equipment Long usage Cleaverin Gowa Regency

No	Longusage (year)	Amount (person)	(%)
1	< 5	24	48,00
2	5 – 10	24	48,00
3	> 10	2	4,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on the data information from Table 10, shows that corn farmers in Gowa mostly been using equipment such cleavers for <5 years and 5-10 years which respectively with the percentage of 48.00%, the next time you use the machete tool for > 10 years with a percentage of 4.00%. This indicates that the device is still in the category machete eligible for use in the process of maize cultivation.

Other equipment used in addition to machetes ieatomizer pests that works to eradicate pests that corn plants avoid vermin or pests. For more details about the duration of use of pest atomizer can be seen in Table 11 below.

Table 11: Based on the number of Old Corn Growers Use Sprinklers Pest in Gowa Regency

No	Longusage (year)	Amount (person)	(%)
1	< 5	20	40,00
2	5 – 10	26	52,00
3	> 10	4	8,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on the information data of Table 11 shows that the pest spraying equipment used by farmers in Gowa during the longest usage percentage ranged between 5-10 years with a percentage of 52.00%, and duration of use <5 years with a percentage of 40.00% and Last time you use > 10 years with a percentage of 8.00%. This indicates that the pest sprays can still be considered fit for use to disinfect.

Other equipment used hereinafter that kored used by farmers to clear a small lawn, for more details about the equipment kored can be seen in Table 12 below.

Table 12: Total Corn Growers Equipment Usage Based Lama Kored in Gowa Regency

No	Longusage (year)	Amount (person)	(%)
1	< 5	8	16,00
2	5 – 10	28	56,00
3	> 10	14	28,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on the information data of Table 12 shows that kored equipment used by farmers in Gowa, which kored equipment is meant here is a tool to clean the grass with a shape like a small hoe. And as shown in Table 40 it can be seen that the equipment kored with the longest duration of use is between 5-10 years with a percentage of 56.00%, then the next longest consumption <10 years with a percentage of 28.00% and final consumption for <5 years with a percentage of 16, 00%. This indicates that the equipment used by farmers fall into the category of less unfit for use because it was too long, so its use in working on land management increasingly ineffective.

In addition to equipment already mentioned (hoes, machetes, atomizer, and kored) then other equipment used by farmers are embrad aiming for watering corn plants. For more details about embrad equipment can be seen in Table 13 below.

Table 13: Total Corn Growers Equipment Usage Embrad in Gowa Regency

No	Longusage (year)	Amount (person)	(%)
1	< 5	5	10,00
2	5 – 10	30	60,00
3	> 10	15	30,00
	Amount	50	100,00

Source: Interview Results, 2015

Based on the information data of Table 13 shows that the use of such equipment embrad (Grey Plover with small drain holes to water the flowers or plants) used by farmers in Gowa district, where the use of the tool that is the longest between 5-10 years with a percentage of 60.00 %, then the use of equipment embrad for > 10 years with a percentage of 30.00% and final consumption embrad for <5 years with a percentage of 10.00%. This indicates that the use of the tool embrad categorized as less suitable for use. So it is no longer effective for use in watering the corn crop.

4. Conclusion

The results of this study indicate that, corn farmers in Gowa district has a land area varied. Farmers also have experience in farming. Corn farmer age level, categorized still productive with a range of between 25-55 years, and the average education level is still low. Control of resources for corn farmers in Gowa, there are four aspects: the aspect of labor is the biggest labor of planting and harvesting, further aspects of capital mostly corn farmers use their own capital to farming corn, then the aspect of land mostly maize farmers own their own land and last aspect of the equipment used include hoes, machetes, spraying pests, kored and embrad. So it can be said that farmers already take advantage of the resources they have.

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