Exploration study for corporate farming application readiness

A Amiruddin, E B Demmallino, H Jamil and S Hardianti

Department of Agriculture Socio-Economic, Faculty of Agriculture, Hasanuddin University, Jalan Perintis Kemerdekaan KM 10, Makassar 90245, Indonesia

Email: achmad_amiruddin@yahoo.com

Abstract. Farming group is an idea that is based on efforts to maintain farming, so they can compete in the industrial era. The goal is to fulfill three main requirements in the business world, namely to meet the quality, quantity and continuity requirements in running the business. Corporate farming is the activity of merging farming land to be managed jointly by farmers and integrated into one management. This system can be used as a solution to overcome various problems faced by farmers nowadays. The Seppae farmer group was the only intermediate farmer group in Bialo Village, Gantarang District, Bulukumba Regency. This farmer group was used as the main approach in agricultural extension activities. The group approach was seen as efficient and can be a medium for the process of learning and interacting from farmers so that it was expected that changes in farmer's behaviour towards better and quality. However, the farmer group was only a place for members to get government assistance distributed by the group leader. Farming activities currently carried out by the Seppae farmer group would be more efficient if managed collectively by implementing a corporate farming system. The purpose of this study was to determine the readiness of members of farmer groups to become members of collective farming groups in implementing a corporate farming system based on the farmer group readiness approach. The research method used was an exploratory study with a descriptive qualitative method by looking at the prospects of a group approach. The results showed that Seppae farmer groups was not ready to conduct collective farming groups, farm collectivity performance was still carried out individually and the requirements for forming corporate farming had not been met based on a group approach caused by farmers did not understand the corporate farming system.

1. Introduction

Rice production in Gantarang District is the largest in Bulukumba District, amounting to 99,187 tons in 2015 with a harvest area of 14,303 Ha out of a total harvest area of 36,408 Ha in Bulukumba Regency [1]. Bialo Village is one of the villages in Gantarang District and one of the three communities that become an irrigation area (dam). Around 40% of people earn a living as farmers. This is what underlies the need to improve the quality of agriculture that is economically capable of providing more value to farmers. This means they must be able to face the industrial era, be able to meet the needs of families, and be able to compete in the market. To realize all that, it takes the participation of intellectuals who can direct and guide ordinary farmers to survive. There have been various attempts made to realize this, one of which is by forming a farming group or often referred to as Corporate Farming.

The important rationale for corporate farming is to apply the principle of micro-scale economies of scale, the more extensive the management of businesses, the more efficient the costs, which include
the management of plants, the costs of production facilities, transportation costs and marketing costs of rice farming. In addition, corporate agriculture will be able to obtain convenience in terms of access to information, access to capital, bargaining positions in the market. The purpose of implementing corporate farming is to create an independent, competitive and sustainable agriculture through corporate farming management. The principle of developing corporate agriculture is to build integration and independence in joint decision making in managing resources to increase farmers' income and welfare [2].

Corporate farming is a strategic step to be able to compete in today's modern and global markets. This is an effort to combine the strengths of individual farmers to form a group that has a shared vision of progress because corporate farming is an effort by and for farmers. With this power pool, productivity synergies are formed that are able to stably meet market needs, both in terms of quantity, quality, and sustainability. According to Asmani [3], the corporate system is the consolidation of farming activities carried out by farmers by applying management principles as a farmer-owned company to achieve effectiveness, efficiency, and sustainability. In this corporate farming uniting farmer's capital that is managed with planning, organizing, enthusiasm, and supervision so that productivity increases, high incomes, and farmers' welfare increases. The purpose of developing corporate farming is to realize an independent, competitive and sustainable farming business through corporate land management. Through this effort, rice farmers' income will increase, both from rice farming land managed by managers and from other farms [4].

2. Method
This research was carried out in Bialo Village, Gantarang District, Bulukumba Regency, South Sulawesi Province. Determination of location was done by purposive method; this was based on the amount of rice production in Gantarang sub-district, which was the largest in Bulukumba district, amounting to 99,187 tons in 2015 with a harvest area of 14,303 Ha out of a total harvested area of 36,408 Ha in Bulukumba district [1]. Bialo Village was one of the three villages in the Gantarang sub-district that became an irrigation area (dam). The selection of data source informants in this study were all members of the 25-person Seppae farmer group and extension workers on the basis that the Seppae farmer group was the only intermediate farmer group in Bialo Village. Data collected or obtained by researchers from various sources that already exist (researchers as second hand). Secondary data in this study were obtained from various sources such as the Central Statistics Agency, books, reports, and journals, as well as other records relating to research.

This study used exploratory research or also called exploratory, which was one type of social research conducted to explore data and information on new topics or issues aimed at deepening or further research. Data collection is done in natural settings (natural conditions), primary data sources and more data collection techniques on participant observation, participant observations, in-depth interviews, documentation, and triangulation [5]. The data obtained both primary and secondary data were analyzed and then presented in a descriptive qualitative manner, namely explaining, describing and describing in accordance with the title under study. Data analysis in qualitative research was carried out since before entering the field, while in the field and after completion in the field. Activities in data analysis, data collection, data reduction, data presentation, and drawing conclusions.

3. Results and discussion

3.1. An overview of rice farming in Seppae farmers group
Bialo Village had several farmer groups, one of which was the Seppae Farmers Group. Based on the list of farmer groups in the food crop sub-sector, the Seppae farmer group was the only farmer group included in the criteria for the ability to classify middle-class farmer groups. The area of the Seppae farmer group covered 33 hectares of rice fields with a total of 25 members. The average farm area was 1 Ha. Rice was the main commodity cultivated by the Seppae Farmers Group. As an agribusiness system, farmers carried out activities of providing production facilities to marketing in managing their
rice farming. The Seppae farmer group had used a ½ technical irrigation system with water sources originating from the Bialo river.

3.2. The readiness of Seppae farmers group members to become collective farmers group members in the implementation of corporate farming

Since the formation of the Seppae farmer group, farmers who were members of the group were still farming individually. Farmer group was only a place for members to get government assistance distributed by the group leader. Activities were carried out collectively only when working to clean water regularly and providing seeds provided by the head of the farmer group. The production was carried out based on mutual agreement, but the implementation was carried out on each land. Likewise, pest control was carried out individually, depending on whether or not there was a pest attack on the land. Willingness to handle pests outside arable land did not exist because it considered that the affair of the land was the business for each farmer to be handled.

The benefits to be obtained by farmers when they are able to form a collective farming group are being able to meet three main requirements in the business world, namely meeting the quality, quantity and continuity requirements in running the business. This empowerment activity needs to be done to empower the farmers themselves. Corporate Farming is considered to be a middle way to meet the procurement of Indonesia's agricultural sector which is faltering. The inclusion of corporations in the agricultural sector could be a middle ground for agricultural procurement at this time, because (corporate investors) are expected to provide agricultural procurement. In an effort to overcome the problems faced by farmers. Farmers' readiness to switch to collective farmer groups in implementing corporate farming systems can be seen from the activities of the agribusiness system, namely the provision of production facilities, farming subsystems, yield processing subsystems, marketing subsystems, and supporting subsystems.

In order to be able to compete in the modern market, farmers must leave the subsistence pattern and turn into farmers who have an understanding of entrepreneurs or known as agribusiness. Based on the subsystems that exist in the concept of agribusiness, the collectivity must be carried out in accordance with the stages of the production collectivity subsystem. The concept of the production system subsystem in the production collectivity can be seen in the following table.

Table 1. Characteristics of collective farming of Seppae farming groups in the provision of production facilities subsystem

| Parameter                                      | Seppae Farmers Group                                      |
|------------------------------------------------|-----------------------------------------------------------|
| Participation in a collective saprotan procurement program | There was no participation based on the initiative of each farmer. Participation was done only if there is capital assistance from the government. |
| Use of joint capital assistance | There was voluntary work to clean waterways regularly before carrying out land management. The provision of seeds was provided by the head of the farmer group. However, for other provisions, farmers preferred to seek venture capital individually and some other infrastructure such as hand tractors. |
| Participation in production planning | When production was spread informally / word of mouth between farmers. Uniformity of types of seeds planted based on seeds that had been prepared by the head of the farmer group. |
| Production is carried out based on mutual agreement | Conducted collectively/in unison according to the agreed planting schedule even though there are different farmers' preferences for the types of seeds to be planted, some of which |
combine part 30 and mekongga seeds.

Pest control is done simultaneously with the same quantity of handling sometimes it was done simultaneously or not simultaneously depending on the condition of the farmers’ land at that time. Sometimes it was not done simultaneously or not simultaneously depending on the condition of the farmers’ land at that time.

There was no such thing because agriculture was a matter for each farmer to handle.

The characteristics of farm collectivity of Seppae farmer groups based on the requirements of corporate farming at the subsystem stage of providing production facilities, namely on the consolidation of production input procurement, among others the unavailability of group offices, production input kiosks, agricultural business capital is managed individually by fertilizers, pesticides and for superior seeds provided by the group leader farmer. Whereas for agricultural equipment and machinery 15 of them used their own hand tractor and 10 others used government assistance hand tractor as much as 2 pieces in turn. The tool used by members of the Seppae farmer group in harvesting was a combine harvester; this tool is a government aid amounting to one. At the time of harvest, this tool is used interchangeably for each group member, there is no rental fee charged but the tool must always be taken care of by those who use it. This has not yet fully met the requirements of corporate farming because the procurement of several production facilities is done individually.

The collectivity carried out by members of the Seppae farmer group at the stage of the farming or processing subsystem can be seen in the following table.

| Parameter                                | Seppae Farmers Group                                                                 |
|------------------------------------------|--------------------------------------------------------------------------------------|
| Participation in processing technology procurement collectively | Farmers were reluctant to participate because the mindset is still subsistent. The age factor of advanced farmers also impedes farmers to innovate in their business activities. |
| Use of processing technologies collectively | There was no collective use of processing technology. Post-harvest handling is done respectively. |
| Maintenance tools needed collectively     | Nothing because there really wasn’t any form of processing collectivity. As for who is borrowing equipment that is responsible for the maintenance of the equipment after use. |

The collectivity carried out by members of the Seppae farmer group at the stage of the farming or processing subsystem can be seen in the following table.

Table 2. The collective characteristics of farming Seppae farmers in farming or processing subsystems

The characteristics of farm collectivity of Seppae farmer groups based on the requirements of corporate farming at the stage of farming or processing subsystems, namely on the consolidation of agriculture, there is no willingness of farmers to do so. This is based on the farmers of the Seppae farmers’ group who have a subsistence mindset. Farmers still think that farmers are able to do land management individually to be responsible for their own farming. The collectivity made by members of the Seppae farmer group at the marketing subsystem stage can be seen in the following table.
Table 3. Collective farming of Seppae farmers group in marketing subsystem activities

| Parameter                                           | Seppae Farmers Group                                                                 |
|-----------------------------------------------------|--------------------------------------------------------------------------------------|
| Marketing collectivity                              | There was no collective marketing effort through an institution or the like because there was no understanding or awareness and mindset that is still subsistent. However, members of the Seppae farmer group who had joined the seed breeding farms do marketing by collecting their products into one and sell them directly to the seed breeding farm group. |
| Own direct access to consumers and market price information | Information about market prices was only known to farmers informally through information exchange between farmers or information from local extension agents. |
| Safekeeping of harvests to managers who are trusted / credible | There was no safekeeping of harvests to an institution manager and the like. The crop is directly sold to the seed breeding group or sold directly to middlemen or collectors. |

The characteristics of farm collectivity of Seppae farmer groups based on the requirements of corporate farming at the marketing subsystem stage can be said to be semi-corporation, regarding farm consolidation even though not all members of the Seppae farmer group sell their rice collectively. Still, there was a willingness of farmers to do so. Farmers who sell their produce in the form of harvested unhusked rice to the seed breeding farmer group already think that this can be beneficial for farmers. So that farmers are willing to sell grain directly in commercial special care. For farmers who also still sell their harvests to middlemen or collectors, the chain is inefficient. The collectivity of the members of the Seppae farmer group at the supporting subsystem stage can be seen in the following table.

Table 4. Collective farming of Seppae farmer groups in supporting subsystems

| Parameter                                    | Seppae Farmers Group                                                                 |
|----------------------------------------------|--------------------------------------------------------------------------------------|
| Supporting collectivity                      | There was no form of savings and loan voluntary and collective. Savings and investments carried out individually. |
| Participation in the voluntary savings and loan program | The financial problems of the farmer group were left directly to the management of the farmer group. Because members of the farmer group did not want to be complicated about it. Savings and loan type containers exist but only for consumptive needs, not to advance agriculture. |
| Willingness to leave the money to the manager to be played back | Members of the farmer group did not save or borrow or had joint savings. However, done individually. |

The characteristics of farm collectivity of Seppae farmer groups are based on the requirements of corporate farming at the subsystem supporting stages of farmers running their farming business individually, from the fulfilment of capital, the production process, to marketing. In the process of production and capital fulfilment, the individuality of farmers causes an increase in agricultural performance unevenly.
3.3. Supporting factors for implementing corporate farming systems

Corporate farming combines social engineering, economics, technology, and added value. Social engineering is carried out by knowing empirically and case studies of the conditions of rural agriculture. Economic engineering is carried out by developing capital access for production input and market access. Engineering technology can be done with the achievement of technology commonly used by farmers. Finally, value-added engineering is carried out through developing off-farm businesses from primary products to secondary products. All three of these engineering must be coordinated vertically and horizontally so that it will involve many parties that are accommodated in one partnership. The parties involved in corporate farming are farmers; rice farmers will act as members as well as managers.

Seppae farmer groups had been formed into farmer groups. However, the management is still individual. Farmers actively manage on-farm planning as a primary product but have not yet thought of off-farm as a secondary product with assets such as land and technology used. Farmers also need a variety of other roles in the readiness of implementing collective farming in implementing corporate farming. The role of the private sector or agricultural alumni, for example in this case for rice farming, can function here as an investor or investor because investors have an interest in corporate farming because its management does produce not only primary products but also secondary products that have added value. The private sector or agricultural alumni will also provide various agricultural production facilities such as seeds, fertilizers, and medicines for farming. In addition, the private sector or agricultural alumni are also responsible for accommodating rice production (secondary agricultural product support bodies) and marketing partners. While the government acts as a facilitator as well as a catalyst in planning activities, preparing business strategies, introducing efficient, site-specific applied technology, procuring capital, production input and facilitators in the results marketing process. Thus, if all parties are already involved in a partnership, corporate farming can be applied to rice farming, because thus there is a market guarantee, the availability of off-farm alternatives, the availability of capital, and the existence of institutions (government, private sector, students) who are willing to act as facilitators as well as a catalyst.

3.4. Constraints on readiness of Seppae farmers group becomes collective farming group in implementing corporate farming systems

Farmers, if they are individually engaged, continue to be on the weak side because individual farmers will manage small scale and scattered farms and low capital ownership. But to unite this small-scale business in a solid organization (corporate farming) is not an easy job. For the implementation of corporate farming, the main obstacle is individual farmers who are not willing to join a collective farming group in implementing the corporate farming system. The reasons for each farmer are different as in the following table:

Table 5. Reasons farmers are not ready to join collective farming groups in implementing corporate farming systems

| No. | Farmer's Reason                                                                 | Number of Farmer | Percentage (%) |
|-----|---------------------------------------------------------------------------------|------------------|----------------|
| 1.  | Rice fields cultivated by farmers are rice fields owned by others.              | 5                | 20             |
| 2.  | Farmers do not entrust entirely to the land group that owns.                    | 8                | 32             |
| 3.  | The mindset of farmers who are still subsistence and age of farmers who are elderly makes farmers not easily understand the new system. The use of land that only focuses on family interests. | 7                | 28             |
| 4.  | Differences in perception and ego between farmers                              | 5                | 20             |
|     | Total                                                                           | 25               | 100            |
Based on table 5, it is known that there are several obstacles that cause farmers not ready to join a collective farming group in implementing the corporate farming system, namely the reason that farmers are only farmers who are not authorized to make the decision. This is based on the status of ownership of paddy fields that are not owned by smallholders. Furthermore, not all farmers want to entrust the management of their farming to groups and farmers do not understand the understanding of corporate farming and therefore the need for the socialization of corporate farming to rice farmers, there is no difference in the same perceptions among members and incorporate farming coaching must be held to unite the perceptions between farmers, the unavailability of initial funding support must be in cooperation or partnership with the government and the private sector, and farmers do not have the desire and courage strong enough to try to implement the results of counselling. This is due to the unpreparedness of farmers to bear the risk of the effects of the application.

On the one hand, almost all stages of the subsystems require participation and trust in each activity collectively, from the procurement of capital to savings and loans together. When these things have clashed with a program that requires farmers to invest in starting consolidation, then automatically consolidating with corporations also becomes difficult to realize. Seppae's farmer group's collectivity towards readiness to become a collective farming group and readiness in implementing the corporate farming system can be seen in the following table.

**Table 6.** The collectivity of the Seppae Farmers group to readiness to become a group of collective farming and readiness in implementing the corporate farming system

| No | Proposition                              | Readiness to become a Farming Group | Readiness to become Corporate Farming | Conclusion                                                                 |
|----|------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------------------------------------------------|
| 1  | Land Consolidation                        | there is consolidation              | there is consolidation               | The land consolidation process was carried out collectively because the distance between the paddy fields between farmer group members is overlaying. |
| 2  | Land management and water irrigation      | there is consolidation              | there is consolidation               | The existence of activities carried out collectively in cleaning irrigation channels and cleaning around the land |
| 3  | Labor management                         | Individual                          | Individual                           | There was no form of collective processing. Farmers do their land individually. |
| 4  | There is no form of collective processing. Farmers do their land individually. | Semi-Consolidation                 | Semi-Consolidation                   | There was no form of collective processing. However, there was information and agreement on useful planting methods and social technologies that have been learned by each farmer group member in counseling activities or based on experience |
| 5  | Management of agricultural production facilities and agricultural | Individual                          | Individual                           | There was no form of collective processing. Farmers provide production facilities and agricultural machinery individually. |
There was no form of collective savings. Farmers prepare capital individually while the group funds from government assistance were usually held directly by the head of the farmer group because members apart from entrusting the head of the farmer group are also reluctant to hold things financially.

Harvest management was carried out individually by farmers on their land.

There was no collective marketing effort through an institution or the like because there is no understanding or awareness and mindset that was still subsistent. However, members of the Seppae farmer group who had joined the seed breeding farms do marketing by collecting their products into one and sell them directly to the seed breeding farm group.

Based on table 6, the conclusions that can be seen from the collectivity of the Seppae farmer groups on the readiness to become a collective farming group and the readiness in implementing a corporate farming system in their prospects for implementation can effectively empower farmers through farmer groups, if this is done. Achievement of farm efficiency targets can be done through integrated production input activities, simultaneous cropping patterns, technological uniformity, integrated post-harvest, and organized marketing. The private rights of each farmer over land ownership are not disturbed without land consolidation.

Corporate farming has directly empowered existing farmer institutions, namely farmer groups, to develop the quality of human resources through counselling about the importance of partnerships, agreements, and togetherness. In addition, cooperation that is vertically and horizontally integrated has been able to reduce top-down and centralized ways of coordination. Top-down and centralistic patterns are still reflected in the corporate farming model. Farmers will be actively involved in every activity and have a high sense of belonging to the success of the group's business because the organization is of their own origin, managed by themselves, and the benefits will be taken for themselves. The ultimate goal, marketing chains become shorter and more efficient, so farmers can get the right price and increase their income and develop the quality of the farmer's HR. Corporate farming is considered to be a middle way to meet the procurement of the agricultural sector in Indonesia, which is faltering. Business efficiency, quality standardization, and the effectiveness and efficiency of resource utilization management are expected to be achieved when the corporate farming system is implemented.

Therefore, in applying the results of counselling, farmers must still be guided and given a demonstration plot by PPL or group leader. With corporate farming, it is expected to reduce farmers' unwillingness and lack of courage in applying the results of counselling. Therefore, the need for the role of government, private and tertiary institutions for coaching, funding, training, and monitoring for the successful implementation of corporate farming.
4. Conclusion

The ability and readiness of members of the Seppae farmer group to become a member of the group farming group can be facilitated not yet ready because this is the farmer group that compiles not using a safety system. Since the formation of the Seppae farmer group, farmers who are members of the group are still doing individual work to date. The farmer group only gets a forum to get government assistance distributed by the group leader. Related, the debates that arise and the individual side is that farmers are not ready to join into farm groups collected based on the attitude of individual farmers. The reasons include paddy fields cultivated by others' paddy farmers, farmers do not entrust completely to the groups of land owned, perceptions and egos among farmers, which actually is related to the mindset of farmers who are still subsistence and the age of farmers who have increased making farmers are not easy to understand with the new system, which prioritizes the use of land that only meets the interests of the family.

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