



## **Increasing Food Security through Strengthening Farmer Groups**

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### **Abstract**

*The research is based on the low household food security in Banyumas regency. One way to improve it is by empowering farmer groups. The growing group of farmers is "Minasari". focuses on the analysis of farmer group strengthening aspects. Strengths: have fish seeding certificate, access to information, training on fish feed, high confidence level. Weaknesses: low education level, unstable members, lack of response to information, marketing difficulties. Opportunities: "Minapolitan" Policy, the existence of KSU "Ngudi Rahayu"; buffer Beji Village. Threats: fishponds are narrow, depending on the weather, no follow-up after training, no bargaining position, and no cooperation with other parties.*

*Keywords: Farmers Group, Entrepreneurship Soul, Internal and External Factors, Cooperation*

### **Abstrak**

Penelitian ini didasarkan pada rendahnya ketahanan pangan rumah tangga di Kabupaten Banyumas. Salah satu cara untuk memperbaikinya adalah dengan memberdayakan kelompok-kelompok petani. Kelompok tani yang berkembang adalah "Minasari". berfokus pada analisis aspek penguatan kelompok tani. Kekuatan: memiliki sertifikat pembibitan ikan, akses ke informasi, pelatihan tentang pakan ikan, tingkat kepercayaan yang tinggi. Kelemahan: tingkat pendidikan rendah, anggota tidak stabil, kurangnya respons terhadap informasi, kesulitan pemasaran. Peluang: Kebijakan "Minapolitan", keberadaan KSU "Ngudi Rahayu"; Desa Beji. Ancaman: kolam ikan sempit, tergantung pada cuaca, tidak ada tindak lanjut setelah pelatihan, tidak ada posisi tawar, dan tidak ada kerja sama dengan pihak lain.

Kata Kunci : Kelompok Tani, Jiwa Kewirausahaan, Faktor Internal dan Eksternal, Kerjasama

## INTRODUCTION

Food security in *Banyumas* Regency based on Barokatuminalloh and Widayaningsih's researches has not shown the expected conditions (2011, 2012a and 2012b), although there are potential for some food commodities to meet the needs of the community (Barokatuminalloh and Widayaningsih, 2012c and 2013). One of the weaknesses of *Banyumas* Regency is the still high level of poverty, not only non-farmers but also farmers so that it will hamper access to food (Widayaningsih and Barokatuminalloh, 2016). The main causes of food insecurity are poverty (Kuwornu et al, 2013, Barokatuminalloh and Neni Widayaningsih, 2011, 2012a and 2012b). One way to improve food security is to improve the welfare of farmers through empowerment of farmer groups.

Farmer groups according to the Ministry of Agriculture are a collection of peasants formed on the basis of similar interests, the similarity in environmental conditions and familiarity to improve and develop the members' business. The aim of the farmer group is to improve the bargaining position both in the input and output (product) markets, this is in line with research (Olila, 2014, Sebatta et al, 2014, Choudhary et al, 2014 and Chesoli, 2013).

The condition of many farmer groups that have not provided optimal contribution to members (Barokatuminalloh, et al, 2013) according to Hermanto and Swatika (2011) the characteristics of farmer groups is the lack of member participation (Mwaura, 2014, Sandyatma and Hariadi, 2012), this is caused by several factors including the low role of group administrators, group

members are not clear and the organizational structure is not functioning. Therefore, there needs to be a strengthening of farmer groups as an initial step to improve welfare (Olila, Choudhary et al., Ragasa et al. 2014, Chesoli, Supriono et al., 2013, Lenis Saweda Liverpool-Tasie, 2012, Hermanto and Swatika, 2011, Catholic Relief Services and The Rural Innovation Institute, B Manneh et al 2007).

One way to improve food security is to improve the welfare of farmers through empowerment of farmer groups. The aim of the farmer group is to improve the bargaining position both in the input and output (product) markets, therefore it is necessary to strengthen the farmer group. Besides that, it is also necessary to increase the entrepreneurial spirit of farmers so that they can manage their agriculture more commercially (Chesoli, 2013, Mappigau and Jusni, 2012, Roothaert and Muhanji, 2009, Dalton, 2006)

One of the important factors of the entrepreneurial spirit of farmers is that they can cooperate with other parties, because of the many benefits that can be gained by the collaboration both backward (related to input or *saprotan*), and forward (related to output and post-harvest as well as marketing aspects).

Purwosari Village, Baturraden Subdistrict, is one of the villages that is a center for fish hatcheries in *Banyumas* Regency. Fish is a commodity of animal protein sources that can support food security in households. Thus the role of fish hatchery production is important because of the success or failure of fish enlargement efforts depending on quality fish seeds.

Fish farmers in Purwosari Village, Baturraden Subdistrict, Banyumas Regency, are members of a fish farmer group called "*Minasari*" which is approximately 100 people. During the process, many members of the farmer group came out due to technical reasons, which in the end were divided into three: *Minasari*, *Minasari 2*, and *Minasari 3* fish farmer groups, each with 15 members, but at the time only the "*Minasari*" farmer group is active. The problem is why the farmer group is not strong because the management of productive activities of group members is still individual and member participation is still low. Besides that, the formation of farmer groups was initiated because of the reasons for ease of coordination when there was a program from the government, not oriented towards independence. As a result of these conditions, the level of entrepreneurship of farmers becomes low, making it difficult to cooperate with other parties.

Seeing these conditions, it is necessary to strengthen the strategy of farmer groups, increase the entrepreneurial spirit of members of farmer groups and strategies to collaborate with other businesses or other institutions, so that the goal of improving the welfare of farmers to reduce poverty and support food security in households can be achieved.

This research focuses on the analysis of the internal and external aspects of the farmer groups and the analysis of internal and external aspects of the entrepreneurial spirit of the members of the farmer groups, as well as the analysis of possible institutions for collaboration with farmer groups.

## LITERATURE REVIEW

In general, the condition of farmers in Banyumas Regency is small farmers with problems such as low productivity, (Sebatta et al, 2014, Bachke, 2010) lack of access to capital and credit (Kuwornu et al, 2013, African Smallholder Farmer Group, 2010), limited access both input and output markets (Sebatta et al., 2014., Chesoli, 2013, Nham, 2012), Price fluctuations (Nham, 2012).

In addition to strengthening farmer groups, from the farmer side it is necessary to improve human resources (Ragasa et al, 2014, Mappigau and Jusni, 2012, Hermanto and Swastika, 2011, Budiyanto, 2010, African Smallholder Farmer Group, 2010, and Bachke 2010), in this case is to increase the entrepreneurial spirit of farmers so that they can manage their agriculture more commercially (Chesoli, 2013, Mappigau and Jusni, 2012, Roothaert and Muhanji, 2009, Dalton, 2006)

Limited market access is often an obstacle for farmers, while many entrepreneurs find it difficult to get agricultural products as high-quality raw materials (Lees and Nuthall, 2015). One way to overcome the problems in marketing both the input and output markets is through collaboration between farmers and entrepreneurs or other businesses and other institutions. Through cooperation, farmers will get a guarantee of a market for products and a guarantee of production factors, as well as from the entrepreneur's side will increase market guarantees and continuity of raw materials, the most important impact is increasing the welfare level of farmers

(Nham, 2012, Roothaert and Muhanji, 2009, Dalton, 2006)

Based on the conditions of food security and the problems that surround it in the farmer groups in Banyumas District, a strategy is needed to strengthen the farmer groups and their members to increase the level of welfare.

One of the weaknesses of *Banyumas* Regency is the still high level of poverty, not only non-farmers but also farmers so that it will hamper access to food (Widayaningsih and Barokatuminalloh, 2016). The main causes of food insecurity are poverty (Kuwornu et al, 2013). This condition is still coupled with the low level of food security at the household level in *Banyumas* District (Barokatuminalloh and Widayaningsih 2011, 2012a and 2012b).

## **METHOD**

This research is a multi-disciplinary discipline between agricultural economics, development planning, and strategy management. Some of the analytical tools used in this study are as follows:

Focus Group Discussion (FGD) analysis, FGD is a qualitative research method, is a focused discussion of the group to discuss certain issues in an informal and relaxed atmosphere. Usually consisting of 10-12 participants, carried out guided by a moderator, in the discussion process the moderator has prepared a guide on all issues to be discussed so that the discussion will be more focused. The moderator guide has a function similar to the questionnaire (Eliot & Associates, 2005)

Tabulation Analysis, to find out the characteristics of farmer groups and

entrepreneurial spirit members of the farmer group used tabulation method. The tabulation method is a very simple method but has a high level of ability to explain. This method only compares one category to another.

Internal and external analysis (IE). Internal Analysis (IE) is to find out the strengths, weaknesses, opportunities and threats/constraints faced by farmer groups to further strengthen these institutions so that members get optimal benefits. This analysis technique uses the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) methods.

The steps of this method are 1). Write down the factors that are the strengths and weaknesses of farmer groups and entrepreneurial souls of members of farmer groups, 2). Write down the factors that become opportunities and threats faced by farmer groups and entrepreneurial souls of farmer group members (Fred, 1995).

## **RESULTS AND DISCUSSION**

Respondent's education level is relatively low, the majority of respondents only have an elementary education, which is 40 percent, even there is 20 percent who do not complete their basic education. Next is that the respondent's age 70 percent are in productive age, this will be very beneficial because at that age physically still strong to do activities. Furthermore, not all members of the fish farmer group have the main livelihood as fish farmers, there is 60 percent who make fish farming as the main livelihood, while the other 40 percent make it a side business. Then the average area of land used for fish farming by farmers is 1,395.9

m<sup>2</sup>, not all of the land is owned by farmers, 50 percent of which are rented. minimum land area of 96 m<sup>2</sup> and a maximum of 3,500 m<sup>2</sup>

Benefits that are concretely accepted by members include increased production; make it easier to get counseling; technological improvement; facilitate access to cooperation; make it easier to get input; make it easier to get financial support; facilitate marketing access; facilitate information exchange; and environmental conservation. The benefits that are concretely accepted by members will increase member participation, this is in line with Goldsmith and Blustain's research (Ndraha, 1990) in Sandiyatma and Hariadi, 2012.

The existence of these benefits will increase the level of welfare of farmers, this is in line with research by Choudhary et al, 2014 that the ability of small-scale farmers to increase income dependent and the environment that provides technical assistance, as well as AFG African Smallholder Farmer Group research, 2010 in addition to access to knowledge and technology, which will reduce poverty is an increase in access to capital.

This shows that the "*Minasari*" farmer group has a role in agricultural development such as the provision of farm inputs, capital provision, irrigation water supply, information provision, and collective marketing. This condition is in line with Dalton's research, 2006; Moch. Budiyanto, 2010; Hermanto and Swatika, 2011.

The success of small-scale agriculture is strongly influenced by the quality of entrepreneurship owned by farmers. The thing that determines

entrepreneurial quality is the ability to deal with risk, self-confidence (Hisrich and Peters, 1995 in Mappigou and Jusni, 2012), results-oriented ((Kuriloff et al, 1993; Steinhoff and Burger, 1993) in Mappigou and Jusni, 2012, collaborating with other parties (Scarborough and Zimmerer, 1991) in Mappigou and Jusni, 2012, innovation and creativity (always looking for new products, new production methods and always responsive to technological, market and business changes, in Mappigou and Jusni, 2012.

To see the entrepreneurial spirit of farmers, this study uses five indicators, namely: self-confidence, having initiative, having a motive for achievement, having a leadership spirit and taking risks. Of the 5 indicators, each has an explanatory indicator. Each indicator is calculated using a Likert scale, with each value being 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Five indicators to see the entrepreneurial mental condition of the members of the farmer group showed that the average score was less than 4 or more precisely 3.87, this condition showed that the entrepreneurial spirit of the group members was still not as they should be. This is mainly due to the low scores on the two explanatory indicators, namely the leadership spirit and risk-taking. These two things need to be improved to further improve fish hatchery. The spirit of leadership is needed to be more courageous in taking responsibility and giving roles to the group. Courage to take risks is also needed to further develop the business because the fish hatchery business has a high risk, both related to cultivation and marketing. Increasing the entrepreneurial spirit of farmers is

needed to manage their agriculture more commercially (Chesoli, 2013, Mappigau and Jusni, 2012, Roothaert and Muhanji, 2009, Dalton, 2006).

Strengthening farmer groups is needed as a first step to improve welfare (Dennis Opiyo Ollila, Dyutiman Choudhary et al, Catherine Ragasa et al. 2014, Cleophas W. Chesoli., Agus Supriono, 2013., Lenis Saweda Liverpool-Tasie, 2012, Hermanto and Dewa KS Swatika, 2011, Catholic Relief Services and The Rural Innovation Institute, B Manneh et al 2007). One way to strengthen farmer groups is to analyze internal and internal factors.

The strength of the group and entrepreneurial spirit of the members of the farmer groups are as follows: The "*Minasari*" fish farmer group has a certificate of fish hatchery which is good from the Ministry of Maritime Affairs and Fisheries Directorate General of Aquaculture; there are group members who work as village officials so that access to information can be easier; fish farmer groups as partners of the *Purwosari* Village government in the economic field; get training and application about cultivating silkworms to feed fish; an increase in welfare; have a high level of confidence in running; have a sense of initiative to develop their business; has the desire to go ahead and excel in developing its business.

The disadvantages are: The education level of members is relatively low; there are still members who come in and out of the group making it difficult for "Team Work"; some group members lack response to the latest information; face difficulties in marketing fish seed production; limited business capital,

especially for qualified new breeders; not all members have a leadership spirit; and group members are less willing to take risks in running their business.

Opportunities faced are: The existence of a "*Minapolitan*" Policy in *Banyumas* Regency; the existence of KSU "*Ngudi Rahayu*" which is a legal entity in the village of *Purwosari*; *Purwosari* village is a buffer for *Beji* village and surrounding villages; a lot of counseling and training by *Disnakan Banyumas* Regency and several Universities.

The threat faced is: Land for fish ponds that are narrowing; fish hatchery is very dependent on weather/climate; there is mostly no follow-up after training; the existence of middlemen in marketing fish seeds results in fish farmers not getting a good bargaining position; and there is no collaboration with other parties that support the sustainability of fish farming.

One way to overcome the problems in marketing both the input and output markets is through collaboration between farmers and entrepreneurs or other businesses and other institutions. Through collaboration, farmers will get a guarantee of a market for products and a guarantee of production factors, as well as from the entrepreneur's side will increase market guarantees and continuity of raw materials, the most important impact is to increase the level of farmers' welfare (Nham Phong Tuan, 2012, Ralph Roothaert and Gilbert Muhanji, 2009, William J. Dalton, 2006).

The collaboration that has been carried out by the "*Minasari*" fish farmer group so far has been more to objects not yet as partners who need each other. The forms of cooperation include farmer

groups receiving counseling and training from the *Banyumas* Fisheries Office, training and implementation of silkworm cultivation for fish feed from the Jakarta Fisheries College in mid-2017, getting free medical assistance from the Fisheries Department, getting capital assistance for broodstock from research grants and community service *Unsoed*. Other parties or institutions identified can work with farmer groups including some people or independent farmers who have capital and good relations with consumers outside the *Banyumas* district. Then there are institutions such as KSU "*Ngudi Rahayu*" located in the district. *Baturaden*. Currently the cooperative is making improvements both management and physical. According to the new management, in principle, it is willing to cooperate with fish farmer groups but after the improvement is complete so that everything can be done according to the procedures and rules of the right cooperation, moreover the history of the cooperative also consists of fish farmers. Thus, in the future, cooperation which is expected to be mutually beneficial for both parties and the village community also receives its benefits, which in turn will strengthen farmer groups and increase the entrepreneurial spirit of farmers.

### CONCLUSION

From the results of research that has been carried out, the conclusion that can be taken are: That it is necessary to continue to improve the mindset of fish farmers, especially those who enter and become group members. This mindset includes changing one's own profit-seeking into mutual benefits. Changes in mindset will have a positive impact on

strengthening farmer groups if the farmer group strengthens the entrepreneurial spirit of farmers, especially the leadership spirit and the courage to take risks will also strengthen so that the farm business increases. With more and more group members and having the same perception or vision, in turn, there will be an increase in the welfare of farmers and increased food security in the farmer's household in particular.

Cooperation is needed with other parties or institutions that are not limited to just subjects and objects, but both as partners who have the same vision both cooperation related to *saprotan* and post-harvest and marketing. Such cooperation is needed to support the strengthening of farmer groups and improve the entrepreneurial spirit which in turn is the welfare of farmers in particular and the community of the area, in general, will increase. Collaboration can be done with individuals or independent farmers who have the capital or official institutions (cooperatives or private institutions). In the district *Baturaden* there are all-around cooperatives such as (KSU "*Ngudi Rahayu*") which in principle are willing to cooperate with farmer groups after the reorganization in the form of physical improvement and management is complete.

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