The Factors that Affect Collective Action of Farmer’s Organizations in Rural Area

S A Aulia¹, T F Sofhani²
¹Urban and Regional Planning Program, Universitas Komputer Indonesia, Indonesia
²Research Group of Regional and Rural Planning, School of Architecture, Planning and Policy Development, Institute of Technology Bandung, Indonesia

Email: selfa@email.unikom.ac.id*, tbfurqon@pl.itb.ac.id

Abstract. This study aims to uncover the factors that influence the emergence and sustainability of collective action of FOs. Furthermore, this study analyzes the effect of collective action on the increasing economies of scale and efficiency of FOs’ members. The content analysis method was applied in this research. The case study involved Farmers’ Organizations located in Kalangsuria Village, Rengasdengklok Sub-district, Karawang Regency. Much research has been conducted on Gabungan Kelompok Tani (Gapoktan) or Farmers’ Organizations (FOs) as farmers’ institutions that perform collective action in the agribusiness from the input process to the processing process. However, previous research has not much explored the factors influencing the emergence of agribusiness collective action in FOs. The limitation of previous research leads to the failure to understand the emerging issues of processes and mechanisms of collective action within FOs. Agribusiness activities carried out collectively by Gapoktan Sri Mulya are related to the social bonding and social bridging to a willingness to do agribusiness activities collectively. However, collective action in agribusiness production is not optimal, particularly in anticipating climate change. It was because the factors of human capital, such as education and knowledge of farmers in developing rice farming can also affect the efficiency of farming.

1. Introduction
In the era of globalization, agriculture still plays an important role. This is because the agricultural sector is still considered able to deal with various unstable national economic conditions, especially in meeting the need for food. Food needs are one of the global issues that almost all countries face. By 2050, 9 million people are projected to live on earth. This indicates a need for a 70 percent increase in food production in the next 40 years [1].

As a leading sector in several regions, agriculture is required to perform optimally because the sector is the mainstay for all farmers as business actors. Based on data from the Central Statistics Agency in 2013, agriculture is still the dominant sector in Indonesia with a labor force of 38.07 million or up to 34.6 percent of total employment in Indonesia.

However, many actors in this sector live below the poverty line. Indonesian farmers still experience issues of low income that leads to low capital creation, an inefficient business scale, and low productivity. This, of course, will affect their welfare. The problems that farmers face cannot be detached from the changing global agricultural economy, marked by a decline in commodity prices and constraints for farmers in accessing markets. This also takes place in Central American countries, such as Mexico, Honduras, El Salvador, and Costa Rica [2]. Farmers in African countries, such as Kenya and in South-East Asia, such as Cambodia also face problems in agriculture, leading to poverty [3].
Increasing farmers’ income is a key factor in increasing their welfare [4]. One way to do this is to increase their access to an efficient market of inputs and outputs, which can be achieved through the development of agribusiness by utilizing the existing farmers’ institutions in rural areas.

This is in line with Bikkina (2017), who stated that the organization of small farmers and Farmer Producers’ Organizations is expected to increase revenue and reduce input costs/transactions. This creates an opportunity for value-added, including in the processing, distribution, and marketing, creating a bargaining position and improving access to formal credit.

Farmers’ institutions are a subsystem of the support institutions that ensure the whole agribusiness system functions properly [5,6]. Each agribusiness subsystem contains various types of farmers’ institutions. One of them is the Small Farmer Group Association’s (SFGA) or better known as Farmers’ Organizations (FOs) in Central America and Africa. Meanwhile, in Cambodia and Indonesia, these institutions are known as Farmers’ Associations (FAS) or Gabungan Kelompoktani (Gapoktan). Farmers’ and Rural Producers’ Organizations (FOs) refers to the independent rural organization of membership-based rural communities, such as families of farmers, fishermen, land workers, women, and small entrepreneurs in rural areas [7].

FOs have several functions, such as marketing services, facilitation of collective production activities, financial services, technology services, training services, health services, policy advocacy, and resource management, such as for water [2]. This is related to the function of the FO. Based on Regulation of the Minister of Agriculture no. 82/2013 on Guidelines on Guiding Kelompoktani and Joint Kelompoktani, farmers’ organizations have at least five agribusiness functions, i.e., as business units that provide facilities and production infrastructure; as farming or production units, which includes the function of providing information technology; as processing units; as marketing units; and as microfinance or savings and loans business units.

Therefore, farmers’ organizations are one of the farmers’ institutions that are key to strengthening farmers’ institutions in rural areas. This is because they are inter-group associations that accommodate groups of farmers in rural areas to work towards collective action in every agribusiness activity. In addition, they are multipurpose organizations, i.e., organizations of farmers in rural areas that can operate the whole agribusiness system from input to processing. In addition, they are expected to increase the economies of scale and operational efficiency of its members and the rural community.

However, today FOs in countries in Central America, Africa and Southeast Asia, including Indonesia, still face major problems. One is the suboptimal role and function of FOs, as can be seen from a lack of participation in the organization, weak leadership, lack of management skills, and a lack of proficiency in financial resource management [8].

Several studies on FOs focused on the role, functions, and strengthening of FOs as farmers’ institutions in rural areas. Few of these have discussed the factors that affect collective agribusiness action by FOs, such as Jacobson (2012), who linked the emergence of collective agribusiness action to factors of social and human capital [3]. In addition, Pisey (2014) linked this to collaboration and the sharing of power, which relates to the factor of collaborative leadership [9].

However, these studies lack understanding how collaborative leadership and social capital covering social bonding, social bridging, and social linking influence the emergence of collective agribusiness action by farmers’ organizations in rural areas.

By considering the limitation of previous studies above, the objective of this paper is to explain how the collective action in the farmer’s organization. The research objectives are to (1) identify the collective agribusiness output by farmers’ organizations; (2) identify the outcomes of the collective action in the agribusiness by farmers’ organizations, and to (3) identify the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations.

2. Methods
The study location is Kalangsuria Village, Rengasdengklok Sub-district, Karawang Regency (Figure 1). The study area is selected based on several considerations. First, Rengasdengklok Sub-district has high agricultural productivity compared to other sub-districts in Karawang, of 20.39 ton/ha [10]. The Karawang Regency Regional Spatial Plan 2011-2031 decides Rengasdengklok Sub-district as a center
for the collection and distribution of agricultural products, especially for wetland farming such as rice fields. Therefore, the development of agriculture, especially wetlands such as rice fields, in Rengasdengklok Sub-district is important to consider so that it can continually meet the food needs of the people of Karawang and its surrounding areas, such as Bekasi and Jakarta. Kalangsuria is one of the villages in Rengasdengklok Sub-district that have rice farming as the leading sector. It is the main contributor (third-ranked in 2013) in the rice farming sector in Rengasdengklok Sub-district. Moreover, there already is a farmers’ organization in Kalangsuria Village, namely Gapoktan Sri Mulya [11].

![Study location](image)

**Figure 1. Study location**

This study uses a qualitative analysis method. A descriptive method is used based on field information collected. In this research, qualitative methods are used to provide a complete picture of the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations in rural areas by collecting as much information as possible. The qualitative data analysis in this study consists of data reduction, data display, and conclusion drawing or verification. Data reduction uses open coding based on testing by the researcher and research questions. Several things need to be identified to determine the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations in rural areas, i.e., (i) the collective action in the agribusiness by farmers’ organizations as output, (ii) the extent of the collective action in the agribusiness by farmers’ organizations as outcome; and, (iii) the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations. The research concept can be illustrated as in Figure 2.
Snowball sampling is applied. The criteria for selecting informants in this study are that they are directly involved or are considered knowledgeable on collective action in the agribusiness by farmers’ organizations in the study area. They include the chairman and the board of farmers’ organizations, the chairman and the board of farmer groups, community leaders, community groups of farmers who are members of farmers’ organizations, non-farmer community members, and the Kalangsuria Village government.

The data collected in this study consists of primary and secondary data. The primary data is obtained by gathering information from informants and direct observations in the field [12]. The collection of information is conducted by semi-structured interviews on collective agribusiness activities by farmers’ organizations as output, the results of these actions as outcomes, and the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations.

The observations monitored the agribusiness activities of farmers’ organizations. In addition, the interaction process among members of farmers’ organizations was observed, consisting of the board of farmers’ organizations, the village government, community leaders, and farmer groups that are members of farmers’ organizations, and non-farmer community members. Observations were also done to observe the outcome of collective agribusiness action and the factors that influence the emergence of collective action in the agribusiness by farmers’ organizations.

The secondary data used in this study consists of studies related to collective action in the agribusiness by SFGA/FOs/FA in Kenya and Cambodia and on factors that affect collective action in the agribusiness such as social capital and collaborative leadership. In addition, literature was used on the outcomes of collective action in the agribusiness that has been done, i.e., increasing the economies of scale or the welfare of farmers and the efficiency of farmer groups, which is also one of the reasons for establishing farmers’ organizations.

Other secondary data that supports the primary data in this study are the Long-term Regional Development Plan and the Medium-term Regional Development Plan of Karawang, Regency and the Karawang Regency Regional Spatial Plan 2011-2013 from Development Planning Agency at Sub-National Level (BAPPEDA) of Karawang. Then, the data from Fisheries and Forestry Counseling Office (BP4K) are a number of farmers’ organizations and farmer groups in Karawang Regency from the Agriculture. The data from the Agriculture, Fisheries, and Forestry Information Center (BP3K) are data on the number of farmers’ organizations and farmer groups in every village in Rengasdengklok Sub-district. The data from Kalangsuria Village Government is socio-economic data of Kalangsuria Village. Finally, the data from Gapoktan Sari Mulya are a list and the number of members of farmer groups united in Gapoktan Sri Mulya of Kalangsuria Village that join the savings and loans activities in the agribusiness for the purchase of production inputs originating from the Agricultural Agribusiness Development Program (PUAP). Then, the register data of the female farmer’s groups in the farmers’ organization in Kalangsuria Village who joined the activity in the agribusiness producing subsystem, in the form of rice lending from the Community Food Distribution Agency (LDPM).
3. Results and Discussion

3.1. Collective Action in the Agribusiness by Farmers’ Organizations

The collective action relates to the action taken by a group (either directly or through an organization) in pursuit of the common interests of its members, where the result depends on the interdependence between members of the group. Collective action in the agribusiness by farmers’ organizations relates to collective action in each agribusiness subsystem; the input subsystem, the production/business units subsystem, and the processing subsystem [13, 14, 15].

In evoking collective action in the agribusiness, farmers’ organizations and its members follow formal and informal agribusiness rules. Therefore, in identifying the various types of collective action in each agribusiness subsystem this study first identifies the regulations related to agribusiness activities.

Collective action in the agribusiness input subsystem relates to activities such as the manufacturing, procurement, and distribution of various agricultural inputs, such as seeds, fertilizers, medicines, tools and agricultural machinery, fuel and credit [15]. Collective action in the agribusiness processing subsystem by Gapoktan Sri Mulya, Kalangsuri Village consists of saving and loans activities; the joint purchase of production seeds by Gapoktan members; the combined use of Ciherang and Mekongga seed varieties; the purchase of subsidized and non-subsidized fertilizers and agricultural medicines; and joint supervision in the distribution of subsidized fertilizer by utilizing members who work as production inputs entrepreneurs.

The collective action in the agribusiness input subsystem is only carried out by two farmer groups united in farmers’ organizations, namely Kelompoktani Sari Marga and Kelompoktani Sri Rahayu. Meanwhile, other farmers groups such as Kelompoktani Sri Warna are not involved in collective action in the agribusiness. Collective actions in the supervision of fertilizers are only carried out by the farmers’ organizations’ board and involved parties, such as production inputs businesses and members of the military.

Not all collective action in the agribusiness input subsystem has operational rules. The only collective action in the agribusiness input subsystem that has operational rules is for savings and loans. These regulations are found in the articles of association of the farmers’ organization. However, its implementation is flexible, i.e., if a member has not yet fulfilled his obligation to pay the compulsory loans, savings, and services, it is permissible to ask for a loan relief provided that the member has to make a payment agreement statement open to the members of the farmers’ organization.

Meanwhile, collective action in the purchase of production inputs, such as seeds, fertilizers and agricultural medicines has no operational rules. Neither has the collective action in using ciherang and mekongga seed varieties. However, the farmers’ organization provide information and guidance to use both seed varieties so the price of rice will not fall because the type of rice seeds used is one of the superior varieties that are accepted by the market.

The collective action in agribusiness production or farming covers all forms of production organization, including intensive agriculture and the use of agricultural technology. Collective action in agribusiness production or farming by farmers’ organizations includes the dissemination of information and coordination on the acceleration of simultaneous planting, Rice Farmers Insurance (AUTP), and the Legowo row planting system, which are part of the agricultural program of the Karawang Regency Department of Agriculture.

Almost all farmers in Kalangsuri Village join collective action in the agribusiness related to the dissemination of information and coordination on accelerating simultaneous planting. Meanwhile, the dissemination of information and coordination of Rice Farmers Insurance (AUTP) and the agricultural technologies of the Legowo row planting system were only carried out by two farmer groups belonging to a farmers’ organization, i.e., Kelompoktani Sari Marga in Gambarsari Hamlet and Kelompoktani Sri Rahayu in Bakanbuah Hamlet.

Another farmers group, Kelompoktani Sri Warna in Kobakkarim Hamlet does not join the dissemination of information and coordination of Rice Farmers Insurance (AUTP) because it had previously carried this out individually. This is because the members of Kelompoktani Sri Warna are landowners with more than 1 hectare of rice fields.
The collective action of agribusiness production or farming has no operational rules. Farmers’ organizations act as facilitators that provide information and coordination to undertake collective action in production or farming regarding Rice Farmers Insurance (AUTP) and the Legowo row planting system.

Meanwhile, in the acceleration of simultaneous planting, each planting season meetings are held, and activities are organized to accelerate planting after participative discussion. The actors in this discussion are farmers that participate in these farmer groups, the Karawang Regency Department of Agriculture, stakeholders of water, the army, and Kalangsuria Village Government. The activities begin with the coordination by the board of the farmers’ organizations after communications with field officers and the Karawang Regency Department of Agriculture.

Collective action in the agribusiness processing subsystem consists of collecting, processing, storing, and distributing processed agricultural products to the consumer [15]. Collective action in the agribusiness processing subsystem by farmers’ organizations includes the collective buying and selling of unhusked rice from several members who want to sell it to the farmers’ organization, process it to rice together with milling businesses that are also members of the farmers’ organization and facilitating the collective borrowing of rice, managed by farmer groups of women. The income is then reused as the capital for the purchase of unhusked rice.

Collective action in the agribusiness processing subsystem that has operational rules includes the collective processing of unhusked rice and the borrowing of rice. Meanwhile, the collective action of buying and selling unhusked rice from members has no written rules that require members to sell collectively to the farmers’ organization. However, farmers’ organizations do facilitate members who want to sell their unhusked rice to the farmers’ organization, especially if the quality of the unhusked rice is low and the price would be cheap when selling to middlemen (see Figure 3).

![Figure 3. Collective Action in Agribusiness by Farmers’ Organizations](image)

### 3.2. The Outcome of Collective Action in Agribusiness by Farmers’ Organizations

The previous section discussed the collective action in each agribusiness subsystem by farmers’ organizations. The next section describes the outcomes of this collective action. This study looks at the outcomes from two aspects, i.e., improved economies of scale or the welfare of farmers and the business efficiency of farmer groups united in farmers’ organizations.

In order to measure the economic welfare of farmers, this study uses the following indicators, i.e., household income structure, household expenditure structure, and the development of the Farmer’s Exchange Rate of members of farmers’ organizations [16]. Meanwhile the business efficiency is viewed from efficiency in the purchase of agricultural production facilities and infrastructure, such as seeds, fertilizers, agricultural medicines; the efficiency in the utilization of production inputs such as seed and fertilizer as recommended by the Karawang Regency Department of Agriculture; and the efficiency of processing and marketing of commodities [17, 18].

The collective action in the agribusiness input subsystem in collaboration with farmers’ organizations, such as loans for members of Rp. 500.0000 up to Rp. 3.000.000 only helps farmers with financing. At
first, farmers were dependent on neighbors for borrowing money because of poor access to financial institutions. As for welfare, the collective action by farmers’ organizations has not yet been effective in increasing farmers’ welfare.

Member farmers only gain a benefit of 82.60 percent, which illustrates that farmers are only able to meet their primary and secondary needs without growing savings. One of the reasons is because collective agribusiness is not yet commercially and market-oriented. For example, collective action in the input subsection is not yet optimal. As a result, the bargaining position on the market of farmers united in farmers’ organizations is weak; farmers’ organizations are still unable to buy unhusked rice and process, package and sell the rice of all its members to partner companies.

Ultimately, there is no difference in income structure between members of farmers’ organizations and non-members who do not join collective action in the agribusiness. The only difference is in the ease of accessing capital. The members of farmers’ organizations who actively participate in collective savings and loans can meet production inputs together with other members of the farmers’ organization without borrowing more capital from their neighbors.

Business efficiency is one of the outcomes of collective action in agribusiness by farmers’ organizations that currently is not optimal. Although the members of farmers’ organizations can meet their needs for production inputs and can slightly reduce transport costs by taking collective action of purchasing inputs such as seeds, fertilizers and agricultural medicines, the price of these inputs, particularly fertilizer still differs from the price set by producers such as PT. Pupuk Kujang.

So far, farmers’ organizations have not been able to cooperate with PT. Pupuk Kujang to supply fertilizer in the region of Kalangsuria Village due to limited capital. Thus, the use of production inputs such as seeds, urea fertilizer, and NPK fertilizer is inefficient because it is not yet in accordance with the advice of the Karawang Regency Department of Agriculture. In addition, members of Gapoktan Sri Mulya are also still inefficient in processing and marketing of unhusked rice commodities.

3.3. Factors Influencing Collective Action in Agribusiness by Farmers’ Organizations

This study looks at two factors that influence collective action in agribusiness by farmers’ groups, namely social capital, and collaborative leadership. Social capital is a resource that emerges from togetherness, relationships and social obligations that can tie individuals resulting in collective action to reach a common goal [19, 4]. Social capital is supported by trust, networks, and social norms that act as a common reference among individuals to result eventually in mutually beneficial cooperation [19, 3].

This definition focuses on internal relationships in a collective whole. Provided a broader definition of social capital, including both internal and external relationships, where, in essence, information, trust, and reciprocal norms are formed based on the existence of social networks [20]. Thus, based on the two definitions of social capital, it can be concluded that social capital is linked with the concept of social relations. Therefore, according to Woolcock (2001), social capital is a multidimensional concept that explained bonding, bridging, and linking. This means that social capital can be found at the micro-level as a horizontal individual network of households, at the meso level comprising horizontal networks and the vertical macro level [20].

According to the literature on collective action in agribusiness by SFGAs or Gapoktan, social capital influencing collective action focuses on networks both within and outside the farmers’ organizations. This is because they represent a forum for cooperation between groups of farmers within a region and facilitate these groups in their relations with outside parties that aim to improve their competitiveness. Therefore, the internal and external networks within farmers’ organizations, establish elements of social capital such as trust, social norms, participation, solidarity, and dependence on other parties.

Meanwhile, collaborative leadership is indicated by collaboration, shared power, flexibility, and entrepreneurialism in order to face challenges and problems together [21]. Collaborative leadership is characterized by the division of roles and tasks among members of an organization, in this case, a farmers’ organization. The division of roles and tasks among members of an organization will emerge a collective action. Finally, each member will build a sense of belonging as well as inclusiveness within the organization.

Social bonding - because of kinship and neighborhood - can generate collective action in the agribusiness, especially in the input and processing subsystems [22]. Collective action in the input
subsystem, such as savings and loans, and the collective purchase of production inputs and collective action in the processing subsystem such as buying and selling of unhusked rice and borrowing of rice occurs because of the relationships between relatives and neighbors in one hamlet with other hamlets. Therefore, the presence of these relationships brings out elements such as trust, responsibility, reciprocity, and a sense of belonging to run agribusiness activities together.

Collective action in the agribusiness input subsystem such as the use of the same seed varieties develops because of the trust of farmers in following the directions of the farmers’ organization to plant seeds of both varieties. In addition, they know that both varieties have market demand. Figure 4 below is an illustration of social bonding in the agribusiness in generating collective action by Gapoktan Sri Mulya in Kalangsuria Village.

![Figure 4. Illustration of Social Bonding in Generating Collective Action by Farmers’ Organizations](image)

The factor of social bridging, or the relationships that are formed due to the cooperation and trust with members of farmers’ organizations who not only work as farmers, can generate collective action, especially in the agribusiness input, production, and processing subsystems [22]. Collective action in the agribusiness processing subsystem, such as the processing of unhusked rice and sharing information on the price of unhusked rice is formed because of the trust and strong ties between the board of farmers’ organizations with the rice mill owners who are also members of the farmers’ organization. This strong bond is characterized by the intensity of cooperation through intensive communication.

Activities in the agribusiness input subsystem such as monitoring fertilizer distribution occur because of the bond between the board of farmers’ organizations and the owners of shops selling production inputs, who are also members of the farmers’ organization. The same occurs for agribusiness production activities, such as facilitating the provision of a meeting place for determining the growing season together and the acceleration of simultaneous planting. This occurs because of the bond between the board of the farmers’ organizations and the Kalangsuria Village government apparatus.

The factor of social linking, the relationships that are formed with groups outside the region, such as the Karawang Regency Department of Agriculture, Toko Tani Subur as a provider of means of production, and the military-led to collective action in the agribusiness production subsystem. This collective action encompasses providing information and coordination of activities such as the acceleration of simultaneous planting, Rice Farmer Insurance (AUTP) and the legowo row planting system. The elements that make up social linking are characterized by the dependence on groups that have a higher capacity, i.e., the Karawang Regency Department of Agriculture.

In addition, social linking is also characterized by a wide range of interests, including the interest of both the central and regional government in providing assistance or programs to farmers through the farmers’ organizations as an umbrella organization. Figures 5 and 6 below illustrates the social bridging and linking in generating collective action by Gapoktan Sri Mulya in the study area of Kalangsuria.
Figure 5. Illustration of Social Bridging in Generating Collective Action in Agribusiness by Farmers’ Organizations

Figure 6. Illustration of Social Linking in Generating Collective Actions in the Agribusiness Production Subsystem

The factor of collaborative leadership is characterized by the principles of collaboration, which has been carried out collectively. It is very influential in generating collective action in simultaneous planting. This activity of accelerating simultaneous planting encompasses the collaboration principles of such as adaptive work and holding environment, facilitation, consensus-based decision making, collaborative leadership, authentic public sphere, key leaders, and open and intense meeting.

Meanwhile, other collective agribusiness activities are also influenced by factors of collaborative leadership. However, only one principle of collaboration is implemented, i.e. adaptive work and holding environment, which is the activity of supplying capital, purchasing production inputs (seeds, fertilizers and agricultural medicines), and fertilizer supervision with members of the farmers’ organization, as well as borrowing rice. These agribusiness activities emerged because besides originating from government programs, they are a form of a joint quest for solutions to existing problems, such as problems in accessing capital, accessing production inputs such as fertilizers and agricultural medicines, and problems in meeting the need for food in seasons of scarcity.

Currently, the farmers’ organizations lack entrepreneurial characteristics in carrying out collective activities with their members. Collective action in the agribusiness is carried out business as usual,
depending on directions or facilitation by the Regional Government through the Karawang Regency Department of Agriculture. Table 1 below indicates the collaborative process in collective action in the agribusiness by Gapoktan Sri Mulya in the study area of Kalangsuria Village.

Table 1. Indications of the Collaborative Process in Collective Action in the Agribusiness by Gapoktan Sri Mulya

| Collective Action in Agribusiness | Adaptive Work & Holding Environment | Facilitation | Principles of the Collaborative Process | Consensus-Based Decision Making | Shared Values | Collaborative Leadership | Authentic Public Sphere | Key Leaders | Open and Intense Meeting |
|---------------------------------|-------------------------------------|--------------|----------------------------------------|-------------------------------|---------------|------------------------|-----------------------|-------------|--------------------------|
| Agribusiness Input subsystem     |                                     |              |                                        |                               |               |                        |                       |             |                          |
| Provision of Capital Purchase of Production Inputs (Seeds, Fertilizer and Agricultural Medicine) | √                      |              |                                        |                               |               |                        |                       |             |                          |
| Usage of the Same Seed Variety | -                                  |              |                                        |                               |               |                        |                       |             |                          |
| Joint Oversight of Fertilizers by Members of the Farmers’ Organization | √                      |              |                                        |                               |               |                        |                       |             |                          |
| Agribusiness Production Subsystem | Provision of Information and Coordination on Accelerated Simultaneous Planting | √                      | √                      | √                      | √                      | √                      | √                      |               |                          |
| Provision of Information and Coordination on Rice Farmer Insurance (AUTP) | -                                  |              |                                        |                               |               |                        |                       |             |                          |
| Provision of Information and Coordination on the Legowo Row Planting System | -                                  |              |                                        |                               |               |                        |                       |             |                          |
| Agribusiness Processing Subsystem | Buying and Selling of Unhusked Rice from Members Processing Unhusked Rice Borrowing Rice | -                                  |              |                                        |                               |               |                        |                       |             |                          |

4. Conclusions

Agribusiness activities carried out collectively by Gapoktan Sri Mulya are related to the social structure in Kalangsuria Village, which led to the formation of social bonding and social bridging to a willingness to do agribusiness activities collectively. But, the collective action in agribusiness production is not optimal, particularly in anticipating climate change, which directly affects the production of rice. This leads to lower acceptance of produce, especially when harvesting occurs during the rainy season. In addition, the factors of human capital, such as education and knowledge of farmers in developing rice farming can also affect the efficiency of farming. Finally, some external factors, such as climate change, or internal factors such as human capital directly affect the increase in economies of scale and business efficiency of farmers who already join collective agribusiness action with farmers’ organizations.

References
[1] Wickramasinghe, U., Syed, S., & Siregar, H. (2012). The role of policies in agricultural transformation lessons from Brazil, Indonesia and the Republic of Korea. CAPSA Working Paper, (106).
[2] Hellin, J., Lundy, M., & Meijer, M. (2007). Farmer organization, collective action, and market access in Meso-America CAPRi Working Paper No. 67.
[3] Jacobsson, M. (2012). Unity is power: The role of collective action and farmer groups in rural livelihoods in Kenya.
[4] Zakaria, W. A. (2009, October). Penguatan kelembagaan kelompok tani kunci kesejahteraan petani. In Seminar Nasional Dinamika Pembangunan Pertanian dan Perdesaan. Prosiding Seminar Nasional Dinamika Pembangunan Pertanian dan Perdesaan.
[5] Susilowati, S. H. (2016, August). Gejala Pergeseran Kelembagaan Upah pada Pertanian Padi Sawah. In Forum penelitian Agro Ekonomi 23(1), pp. 48-60.
[6] Padmaningrum, D., Rahayu, W., & Wibowo, A. (2013). Rancang bangun model kelembagaan agrisnis padi organik dalam mendukung ketahanan pangan.
[7] Naranjo., Sofia. (2007). Sustainable Agriculture and Rural Development Policy Brief 12.
[8] Faure, G. (2004). Characterization of a collective action between farmers' organizations and institutions in an innovative process to face liberalization in Costa Rica. The Journal of agricultural education and extension, 10(3), pp. 121-131.
[9] Profile, E. (2012). Indo-Burma Biodiversity Hotspot.
[10] Rismayadi, B., & Maemunah, M. (2018). Creative Economy to Increase Community Revenue Based on Tourism Object, Medalsari Village, Pangkalan District Karawang Regency. Journal of Accounting, Business and Finance Research, 3(1), pp. 28-35.
[11] Fahmi, F. Z., Hudalah, D., Rahayu, P., & Woltjer, J. (2014). Extended urbanization in small and medium-sized cities: The case of Cirebon, Indonesia. Habitat International, 42, pp.1-10.
[12] Babbie, E. (2007). The practice of social research . Belmont, CA: Thomson Learning.
[13] Saragih, B. (2010). Agribisnis: Paradigma Baru Pembangunan Ekonomi Berbasis Pertanian. Bogor.
[14] Pasaribu, A. M. (2012). Kewirausahaan berbasis agribisnis. CV. Andi Offset. Yogyakarta.
[15] Kusuma, R. L., & Firdaus, M. (2015). Daya saing dan faktor yang memengaruhi volume ekspor sayuran Indonesia terhadap negara tujuan utama. Jurnal Manajemen & Agribisnis, 12(3), pp. 226.
[16] Sadikin, I., & Subagyono, K. (2008). Kinerja Beberapa Indikator Kesejahteraan Petani Padi Di Perdesaan Kabupaten Karawang 2008. Bandung: Balai Pengkajian Teknologi Pertanian Jawa Barat.
[17] Mawarsari, T. B. (2019). Peran Gabungan Kelompok Tani (GAPOKTAN) terhadap sistem jual beli Ijon dalam Perspektif Ekonomi Islam: studi kasus di Desa Blabakan Kecamatan Mejayan Kabupaten Madiun (Doctoral dissertation, UIN Sunan Ampel Surabaya).
[18] Firmana, F., Nurmala, R., & Rifiin, A. (2016). efisiensi teknis usahatani padi di kabupaten karawang dengan pendekatan data envelopment analysis (DEA). In Forum Agribisnis 6(2).
[19] Meinzen-Dick, R., DiGregorio, M., & McCarthy, N. (2004). Methods for studying collective action in rural development.
[20] Woolcock, M. (2001). The place of social capital in understanding social and economic outcomes. Canadian journal of policy research, 2(1), pp. 11-17.
[21] Nijkamp, P. (2009). Regional development as self-organized converging growth. Spatial disparities and development policy, pp. 265-282.
[22] Suheri Selfa Septiani Aulia, T. (2017). Analisis Triple Helix dalam Kawasan Ekonomi Khusus (Studi Kasus: KEK Sei Mangkei). Prosiding Saintiks FTIK Unikom, 2.