PLANTATION PARTNERSHIP DEVELOPMENT PATTERNS: AGRICULTURAL EXTENSION INSTITUTES' ROLES AND LIMITS

Lili Dahliani^{1*}, Samuel Karim²

^{1*}Sekolah Vokasi, Teknologi dan Manajemen Produksi Perkebunan, IPB University Bogor, Indonesia

²Ernest Bai Koroma University of Science and Technology and College of Human Resources Development Sierra Leone

(Email: lilidahliani@apps.ipb.ac.id)

ABSTRACT

Agricultural extension institutions serve as communication hubs that facilitate the exchange of information between farmers, the government, and institutional partners of farmer groups. Farmers must receive clear and practical information from extension institutions. This study aims to ascertain the role and function of extension institutions in promoting agricultural development in the plantation sector in Bogor. Additionally, it intends to identify extension workers' challenges and evaluate their contribution to agricultural development. The study employed a qualitative approach, utilizing data-gathering methods like observation and interviews. The participants included farmers, farming instructors, and members of the extension sector from the Bogor Agricultural Institute. The research findings elucidate the significance and function of plantation agricultural extension institutions in rural development, encompassing services, communication centers, and institutional development centers. The potential of partnerships and the role of extension institutions, including program planning and preparation, information provision and dissemination, human resource development, administrative structuring, and evaluation activities, have yet to be fully utilized. There is a demand for more agricultural teachers specializing in plantation crops and improved training opportunities for these instructors. Additionally, there should be a clear policy to facilitate the transition of plantation instructors to become instructors for food crops. Agricultural (plantation) development contributes to economic growth, community welfare, and enhanced plantation output outcomes. There is an expectation that the decrease in production output of various commodities, such as cloves, rubber, cocoa, and coffee, can be enhanced by augmenting the knowledge and expertise of farmers and their families while transforming their traditional farming practices into more modern ones.

Keywords: Development Agriculture, Plantation partnership, development patterns, Agricultural extension.

INTRODUCTION

Agricultural extension institutes function as intermediaries that promote the dissemination of knowledge among farmers (Kristina et al., 2022; Mahmood, 2022; Tang, 2022), the government, and institutional collaborators of farmer groups (Fauza et al., 2022). Transparency and efficiency are crucial in transmitting information between farmers and extension institutes. Agricultural extension is an educational system implemented outside the regular curriculum to improve farmers' abilities, including their knowledge, attitudes, and skills. They are expected to run their agricultural business units independently and efficiently

^{*}Penulis korespondensi: lilidahliani@apps.ipb.ac.id

to achieve a more esteemed and prosperous lifestyle (Kurnia, 2022; Yan, 2022). Extension institutions facilitate government assistance for targeted resource development by fostering collaboration between extension agents and the government in overseeing agricultural resources through rural development programs.

Agricultural development is the concrete expression of the direction specified in the 1945 Constitution (Latipun et al., 2022). Pancasila aims to efficiently and continuously harness ample natural resources, human resources, capital, and science and technology for sustainable production (Khushbu, 2022; Ouyang, 2022), specifically in agriculture and primary industries. The agricultural sector in Repelita VI remains pivotal, serving as the primary means of subsistence and income for farming communities, a significant contributor to food production, a supplier of raw materials for industrial processing, a provider of employment opportunities and business ventures that generate income, a source of foreign exchange earnings (Muh et al., 2022), a producer of merchandise goods, and a crucial component in environmental conservation. Agricultural growth involves cultivating food crops, managing fisheries, raising animals, and cultivating horticultural plants.

Empirical research shows that development projects increasingly need help efficiently reaching many small-scale farmers. Farmers with limited land often receive incentives from the government due to the prevailing economic conditions, infrastructure, and government policies, which benefit them economically and socially. In addition to their limited control over agricultural land and unfavorable agricultural currency rates, the absence of supportive measures for farmers worsens their destitution. Agricultural extension workers are vital in promoting agricultural progress by stimulating change and actively interacting with farmers (Darmayanti, Baiduri, et al., 2022). The extension agent is crucial in empowering farmers to develop self-reliance in managing their agricultural activities. An institution can facilitate this.

Institutions refer to the comprehensive frameworks of beliefs, organizations, and activities about essential aspects of human life, including familial connections, governance, religious rituals, and the procurement of basic needs such as clothing, health, and shelter (Khoiriyah et al., 2022). An institution is created to meet various human needs and fulfill a specific role. In addition, institutions can be defined as the convergence of social activity patterns that arise from a societal perspective to meet human and organizational patterns utilized to implement these activities (Roucek and Warren, 1984).

The Law on Agricultural, Fisheries, and Forestry Extension Systems specifies the task in Article 11, paragraph 1, Letter C, emphasizing the importance of establishing institutions and community forums to support key stakeholders and business actors (Arif et al., 2022). These platforms aim to foster the growth of enterprises and enable them to provide valuable input to local governments. Article 13, paragraph 1, letter e, further underscores the significance of "establishing and facilitating institutions and activity forums for key stakeholders and economic agents." Furthermore, as stipulated by Law No. 16 of 2006, extension institutions are defined as government and community institutions that provide extension services. Extension institutes consist of government counseling institutions, private counseling institutions, and self-sustaining institutional counseling. In her study, Fauziah (2010) recognized natural resources, human resources, technology, and institutions as the four fundamental factors that propel advancements in agricultural growth. These four components are essential prerequisites for attaining the desired level of growth performance. If any of these characteristics are present or match the criteria, it will guarantee the achievement of two stated performances (Syaifuddin et al., 2022). I have a keen interest in agricultural cultivation. Superb. The commodities comprise cloves, rubber, pepper, coffee, and chocolate.

A comprehensive investigation has been carried out on the role and purpose of agricultural extension institutes, specifically in different locations across Indonesia. However, this research differentiates itself from the plantations used for future growth. The plantations in the Bogor area are seeing tremendous expansion, rendering them excellent assets for agricultural development. Various commodities, such as cloves, coffee, rubber, and cocoa, necessitate specialized handling. These commodities are particularly significant in the Bulikumba district and are expected to maintain farmers' economic stability. Plantation crops such as cloves, coffee, rubber, and cocoa should be utilized to foster agricultural growth in Dramaga District, Bogor Regency. Therefore, the government has mandated agricultural extension organizations to guarantee that rural extension specialists achieve their role and operate efficiently. An extension agency's primary function is to facilitate agriculture's development and progress, explicitly emphasizing plantations in a designated area. Another difference exists in the approach utilized, and the year this research was carried out. The primary objective of this research was to improve students' understanding by employing direct observation in the Plantation Partnership Development Patterns course offered in the Vocational class. This course was intentionally created to integrate traditional in-person training and other instructional methods. Training workshops and practical activities centered primarily on executing plantation development projects. Therefore, this study aims to determine the role and function of extension institutions in the agricultural development of plantations in Bogor. Furthermore, it seeks to identify extension workers' obstacles and assess their impact on agricultural development.

METHOD

Qualitative methods were chosen in this research, resulting in a framework of thinking, as in Figure 1.

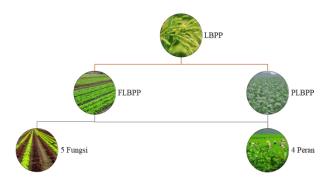


Figure 1. Kerangka berpikir penyuluhan pertanian

Figure 1 depicts the conceptual framework employed in this study, whereby LBPP serves as the acronym for the Agricultural Extension Institute. The execution of LBPP is broken into two parts: FLBPP and PLBPP. FLBPP refers to the function of agricultural extension institutions, while PLBPP refers to the role of agricultural extension institutions. The FLBPP encompasses five functions: Planning and Preparation Programme, Provision and Information Dissemination, Development HR, Administrative Arrangement, and Evaluation. Additionally, PLBPP contains four distinct roles: Service, Communication Centre,

Institutional Development Centre, and Partnership Development Centre. The FLBPP and PLBPP initiatives in Bogor promote economic growth, enhance community welfare, and increase agricultural production in plantations. According to this cognitive framework, the approach employed in this study is illustrated in Figure 2.

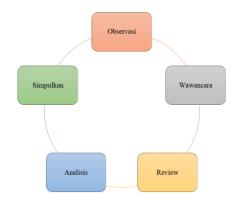


Figure 2. Alur Metode Plantation Partnership Development

Figure 2 illustrates the procedural flow utilized in this work, as (Laila et al., 2022) outlined. This study is classified as a qualitative descriptive inquiry carried out through observations and interviews with farmers, agricultural instructors, and the extension sector at the Bogor Agricultural Institute. The research methodology utilized in this study is qualitative, as indicated by the data. Qualitative research seeks to understand the experiences reported by research participants through descriptive language and specialized scientific methods within a natural environment (Karina et al., 2022; Yulianeta, 2022; Zakaria & Yulianeta, 2018). This study employs an illustrative methodology. Descriptive research offers a comprehensive analysis of available data to present a thorough understanding of prospective solutions to current challenges. The study utilizes a descriptive qualitative method to collect data on the role and function of agricultural extension organizations in promoting agricultural development in Jalan Raya Dramaga Village, Dramaga District, Bogor Regency, West Java Province. Furthermore, the present condition and difficulties faced in this parental engagement endeavor can be shown using a qualitative methodology. The focus of this research is located in Bogor Regency. A burgeoning area of interest is the agricultural sector, specifically the plantation industry. Nevertheless, it is crucial to prioritize assistance for the progress of plantation agriculture, namely in cultivating cotton and rubber. Therefore, prioritizing allocating attention to extension institutions is essential. Thus, scholars employed this region as a topic of investigation. The study project will last for a duration of two months, precisely from November to December 2023. A research object can be a social research scenario that seeks to comprehend the incidents and phenomena. This research tool enables researchers to watch the behaviors of individuals (actors) in certain regions (Liu, 2018). This study investigates the role and function of agricultural extension institutions, particularly plantations, in fostering rural development in Dramaga District, Bogor Regency, situated in the West Java Province.

Areas of inquiry or examination: Research subjects refer to the data sources sought to meet the research problem. In research, a data source refers to the particular subject or entity from which the data was obtained or received (Afifah et al., 2022). To gather precise data, selecting informants with the necessary expertise and meeting the specified data collection

criteria (purposive sampling) is crucial. The informants in this study comprise extension institutes from pertinent agencies, such as the Food Crops, Horticulture, and Plantation Department, which served as the primary data source. Academic pursuit: The aim is to comprehend the role and function of an extension agency in advancing agriculture, particularly in the setting of plantations in the area.

This researcher uses a data collection methodology within the matter domain (Sugianto et al., 2022). The first phase involves careful observation. The term "observation used" refers to the particular approach utilized in the observation method, as delineated by Marsalis. This method entails deliberately and cognitively immersing oneself with complete focus to become conscious of a specific targeted sensation. It additionally entails a purposeful and systematic examination of societal circumstances, occurrences, and psychological indications using observation and documentation. The second approach involves performing a street interview to engage with data sources through verbal communication, either directly or indirectly, employing the interview methodology outlined by Lexy J Moleong. The interaction occurred between the interviewer, who asked the questions, and the interviewee, who supplied the responses. The acquired data from observations and interviews were subsequently analyzed using the approach described (Sah et al., 2022). This study investigated the influence of agricultural development on economic growth, public welfare, and farmers' productivity.

RESULT AND DISCUSSION

The data obtained is collected and then arranged in order of need based on specific characteristics (Darmayanti, Sugianto, et al., 2022), which include the respondent's age, gender, and level of education that has been completed, which can be seen in Table 1.

Table 1. Respondent Data

No	Respondent Identity	Information	Amount	Percentage
1	Age	30 – 35 years old)	Four people	
		36 - 40 (years)	Six people	
		41 - 50 (years)	Three people	
		More than 50 years	1 Person	
Total 14 Person				
2	Gender	Man - man	7 Person	%
		Woman	Four people	
Total 11 people				
3	Educational	Secondary school	Three people	
		Level One (S1)	Seven person	
	level	Level Two (S2)	Three person	
		Total 13	People	
				D.:

Primary sources

Table 1 Mathematically, age will not influence the data obtained (Rahmah et al., 2022). Still, naturally, age will affect thinking and performance, both logical and analytical ways of thinking about a problem. To see an overview of the age of respondents at the Food Crops, Horticulture and Plantation Service, Dramaga District, Bogor Regency. The diversity of respondents based on age, gender and level of education can be shown in Table 1. Role Institution Counseling Agriculture Plantation in Dramaga District, Bogor Regency, Farmers are the main actors in agricultural activities and part of Indonesian society whose welfare and

intelligence must be improved (Vedianty et al., 2022). One of the efforts to increase intelligence is carried out through extension activities. With the presence of extension workers, it is hoped that farmers can absorb and accept all developing agricultural information. The more information farmers use, the more influential the extension will be. The subjects of rural development are farmers, farming communities, and farming groups in particular. As one of the components of the agribusiness system, the role of extension workers dramatically determines the success of extension services (Ban, 1999: 267).

The extension is a non-formal or an education system outside system schooling, Which is normal, Where a person shows ways of achieving something satisfactorily. In contrast, the person continues to do it himself, so he learns by doing it himself (Kartasapoetra, 1987 Erwadi, 2012: 8). The agricultural sector, especially plantations, plays a vital role in agricultural development in Indonesia. Therefore, all elements directly involved, such as extension workers, must fully contribute to agricultural development. The role of agricultural extension institutions that need to be considered to maintain the stability of agricultural production can be seen in Table 2.

Table 2. PLBPP in maintaining agricultural stability

Role Information No 1 Role institution counseling as a service to public farmers, Service especially in agriculture in the plantation sector in Dramaga District, Bogor Regency, is not maximally carried out by instructors in agriculture, so sometimes some plantation farmers need better service technology, information, And communication. Farmers are too complex for new and independent innovations, supported by knowledge of caring for land and commodities and managing the products and the production results, especially in coffee, cocoa, and rubber plants. The role of agricultural instructors in terms of services in the plantation sector is necessarily maximized. (Interview on the 27th Dec). Matter This is the opinion put forward by (Dahliani et al., 2022) that quality service with goods is the wrong one to decide the success of the development of agriculture. Service quality is determined by five dimensions,

empathy.

2 Communication Center

Agricultural extension institutions have a role as a communication center that connects communication between farmers and the government, farmers, and farmer group institutional partners so that the source of information obtained by farmers must be clear and compelling between farmers and extension institutions. Agricultural instructors need to build communication with farmers effectively (Nurlina & Dahliani, 2022). So that farmers carrying out farming activities no longer coordinate with agricultural extension institutions or extension workers assigned to each sub-district and village. The extension workers who have been given sometimes need to perform their role better in providing information, understanding, and carrying out extension or

namely profit, consistency, responsiveness, assurance and

outreach activities to the extension workers. Dramaga District and Bogor Regency extension institutions still need to be more effective in the plantation sector. Therefore, farmers in the plantation sector carrying out their farming activities no longer need extension workers. Communication between instructors and farmers is ineffective because the number or quantity of instructors in the plantation sector is increasingly minimal due to the shift in role or function (Dahliani & Qur'ani, 2021; Saleh et al., 2021). So instructors have difficulty dealing with problems That happen to farmers. (Interview result with on Dec 28).

Communication aims to achieve a mutual understanding between two or more communication participants regarding a message (in this case, a new idea) through specific communication channels (Dahliani, 2020). In innovation communication, the communication process between (e.g., instructors and farmers) means that the instructor conveys innovation or that the target has received the message about the innovation brought by the instructor. However, communication often (should) only stop if the target (farmer) has given the response the instructor wants, namely by rejecting or accepting the innovation. Communication has a vital role in achieving social change as desired, whether using a particular type of communication that communicates innovations. (Rogers and Shoemaker 1987).

3 Center for Institutional Development

The extension institution as a center for institutional development is adequate for developing farmer groups' institutions so that they continuously train in developing skills and abilities to grow their farming business (Dahliani, 2019). As a center for institutional development, extension workers should be more productive in developing farmer institutions to increase the quantity and quality of sound products. Extension institutions also control organizational financing and other technical matters related to farmer institutions. Role institution instructor agriculture as a center for development institutions do not walk with God by What expected farmers For development institutional and the sustainability of farmer groups in the plantation sector (Dahliani & Elban, 2019). Sometimes, farmer groups are only positioned as a tool to carry out government activities and interests in a sense if there are certain activities only (interview on November 6) The role of extension institutions as centers for developing

4 Partnership
Development
Center

The role of extension institutions as centers for developing partnerships is certainly very strategic in forging alliances between farmer groups and related parties that are mutually beneficial to safeguard commodities and production results. However, this role could have worked better (Dahliani & Maharani, 2018). Therefore, farmers entered into partnerships without going through agricultural extension institutions.

More agricultural instructors focus on food crops and horticultural commodities, so instructors give agriculture in the plantation sector little attention, and there is still a need for knowledge and access to information and communication. Of course, this must be a particular concern for the government and the Department of Food Crops, horticulture and Plantations, Dramaga District, Bogor Regency, to pay more attention to the roles of extension institutions so that they work by their role as central institutions for developing institutional partnerships in the plantation sector, especially paying attention to human resources (Dahliani & Saputra, 2018). And the number of extension workers themselves. The human resource factor and the transfer of the function of extension workers from plantations to food crops and horticultural instructors have had a systemic impact on the roles of agricultural extension institutions in the plantation sector. (interview results on September 21).

From Table 2 and the results of the description of the role of agricultural instructors above, it is clear that the policy of transitioning the role of instructors from plantation instructors to food crop and horticultural instructors has resulted in the performance of instructors in the plantation sector not being optimal. Maurice Duverger (2010: 103) believes that the term role is chosen well because it states that every person is an actor in the society in which he lives. Also, he is an actor who has to play several roles, like a professional actor. In choosing a partnership pattern in the plantation sector, of course, it must remain in line with plantation development policies related to employment opportunities, supply of industrial raw materials, increasing productivity, and increasing income. It is also necessary to pay attention to farmers' weaknesses, including technology, capital, market access, product processing, human resources, institutions and productivity (R. F. N. Fitriana et al., 2022; Yuniwati, 2022)

Next is related to Function Institution Counseling Agriculture plantation in Dramaga District, Bogor Regency. Extension institutions' functions are planning and preparing programs, providing and disseminating information, developing human resources, and administering administration and evaluation functions (N. Fitriana et al., 2021b; Rokhmawati et al., 2022). Extension workers should carry out the function of this extension institution by carrying out training or outreach and guidance as well as extension programs. Give information and training regarding human resource development for farmer groups and farmers. Conduct performance evaluations for the sustainability of farmer activities.

The activities of extension workers in carrying out their functions as planning and preparing programs, developing human resources, structuring administration and as an evaluation function only occur in a few sub-districts, and only a few commodities, such as cocoa and coffee; not all extension workers assist farmers. The factor that causes this to happen is the minimal number of extension workers in the plantation sector. Sometimes, extension workers find it challenging to reach farmers in remote villages, especially mountainous areas (interview on December 6). The function is details that task kind or tightly relationship One The same other For done by an employee certain ones each based on group activity kind according to its nature or implementation (N. Fitriana et al., 2021a; Muddarisna et al., 2021; Nurul et al., 2021).

The number of plantation instructors until 2022 is 11, and new workers have yet to be added or recruited. Apart from the decreasing number of instructors in the plantation sector, there is also a lack of understanding and minimal training received by instructors to increase their scientific capacity, which is being upgraded all the time (Afdah & Yuniwati, 2020; N. Fitriana et al., 2020; I. K. Prasetyo et al., 2020). Extension agents are responsible for all farmer activities in managing agricultural land up to the result. However, instructors face various constraints, such as access to information, communication, and facilities, which sometimes make it difficult for plantation instructors to provide extension activities to plantation farmers. Extension activities will support progress and agricultural development, particularly in Dramaga District, Bogor Regency (interview on December 16).

The Implementing Agency for Agricultural, Fisheries, and Forestry Extension (BP4K) is tasked with preparing and implementing regional agricultural, fisheries, and forestry extension policies. Implement This task by BP4K is also accompanied by the implementation of the function: Formulation of policy technical in the field counseling agriculture (Masruroh et al., 2020), fishery And forestry (Muddarisna et al., 2020); Giving support on maintenance of Government Regions in the field advising agriculture (Nurkanti, 2010; Purwanto & Nurkanti, 2021), fishing and forestry; Coaching And implementation task in the field counseling agriculture, fisheries And forestry; Implementation task other Which given by Regent in accordance task and its function (Department of Agriculture, 2010).

In recent years, provincial and district government policies have focused more on agricultural development in the food crop and horticulture sectors. That is why rural instructors in the plantation sector are now being transferred to food crop instructors And horticulture. There also needed to be more play function from the para instructor (Father Sudirman, Head of the Extension Agency Section). As for task instructor agriculture, according to the Ministry of Agriculture Republic, Indonesia follows: the Extension Officer is the initiator, Who always gives thoughts/ideas; Extension agents are facilitators, who always provide solutions/facilities and are good counseling/teaching and learning processes; as well as internal facilities advance his farming business. In terms of extension, extension workers facilitate business partnerships, access to markets, capital and so on. As motivators and instructors, Extension Officers always let farmers know they want to be capable (Cahyani et al., 2022; Ristumesi & Nurkanti, 2021). Third, the Extension Officer, as a liaison, four liaisons with researchers, in this case, extension workers, always bring innovations from research results to advance farming businesses. The five extension workers are teachers and mentors to farmers, who always teach and train farmers as adults. Sixth, Extension agents are organizers and dynamists who always grow and develop farmer groups as teaching and learning classes, vehicles for cooperation, and production units. Seventh, the instructor, as an analyst, must analyze problems and causes in farming. Farming families can analyze farmers' needs, which becomes input in creating agricultural extension programs. Eighth, as an agent of change, the instructor must always be able to influence his targets to change himself toward progress. In this case, the instructor acts as a catalyst, a solution, a process helper, and a resource linker.

The extension aims to bring about changes in farmers (Rawanoko et al., 2023), which include the level of knowledge (Erdianti et al., 2021), skills (Sungkawati et al., 2022), abilities (Nyanyi et al., 2022), attitudes and motivation of farmers towards farming activities (Wulansari et al., 2022). Through outreach activities carried out (Saputra et al., 2022). Extension agents as facilitators and at the same time as motivators for farmers must be equipped with knowledge, know-how, skills, the introduction of new technology and innovation in providing information to farmers to change farmer behavior so that they are

willing to apply the information provided and conveyed by extension workers agriculture as a facilitator (Amrulloh et al., 2021; A. Prasetyo et al., 2021; Sari et al., 2021).

Based on the results of interviews and observations done with informants, it is known that the implementation of extension activities by extension workers to plantation farmers in terms of caring for and maintaining plantation production is minimal. Agricultural Development (Plantation) and Obstacles Experienced by Extension Officers in Dramaga District, Bogor Regency. Agricultural development, which is the embodiment of the mandate of the 1945 Constitution (UUD) and as an implementation of Pancasila, is all efforts to utilize natural resource wealth sustainably and sustainably, human resources, capital, and science and technology (IPTEK) to produce agricultural production. And primary industrial raw materials. As for indicator development agriculture in Dramaga District, Bogor Regency Growth economy: Economic growth in Dramaga District, Bogor Regency in 2022-2023 will experience Bogor Regency; starting in 2021, the economic growth conditions in Bogor Regency are pretty astonishing, from -1.77%, it has shot up to 3.55%. Able to get through the COVID-19 pandemic, Bogor Regency's economic growth accelerated sharply. The COVID-19 pandemic has devastated all sectors worldwide, including Bogor Regency. However, economic growth in Bogor Regency showed a significant increase after the Covid-19 pandemic hit. Judging from the macro indicators of Bogor Regency's development since the Covid-19 pandemic, based on data from the Bogor Regency Central Statistics Agency (BPS), starting in 2021, the economic growth conditions of Bogor Regency are pretty astonishing, from -1.77%, it has shot up to 3.55% (Erdianti et al., 2021; Kadarisman et al., 2021; Lovianda et al., 2021).

It even will increase rapidly in 2022 to 5.20%. Other indicators, such as the unemployment rate, also fell drastically; in 2020, it was 14.29%; in 2021, it failed to 12.22%; in 2022, it fell again to 10.64%. In terms of purchasing power, the people of Bogor Regency continue to experience an increase, which in 2020 was only IDR 10,317,000 per year per person. In 2021, it will increase to IDR 10,410,000 per person, and in 2022, it will be IDR 10,860,000 per person. As a result of the improvement in Bogor Regency's macro indicators, the poverty rate has automatically fallen significantly; reflected in 2020, the poverty rate was at 7.69%, which had increased due to the COVID-19 pandemic in 2020. Since 2021, poverty in Bogor Regency has declined from 8.13% in 2021; in 2022, it will decrease to 7.73%, below West Java Province. Even in 2022, Bogor Regency will be in 11th place out of 27 cities/regencies in West Java. In 2021, the provincial poverty rate is 8.40%, while in Bogor Regency, it is 8.13%. In 2022, the West Java poverty rate was 8.06%, and in Bogor Regency, it is at 7.73% (the number of poor people in Bogor Regency decreased by 16,500 people) (Alves, 2011; Baum, 2020; Sungkawati et al., 2021).

This is inseparable from various efforts made by the Bogor Regency Government, from increasing the economic growth rate and reducing unemployment to reducing poverty. Well-being Society: The Welfare of the Public, specifically society farmers in sector plantation, can be measured by increasing the production of plantation agricultural products. Therefore, to maintain product stability in plantation agriculture in the future, it is necessary to improve the role and function of institution counseling, especially source Power human instructor agriculture (interview on the date 16 December). Because agricultural development cannot be separated from the performance and participation of extension workers who can contribute theoretically and technically to farmers in the field, farmers work under the direction and guidance of extension workers as facilitators. So that the community can be independent in terms of maintaining and managing production results. Increasing plantation production depends on intensive maintenance patterns, especially commodities such as cocoa

and coffee, which must be taken more seriously (de Campos, 2010; Matias, 2009; Mercante, 2008). The cocoa commodity has experienced deep problems. Maintenance could be more optimal, resulting in considerable losses in 2022 (interview on 2 August 2019).

Plantation commodities such as cocoa, cloves, rubber, and coffee are currently being developed in Dramaga District and Bogor Regency and are becoming leading commodities. However, some of these leading commodities have experienced a decline in both land area and production itself, so the government or, in this case, the relevant agencies must pay more attention to these commodities. Agricultural instructors must pay more attention to farmers in the plantation sector to ensure continuity and increase agrarian development. Because some are clove and rubber farmers, The land is planted with coconuts, so the land is getting narrower, affecting plant productivity. (interview on August 4). The contribution of agricultural extension institutions is needed by farmers so that they can help farmers manage their farming business until they are independent. We know plantation crops are annual, so sufficient knowledge is required to look after them. (interview results on Dec 6).

Agricultural development must be distinct from the role of extension institutions and farmer group institutions, which always work together to carry out innovations to meet the needs of farmers in carrying out their farming business. So, there should be no gap between agricultural extension institutions and farmer groups, especially in the plantation sector, to pay special attention to sustaining development agriculture in Dramaga District, Bogor Regency. No equal role And function institution counseling agriculture can influence farming results, especially in the plantation sector. Many plantation instructors have had their functions transferred to food crop and horticultural instructors, so the quantity of plantation instructors is increasingly minimal, and this is the main problem for plantation instructors: they need to be optimally carrying out their roles and functions as plantation agricultural instructors. (Results of interviews on the date 6 Nov). The classic agrarian development literature by Arthur Mosher, entitled "Getting Agriculture Moving," explains rural development's elemental and facilitating conditions. The basic requirements for agricultural development include (1) the existence of a market for results farming, (2) technology that is constantly developed, (3) the availability of ingredients and tools production in a local way, (3) the existence of stimulant production for the farmer, and (5) availability of smooth and continuous transportation.

CONCLUSION

The role of extension agency plantation agriculture in the district is running optimally. OK, that is, the role of service, communication center, institutional development center, and partnership development center. The main factor that causes the institutional role of agricultural instructors to not be optimal is that many plantation instructors are transferred to food crops and horticultural instructors. On the other hand, there needs to be more knowledge and access to information obtained by agricultural instructors in the plantation sector. The function of agrarian extension institutions in the plantation sector is not functioning correctly, so sometimes farmers or farmer groups have difficulties developing human resources to manage their farming businesses. The functions of agricultural extension institutions include planning and preparing programs, providing and disseminating information, creating human resources, administering administration and evaluating functions. Agricultural extension institutions (Plantations), especially in the plantation commodity sector, in

this case, the commodities of cloves, cocoa, rubber, and coffee, which are recognized as one of the leading commodities in Dramaga District, Bogor Regency. From the many observations made with residents and also the BPP (Agricultural Extension Agency) regarding the many concerns of farmers who complain about the high price of fertilizer, it can be concluded that the main problem in empowering farmers is a lack of understanding regarding the formation of farmer groups which can make it easier for farmers to supply fertilizer, as well as to farmer groups that have been formed for re-socialization. The Farmer Empowerment program through Agricultural Extension was concluded with quite positive results so that problems regarding the empowerment of farmer groups in Laspada hamlet could be minimized. Building awareness to manage the sustainability of farmer group empowerment is good for us in this service and the local community.

REFERENCES

- Afdah, U., & Yuniwati, E. D. (2020). Contribution of Labor Allocations in the Development of Natural Silk Business Development (Case Study in Krenceng Village, Kepung District, Kediri Regency). *International Journal of Agriculture and Biological Sciences*, 120–130.
- Afifah, A., Darmayanti, R., Sugianto, R., & Choirudin, C. (2022). How does Newman analyze student errors when solving BADER story problems? *AMCA Journal of Religion and Society*, 2(2).
- Alves, T. d. S. (2011). Biomass and soil microbial activity under native vegetation and different soil managements. *Acta Scientiarum Agronomy*, *33*(2), 341–347. https://doi.org/10.4025/actasciagron.v33i2.4841
- Amrulloh, A., Sungkawati, E., & Dullah, M. (2021). ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI KINERJA KARYAWAN. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa (JPPIM)*, 2(2), 68–77.
- Arif, V. R., Darmayanti, R., & Usmiyatun, U. (2022). Designing the Development of Canva Application-Based Audio-Visual Teaching Materials on the Material" Point to Point Distance" for High School Students. *JEMS: Jurnal Edukasi Matematika Dan Sains*, 11(1), 286–299.
- Baum, M. E. (2020). Impacts of climate change on the optimum planting date of different maize cultivars in the central US Corn Belt. *European Journal of Agronomy*, 119. https://doi.org/10.1016/j.eja.2020.126101
- Cahyani, F., Mia, G., & Nurkanti. (2022). EFEKTIVITAS ECO ENZYME LIMBAH BONGGOL NANAS PADA PERTUMBUHAN SELADA HIJAU (Lactuca sativa L.) SECARA HIDROPONIK. *Universitas Pasundan*.
- Dahliani, L. (2019). Kapita Selekta Manajemen dan Agribisnis Perkebunan. *PT Penerbit IPB Press*.
- Dahliani, L. (2020). Kapita Selekta Teknologi Perkebunan. PT Penerbit IPB Press.
- Dahliani, L., & Elban, S. (2019). The Dominant Weed Type In Three Areas Of Mature Palm Oil On Peatland. *Proceedings of the 1st International Conference on Engineering, Science, and*
- Dahliani, L., & Maharani, M. D. D. (2018). Palm oil sustainable management using MDS model from social dimension. 2018 3rd International Conference on Education, Sports, Arts and Management
- Dahliani, L., & Qur'ani, T. (2021). Education and Role of Female Workers in Oil Palm

- Plantations, State Border Areas. 1st Annual International Conference on Natural and Social Science Education
- Dahliani, L., & Saputra, R. (2018). The Effect of Distance Measurement Point of Watering Sample on The Amount of Watering Water Palm Oil Nursery. 2018 International Conference on Applied Science and Technology (ICAST), 293–296.
- Dahliani, L., Wirandayu, S., & Dewantara, M. (2022). Implementation of technology 4.0 in achieving the effectivity and efficiency of the production process in palm oil plantation. *E3S Web of Conferences*, 348, 11.
- Darmayanti, R., Baiduri, B., & Inganah, S. (2022). Moodle-based learning media development of flex model in improving mathematical hard skills of high school students. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 11(4), 2649–2665.
- Darmayanti, R., Sugianto, R., Baiduri, B., Choirudin, C., & Wawan, W. (2022). Digital comic learning media based on character values on students' critical thinking in solving mathematical problems in terms of learning styles. *Al-Jabar: Jurnal Pendidikan Matematika*, 13(1), 49–66.
- de Campos, L. H. F. (2010). Straw management systems influence biomass accumulation and yield of sugarcane crop (var. RB855453). *Acta Scientiarum Agronomy*, 32(2), 345–350. https://doi.org/10.4025/actasciagron.v32i2.3703
- Erdianti, C. N., Sungkawati, E., & Esti, E. A. J. (2021). PENGARUH HARGA, KUALITAS LAYANAN DAN TEMPAT/LOKASI TERHADAP KEPUASAN PEMBELIAN PADA APOTEK VALENTINE. *Jurnal Penelitian &Pengkajian Ilmiah Mahasiswa(JPPIM)*, 2(2), 25–33.
- Fauza, M. R., Inganah, S., Darmayanti, R., Maryanto, B. P. A., & Lony, A. (2022). Problem solving ability: strategy analysis of working backwards based on polya steps for Middle School Students YALC Pasuruan. *JEMS: Jurnal Edukasi Matematika Dan Sains*, 10(2), 353–363.
- Fitriana, N., Yuniwati, E. D., Darmawan, A. A., & Firdaus, R. (2020). The Application of Waste and Sediment Trader Boat Designs in Reservoir: A Community Empowerment. *International Conference on Community Development (ICCD 2020)*, 542–545.
- Fitriana, N., Yuniwati, E. D., Darmawan, A. A., & Firdaus, R. (2021a). Pemanfaatan Aliran Sungai di Sekitar Waduk Sebagai Pembangkit Listrik Mikrohydro. *IKRA-ITH ABDIMAS*, 4(3), 154–162.
- Fitriana, N., Yuniwati, E. D., Darmawan, A. A., & Firdaus, R. (2021b). The use of a microhydro power plant for the educational park area around the reservoir. *AMCA Journal of Science and Technology*, 2, 34–40.
- Fitriana, R. F. N., Yuniwati, E. D., & Darmawan, A. A. (2022). Potensi Lokal Waduk Purboyo Menjadi Kawasan Wisata. Seminar Nasional Penelitian Dan Pengabdian 4 UM Metro Tahun 2022 1
- Kadarisman, A. W., Sungkawati, E., & Harmadji, D. E. (2021). Metode Penentuan Pendapatan Dan Biaya Pada Pt Oto Kemuning Care Berdasarkan Psak Nomor 23. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa (JPPIM)*, 2(4), 71–76.
- Karina, H., M., P., & Yulianeta., Y. (2022). Citra dan Peran Perempuan dlam Cerita Rakyat Ni Anteh Pergi ke Bulan dengan The Bambbo-Cutter's Tale. *Universitas Pendidikan Indonesia*.
- Khoiriyah, B., Darmayanti, R., & Astuti, D. (2022). Design for Development of Canva Application-Based Audio-Visual Teaching Materials on the Thematic Subject" Myself (Me and My New Friends)" Elementary School Students. *Jurnal Pendidikan Dan Konseling (JPDK)*, 4(6), 6287–6295.

- Khushbu, S. (2022). Recent Advances in Terahertz Time-Domain Spectroscopy and Imaging Techniques for Automation in Agriculture and Food Sector. *Food Analytical Methods*, 15(2), 498–526. https://doi.org/10.1007/s12161-021-02132-y
- Kristina, N., Warnita, W., & Resigia, E. (2022). Project Based Learning Horticultural Course at Faculty of Agriculture, Andalas University. *Advances in Social Science, Education and Humanities Research*, 236–244.
- Kurnia, G. (2022). Local Wisdom for Ensuring Agriculture Sustainability: A Case from Indonesia. *Sustainability (Switzerland)*, 14(14). https://doi.org/10.3390/su14148823
- Laila, A. R. N., In'am, A., & Darmayanti, R. (2022). AKM content: developing a mathematical problem-solving test based on Islamic context at MTs. AMCA Journal of Religion and Society, 2(1).
- Latipun, L., Darmayanti, R., & In'am, A. (2022). Designing video-assisted scientific learning in mathematics learning: does it vave an effect? *AMCA Journal of Science and Technology*, 2(2).
- Liu, K. (2018). Mixtures of plant-growth-promoting rhizobacteria enhance biological control of multiple plant diseases and plant-growth promotion in the presence of pathogens. *Plant Disease*, *102*(1), 67–72. https://doi.org/10.1094/PDIS-04-17-0478-RE
- Lovianda, F., Sungkawati, E., & Kirom, N. R. (2021). PENGARUH BAURAN PROMOSI TERHADAP VOLUME PENJUALAN PT. INDOFOOD FRITOLAY BANYUWANGI. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa(JPPIM)*, 2(2), 34–45.
- Mahmood, A. (2022). Contemporary machine learning applications in agriculture: Quo Vadis? *Concurrency and Computation: Practice and Experience*, 34(15). https://doi.org/10.1002/cpe.6940
- Masruroh, H., Muddarisna, N., & Yuniwati, E. D. (2020). Assessing Land Use Arrangement In Landslide Prone Area In The Taji Village, Jabung Regency, Malang. *EPH-International Journal of Science And Engineering*, 6(4), 6–10.
- Matias, M. D. C. B. D. S. (2009). Microbial biomass and C and N stocks in soil under different management systems in the "cerrado" of piauí state. *Acta Scientiarum Agronomy*, *31*(3), 517–521. https://doi.org/10.4025/actasciagron.v31i3.687
- Mercante, F. M. (2008). Microbial biomass on an Oxisol in cassava using different cover species. *Acta Scientiarum Agronomy*, 30(4), 479–485. https://doi.org/10.4025/actasciagron.v30i4.5301
- Muddarisna, N., Masruroh, H., Yuniwati, E. D., & Oktaviansyah, A. R. (2021). Coping strategy based on socio-agriculture approach in Landslide Prone Area in the Gede Catchment, Malang Regency. *Development, Social Change and Environmental Sustainability*, 39–43.
- Muddarisna, N., Yuniwati, E. D., & Masruroh, H. (2020). Local Wisdom As Landslide Conservation In The Gede Catchment Malang Regency. *EPH-International Journal of Science And Engineering*, 6(4), 1–5.
- Muh, E., Darmayanti, R., & In'am, A. (2022). Strengthening student concepts: Problem ethnomatmatics based learning (PEBL) Singosari kingdom historical site viewed from learning styles in the middle school curriculum. *Indomath: Indonesia Mathematics Education*, 5(2), 165–174.
- Nurkanti, M. (2010). Pengembangan Program Pembelajaran IPA Biologi Melalui Media "MIVI" Bagi Guru Untuk Meningkatkan Kemampuan Kognitif Siswa SLB-Tunarungu. *Jurnal Pendidikan IPA*, 2010, 65.
- Nurlina, W. E. S., & Dahliani, L. (2022). PENDEKATAN SOSIOSEMANTIK-LEKSIKAL DALAM PERISTILAHAN PERKEBUNAN TEH. *Widyaparwa*, *50*(2), 252–267.

- Nurul, M., Yuniwati, E. D., Masruroh, H., & Oktaviansyah, A. R. (2021). The effectiveness of cover crops on soil loss control in gede catchment of malang regency, Indonesia. *Journal* of Degraded and Mining Lands Management, 8(2), 2673–2679.
- Nyanyi, P. H., Sungkawati, E., & Harmadji, D. E. (2022). PAYA PENGEMBANGAN SDMUNTUK PENINGKATAN KINERJA PEGAWAI PADA KANTOR DINAS PENDIDIKAN KEPEMUDAAN DANOLAHRAGA KABUPATEN SUMBA BARAT. *MANAJEMEN DAN BISNIS JURNAL*, 8(2), 27–40.
- Ouyang, X. (2022). Land space optimization of urban-agriculture-ecological functions in the Changsha-Zhuzhou-Xiangtan Urban Agglomeration, China. *Land Use Policy*, 117. https://doi.org/10.1016/j.landusepol.2022.106112
- Prasetyo, A., Sungkawati, E., & Lukitaningtyas, F. (2021). Pengaruh Kualitas Pelayanan terhadap Kepuasan Konsumen pada PT. Kereta Api Indonesia DAOP 9 Kali Stail Banyuwangi. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa(JPPIM)*, 2(2), 14–24.
- Prasetyo, I. K., Yuniwati, E. D., & Budi, M. A. (2020). The Utilization of Apple Industrial Waste as a Hydroponic Nutrition Material to Increase Economic Value. *International Conference on Community Development (ICCD 2020)*, 368–372.
- Purwanto, K., & Nurkanti, M. (2021). PENGGUNAAN ENZACT PADA PERTUMBUHAN SAYURAN BROKOLI (BRASSICA OLERACEA VAR ITALIC) DILIHAT DARI INTERVAL WAKTU. *Universitas Pasundan*.
- Rahmah, K., Inganah, S., Darmayanti, R., Sugianto, R., & Ningsih, E. F. (2022). Analysis of Mathematics Problem Solving Ability of Junior High School Students Based on APOS Theory Viewed from the Type of Kolb Learning Style. *INdoMATH: Indonesia Mathematics Education*, 5(2), 109–122.
- Rawanoko, E. S., Sungkawati, E., & Ario, M. F. (2023). Promoting Pancasila values through local culture: a case study of the Tengger festival of the karo ethnic group for ecotourism development. *Jurnal Civics: Media Kajian Kewarganegaraan*, 20(1), 197–204.
- Ristumesi, & Nurkanti, M. (2021). ANALISIS MODEL PEMBELAJARAN Numbered Head Together (NHT) UNTUK MENINGKATKAN HASIL BELAJAR BIOLOGI. *Universitas Pasundan*.
- Rokhmawati, D., Kirom, N. R., & Yuniwati, E. D. (2022). Gerakan Pemuda Sadar Literasi di Sekitar Kampus Universitas Wisnuwardhana Malang (GEMAR LITERASI). *JAST: Jurnal Aplikasi Sains Dan Teknologi*, 6(1), 1–10.
- Sah, R. W. A., Darmayanti, R., & Maryanto, B. P. A. (2022). Updating Curriculum Through 21st Century Learning Design. *Seminar Nasional Teknologi Pembelajaran*, 2(1), 127–142.
- Saleh, R., Dahliani, L., & Rusiva, R. (2021). PENGARUH PARTISIPASI PENYUSUNAN ANGGARAN DAN BUDAYA ORGANISASI TERHADAP KINERJA MANAJERIAL PADA PT PERKEBUNAN NUSANTARA VIII. *Jurnal Bisnis Terapan*, 5(2), 167–184.
- Saputra, H., Sungkawati, E., & Lukitaningtias, F. (2022). PENGARUH KOMITMEN ORGANISASI, KOMPENSASI, DAN KEPUASAN KERJA TERHADAP KINERJA KARYAWAN BANK JATIM CABANG BANYUWANGI. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa (JPPIM)*, 3(2), 30–39.
- Sari, N., Sungkawati, E., & Lukitaningtias, F. (2021). PENGARUH BAURAN PROMOSI TERHADAP VOLUME PENJUALAN PENGEMBANG PERUMAHAN PT. ADI MAS JAYA. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa (JPPIM)*, 2(2), 46–56.
- Sugianto, R., Cholily, Y. M., Darmayanti, R., Rahmah, K., & Hasanah, N. (2022). Development of Rainbow Mathematics Card in TGT Learning For Increasing Mathematics Communication Ability. *Kreano, Jurnal Matematika Kreatif-Inovatif*,

- *13*(2), 221–233.
- Sungkawati, E., Suarniati, N. W., Anugerah, R., & Hernanik, N. D. (2022). Penanaman Pohon Alpukat Sebagai Penciri Desa Bululawang Sebagai Desa Wisata. *Jurnal Pengabdian Pada Masyarakat*, 7(4), 867–875.
- Sungkawati, E., Suarniati, N. W., Hernanik, N. D., & Anugerah, R. (2021). SMEs Creative Economy In The Covid-19. *Archives of Business Review 9 (Society for Science and Education)*, 97–105.
- Syaifuddin, M., Darmayanti, R., & Rizki, N. (2022). Development of a two-tier multiple-choice (TTMC) diagnostic test for geometry materials to identify misconceptions of middle school students. *Jurnal Silogisme: Kajian Ilmu Matematika Dan Pembelajarannya*, 7(2).
- Tang, L. (2022). Fiscal incentives, financial support for agriculture, and urban-rural inequality. *International Review of Financial Analysis*, 80. https://doi.org/10.1016/j.irfa.2022.102057
- Vedianty, A. S. A., Nurhayati, D., Darmayanti, R., & Lestari, A. S. B. (2022). MANIS: Mathematics, analysis, and mathematical communication. How is the student's self-confidence? *AMCA Journal of Education and Behavioral Change*, 2(2).
- Wulansari, W., Sungkawati, E., & Hernanik, N. D. (2022). PENGARUH KOMPETENSI DAN LINGKUNGAN KERJA TERHADAP KEPUASAN KERJA KARYAWAN KOPERASI SIMPAN PINJAM (KSP) ANISA BANYUWANGI. *Jurnal Penelitian & Pengkajian Ilmiah Mahasiswa (JPPIM)*, 3(2), 12–20.
- Yan, D. (2022). Global Trends in Urban Agriculture Research: A Pathway toward Urban Resilience and Sustainability. *Land*, 11(1). https://doi.org/10.3390/land11010117
- Yulianeta. (2022). The Development of Web-Based Teaching Materials Integrated with Indonesian Folklore for Indonesian Language for Foreign Speakers Students. International Journal of Language Education, 6(1), 46–62. https://doi.org/10.26858/ijole.v6i1.22957
- Yuniwati, E. D. (2022). Land Husbandry Technology on Potato Cultivation for Sustainable Agriculture". *Poster Internasional*.
- Zakaria, F., & Yulianeta, Y. (2018). Representasi Ideologi Feminisme dalam Media Online TIRTO. ID. *Seminar Internasional Riksa Bahasa*, 491–496.