



The Role Of Agricultural Extension Workers In The Effectiveness And Efficiency Of Agricultural Services In Palangka Raya City, Central Kalimantan

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Abstract

In order to improve national food security and farmers' welfare, the central government has launched several strategic agricultural programs in Central Kalimantan, such as Food Estate Program, New Rice Field Establishment, Agricultural Modernization through Smart Farming, and Strengthening Farmer Institutions. In implementing this mission, agricultural extension activities are very important to support the success of the program. Agricultural extension workers must be able to be a liaison between the government and the farming community. This study aims to describe how the role of agricultural extension workers affects the effectiveness and efficiency of agricultural services, the role of extension workers in this case is as motivators, educators, facilitators, and communicators. Through these roles, extension workers facilitate government programs through the Agriculture and Food Security Office of Palangka Raya to the farming community. This type of research is Qualitative Descriptive with the method of Interview (Purposive Sampling), observation, and literature study, has been carried out from December 2024 to January 2025. The object of the research is Extension Workers in 5 (five) sub-districts in Palangka Raya City. The result of the study shows that Extension Workers have a considerable influence on agricultural development in Palangka Raya City. Extension workers can determine the success of government programs if the human resources of extension workers are managed properly, by always prioritizing the improvement of extension workers' performance. Through the role of extension workers as motivators, educators, facilitators, and communicators, government programs and services to the farming community will be more effective and efficient..



INTRODUCTION

Public administration reform is a process aimed at improving government performance and efficiency in delivering services to the public, leading to changes in the system, structure, and administrative processes that are more responsive to the aspirations and needs of society. In the agricultural sector, public administration reform seeks to enhance efficiency, transparency, and accountability in the management of agricultural resources.

The agricultural sector in Palangka Raya City remains a vital component of the local economy. This strategic role is reflected in its contribution to food supply, industrial raw materials, employment absorption, the primary source of rural household income, and livestock feed supply. The goals of agricultural development include macro-level targets and the production of key agricultural commodities in Palangka Raya. This aligns with the government's initiative to develop 5,000 hectares of agricultural land in the city to support food self-sufficiency, which is a top priority in Indonesia's agricultural development efforts to reduce dependency on imports and ensure national food security.

The achievement of agricultural development targets in Palangka Raya City is closely tied to the role of agricultural extension workers in influencing farmers' behavior. Amidst the evolving challenges of modern times, the role of agricultural extension workers is becoming increasingly critical in ensuring the sustainability and progress of the agricultural sector. In

this context, the effectiveness and efficiency of agricultural services are crucial, and agricultural extension workers play a key role in achieving these objectives.

Palangka Raya City covers an area of 2,853.52 km², with 30 urban villages (kelurahan) across 5 districts (kecamatan), making it the largest city by land area in Indonesia. The city has 258 farmer groups, but only 18 active extension workers serving under the Department of Agriculture and Food Security of Palangka Raya City. With such a limited number of personnel, the responsibilities of agricultural extension workers are immense, especially given the geographical challenges and difficult accessibility of remote areas.

One of the main agricultural challenges in Palangka Raya City today is how to encourage active farmer participation and empower farmer groups to create a more productive and competitive farming community. To achieve this, agricultural extension workers must function as agents of change, guiding farmers toward becoming productive, competitive, and modern.

METHODOLOGY

This study employs a qualitative descriptive research method, which aims to describe the role of agricultural extension workers in enhancing the effectiveness and efficiency of agricultural services in Palangka Raya City. The specific roles of extension workers examined in this study include their functions as motivators, educators, facilitators, and communicators. The research was conducted within the Department of Agriculture and Food Security of Palangka Raya City, with a focus on each Agricultural Extension Center (BPP) and its supervised areas across the five districts (kecamatan) of Palangka Raya City. The study was carried out from December 2024 to January 2025.

A. Data Collection Techniques

This study utilized a field study approach, where the researcher directly visited the research locations for data collection and analysis. The data used in this research consists of primary and secondary data:

1. Primary Data

- Obtained through direct observation at the research sites and interviews with respondents using a structured questionnaire aligned with the research objectives.
- The primary data was collected through interviews with the following respondents:
 - a. Head of the Department of Agriculture and Food Security of Palangka Raya City
 - b. Coordinator of Agricultural Extension (Korluh) and Agricultural Extension Workers in Palangka Raya City
 - c. Leaders of farmer groups in Palangka Raya City

2. Secondary Data

- a. Secondary sources include documents related to agricultural policies and programs. The required secondary data consists of:
 - a) Regulations, technical guidelines, and implementation guidelines
 - b) Literature books and materials from websites or online sources
 - c) Other relevant documents

RESULTS AND DISCUSSION

Since the enactment of Law Number 16 of 2006 on the Agricultural, Fisheries, and Forestry Extension System, the support for agricultural extension resources (including human resources, institutions, infrastructure, and financing) has shown improved performance, although it has not yet fully provided effective and efficient support for agricultural extension services.

The agricultural extension workforce consists of Civil Servant Agricultural Extension Workers (PNS), Contract-Based Agricultural Extension Assistants (THL-TBPP), and Voluntary Agricultural Extension Workers, as shown in the following table.

Table 1: Development of Agricultural Extension Workforce in 2023.

| No. | Agricultural Extension Workers | Number of Agricultural Extension Workers | | | | | |
|--------------|--|--|------------|------------|------------|------------|------------|
| | | Tahun 2018 | Tahun 2019 | Tahun 2020 | Tahun 2021 | Tahun 2022 | Tahun 2023 |
| 1. | Civil Servants (PNS/CPNS) | 28 | 15 | 17 | 17 | 16 | 18 |
| 2. | Contract-Based Agricultural Extension Assistants (THL-TBPP APBN) | 3 | 3 | 3 | 3 | - | - |
| 3. | Contract-Based Agricultural Extension Assistants (THL-TBPP APBD) | - | - | - | - | 1 | |
| 4. | Voluntary Agricultural Extension Workers (Swadaya) | 14 | 21 | 21 | 20 | 23 | 23 |
| 5. | Private Sector (Swasta) | - | - | - | - | - | - |
| Total | | 45 | 39 | 41 | 40 | 39 | 41 |

Source of Data: SIMLUHTAN Palangka Raya City, 2023

The placement of agricultural extension workers is adjusted based on their educational background, expertise, and the potential of agricultural resources in Palangka Raya City. The assignment of these extension workers is divided into three task groups:

1. As a Functional Position Group (KFJ) at the Department of Agriculture office,
2. KFJ at the Agricultural Extension Center (BPP)/sub-district level, and
3. As Field Agricultural Extension Officers (PPL).

However, the number of agricultural extension workers in Palangka Raya City is still insufficient to cover all 30 urban villages (kelurahan), considering the mandate of Law No. 19 of 2013, Chapter V, which stipulates that at least one agricultural extension worker should be assigned to each village/kelurahan.

Issues in Agricultural Extension Services in Palangka Raya City

Based on interviews with the Coordinator of Agricultural Extension (Korluh) and several extension personnel in Palangka Raya City, the challenges faced in the agricultural extension sector are complex and diverse. These challenges reflect various difficulties encountered by extension workers in supporting agricultural development. The main problems identified are as follows:

1. Shortage of Agricultural Extension Personnel

The number of agricultural extension workers in Palangka Raya City is very limited and does not meet the demand, especially in remote rural areas. The low ratio of extension workers to farmers results in inefficient extension services.

2. Quality of Human Resources (HR)

Many extension workers lack adequate training to keep up with modern agricultural technology advancements. Limited skill and competency updates make them less capable of providing innovative solutions.

3. Insufficient Facilities and Infrastructure

Essential facilities such as transportation, extension support tools, and technology remain inadequate, hindering effective extension services.

4. Limited Budget Support

The government's budget for agricultural extension programs is highly constrained, including inadequate incentives for extension workers, which affects their motivation and leads to suboptimal extension activities.

5. Lack of Integrated Data and Information

There is no well-integrated and accurate data system to support the planning and evaluation of extension programs, making the information provided less specific to farmers' local needs.

6. Geographical Challenges

Palangka Raya City has a vast territory with limited accessibility, making it difficult for extension workers to reach all areas effectively.

7. Lack of Institutional Synergy

Coordination between extension workers, local governments, research institutions, and the private sector is not optimal. As a result, many extension programs operate in isolation without a collaborative approach.

Duties and Functional Positions of Agricultural Extension Workers

According to Ministerial Regulation PAN-RB No. 35 of 2020 on the Functional Position of Agricultural Extension Workers, the duties of agricultural extension workers include conducting extension activities, evaluations, and the development of agricultural extension methods.

The Functional Position of Agricultural Extension Workers is divided into two categories:

1. Skill Category: These extension workers have a diploma (D-3) education level and are classified into:
 - a) Skilled Agricultural Extension Worker
 - b) Proficient Agricultural Extension Worker
 - c) Supervisory Agricultural Extension Worker

2. Expertise Category: These extension workers have a bachelor's degree or higher and are classified into:
- a) First-Level Expert Agricultural Extension Worker
 - b) Junior Expert Agricultural Extension Worker
 - c) Senior Expert Agricultural Extension Worker
 - d) Principal Expert Agricultural Extension Worker. Each level has specific duties, functions, and responsibilities.

Table 2. Positions and Number of Agricultural Extension Workers (ASN) in Palangka Raya City, 2024

| No. | Functional Position of Extension Workers | Number of Personnel |
|--------------|--|---------------------|
| 1. | Skill Category: | |
| | - Skilled Agricultural Extension Worker | 1 |
| | - Proficient Agricultural Extension Worker | - |
| | - Supervisory Agricultural Extension Worker | 1 |
| 2. | Expertise Category: | |
| | - First-Level Expert Agricultural Extension Worker | 2 |
| | - Junior Expert Agricultural Extension Worker | 10 |
| | - Senior Expert Agricultural Extension Worker | 4 |
| | - Principal Expert Agricultural Extension Worker | - |
| Total | | 18 |

Source: Agricultural Extension Coordinator (Korluh) of Palangka Raya City, 2024

Agricultural extension workers in Palangka Raya City are coordinated by an Agricultural Extension Coordinator (Korluh), who structurally operates under the Head of the Department of Agriculture and Food Security of Palangka Raya City and, in terms of work teams, functions within the Agricultural Infrastructure and Facilities Division (PSP).

Based on interview results, extension workers carry out their main duties and functions flexibly, meaning that the technical intensity of extension activities is not bound by strict schedules but is instead adjusted to the needs of farmers. The implementation of agricultural extension in Palangka Raya City follows these stages:

1. Planning

Extension workers develop extension work programs based on field conditions and identify issues faced by farmers.

2. Implementation of Extension Activities

Extension workers provide information and guidance to farmers through face-to-face meetings, digital media, or training/demonstrations.

3. Assistance and Coaching

Extension workers monitor and evaluate progress after the extension activities and provide solutions.

4. Coordination

Extension workers collaborate with relevant agencies, academics, private sectors, or local communities.

5. Evaluation and Reporting

Extension workers analyze and evaluate the progress and impact of extension activities on target farmer groups, then prepare recommendation reports for the Department of Agriculture and Food Security of Palangka Raya City.

Role of Agricultural Extension Workers

Agricultural extension activities in Palangka Raya City are conducted periodically but remain flexible, adapting to the needs of farmers. The distribution of extension workers per district in Palangka Raya City is shown in Table 3 below.

Table 3. Distribution of Agricultural Extension Workers per District in Palangka Raya City

| No. | District | Number of Villages | Number of Extension Workers |
|-------|------------|--------------------|-----------------------------|
| 1. | Pahandut | 6 | 1 |
| 2. | Jekan Raya | 4 | 3 |
| 3. | Sabangau | 6 | 3 |
| 4. | Bukit Batu | 7 | 5 |
| 5. | Rakumpit | 7 | 4 |
| Total | | 30 | 16 |

Source: Agricultural Extension Coordinator (Korluh) of Palangka Raya City, 2024

From Table 3, it is evident that the number of agricultural extension workers in Palangka Raya City is still insufficient for the 30 urban villages (kelurahan) when considering the mandate of Law Number 19 of 2013, Chapter V, which stipulates that there should be at least one extension worker per village/kelurahan. Consequently, certain villages do not receive agricultural extension services or are not accessible to extension workers. Meanwhile, there are 258 farmer groups registered with the Department of Agriculture and Food Security of Palangka Raya City, but not all of them can be reached by extension activities. Extension workers tend to focus on more accessible areas with active agricultural activities, leaving some areas underserved.

Agricultural extension activities include guidance on increasing agricultural production and productivity, pest and disease management, farmer group empowerment, government program facilitation, and assistance in accessing funding sources. However, the success of extension programs in Palangka Raya City is also influenced by local culture and the motivation of farmers themselves. Based on observations, the roles of agricultural extension workers in Palangka Raya City can be classified as follows:

1. Role of Agricultural Extension Workers as Motivators

Extension workers serve as motivators by encouraging, inspiring, and fostering a willingness among farmers to change and develop towards a better condition. This role includes raising awareness, providing inspiration and enthusiasm, and accommodating farmers' aspirations.

- Field observations indicate that extension workers in Palangka Raya City have performed their motivational role effectively, as evidenced by the strong relationships between extension workers and the farmer groups they mentor.
- Many farmer groups demonstrate high enthusiasm for their agricultural activities, although some groups struggle to develop their farming businesses successfully.

2. Role of Agricultural Extension Workers as Educators

As educators, extension workers provide training and education to farmers, ensuring they gain knowledge, skills, and better attitudes in specific agricultural areas.

- Observations indicate that extension workers in Palangka Raya City have successfully fulfilled this role by:
 - a) Providing new knowledge and technology related to farming techniques, pest and disease management.
 - b) Conducting practical training, demonstrations, and regular discussions tailored to farmers' needs.

3. Role of Agricultural Extension Workers as Facilitators

As facilitators, extension workers act as bridges connecting farmers to technological resources, financial support, training programs, and government or private sector assistance.

- Interviews with extension workers confirm that they have performed their facilitator role effectively, assisting farmers in:
 - a) Accessing technology and organizing group meetings.
 - b) Connecting farmers to financial institutions and government aid programs.
 - c) Improving market access for agricultural products.

Despite the limited number of extension workers, they have managed to fulfill their facilitation function according to their qualifications and individual capacities.

4. Role of Agricultural Extension Workers as Communicators

As communicators, extension workers are responsible for disseminating information, innovations, and knowledge to farmers, helping them understand and apply new agricultural technologies, government policies, and programs.

- However, the communicator role is still less than optimal because:

- a) Many extension workers struggle to convey agricultural innovations effectively, limiting their impact on farmers' behavior.
- b) Some extension workers in Palangka Raya lack strong communication skills, making it difficult to enhance farmers' capacity and engage younger generations (millennial farmers).

This is evident from:

- Weak farmer group institutions.
- Low farmer trust in government programs.
- Limited understanding of group management.
- Low literacy rates and lack of technological awareness.

Effectiveness and Efficiency of Agricultural Services

Effectiveness in agricultural services refers to the ability to achieve targeted objectives, including extension services, seed and fertilizer provision, and technical and financial support. Efficiency, on the other hand, refers to the optimal use of resources to maximize outcomes, not just in terms of speed and cost, but also resource allocation.

Factors Determining Effectiveness and Efficiency

- a. **Human Resources (Agricultural Extension Workers)**
Higher education levels and good communication skills are essential for effective agricultural services. Extension workers in Palangka Raya City need to continuously improve their skills to maximize their roles.
- b. **Strengthening Farmer Institutions**
Farmer institutions enable collaboration, provide financial access, and enhance welfare. Extension workers must assist in government program facilitation, including seed and fertilizer distribution programs.
- c. **Budget and Technological Support**
Adequate facilities for extension workers are essential for effective fieldwork. Proper budget allocation will enhance extension services.

Factors Influencing Agricultural Service Effectiveness and Efficiency

- a. **Infrastructure**
Good infrastructure, such as roads, bridges, and agricultural facilities, supports farm product distribution and market access.
- b. **Government Policies**
Policies supporting fertilizer subsidies, agricultural credit programs, and price protection enhance service effectiveness.

c. Farmer Participation

Active farmer involvement in government programs and best practice adoption is crucial for success. Training and empowerment programs help farmers manage resources efficiently.

d. Collaboration Among Stakeholders

Cooperation between government, private sector, academic institutions, and farmer organizations creates positive synergy. Examples include research partnerships for superior crop varieties and collaboration with financial institutions.

Role of Agricultural Extension Workers in Enhancing Agricultural Services

Agricultural extension workers play a critical role in improving effectiveness and efficiency in agricultural services through:

1. Education and Training

Agricultural extension workers provide education and training to farmers on the latest agricultural techniques and technologies, helping them adopt more efficient and productive farming practices.

2. Technology Transfer

Extension workers act as bridges between researchers and farmers, disseminating information about innovations and new technologies that have been proven to increase agricultural yields and reduce production costs.

3. Extension Services and Guidance

Extension workers offer direct field guidance, assisting farmers in identifying and solving daily agricultural challenges, including pest and disease management, fertilization, and proper planting techniques.

4. Capacity Building

Through various training programs, extension workers help enhance farmers' capacity to plan and manage their farming businesses effectively, covering aspects such as financial management, business planning, and marketing strategies.

5. Access to Information and Resources

Extension workers assist farmers in gaining access to market information, credit facilities, and quality agricultural inputs, which are essential for enhancing competitiveness and improving farmers' livelihoods.

6. Farmer Group Development

Extension workers facilitate the formation and development of farmer groups and agricultural cooperatives, providing mentorship in group management and banking access. This enables farmers to collaborate for greater economic scale, obtain better prices, and reduce risks.

7. Monitoring and Evaluation

Extension workers conduct monitoring and evaluation of ongoing agricultural programs to ensure program objectives are achieved and to provide feedback for continuous improvement.

8. Policy Advocacy

Extension workers can play a role in agricultural policy advocacy by voicing farmers' needs and challenges to the government as policy makers.

By effectively fulfilling these roles, agricultural extension workers can enhance the effectiveness and efficiency of agricultural services, ultimately leading to increased productivity, income, and overall farmer welfare.

CONCLUSION

Agricultural extension workers play a crucial role in the success of agricultural programs and services in Palangka Raya. However, the insufficient number of extension personnel remains a major challenge that affects the effectiveness and efficiency of agricultural services in the region. Besides the quantity of personnel, the quality and functional roles of extension workers must also be continuously improved, particularly in their roles as motivators, educators, facilitators, and communicators. However, not all roles are carried out optimally, especially the role of communicator. This issue arises because extension workers lack access to self-development training and other supporting skills, which could enhance their individual skills and value as service providers for the community. Therefore, the government must provide more facilities for the self-development of extension workers. High-quality extension workers will serve as key drivers in enhancing the efficiency and effectiveness of agricultural services in Palangka Raya.

REFERENCES

- Anwarudin, O., Sumardjo, S., Satria, A., & Fatchiya, A. (2020). Peran penyuluh pertanian dalam mendukung keberlanjutan agribisnis petani muda di Kabupaten Majalengka. *Jurnal Agribisnis Terpadu*, 13(1).
- Aslamia, M., Mardin, & Awaluddin. (2017). Peran penyuluh pertanian dalam pengembangan kelompok tani di Kelurahan Matabubu Kecamatan Poasia Kota Kendari. *Jurnal Ilmiah Membangun Desa dan Pertanian*.
- Hariyanti, A., & Rahayu, T. P. (2024). Implementation of good governance in improving public service performance at BNNP Central Borneo. *Journal of Public Administration Science: Policy Dynamics Public Services and Bureaucracy Transformation*, 1(1), 1–6. <https://doi.org/10.70074/jaspdt.v1i1.2>
- Jariah, A., Laksmindari, L., & Yusuf, M. (2024). Pengelolaan Dukuh Betung sebagai wisata local culture masyarakat Dayak Kabupaten Katingan. *Jurnal Darma Agung*, 30(1), 1224-1233.
- Junaidi, J., Aquarini, A., & Nauliana, N. (2019). Strategi komunikasi dalam keluarga antar suku Jawa-Dayak di Kota Palangka Raya: Communication strategy in the Java-Dayak between family in Palangka Raya City. *Anterior Jurnal*, 19(1), 113-120.
- Kurniawan, A. (2025). [Title Not Provided]. Retrieved from <http://repository.uin-suska.ac.id>
- Merton dalam Raho Bernard. (2007). *Teori sosiologi modern*. Jakarta: Prestasi Pustaka.
- Nurjulizar, M., & Irwani, I. (2024). Quality of E-KTP services in the Office Bintaro District District Administrative City Reservation South Jakarta DKI Jakarta Province. *Journal of Public Administration Science: Policy Dynamics Public Services and Bureaucracy Transformation*, 1(1), 7-11. <https://doi.org/10.70074/jaspdt.v1i1.3>
- Pratama, M. A., & Mustikaningsih, W. (2022). Politik kesejahteraan; Analisa kesejahteraan masyarakat dalam kondisi triple disruption (Kajian para pedagang kuliner lokal desa wisata; Antara Pelabuhan Rambang dan Dermaga Kereng Bengkirai). *Jurnal Darma Agung*, 30(3), 430-441.

- Pratama, M. A., Sintaman, P. I., & Verawati, V. (2022). Peningkatan kapasitas kelompok wanita tani melalui digital marketing dalam memaksimalkan hasil tani yang berkelanjutan pasca pandemi. *Jurnal Pengabdian Masyarakat Khatulistiwa*, 5(2), 105-109.
- Riyanti, N., Jariah, A., Ariyadi, A., & Selawaty, D. (2023). Actor relationship model in the development of new housing facilities in Palangka Raya City: Problems and urgency of providing public and social facilities. *Jurnal Administrasi Publik (Public Administration Journal)*, 13(2), 147-157.
- Satia, M. R., Selawaty, D., Riyanti, N., & Rahman, S. (2024). Kajian strategis tata kelola kolaboratif pasar tradisional Datarah Manuah Kota Palangka Raya. *Dinamika Governance: Jurnal Ilmu Administrasi Negara*, 14(3), 87-94.
- Soekanto, S. (2002). *Sosiologi suatu pengantar*. Jakarta.
- Sofia, F., L. S., & Sri Subekti. (2022). Peran penyuluh pada proses adopsi inovasi petani dalam menunjang pembangunan pertanian. *Jurnal Ilmiah AGRIBIOS*, 20(1).
- Surya, R. A., Ridho, F., & Yuwono, D. T. (2024). Analisis bibliometrik menggunakan VOSviewer terhadap trend digital forensik pada saat pemilu Indonesia: The bibliometric analysis using VOSviewer on digital forensics trends during the Indonesian election. *Pencerah Publik*, 11(1), 33–41. <https://doi.org/10.33084/pencerah.v11i1.7941>
- Wijianto, A. (2008). Hubungan antara peran penyuluh dengan partisipasi anggota dalam kegiatan kelompok tani di Kecamatan Banyudono Kabupaten Boyolali. *J. Agritek*, 8(2), 1-9.
- Yuwono, D. T., Hariyanti, A., & Yunanri, W. (2024). Applying clustering and recommendation system for effective supervision in Central Kalimantan Inspectorate. *Jurnal Informatika Teknologi dan Sains (Jinteks)*, 6(2), 367-374.