



Analysis of Community Leaders' Participation in the Implementation of the Environmental Security Care Movement Program in Kolam Village, Percut Sei Tuan District

Ratih Syahfitri^{1*}, Yusnadi¹

¹ Jurusan Pendidikan Masyarakat, Universitas Negeri Medan

*Correspondence to: ratihsyahfitri177@gmail.com

Abstract: This study aims to analyze the Participation of Community Leaders in the Implementation of the Environmental Security Care Movement Program (GPKL) in Kolam Village, Percut Sei Tuan District. This study uses a qualitative descriptive method. The subjects in this study were 4 people consisting of the Village Head, Hamlet Head, Karang Taruna, and Traditional Leaders. Data collection used interview, observation and documentation techniques. Data analysis techniques used data reduction, data presentation and drawing conclusions. Data validity used source triangulation and method triangulation. The results of the study show that the participation of community leaders in caring for environmental security (GPKL) is: (1) material participation that includes money participation, and property/object participation, (2) non-material participation that includes thought participation, skill participation, and energy participation.

Keywords: Participation, Community Leaders, Environmental Security Care Movement Program

Article info: Submitted May 2025 | Revised May 2025 | Accepted June 2025 | Publish June 2025

Recommended citation: Yusnadi & Syahfitri, R. (2025). Community Empowerment Process Through Tourism Village Program. *Journal of Nonformal Education and Community Empowerment*, 6(1), 9-16. <https://doi.org/10.15294/pnf.v9i1.91916>

INTRODUCTION

Security comes from the Latin word "securitas," which emphasizes protection against threats, risks, or potential dangers. In this context, security encompasses a series of preventive and responsive measures to protect individuals, groups, or assets from potential threats that can originate from various sources. According to Smuniewski (2020), security has four main elements: a feeling of freedom from worry, a feeling of freedom from risk, and a feeling of physical and spiritual peace. The concept of public security, combined with the concept of public order, becomes public security and order, a dynamic condition within an environment.

Security is a key factor in ensuring continuity and well-being. Security is the second need in Maslow's hierarchy. These include the need for security from potential dangers, protection from crime, disease, natural disasters, and so on. One of the social issues that frequently occurs in society is crime, such as theft, robbery, fraud, assault, and others. This can create discomfort for the surrounding community. According to data from the Indonesian Central Statistics Agency (BPS), taken from the 2022 Crime Data Dashboard, the number of crimes in Indonesia reached 434,768. The three highest crime rates, with 63,355 cases of theft, 51,312 cases of assault, and 49,007 cases of fraud, were recorded. Meanwhile, in North Sumatra, the number of crimes in 2022 reached 45,413. Of these, 32,074, or 70.6 percent, were resolved. Furthermore, 11,251 people were arrested for various types of crimes, including 400 cases of mugging, 690 cases of theft, and 128 cases of teenage brawls (Suminar et al., 2024).

Issues causing public discomfort in the environment are not only related to crime, but also to environmental pollution, such as waste, which causes several problems such as air pollution, soil pollution, water pollution, flooding, and even animal deaths. The Ministry of Menon & Dubey (2024) reported that national waste production reaches 175,000 tons per day. On average, each Indonesian contributes 0.7 kg of waste per day. Calculated on an annual scale, Indonesia produces 64 million tons of waste. According to The World Bank, humans produce approximately 2.01 billion tons of waste daily, which is expected to increase to 3.40 billion tons by 2050.

According to data from the Ministry of Environment and Forestry's National Waste Management Information System (Hossain, 2024), the largest source of waste is household waste (38.5%), with food scraps (41.91%). A lack of awareness of environmental protection leads to human pollution that pollutes the air. Air pollution results in a decline in air quality, which can lead to various health problems in humans. According to National Geographic (Landrigan et al., 2020) approximately 2.5 million people die annually due to the effects of air pollution. Much of human waste ends up in the ocean, polluting it. Approximately 5.25 trillion pieces of plastic waste are found in the ocean, killing 100 million marine animals annually.

From this data, it can be concluded that many issues concerning environmental discomfort remain unresolved and remain a serious topic of discussion. Therefore, public participation is needed as a form of collaborative support to maintain environmental security and order in order to achieve shared comfort. Because security is a necessary factor, there are still many incidents that cause human discomfort, so the government needs to consider and issue policies to create environmental security and order.

The village head is tasked with organizing village governance, implementing village development, fostering village community development, and empowering village communities, according to Article 26 of Law Number 6 of 2014. The duties of the village head actually require community participation in implementing village development programs and environmental security systems. Creating security and order is not only the responsibility of law enforcement officers or the village government; the community can also play a role in creating security and order, at least in their respective neighborhoods. Village security and order in an environment can be realized well if the policy is communicated to relevant parties, such as teenagers or village youth, during implementation, such as the availability of sufficient resources, both human and financial resources, and a good disposition or attitude of implementation such as commitment, consistency, honesty, and discipline in implementing the developed program. Environmental security will be optimal if the community actively participates. Based on initial observations conducted in Kolam Village, Percut Sei Tuan District, the village government, including the village head, assisted by the hamlet head, and all officials, serves as a regional task force. They are tasked with assisting the village head in carrying out his duties within his area by developing a neighborhood security and order program to address crime. This movement is called the Neighborhood Security Care Movement (GPKL).

This program was designed by the hamlet head to foster a sense of security within the Kolam Village community. The Neighborhood Security Care Movement (GPKL) program provides a platform for community participation in raising awareness and creating neighborhood security and order. The GPKL program was created based on the increasingly complex phenomenon of crime in society, including the rise of muggings and littering. In addition to muggings and littering, there are also brawls and thefts at night, causing anxiety among parents and other residents. This, of course, negatively impacts the community in Kolam Village, making parents and other residents feel uncomfortable. The Environmental Security Movement program also includes various activities, including night guard posts (siskamling) involving community leaders on a rotating basis, tree planting simultaneously in each hamlet, waste management by youth groups, mutual cooperation (gotong royong), and education on the importance of preserving the village environment through training.

Based on data found by researchers in Hamlet 04, RT 001, RT 002, and RT 003, the neighborhood security conditions are vulnerable to littering, theft, mugging, brawls, and robberies. The absence of night patrols is due to a lack of community participation. Crime is no longer a foreign phenomenon in today's society; it is a disturbing phenomenon that affects people's daily lives.

This research is important because it aims to examine the contribution of community leaders to the Environmental Security Movement Program. Typically, the community will participate in the actions of community leaders. A program will not be successful without community participation. Therefore, this study attempts to analyze the participation of community leaders in the success of the Environmental Security Movement Program (GPKL). Researchers will also examine how this program differs from other security systems in maintaining security and public order in the neighborhood.

METHODS

In this study, the researcher employed a descriptive qualitative method with a qualitative approach. This qualitative research was conducted through direct observation and interviews with informants. Sugiyono (2017) stated that the descriptive qualitative method is called an interpretive method because the research data is more concerned with the interpretation of the data found. In this study, the research subjects were four community leaders: the Head of Kolam Village, the Head of Kolam Village Hamlet, the Head of the Youth Organization, and the Traditional Leader of Kolam Village. Data collection techniques used were observation, interviews, and documentation. In the analysis process, data were collected from various sources, including interviews, which were recorded in field notes, and collected documentation. Data validity was conducted to

prove whether the research was truly scientific and to test the data obtained. To check the validity of the data, the researcher used triangulation techniques. Triangulation is checking data from various sources using various methods and at various times (Cahyani et al., 2025).

RESULT AND DISCUSSION

Kolam Village, better known as Kampung Kolam, is a village in Percut Sei Tuan District, Deli Serdang Regency. Administratively, Kolam Village consists of 13 hamlets. The population of Kampung Kolam consists of various ethnic groups. The Batak, Javanese, Malay, and Karo people inhabit the Kampung Kolam area. The majority of Kampung Kolam residents are Javanese.

The participation of community leaders in neighborhood security programs is crucial because they wield significant influence and trust among residents. With their support, the program is more easily accepted and followed by the community. Community leaders also play a role in educating residents about the importance of neighborhood security, encouraging active participation in activities such as patrols, and facilitating communication between the community and authorities. This not only strengthens social solidarity but also helps identify and resolve local problems effectively.

Chotib (2024) highlights the role of community leaders, such as village heads, traditional leaders, and youth, in encouraging community participation. She believes that community leaders have a significant influence in mobilizing both material and non-material participation. He cited the example of traditional leaders often using local wisdom to encourage residents to contribute, both in material (such as financial donations) and non-material (such as labor and time).

Furthermore, the involvement of community leaders increases the effectiveness and sustainability of environmental safety programs. The participation of community leaders, such as village heads, traditional leaders, or community leaders, in environmental safety programs plays a very strategic and important role (Cahyani et al., 2025). They ensure that the program is not just temporary but continues to evolve according to community needs. The Village Head of Kolam explained that the village head's duty is to foster community involvement and encourage environmental safety movements. Thus, the participation of community leaders creates a safer, more harmonious, and more sustainable environment for all residents.

In implementing the environmental safety movement program in Kolam Village, both the community and community leaders must participate. The term "participation" refers to the involvement and engagement of community leaders in a program or activity carried out by a party, through the provision of ideas, money, labor, and facilities. Participation cannot be interpreted as merely formal individual involvement; rather, there must be evidence or concrete actions that demonstrate the individual or group's involvement (Suminar et al., 2025).

The Environmental Security Care Movement (GKPL) program is implemented as an effort to increase community participation in maintaining environmental security and order. Community participation in this program is divided into two categories: material and non-material.

1. Material Participation

Based on field observations, it was observed that several community leaders, such as hamlet heads, village heads, and traditional leaders, contributed money to support neighborhood security activities. While the amounts varied and were voluntary, these funds were generally used for consumption purposes, such as providing drinks or snacks for residents who kept night watch or participated in community service activities (Darlin et al., 2021). The donations were not routine or formal, but rather a personal initiative based on need or specific circumstances. This differed from the youth organization (Karung Taruna), which established membership dues. These dues were collected and recorded transparently in a report book. These funds were then allocated to the neighborhood security movement program in Kolam Village.

In addition to money, material contributions also took the form of providing tools and facilities. Several community leaders provided equipment such as flashlights, lawn mowers, and other cleaning equipment. There was even a simple patrol post, built or operational, initiated by community leaders and residents. The provision of these facilities is a key support for activities such as patrols and night watch.

a. Village Head

Research results indicate that the Kolam Village Head played a crucial role in supporting the implementation of the Environmental Security Care Movement (GKPL) Program, both financially and through the provision of infrastructure. Contributions included the use of personal funds, village fund allocations, and the provision of consumption needs and environmental security

equipment. Community participation was also present, albeit limited, in the form of donations of goods and equipment.

These findings align with the theory of community participation put forward by [Sharma \(2025\)](#) in his Ladder of Citizen Participation, which emphasizes that effective community participation extends beyond tokenism to partnership and even into citizen control. In this context, the village head's involvement as a local actor strengthens the partnership model between the village government and the community.

b. Hamlet Head

Research results show that the Hamlet Head IV of Kolam Village made significant contributions in the form of material support, such as providing food for patrol activities and procuring security equipment such as flashlights, lawn mowers, and lamps. These contributions largely came from personal initiative, given the lack of adequate village funds allocated to directly support neighborhood security programs ([Chrismardani, 2016](#)). This finding aligns with the concept of Social Capital Theory proposed by [Saz-Gil et al., \(2021\)](#), which states that social capital such as trust, norms of mutual cooperation, and social networks can facilitate coordination and cooperation to achieve collective goals. The Hamlet Head, through his informal role, becomes an actor who channels this social capital into concrete actions, including material ones.

Research by [Raisio et al., \(2025\)](#) shows that local leaders who willingly allocate personal resources for the common good can strengthen social legitimacy and foster voluntary citizen participation. This is reflected in the Hamlet Head's actions, not only by donating personally but also by transparently facilitating donations from residents in deliberation forums. The Hamlet Head's decision to use personal funds also aligns with the findings of a study by [Wang et al., \(2025\)](#), which highlighted that village-level leaders often face formal budget constraints, making informal contributions an important alternative to support the sustainability of community programs.

c. Karang Taruna

Karang Taruna of Kolam Village contributes materially to support GPKL activities. These funds come from regular membership fees of Rp5,000 per meeting. Part of the collected funds are used for security activities such as providing food during night patrols and purchasing cleaning supplies. They also accept donations from residents when holding joint activities.

Karang Taruna's financial management demonstrates a shared awareness of mutual support for the benefit of the community. This aligns with [Mikhaylova et al., \(2025\)](#) opinion that youth organizations play a crucial role in supporting social activities through self-help. [Abimanyu, \(2025\)](#) also stated that regular membership fees can be an alternative source of funding when village funds are limited.

In addition to financial assistance, Karang Taruna also contributes in the form of labor, time, and skills. They are active in night patrols, community service, community education, and training on the importance of maintaining environmental security ([Mara, 2018](#)). Karang Taruna (Youth Organization) also formed a special team for security activities and clearly divided tasks among its members. They utilize skills such as communication, management, leadership, and teamwork to carry out activities. All of this demonstrates that youth are not only implementers of activities, but also drivers and planners.

d. Traditional Leaders

Traditional leaders in Kolam Village not only serve as guardians of tradition but also actively participate in environmental security programs. The material participation provided by Traditional Leaders in the GPKL program in Kolam Village has unique characteristics. Although not structured in the form of official funding allocations, material contributions are still given as a form of concern and support for environmental activities. These contributions take various forms, ranging from providing food and drinks to fuel for operational equipment such as lawn mowers during the community service activities. Traditional leaders play a crucial role in fostering community awareness of environmental security. Through direct participation in community service activities, traditional leaders provide a concrete example to residents and encourage voluntary involvement. In addition to physical involvement, they also actively provide

education in various forums such as religious studies, traditional gatherings, and religious activities. The messages they convey emphasize moral values, social responsibility, and the importance of maintaining harmony in living together. This aligns with [Rasidi et al., \(2025\)](#) finding that local culture-based education is more readily accepted by the community than formal approaches from government institutions.

2. Non-Material Participation

Non-material participation is a form of involvement in an activity without contributing money, goods, or other materials. This participation is usually manifested through moral support, energy, time, ideas, attendance, or involvement in the decision-making process.

Based on the researcher's observations, several forms of non-material participation were carried out by community leaders. Observations indicate that community leaders are actively involved in the formation of neighborhood security patrol teams, primarily carried out by the Karang Taruna (Youth Organization) and supported by the Hamlet Head and Village Head.

a. Village Head

The non-material participation of community leaders, particularly Village Head Jupri Purwanto, plays a strategic role in strengthening the implementation of the Neighborhood Security Care Movement (GPKL) Program in Kolam Village. This involvement is reflected in various forms of direct and indirect social contributions, all of which lead to increased collective awareness and social resilience of the village community against security disturbances.

Based on interviews conducted by researchers with the Kolam Village Head, several non-material forms of participation were demonstrated by the village head. The motivation for his involvement stems from his sensitivity to prevailing social conditions in the community, particularly the rise in juvenile delinquency, such as theft, drug use, and reckless behavior on the streets. This motivates the village head to actively participate in preventative activities to create a safer and more conducive environment.

b. Hamlet Head

The hamlet head's direct involvement is a prominent form of non-material participation. He actively participates in neighborhood security activities such as neighborhood security posts, mass movements, and outreach aimed at reducing juvenile delinquency, such as drug use and brawls. This participation demonstrates exemplary leadership that encourages community participation without pressure or coercion ([Suminar et al., 2024](#)).

The hamlet head conducts intensive coordination and communication through various informal forums, such as community meetings in religious study groups (*perwitan*). These forums are used to convey moral messages and appeals about the importance of maintaining neighborhood security. This strategy demonstrates that a cultural and familial approach can increase voluntary community involvement.

c. Karang Taruna

Non-material participation by Karang Taruna refers to the involvement of individuals or groups in the form of ideas, energy, skills, and time without direct financial contributions. In the context of implementing the Environmental Security Care Movement (GPKL) program in Kolam Village, Karang Taruna demonstrated significant non-material participation in various ways.

1. **Involvement in Patrols and Mutual Cooperation:** Karang Taruna members actively participate in neighborhood patrols and mutual cooperation activities initiated by the village or hamlet head.
2. **Time Allocation and Coordination:** Karang Taruna members allocate time to contribute to neighborhood security activities, particularly night watch at the patrol post and mutual cooperation activities.
3. **Independent Mutual Cooperation Initiative:** In addition to participating in mutual cooperation activities initiated by the village government, Karang Taruna also independently organizes mutual cooperation activities to clean up areas prone to illegal dumping.

4. Utilization of Specialized Skills: Karang Taruna utilizes various specialized skills to support environmental security, including communication skills for conveying information, building dialogue, and utilizing social media.
5. Formation of a Special Team: Karang Taruna has a dedicated team tasked with environmental security activities, although other members also contribute as needed.
6. Education and Socialization: Karang Taruna actively educates youth about the importance of protecting the environment. Karang Taruna targets youth groups through regular education and socialization.
7. Coordination with the Community: Karang Taruna maintains good coordination with the community in implementing environmental patrols and security monitoring. This coordination is carried out through regular meetings and collaboration with community leaders to follow up on potential security disturbances.
8. Training and Workshops: Karang Taruna regularly holds training and workshops on environmental security, with a variety of materials but always focusing on the importance of maintaining village environmental security.

d. Traditional Leaders

According to interviews with Yudi Pratikno, the Traditional Leader of Hamlet IV in Kolam Village, it was discovered that the role of traditional leaders in the GPKL program is manifested in various forms of non-material participation. One key contribution is their direct participation in mutual cooperation activities and their involvement as a communication bridge between the community and the village government. Traditional leaders play an active role in building social solidarity by directly representing the community in community activities.

Another form of non-material participation is the role of traditional leaders in education and outreach. Through various opportunities such as inter-hamlet meetings, religious activities (e.g., the Isra Mi'raj celebration, and the Prophet's Birthday), and informal interactions within the community, traditional leaders consistently convey messages about the importance of maintaining environmental security. This education is aimed at both youth and adults, as part of an effort to build collective community awareness of the values of social awareness and security.

3. Documentation of Community Leaders' Participation in the Environmental Security Care Program (GPKL) in Kolam Village

Night patrols/watch activities are a form of active participation by community leaders in maintaining environmental security. Participation in night patrols as an effort to maintain environmental security involves various community elements. In addition to youth organizations and security personnel, local residents also participate in night patrols to maintain environmental security. This activity is carried out every night in rotation.

In addition to night patrols, outreach and training activities are also conducted as a form of participation by community leaders. These activities aim to increase community awareness and skills in maintaining environmental security, as well as build synergy between residents and community leaders in creating a safe and orderly environment.

Training activities on how to maintain environmental security are also held regularly, at least once a month. The activities consist of presentations by speakers from the local police and environmental security practitioners, interactive discussions, and question-and-answer sessions. Participants include village residents, village officials, youth organizations, and community leaders such as neighborhood unit (RT/RW) heads, religious leaders, and traditional leaders. This training targeted village residents, particularly the younger generation, as a strategy to prevent juvenile delinquency.

Gotong royong (mutual cooperation) was carried out independently by the community, along with village officials and community leaders (Artha et al., 2022). The activity began at 7:00 a.m. with a gathering point in front of the hamlet hall. Residents were divided into several work groups, each tasked with clearing undergrowth and gutters, repairing broken streetlights, and repainting the dilapidated neighborhood watch post.

CONCLUSION

Based on research findings on the participation of community leaders in the implementation of the Environmental Security Care Movement (GPKL) Program in Kolam Village, Percut Sei Tuan District, it can be

concluded that community leader participation encompasses both material and non-material contributions. Material contributions include community leaders, including the Village Head, Hamlet Head, Youth Organization (Karang Taruna), and Traditional Leaders, contributing money and goods to support the GPKL program. These contributions are allocated to support program operations, such as financing consumption during night patrols, procuring equipment, and organizing community service activities. Wealth/in-kind contributions include the provision of security support facilities, such as lighting equipment (flashlights), communication devices, lawn mowers for environmental maintenance, CCTV, and cleaning equipment to maintain the sanitation of the patrol post and the surrounding area.

Non-material participation, on the other hand, involves intangible but essential contributions, namely expertise, ideas, and labor. Skills: Community leaders are actively involved in security patrols, training, and outreach to raise community awareness. Karang Taruna mobilizes youth in patrol activities and provides education on juvenile delinquency prevention. Thoughts/Ideas: Community leaders play a role in strategic planning through regular discussions to address security issues, such as brawls and littering. Collaboration with religious leaders and security forces (Babinsa) is also carried out to strengthen the program. Manpower: Community leaders are directly involved in physical activities such as mutual cooperation, building patrol posts, and environmental cleanups. This participation demonstrates a real commitment to creating a safe and orderly environment.

REFERENCES

- Abimanyu, G. G. (2025). Accountability and Community Participation in Village Fund Management: A Case Study of Midang Village, West Lombok. *Journal of Economic Perspectives and Business Innovation*, 2(01), 105–113.
- Artha, I. K. A. J., Yulianingsih, W., & Cahyani, A. D. (2022). Implementation of Managerial Competencies for PKBM Managers in Community Empowerment Program. *International Journal of Education and Learning Systems*, 7.
- Cahyani, A. D., Riyanto, Y., & Karwanto, K. (2025). The influence of management innovation, school ethos and community engagement on school quality. *Edelweiss Applied Science and Technology*, 9(5), 718–731.
- Chotib, H. M. (2024). The Role of Traditional Leaders in Local Governance: A Case Study of Jambi Province, Indonesia. *Enigma in Cultural*, 2(2), 117–130.
- Chrismardani, Y. (2016). Model Pembelajaran Kewirausahaan Yang Berkelanjutan. *Eco-Entrepreneur*, 2(1), 106–119. <https://doi.org/10.21107/ee.v2i1.1856>
- Darlin, D., Petrus, P., & Tandi, A. (2021). Strategy analysis of non-formal education service quality at the department of education and culture, Mamasa district. *Devotion: Journal of Research and Community Service*, 3(2), 141–148. <https://doi.org/10.36418/dev.v3i2.117>
- Hossain, T. K. M. E. (2024). Effects of Socio-economic and Behavioral Factors on Urban Household Food Waste Practices in Bangladesh: A Regression Analysis. *Journal of Harbin Engineering University*, 45(10).
- Landrigan, P. J., Stegeman, J. J., Fleming, L. E., Allemand, D., Anderson, D. M., Backer, L. C., Brucker-Davis, F., Chevalier, N., Corra, L., & Czerucka, D. (2020). Human health and ocean pollution. *Annals of Global Health*, 86(1), 151.
- Mara, L. C. (2018). Innovation in the government-run Continuing Vocational Education and Training programme for unemployed in Catalonia (Spain): Challenges and opportunities. *Intangible Capital*, 14(3), 370–386. <https://doi.org/10.3926/ic.1298>
- Menon, U., & Dubey, B. K. (2024). Opportunities and challenges in resource recovery from waste. *Waste-to-Wealth*, 1–21.
- Mikhaylova, O., Gulina, E., Fomicheva, E., Ivashkina, E., Nagoryanskaya, A., Jyrgalbek, J., Shelkanova, D., Valiahmetova, D., Tsyganova, E., & Kudinova, V. (2025). Examining self-help and self-improvement practices in mental health: youth narratives vs. literature and online sources. *International Journal of Adolescence and Youth*, 30(1), 2474039.
- Raisio, H., Niemi, T., Puustinen, A., Kosonen, J., & Valtonen, V. (2025). Co-producing national defense? Strategic considerations for spontaneous volunteer involvement. *International*

Journal of Public Sector Management, 1–18.

- Rasidi, R., Istiningsih, G., Masithoh, R. F., & Rosyidi, M. I. (2025). Education based on local wisdom: An alternative model for the integration of cultural values in the school curriculum in Indonesia. *International Journal of Contemporary Studies in Education*, 4(2), 114–135.
- Saz-Gil, I., Bretos, I., & Díaz-Foncela, M. (2021). Cooperatives and social capital: A narrative literature review and directions for future research. *Sustainability*, 13(2), 534.
- Sharma, V. (2025). Revisiting Arnstein's A Ladder of Citizen Participation: Strengths and Limitations in the 21 st Century. *Research Journal of Humanities and Social Sciences*, 16(2), 75–80.
- Smuniewski, C. (2020). An individual and the sense of security in a state. Religious freedom from the viewpoint of security psychology. *Polish Journal of Political Science*, 6(4), 23–43.
- Sugiyono. (2017). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, R&D*. Cetakan Ke-25. CV Alfabeta.
- Suminar, T., Arbarini, M., Malik, A., Mulyono, S. E., Siswanto, Y., Cahyani, A. D., Aliyah, K., Astuti, D. H., & Indartha, A. W. (2024). Penguatan keterampilan pembelajaran technopreneurship dengan metode proyek untuk penurunan kemiskinan ekstrem. *Jurnal Pembelajaran Pemberdayaan Masyarakat (JP2M)*, 5(4), 943–956.
- Suminar, T., Sutarto, J., Raharjo, T. J., Kisworo, B., Cahyani, A. D., & Raharjo, S. R. (2025). Development of a Triple Helix-Based Course and Training Management Model to Accelerate the Transformation of Work Competencies in the Era of Disruption. *TEM Journal*, 14(3).
- Wang, H., Guo, K., & Zhang, H. (2025). How village heads become street-level policy entrepreneurs: the case of rural revitalization in China. *Journal of Asian Public Policy*, 1–16.