

Comparison Empowerment Public In Fulfilling The Need For Clean Water For Community Welfare In Guwo Village, Wonosegoro District And Garangan Village, Wonosamodro District

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Abstract

The problem of clean water availability remains a significant issue in various rural areas, including Guwo Village and Garangan Village. Based on the research results, approximately 80% of the people of Guwo Village stated that it was easy to obtain clean water, while in Garangan Village only around 65% felt this convenience, especially experiencing difficulties during the dry season. The objectives of this study are, 1. Analyze the pattern of community empowerment in fulfilling clean water needs in Boyolali Regency 2. Analyze the impact of community empowerment on fulfilling clean water needs. The research method used by this researcher uses a qualitative approach with a sociological juridical research type. The data sources used in this study are primary, secondary and tertiary data sources. The research results show that community participation in Guwo Village is high, resulting in more effective and stable clean water management. Meanwhile, in Garangan Village, community participation is still limited, resulting in unstable water availability, especially during the dry season. The impact of empowerment is evident in improved access to clean water, improved health, and improved



social and economic relationships in the community. The theories in this study are 1) Marc Zimmerman's empowerment theory to explain the increase in community capacity and independence. 2) John Kingdon's policy theory to understand the role of policy in supporting clean water supply programs. These two theories are used to analyze the relationship between community participation and policy in the success of the program. The conclusions of this study are: 1) The empowerment pattern in Guwo Village is more organized, while Garangan Village is still self-sufficient. 2) Guwo community participation is higher (80%) than Garangan (60%), so management is more effective. 3) Empowerment improves access to water, health, and the socio-economic conditions of the community.

KEYWORDS

Comparison, Community Empowerment, Clean Water, Community Welfare.

Introduction

Clean water is a basic necessity that cannot be separated from human life because it plays a very important role in supporting the continuity of life, health, and social and economic activities of society. The availability of adequate clean water is not only related to meeting biological needs, but also a key indicator in assessing the level of community welfare. Limited access to clean water can cause various serious problems, such as an increase in environmental-based diseases, a decline in the quality of life, and hampered economic and social development ¹. In this regard, meeting the need for clean water is an integral part of sustainable development that must be guaranteed by the state.

From a constitutional perspective, water resource management has a strong legal basis as stipulated in Article 33 Paragraph (3) of the 1945 Constitution of the Republic of Indonesia, which states that the earth, water,

¹ (Organization, WH (2022). World Health Organization, Drinking Water. <https://www.who.int/publications/i/item/9789241549950>)

and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people. This provision shows that water is part of the agrarian resources under the control of the state and must be managed fairly, equitably, and sustainably. In addition, Article 28H Paragraph (1) of the 1945 Constitution also states that everyone has the right to a good and healthy environment, which includes the right to clean water as part of human rights.

Within the framework of agrarian law, the regulation of water as a natural resource cannot be separated from Law Number 5 of 1960 concerning Basic Agrarian Regulations (UUPA). UUPA places water as part of the earth and the natural resources contained therein, which are under the control of the state as stipulated in Article 2 of UUPA. The concept of "the right to control from the state" gives the state the authority to regulate the allocation, use, supply, and maintenance of water resources for the benefit of the people ². In this context, water is not seen as a mere commodity, but as a public resource with a social function, so its use must take into account the interests of the wider community. Agrarian law also recognizes the principle of the social function of natural resources, which emphasizes that every use of resources, including water, must provide benefits to the community and must not harm the public interest.

In terms of positive legal developments in Indonesia, water resource management is also regulated in Law Number 17 of 2019 concerning Water Resources, which emphasizes that water is a people's right that must be prioritized to meet basic daily needs. This law also stipulates that water resource management must be carried out sustainably with community participation ³. This demonstrates the close relationship between agrarian

² (Harsono., B. (2008). *Indonesian Agrarian Law*, Jakarta: Djambatan. <https://www.academia.edu/download/99511990/2245.pdf>)

³ (Law. (2019). *Number 17 concerning Water Resources*. <https://peraturan.bpk.go.id/Home/Details/122742/uu-no-17-tahun-2019>)

law and the concept of community empowerment, where communities are not only objects but also subjects in water resource management.

However, in its implementation, fulfilling the right to clean water still faces various challenges, both structural and social. ⁴Limited infrastructure, uneven water distribution, and environmental degradation are the main factors affecting clean water availability ⁵. Furthermore, low community participation in water resource management is also an obstacle to achieving sustainable management ⁶. Therefore, an approach that is not only technical but also social through community empowerment is needed as part of the implementation of the principle of agrarian justice.

In this context, community empowerment is a crucial strategy for increasing capacity, awareness, and participation in water resource management. Through empowerment, communities are encouraged to actively participate in the planning, management, and maintenance of water resources, resulting in more effective and sustainable management. ⁷This approach aligns with the principles of agrarian reform, which emphasize the importance of community access, control, and participation in agrarian resources.

The problem of access to clean water also occurred in Boyolali Regency, where during the 2024 dry season, 21 villages in 8 sub-districts experienced a shortage of clean water. This condition indicates unequal access to water resources that should be optimally utilized for community welfare. ⁸Government efforts through the distribution of clean water aid

⁴ (Bappenas, *National Development Report*, (2023) <https://bnpb.go.id/>

⁵ (Ministry of Environment and Forestry, 2. (2022). <https://jdih.kemenkoinfra.go.id/id/permen-lhk-no-2-tahun-2022>)

⁶ (Robert Chambers. (2005). *Participatory Rural Appraisal*. <https://www.ids.ac.uk/publications>)

⁷(Edi Suharto. (2005.). *Building Society Empowering the People*, . Bandung: Refika Aditama. <https://opac.perpusnas.go.id/DetailOpac.>)

⁸ (BPBD. (2024). *Boyolali Regency is active in addressing clean water shortages*. <https://share.google/2zqe4B1gx1t5cV9kS>)

have indeed been able to address short-term needs, but have not addressed the root of the problem related to the sustainable management and distribution of water resources. This phenomenon indicates that clean water issues in Boyolali Regency are not only related to technical aspects, but also related to aspects of agrarian law, particularly regarding the control, management, and distribution of water resources ⁹. In this regard, community empowerment is crucial as an effort to strengthen the community's position in accessing and managing water resources independently.

In line with this, the issue of clean water provision has also become a global concern as outlined in **the Sustainable Development Goals (SDGs)** , particularly **Goal 6 (Clean Water and Sanitation)** , which targets the availability and sustainable management of clean water and sanitation for all. This target emphasizes the importance of universal and equitable access to safe and affordable drinking water, improving water quality, and strengthening community participation in water resource management. Furthermore, the link between clean water and other goals such as poverty alleviation (Goal 1), good health (Goal 3), and sustainable development (Goal 11) demonstrates that clean water is a key element in achieving overall community well-being. Therefore, community empowerment efforts in clean water management are not only relevant in the context of national and agrarian law, but also part of the global commitment to realizing sustainable development.¹⁰

Based on the above description, it can be understood that the problem of clean water is a complex and multidimensional issue, which is not only related to technical aspects, but also legal, social, and agrarian

⁹ (Boyolali, B. (2024). *Drought Report*. <https://share.google/7vkU5wXoSMc6JrS45>)

¹⁰ United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development* . New York: United Nations, 2015. <https://sdgs.un.org/2030agenda>

justice aspects.¹¹Therefore , a comprehensive study is needed to analyze how community empowerment can play a role in meeting clean water needs and the extent to which these efforts contribute to improving community welfare. Thus, this study is entitled "Comparison of Community Empowerment in Meeting Clean Water Needs for Community Welfare in Guwo Village, Wonosegoro District and Garangan Village, Wonosamodro District."

Methods

The research method used in this study is a qualitative approach (*qualitative research*) with a juridical-sociological type of research. This study focuses on two things, namely a comparison of community empowerment patterns in meeting clean water needs in Guwo Village, Wonosegoro District and Garangan Village, Wonosamodro District, and its impact on community welfare. This research is located in Guwo Village, Wonosegoro District and Garangan Village, Wonosamodro District, Boyolali Regency. The data in this study are sourced from primary data (interviews with the community and related parties), secondary data (primary legal materials in the form of laws and regulations and secondary legal materials in the form of books, journals, and previous research results), and tertiary data (dictionaries, encyclopedias, and other supporting sources). Data collection was carried out through library research *and* field research *which* included interviews, observation, and documentation. The data were then validated using source triangulation techniques, namely comparing data from various sources to obtain data validity. Next , the data were analyzed. use technique analysis qualitative

¹¹ (Soerjono, S. (2015). *Sociology: An Introduction (Revised Edition)*. Jakarta: Rajawali Pers. <https://opac.perpusnas.go.id>)

interactive which includes data collection , data reduction , data display , and withdrawal conclusion or verification (*conclusion/verification*).

Results and Discussion

Subdistrict Wonosegoro and District Wonosamodro own different regional characteristics Good from aspect condition geographical , topographic , physiographic , and availability source water power . Difference conditions in the area can influence fulfillment clean water needs for communities in each region.

Seen from condition geographical , sub-district Wonosegoro have sufficient territory spacious and located in the part east Regency Boyolali as well as bordering with the Regency area Grobogan . This area consists of several villages with rural characteristics, most of whose residents make their living in agriculture. Meanwhile, Wonosamodro District, located in the northern part of Boyolali Regency, is also dominated by villages whose primary economic activities are agriculture and smallholder plantations.¹²

In terms of topography, Wonosegoro District has a relatively flat to undulating terrain, with an elevation of approximately 100–400 meters above sea level. These conditions are quite supportive of agricultural activities and facilitate access to groundwater sources such as dug wells and drilled wells. In contrast, Wonosamodro District has a more hilly topography, with an elevation of approximately 200–500 meters above sea level, which limits access to clean water in some areas (Boyolali Regency Government, 2022).

Physiographically, Wonosegoro District is dominated by lowlands to gently sloping hills with relatively fertile soil that retains groundwater well. This condition supports a stable groundwater supply for the community's

¹² (Disaster., BN (2023). *Guidelines for drought management and emergency clean water provision*. BNPB. <https://bnpb.go.id/>)

needs. Conversely, Wonosamodro District is characterized by hills with steeper slopes and soil structures that tend to permeate water more quickly, making groundwater availability relatively limited and uneven across regions.

In terms of water resources, residents in both sub-districts generally utilize natural water sources such as dug wells, drilled wells, and springs located in the hilly areas. In Wonosegoro Sub-district, some residents also utilize rainwater harvesting and a village water distribution system managed independently by the community. Meanwhile, in Wonosamodro Sub-district, residents largely utilize spring water that is channeled through a network of pipes to residential areas, so clean water management is usually carried out by village water management groups or the local community. The socio-economic conditions of the community in Wonosegoro Sub-district show a relatively good level of stability as a rural, agrarian-based area. The majority of residents work in the agricultural sector, either as landowners or farm laborers, making this sector the primary source of livelihood for the community. In addition, some residents also run small businesses such as trading, raising livestock, and are involved in other informal sectors as a form of economic diversification. This agrarian-based economic structure reflects a simple community lifestyle, with consumption levels tending to be adjusted to income. This condition makes the economic life of the community relatively stable despite limited resources and access to wider economic opportunities.

The stability of the socio-economic conditions of the Wonosegoro District community is inseparable from their ability to adapt to existing environmental conditions. The community has developed a fairly robust survival strategy, particularly in the face of various challenges such as seasonal changes, limited land, and fluctuations in agricultural yields. One form of adaptation is undertaking side jobs outside the agricultural sector, such as working as a day laborer, starting a small business, or utilizing local resources for productive economic activities. Furthermore, the community

tends to adopt simple and frugal consumption patterns, thus maintaining household economic stability even though incomes are not always high.

The community's ability to efficiently manage limited resources is also a crucial factor in maintaining economic stability. The Wonosegoro community utilizes available local resources, such as agricultural land, water sources, and livestock products, to meet their daily needs. This resource utilization pattern is carried out sustainably and adapted to environmental conditions, thus supporting the community's long-term economic sustainability. Thus, despite facing various limitations, the community is able to maintain a relatively stable economic condition and avoid significant fluctuations.

From a social perspective, the Wonosegoro District community still upholds the values of togetherness, mutual cooperation, and social solidarity. These values are reflected in various community activities, such as community service, religious activities, and participation in village development. Close inter-community relationships serve as crucial social capital in supporting the community's socio-economic stability. Under certain circumstances, such as when facing economic hardship or disasters, the community supports one another and works together to overcome the challenges.

This strong social capital also plays a role in strengthening community resilience to various economic pressures. Communities rely not only on individual resources but also leverage existing social networks for mutual support. This demonstrates that the socioeconomic stability of a community is determined not only by economic factors but also by the strength of social relationships within it. With strong solidarity, communities are able to create effective social support systems to maintain shared well-being.

In contrast to Wonosegoro District, the socio-economic conditions of the Wonosamodro District exhibit more complex dynamics and are not yet fully stable. Like Wonosegoro, the majority of the population in

Wonosamodro also works in the agricultural sector as farmers and farm laborers. However, the level of dependence on the agricultural sector in this area tends to be higher, making the community more vulnerable to changes in natural and environmental conditions. In addition to agriculture, some residents are also involved in the informal sector, such as small trade, services, and household businesses, but their contribution to income remains relatively limited.

High dependence on the agricultural sector is a major factor affecting the economic stability of the Wonosamodro District community. Seasonal changes, particularly the dry season, often result in decreased agricultural yields, making community incomes uncertain. This situation is exacerbated by limited access to water resources and adequate agricultural technology, preventing optimal agricultural productivity. As a result, communities often struggle to meet their basic needs, especially when harvests decline.

To address these challenges, some Wonosamodro residents have sought alternative employment outside the agricultural sector, such as working as laborers outside the area, starting small businesses, or engaging in odd jobs. However, these efforts have not significantly improved the community's economic stability. This indicates that economic diversification in this region remains limited and requires further development.

From a social perspective, the Wonosamodro District community also maintains strong values of togetherness and mutual cooperation. Community participation in social activities and village development is still evident, although not as strong as in Wonosegoro District. These social values remain crucial in supporting community life, particularly in the face of various economic difficulties. However, greater economic pressures sometimes mean that social solidarity cannot fully address the challenges faced by the community.

Furthermore, unstable socioeconomic conditions also impact people's well-being. Income uncertainty causes people to be more cautious with their spending and makes it difficult to make long-term investments, such as education or business development. This can hinder long-term improvements in people's quality of life.

Thus, it can be concluded that the socioeconomic conditions of the Wonosegoro District community are relatively more stable than those of Wonosamodro District. This stability is influenced by the community's adaptability, diversification of income sources, and strong social capital. Meanwhile, the Wonosamodro District community still faces various challenges, particularly related to dependence on the agricultural sector and limited resources, resulting in a more dynamic and less stable economic condition.

In this regard, strengthening efforts are needed in various aspects, both economic and social, to improve community welfare, particularly in Wonosamodro District. Developing alternative economic sectors, increasing access to resources, and strengthening community capacity are crucial steps in creating more stable and sustainable socioeconomic conditions in the future.

The results of the study show that community empowerment in fulfilling clean water needs in Boyolali Regency, especially in Guwo Village and Garangan Village, has quite significant differences in terms of patterns, levels of participation, and their impact on community welfare.

In Guwo Village, community empowerment has developed in a more structured and systematic manner. The community plays a more structured and systematic role, not only as beneficiaries but also as key stakeholders in clean water management. This is evident in their involvement in the planning, implementation, and maintenance of clean water facilities. This involvement fosters a strong sense of ownership, enabling the community

to actively maintain the program's sustainability ¹³.

In contrast, in Garangan Village, community empowerment patterns remain self-reliant and poorly organized. Community involvement is limited to the utilization stage, not to the point of collective management. This situation results in ineffective and unsustainable clean water management.

This difference in participation rates directly impacts access to clean water. The majority of residents in Guwo Village (around 80%) report easy access to clean water, while in Garangan Village, only around 65% experience this access, particularly during the dry season.

Furthermore, research results also show that community empowerment has a positive impact on various aspects of community life. This impact extends beyond increasing access to clean water, including improvements in health, social relationships, and economic conditions . Communities actively involved in empowerment programs tend to have a higher awareness of the importance of sustainable water management.

1. Analysis Comparison Community Empowerment in Fulfillment Clean Water Needs

Research result show that empowerment public in fulfillment clean water needs in Guwo Village and Garangan Village own quite a difference significant , good from aspect pattern , level participation , as well as effectiveness management source water power . Difference This No only reflect variation condition social and institutional village , but also shows how is the empowerment process public can determine success a development program based community .

In Guwo Village, community empowerment has been implemented in a more structured and systematic manner. This is evident in community

¹³ (Marc A. Zimmerman. (1995.). *Psychological Empowerment* <https://link.springer.com/article/10.1007/BF02506983>)

involvement in every stage of the program, from planning and implementation to evaluation. This involvement demonstrates that the community is not merely an object of development but also an active participant in determining the program's direction and success. The existence of well-functioning village institutions, such as water management groups, also strengthens this empowerment process, creating a more effective and sustainable management system ¹⁴.

In contrast, in Garangan Village, community empowerment remains limited and not yet optimally organized. Community participation tends to be low, and involvement is more focused on utilization rather than management. This indicates that the empowerment process has not been fully implemented, resulting in the community lacking sufficient capacity to manage water resources independently.

These differences can be analyzed using the empowerment theory proposed by Marc Zimmerman. Zimmerman states that empowerment consists of three main dimensions: intrapersonal, interactional, and behavioral. In Guwo Village, these three dimensions have developed relatively equally. The intrapersonal dimension is evident in the community's increased confidence in managing water resources. The community has realized that they can play an active role in clean water management and have a responsibility for the program's sustainability.

The interactional dimension in Guwo Village is reflected in the community's ability to build cooperation with various parties, both within the village government and among community members. Good coordination demonstrates the community's ability to understand its social environment and optimally utilize existing resources. ¹⁵Furthermore, the behavioral dimension is also evident in the community's concrete actions in

¹⁴ (Ife, Jim, *Community Development: Creating Community Alternatives*, (2013.) <https://scholar.google.co.id/citations?user=Np21p2cAAAAJ&hl=>)

¹⁵ Suripin. (2002.). *Conservation of land and water resources*. Yogyakarta: Andi Offset. <https://opac.perpusnas.go.id/>)

managing, maintaining, and developing clean water facilities. ¹⁶This active participation is an indicator that empowerment has been effective.

In contrast, in Garangan Village, these three dimensions have not yet developed optimally. In the intrapersonal dimension, the community remains dependent on external assistance, resulting in low self-confidence in managing water resources. In the interactional dimension, the lack of coordination and cooperation between the community and the village government indicates that social networks have not yet been properly established. Meanwhile, in the behavioral dimension, community involvement in clean water management remains limited, resulting in suboptimal concrete actions to maintain the program's sustainability.

In addition to internal societal factors, differences in empowerment are also influenced by institutional and policy factors. In this regard, John Kingdon's policy theory can be used to explain these differences. Kingdon states that the success of a policy is influenced by three main components: the problem stream, the policy stream, and the political stream.¹⁷

In Guwo Village, these three components appear to be working synergistically. Issues related to clean water needs are properly identified (problem stream), then addressed with appropriate policies and programs (policy stream), and supported by the commitment of the village government and community (political stream). This synergy creates conditions conducive to successful community empowerment.

In contrast, in Garangan Village, these three components have not been operating optimally. Clean water issues do exist, but they haven't been addressed with structured and sustainable policies. Furthermore,

¹⁶ (Widiastuti, FN (2025). Clean water, managed waste: Building a sustainable economy through community empowerment. *Jurnal Pengabdian Harapan Ibu (JPHI)*, 7(3). <https://jurnal.stikes.hi.ac.id/index.php/jphi/issue/view/39>)

¹⁷ (Kingdon, JW (2014). *Alternatives, and public policies (2nd ed.)*. Boston: Pearson Education.)

institutional support and community participation are still limited, preventing existing programs from delivering optimal results.

Furthermore, the results of this study also show that community participation is a key factor in the success of empowerment. Participation does not only mean involvement in physical activities, but also includes involvement in decision-making and program management.¹⁸ The higher the level of community participation, the greater the likelihood of program success.

This aligns with Chambers's opinion that community participation is a crucial element in community-based development.¹⁹ Without active community participation, development programs tend to be unsustainable because communities lack a sense of ownership.

Thus, a comparison between Guwo Village and Garangan Village demonstrates that effective community empowerment requires a combination of active community participation, strong institutional support, and appropriate policies. These three factors are interrelated and determine the success of sustainable water resource management.

TABLE 1. Comparison Community Empowerment in Management Clean water

No	Regarding	Guwo Village	Garangan Village	Information
1.	The main source of clean water used by the community	a. PAMSIMAS Program b. Well owned by inhabitant c. Serang River	a. Wells dug by residents b. Public facility drilled wells c. Water tank assistance moment	Garangan Village more Lots utilise well dig and well drill general, while Guwo Village

¹⁸ (Soetomo. (2013.). *Community Development Strategies*. Yogyakarta: Pustaka Pelajar. <https://onsearch.id/Record/IOS1.INLIS00000000011234>)

¹⁹ (Robert Chambers, (1994). *Participatory Rural Development*. <https://www.ids.ac.uk/publications/participatory-rural-appraisal-pra-methods/>)

			drought	own more water sources diverse including the PAMSIMAS program.
2.	Forms of community involvement in clean water management	a. Involved in water network management b. Working together to protect water sources c. Participate in the maintenance of water facilities	a. Keeping the well clean b. Use shared facilities in an orderly manner c. Mutual cooperation to clean the water source area	Both villages show community participation, but in Guwo Village community involvement is also seen in the management of the clean water system.
3.	Maintenance of clean water facilities	a. Carried out by the community together with program managers b. Cooperation between residents and village government c. Regular (routine) maintenance of water	a. Done independently by the community b. Cooperation between citizens c. Simple repairs through mutual cooperation	Guwo Village has a more organized maintenance system due to the community-based clean water program.

		facilities		
4.	Obstacles in meeting clean water needs	a. Limited water discharge during the dry season b. Damage to water facilities c. Water needs increase during the dry season	a. Decrease in water discharge during the dry season b. Some wells are running dry c. Geographical conditions that affect water availability	Both villages face obstacles, especially during the dry season, but these conditions are more pronounced in Garangan Village.
5.	Level of public awareness in protecting water sources	a. Use water sparingly b. Maintaining the cleanliness of water sources c. Participate in environmental activities	a. Maintain cleanliness of the environment around the well b. Use enough water c. Avoiding pollution of water sources	Public awareness in both villages is quite good in maintaining water sources so that they can continue to be used sustainably.

Source: Research Results 2026

2. Analysis of the Impact of Community Empowerment on Community Welfare

Community empowerment to meet clean water needs is a development approach that focuses not only on providing infrastructure but also on increasing community capacity and independence. In the context of this research, community empowerment efforts in Guwo Village and Garangan Village demonstrated significant differences in their impact on community well-being. These impacts extend beyond access to clean water to encompass health, social, and economic aspects of the community.²⁰

In general, the research results indicate that community empowerment in Guwo Village has had a more positive impact than in Garangan Village. This is due to the higher level of community participation and a more organized management system in Guwo Village. Conversely, limited empowerment in Garangan Village has resulted in suboptimal impacts and has not been felt equally by the entire community.

In terms of access to clean water, community empowerment plays a crucial role in increasing the availability and ease of access for the community. In Guwo Village, the success of the empowerment program is demonstrated by the high percentage of residents who reported easy access to clean water, at around 80%. This indicates that clean water management is well-functioning and capable of sustainably meeting community needs. Conversely, in Garangan Village, only around 65% of residents reported easy access to clean water, while the remainder still experience difficulties, particularly during the dry season. These

²⁰ (John W. Kingdon, A. (1995). *Alternatives, and Public Policies*, New York: HarperCollins. <https://questanbridge.com/wp-content/uploads/2024/11/Agendas-Alternatives-and-Public-Policies.pdf>)

limitations indicate that community empowerment has not been able to optimally improve access to clean water. The main factors contributing to this situation are low community participation and a lack of coordination in water resource management.

Increasing access to clean water has significant implications for public well-being, particularly in terms of health. Clean water is a basic need that is crucial for maintaining personal and environmental hygiene.²¹ Communities with access to clean water can practice clean and healthy living practices, such as handwashing, bathing, and maintaining a clean environment, thereby reducing the risk of environmental-related diseases.²²

In Guwo Village, increased access to clean water has resulted in improved public health. Research shows that the village has seen a decrease in sanitation-related illnesses, such as diarrhea and skin diseases. This demonstrates that community empowerment in clean water management can provide tangible benefits in improving public health. Conversely, in Garangan Village, limited access to clean water makes the community more vulnerable to disease. During the dry season, when water availability is very limited, residents often have to use less clean water sources, increasing the risk of disease. This situation demonstrates that suboptimal community empowerment can negatively impact public health.²³

²¹ (Ridwan, NM (2024.). *Access to clean water in coastal Jakarta towards public health and welfare*. Waste Handling and Environmental Monitoring, 1(1). <https://journal.bappenas.go.id> .)

²² (Putri Mahadewi, SR (2025). Fulfillment of legal health guarantees for clean water environmental sanitation for residents of North Jakarta. *Journal of legal research* . <https://journal.uir.ac.id/index.php/JKP/article/view/16408>)

²³ (Setyaningrum, AM (2022). Provision of Clean Water and Sanitation in Sustainable Development. *SDGs Journal, Veteran National Development University Jakarta* . <https://journal.uir.ac.id/index.php/JKP/article/view/16408>)

In addition to health aspects, community empowerment also has a significant impact on social aspects. Community empowerment encourages cooperation and active participation within the community. In Guwo Village, clean water management activities serve as a means to strengthen social relations within the community. The community works together to build, maintain, and manage clean water facilities, creating more harmonious relationships and a strong sense of solidarity. The community's mutual cooperation activities in clean water management also demonstrate an increased sense of shared responsibility for the facilities they own. ²⁴The community not only utilizes these facilities but also plays an active role in maintaining their sustainability. This demonstrates that community empowerment can increase social cohesion and strengthen the social structure within a community.

Conversely, in Garangan Village, low community participation has resulted in suboptimal social relations in clean water management. Lack of cooperation and coordination among communities has resulted in ineffective clean water management. Furthermore, a low sense of ownership of existing facilities has led to a lack of attention to their maintenance. From an economic perspective, community empowerment in clean water management has also had a significant impact. Clean water is a crucial factor in supporting various community economic activities, particularly in rural areas where the majority of the population relies on agriculture and small businesses.²⁵

²⁴ (Prasetyo, A. &. (2024). Analysis of community-based clean water management policies in Indonesia. *Journal of Public Policy and Development*, , 9(1), 45–60. <https://jurnal.syntaxliterate.co.id>)

²⁵ (Wulandari, D. &. (2024). Community empowerment model in fulfilling basic needs: Case study of rural areas of Central Java, *Journal of Social Empowerment*, , 12(1), 67–84. <https://jurnaldikbud.kemendikdasmen.go.id>)

In Guwo Village, the stable availability of clean water enables the community to better carry out various economic activities. For example, in the agricultural sector, sufficient water availability allows farmers to manage their land more optimally, thereby increasing production yields. Furthermore, the availability of clean water also supports household businesses, such as food and beverage businesses, which require clean water as a primary ingredient. Conversely, in Garangan Village, limited access to clean water presents a barrier to economic activities. Communities must incur additional costs for water or even reduce water-dependent economic activities. This situation demonstrates that limited community empowerment can impact low economic productivity.

Community empowerment also contributes to increased community independence. Empowered communities have the ability to identify problems, formulate solutions, and implement programs independently. In Guwo Village, the community has demonstrated a high level of independence in clean water management. They are not solely dependent on government assistance but are also able to manage existing resources independently. In contrast, in Garangan Village, the level of community independence remains low. The community still relies on external assistance for clean water management, so existing programs cannot be implemented sustainably. This indicates that community empowerment has not been optimal in increasing community capacity and independence.

The findings of this study align with the empowerment theory proposed by Edi Suharto, who states that community empowerment aims to increase community capacity, independence, and well-being. Empowerment focuses not only on providing assistance but also on the process of increasing community capacity to manage resources

independently ²⁶. Furthermore, community empowerment plays a crucial role in ensuring the sustainability of development programs. Programs that actively involve the community tend to be more sustainable because the community feels ownership of the program. They will be more responsible in maintaining and developing the

No	Regarding	Garangan Village	Guwo Village	Analysis	Information
1.	Impact on Daily Life	Activities are disrupted during the dry season (bathing, washing, cooking)	Relatively more controlled although there are still limitations	Both villages experience drought in certain months, usually June-August, but the impact is different because their water management systems are also different.	a. During the dry season, Garangan residents have difficulty getting water, disrupting their daily activities. b. In Guwo, water needs can still be met, although limited. c. This is because Guwo has a more organized water

²⁶ (Edi Suharto. (2005.). *Building a Community Empowering the People*, Bandung: Refika Aditama. <https://opac.perpusnas.go.id/DetailOpac>.)

					distribution system (PAMSIMAS). d. Differences management cause level stability different .
2.	Impact on Agriculture	Agriculture is disrupted due to water shortages	The majority of agriculture is rain-fed, during the dry season farmers delay planting.	Water shortages or droughts in both villages cause farmers to experience delays in planting seasons or disrupt agricultural activities, especially in rain-fed systems.	a. In Garangan, agricultural land is short of water because the majority of corn farmers must rely on rainwater, resulting in decreased yields or corn that is less ready for harvest. b. In Guwo, farmers are accustomed to delaying planting during the dry season. c. However, the

					rain-fed system keeps both dependent on the seasons.
3.	Social Impact	Potential for high dependence on aid	High social solidarity, residents help each other	Water shortages can affect social relations in communities and increase dependence on aid, but they can also strengthen solidarity between residents.	a. Garangan residents often wait for water assistance from the government. b. Guwo residents rely more on cooperation between residents because many young people join communities such as Pancasila Youth and others. d. Community participation is the main differentiator.

4.	Potential Conflict	There is potential if the distribution is not even	Minimal conflict due to deliberation and mutual cooperation	The potential for conflict can arise due to uneven water distribution, but can be minimized through deliberation and mutual cooperation.	a. In Garangan, water distribution can cause tension. b. In Guwo, water distribution is carried out through deliberation and mutual cooperation. This unequal system increases the potential for conflict.
5.	Changes in Community Behavior	Start learning to save water	Already used to saving water and sharing	People are starting to adopt water-saving behavior and are getting used to sharing its use.	a. Garangan residents have started to conserve water due to limited water resources. b. Guwo residents have become accustomed to using water

					wisely. c. This habit is formed from conditions they experience continuously. d. Awareness collective in Guwo more strong .
6.	Sustainable Water Management	Still need to strengthen water systems and sources	More sustainable because it is based on community participation	Water management still needs to be improved, but community-based management tends to be more sustainable.	a. Garangan still relies on aid and limited resources, as there are only a few drilled wells that may run out of water during the dry season. b. Guwo has community-based management (PAMSIMAS), shared (public) drilled wells,

					and private wells. . c. This makes management in Guwo more stable than in Garangan.
7.	Impact of Empowerment	Helping to fulfill basic needs	Increasing community independence, solidarity and resilience	Empowerment helps fulfill basic needs and increases community independence and solidarity.	a. In Garangan, empowerment is still limited to meeting water needs. b. In Guwo, the community is already able to manage its own water. c. Community involvement is higher in Guwo, because the progress of its youth is also different, such as many joining communities etc., in

					contrast to Garangan village . d. This increases community resilience.
8.	Level of Welfare	Regarding Sufficient Water fulfilled However Not yet stable	More stable and supports community welfare	Water needs are adequately met but are not yet stable, while good management can improve community welfare.	a. Garangan still experiences water uncertainty during the dry season, which usually occurs between June and August. b. Guwo is more stable because the system is running well. c. Sufficient water support health and activities economy .

program so that it continues to provide long-term benefits.

In Guwo Village, the sustainability of the clean water management program is evident in the consistent management system and active

community participation in facility maintenance. ²⁷Conversely, in Garangan Village, program sustainability remains a challenge due to low community participation and the lack of a clear management system. Therefore, it can be concluded that community empowerment has a very broad impact on community welfare. These impacts include increased access to clean water, improved health conditions, enhanced social relations, and increased community economic activity. The difference in impact between Guwo Village and Garangan Village indicates that the level of empowerment success is greatly influenced by the level of community participation and institutional support.

In this regard, community empowerment efforts need to be more intensive and sustainable, especially in villages with low participation rates. The government and relevant parties need to encourage community involvement in every stage of the program and strengthen local institutions so that the program can have an optimal impact on community well-being.

Table 2. Impact Community Empowerment in Fulfillment Clean Water Needs

Source : Research Results 2026

Conclusion

Empowerment public in clean water management own a very important role in determine success fulfillment need base as well as improvement welfare community . Research results show that Guwo Village own level more optimal empowerment compared to Garangan Village , which is characterized by with height participation society , the existence of

²⁷ (Ibal, L. &. (2022.). Community Participation in the Community-Based Drinking Water and Sanitation Provision Program (PAMSIMAS). *AJAD: Journal of Community Service*. <https://journal.msti-indonesia.com/index.php/ajad/article/view/150>.)

strong institutions , as well as system better management organized and sustainable . This situation has resulted in a more stable supply of clean water and provides tangible benefits in improving the health, social, and economic aspects of the community. Conversely, Garangan Village still faces various obstacles, primarily due to low community participation and a suboptimal empowerment system. Consequently, clean water management has not been effective and continues to experience limitations, particularly during the dry season.

Suggestion

Based on the research findings, it is recommended that village governments be more active in strengthening clean water management institutions and encouraging community involvement through structured and sustainable programs. Communities are also expected to increase awareness and participation in the management and maintenance of clean water facilities to foster independence and program sustainability. Furthermore, local governments need to provide support in the form of policies, funding, and technical assistance, particularly for villages with limited clean water management capabilities. Further research is expected to develop more in-depth studies on innovative and sustainable community empowerment strategies for water resource management in rural areas.

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