

## Evaluation of the Clean Water Supply System Development Program in Bojonegoro from the SDGs Perspective

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### Abstrak

Penelitian ini menyajikan kebaruan berupa evaluasi komprehensif terhadap kebijakan program pembangunan sistem air bersih di Kabupaten Bojonegoro dengan memberikan gambaran terkini mengenai capaian program tersebut dalam mendukung pencapaian tujuan pembangunan berkelanjutan (SDGs). Penelitian ini bertujuan mengevaluasi program pembangunan sistem penyediaan air bersih di Kabupaten Bojonegoro dalam mendukung pencapaian Sustainable Development Goals (SDGs) poin ke-6, yang berfokus pada akses universal terhadap air bersih. Penelitian menggunakan metode deskriptif kualitatif, dengan data primer dari wawancara dan observasi lapangan serta data sekunder dari dokumen terkait. Hasil menunjukkan bahwa program ini berhasil meningkatkan akses air bersih hingga 98,23%, mendekati target RPJMD dan memberikan dampak positif bagi masyarakat. Evaluasi berdasarkan teori William N. Dunn menunjukkan efektivitas dan efisiensi yang tinggi, dengan pengelolaan anggaran yang optimal. Namun, tantangan berupa pemerataan akses, kecukupan, dan ketepatan sasaran masih perlu diperbaiki. Ketimpangan distribusi pembangunan terlihat di beberapa kecamatan yang terdampak kekeringan. Meski demikian, program ini mendapat respons positif dari masyarakat karena mampu meningkatkan kualitas hidup dan mengurangi risiko kesehatan. Upaya lebih lanjut diperlukan untuk memastikan pemerataan dan keberlanjutan program demi tercapainya target SDGs pada tahun 2030.

**Kata kunci:** *Evaluasi*<sup>1</sup>; *Pembangunan*<sup>2</sup>; *Air Bersih*<sup>3</sup>; *SDGs*<sup>3</sup>

### Abstract

This research presents novelty in the form of a comprehensive evaluation of the clean water system development program policy in Bojonegoro Regency by providing the latest picture of the program's achievements in supporting the achievement of sustainable development goals (SDGs). This study aims to evaluate the clean water supply system development program in Bojonegoro Regency in encouraging the achievement of Sustainable Development Goals (SDGs) point 6, which is oriented towards universal access to clean water. The study used a qualitative descriptive method, with primary data from interviews and field observations and secondary data from related documents. The results showed that this program increased access to clean water by 98.23%, approaching the RPJMD target and positively impacting the community. Evaluation based on William N. Dunn's theory showed high effectiveness and efficiency, with optimal budget management. However, challenges in equal access, adequacy, and accuracy of targets still need to be improved. The inequality of development distribution was seen in several sub-districts affected by drought. However, this program received a positive response from the community because it improved the quality of life and reduced health risks. Further efforts are needed to ensure the equality and sustainability of the program to achieve the SDGs targets by 2030.

**Keywords ;** *Evaluation; Development; Clean Water; SDGs*

## 1. INTRODUCTION

Water plays a crucial role in the survival and health of the entire ecosystem (Cianfaglione et al., 2022). Clean water is one of the essential requirements for humans to achieve a good quality of life (Audah et al., 2019). Water is a source of life and a basic need for humans because it plays a vital role in the growth process related to human health (Pratama & Isnani, 2018). According to the Regulation of the Minister of Health Number 32 of 2017, clean water is water that meets proper quality standards, such as being odourless and tasteless to be used for daily needs (Menteri Kesehatan Republik Indonesia, 2017). Therefore, clean water is very much needed because it can be a medium for spreading disease at a rate of almost 80% (Qamar et al., 2022). In this context, the central government and regional governments are responsible for ensuring the provision of public services to the community, including clean water services. (Nisa et al., 2023). This has been regulated in Law Number 17 of 2019 concerning water resources and water management, including protecting water quality and providing clean water services for the community. Thus, fulfilling the right to clean water is crucial in achieving sustainable development (Oktafiani & Nugraheni, 2024).

The Indonesian government has implemented clean water services for the community as a form of commitment to implementing the Sustainable Development Goals (SDGs) in the sustainable development program through Presidential Regulation Number 59 of 2017 concerning the Implementation of Achieving Sustainable Development Goals (Irhamisyah, 2020). SDGs are the 2030 global agenda for sustainable development by maximizing each country's potential and resources to end extreme poverty, reduce inequality, and face other global problems or challenges (Prabu Aji & Kartono, 2022). The SDGs are designed with 3 main pillars, namely social development, economic development, and environmental protection, covering 17 goals and 169 targets (Hera Ramadani & Nugraheni, 2024). The United Nations (UN) has set 17 Sustainable Development Goals (SDGs), one of which focuses on access to clean water and adequate sanitation in Goal 6 (PBB, 2021). In the SDGs, goal 6, which focuses on access to clean water and proper sanitation, some indicators include:

**Table 1. SDGs 6 indicators**

No	Description of SDGs Indicator 6
6.1	Percentage of households using safely managed drinking water services.
6.2	Percentage of households using safely managed sanitation services, including handwashing facilities with water and soap.
6.3.1	Percentage of industrial liquid waste that is safely processed.
6.3.2	a. Surface water quality as raw water b. Groundwater quality as raw water
6.4	a. Proportion of raw water intake from surface water to its availability b. Proportion of raw water intake from groundwater to its availability
6.5	a. Level of implementation of integrated water resources management (0-100). b. The proportion of transboundary basin areas with operational water resources cooperation arrangements.
6.6	Changes in ecosystem-related water resource levels over time

*(Source: sdgs.bappenas.go.id)*

Access to clean water and good sanitation services is a fundamental human right in ensuring environmental sustainability and meeting people's needs to protect them from infectious diseases (Dadhich et al., 2022). In realizing the SDGs target in goal 6, significant challenges require understanding the goals to be achieved and the actual conditions because this can help understand the long-term impact on society (Puijenbroek et al., 2023). Therefore, a policy or program to realize the SDGs targets must be evaluated to determine whether the policy implementation is in accordance with the guidelines is on target and achieves the expected goals (Pramono, 2020).

According to Anderson in the book *Public Policy* (Winarno, 2008), policy evaluation is assessing or estimating a policy, which includes aspects of substance, implementation, and impact of the policy's application. Lester and Stewart (2000: 126), in the book *Fundamentals of Public Policy* (Agustino, 2012), said that the purpose of policy evaluation is to identify various aspects of failure in a policy and to ensure whether the policy that has been formulated and implemented has produced the expected impact. William N. Dunn in the book *Introduction to Public Policy Analysis* (Dunn, 1999), argues that evaluation is the result of a value scale on the implementation of a policy or a program that can be assessed from 6 indicators, namely 1) effectiveness, related to whether an alternative achieves the expected results (consequences) or achieves the objectives of the action taken; 2) efficiency, related to the amount of effort required to increase a certain level of effectiveness; 3) adequacy, related to how far a level of effectiveness satisfies the needs, values or opportunities that give rise to problems; 4) equity, related to legal and social rationality and refers to the distribution of consequences and efforts between different groups in society; 5) responsiveness, related to how far a policy can satisfy the needs, preferences or values of specific community groups; and 6) accuracy, related to the value or importance of program objectives, as well as the strength of the assumptions that underlie these objectives.

However, access to clean water in Indonesia is still relatively low, with the water quality index in 2023 only reaching 55.4 (Purwandari, 2023). This may be due to poor and vulnerable populations' lower access to adequate water services (Hutton & Chase, 2016). Bojonegoro Regency, like other regions in Indonesia, needs help accessing clean water. In 2023, Bojonegoro Regency had a "moderate" water quality index with a score of 58.42 (Satu Data Bojonegoro, 2023). This condition can impact the community's ability to meet its clean water needs. The following is the indicator data for the percentage of households that have access to clean drinking water services in Bojonegoro Regency:

**Table 2. Data on the Percentage of Households with Access to Clean Drinking Water Source Services**

Indicator	Year Achievements (%)				
	2018	2019	2020	2021	2022

Percentage of Households with Access to Clean Drinking Water Source Services	78.91	35.32	96.94	97.24	96.51
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*(Source: BPS East Java Province)*

Based on the data above, the percentage of households that have access to clean drinking water source services has yet to reach the target of 100% and has decreased in 2022. One factor causing this is the need for more access to clean water source services in some areas, especially in remote areas.

In line with the role of the regional government as a facilitator in providing access to clean water, the Bojonegoro Regency Government, through the Department of Housing, Residential Areas and Public Works (DPKP Cipta Karya) has implemented a program for managing and developing a drinking water supply system to create a clean and healthy environment for the community (Afifah, 2022). The development of these facilities and infrastructure is carried out in areas that face difficulties in accessing clean water, especially areas that often experience drought, have limited water sources and poor water quality, and areas that have not been reached by the Regional Drinking Water Company (PDAM) network (Pemkab Bojonegoro, 2023). Even though the government has carried out its duties as a facilitator for providing clean water, in carrying out this responsibility, there certainly needs to be an evaluation process that aims to measure the extent to which the Bojonegoro district government has succeeded in implementing the program and has had a direct impact on the community who need access to clean water.

Referring to the initial data in Table 2, it can be concluded that the management and development policy program for the drinking water supply system in Bojonegoro Regency has had a positive influence on increasing community access to clean water services. As shown by the increase in achievements in the 2018–2021 period. However, this achievement still has not reached the maximum target, with a decline in 2022. This emphasizes the challenges in ensuring equal access, especially in areas that have infrastructure problems. This research contributes to analysis that supports the achievement of the SDGs, especially goal 6, which aims to ensure the availability and sustainable management of clean water for all.

However, in previous research conducted in Sendangharjo village, Ngasem sub-district, Inna Puspita Wulandari stated that some residents still depend on wells as a source of clean water because the water distribution system is limited, resulting in disruptions due to damage or leaks in the pipe network (Inna Puspita Wulandari & Tauran, S.Sos., M.Soc., 2016). This shows that there is a discrepancy with the evaluation theory according to William N. Dunn, which emphasizes that policies should be assessed based on indicators of effectiveness and equity in William N. Dunn's evaluation theory, which states that the development of clean water access should be practical and fair in distributing benefits to the community.

Based on these problems, this study focuses on evaluating the clean water supply system development program policy in Bojonegoro Regency from the perspective of Sustainable Development Goals (SDGs), especially in point 6.1 regarding the "Percentage of households using safely managed drinking water services". By using the evaluation theory framework,

according to William N. Dunn, this study aims to assess the effectiveness of policy implementation in improving clean water services in Bojonegoro Regency. The novelty in this study is that there is a comprehensive evaluation of the clean water system development program policy in Bojonegoro Regency as an effort to achieve SDGs by providing the latest picture of the achievements of this program.

**2. RESEARCH METHODOLOGY**

This study uses a qualitative descriptive research model with a research location in Bojonegoro Regency. Qualitative descriptive is a data processing process related to specific behaviours, phenomena, events, problems, or situations that are the focus of the study, with the results in the form of explanations in the form of meaningful sentences that provide an understanding of the matter (Misbahuddin, 2024). The data obtained from this study are primary (main data) and secondary (supporting data). The technique in collecting primary data is obtained through interviews and field observation. In contrast, secondary data is obtained through several documents such as government program reports and other supporting sources such as official websites and articles that have been identified. In this research, in-depth interviews were conducted with a total of 11 informants selected using purposive sampling. These informants consist of several categories, as follows:

**Table 3. Research Informant Data**

<b>Group</b>	<b>Category Informants</b>	<b>Total</b>
Regional Government	Dinas PKP Cipta Karya (Bidang Sarana dan Prasarana Utilitas Umum - PSU)	1 Person
Village government	Community leaders or village leaders who understand the needs of the community in clean water	3 Person
Beneficiary of the Program	The people of Bojonegoro Regency who receive benefits from the clean water facilities that have been built	7 Person

*(Source: Empirical data processed by researches, 2024)*

These informants were chosen to provide a comprehensive understanding of the implementation and impact of the clean water supply program in Bojonegoro Regency.

**3. RESULT AND DISCUSSION**

In improving the community's quality of life, the Bojonegoro Regency Government, through the Bojonegoro Public Housing and Settlement Area Service, continues to strive to implement a clean water supply system development program. This effort is in line with the 6th goal of the SDGs, namely ensuring the availability and sustainable management of clean water for the community. To measure the extent to which the success of this program is in line with SDG goal 6, the researcher will discuss how to evaluate the clean water supply system development program policy in Bojonegoro Regency based on William N. Dunn's theory, namely:

**A. Effectiveness**

Measurement of a policy's effectiveness can be done by evaluating the achievement of the set objectives. If the program objectives are successfully realized, then the program is considered effective. The main question used to assess effectiveness is, "Have the main objectives of the program been achieved?"

The clean water supply system management and development program by the Bojonegoro Regency Government aims to improve quality infrastructure and compliance with spatial planning. This program is considered effective in achieving its goals. The main objective of this program is to increase the distribution of infrastructure development that is responsive to disaster risks and environmentally friendly. Data in 2023 shows a 1.08% increase in households with access to clean drinking water sources, from 96.51% in 2022 to 97.59% in 2023 (BPS Jawa Timur, 2024).

The increase shows that this program is able to meet the needs of the Bojonegoro Regency community, although 2.41% of households still do not have access to clean drinking water. In addition, the following is data on the performance achievements of the Housing, Residential Areas, and Public Works Service (PKPCK) in the program for managing and developing a clean water supply system in 2023.

**Table 4. DPKPCK Performance Achievement Data for the Clean Water Supply System Management and Development Program in 2023**

Description	RPJMD Target (2018-2023)	RKPD Target 2023	LKPJ DPKPCK Target 2023	Achievement	Realization
Percentage of households with access to drinking water (%)	22.90%	22.90%	23.19%	22.78%	98.23%
<b>Average Performance Achievement</b>	<b>83.19%</b>				

*(Source: RPJMD of Bojonegoro Regency 2018-2023, RKPD of Bojonegoro Regency 2023, LKPJ 2023 DPKPCK of Bojonegoro Regency)*

From the table above, it can be seen that the clean water supply system management and development program in Bojonegoro Regency has not reached the target of the 2018-2023 RPJMD of Bojonegoro Regency, 2023 RKPD, and 2023 DPKPCK LKPJ. This program has achieved the target with a figure of 98.23% and an average performance achievement of 83.19%, which is at a high level. Although this program has not fully achieved its target, it has increased the percentage of households with access to drinking water in Bojonegoro Regency.

Another thing is reinforced by the results of interviews with the people of Blimbinggedhe Village, Ngraho District, who said, "Before the construction of this clean water facility, the water from our wells was classified as unclear or cloudy, so it was uncomfortable to use. However, after the construction, thank God the water is now much cleaner and clearer. We feel

happy and calm because the water we use is safe and clean." (Interview with Farid Fatchurrahman, on November 10, 2024).

The same thing was said by the people of Jatigede village, Sumberejo sub-district, saying, "After the construction of the expansion of clean water facilities was carried out in Jatigede Village, we feel very helped because we no longer have to take the trouble to get water from morning to afternoon. Previously, we had to take turns or even queue with other residents to get water, at uncertain distances and places, such as at neighbors' houses or other wells. With the construction of this expansion of facilities, it is easier for us to save time and energy, so that we can focus on other activities." (Interview with Mrs. Jariyah, on November 9, 2024).

The clean water supply system development program in Bojonegoro Regency shows progress in increasing household access to clean water. Although this program has not fully achieved the 2018-2023 Bojonegoro Regency RPJMD target, 98.23% has shown that this program has effectively improved clean water infrastructure and provided real benefits to the community. The effectiveness of the program can be seen from several aspects, such as increasing the coverage of clean water services which has almost reached the target, reducing the access gap between urban and inland areas, as well as the sustainability of the benefits felt by the community in their daily lives. This shows that the program is successful in improving clean water infrastructure and providing a positive impact on the quality of life of the community, although additional efforts are still needed to achieve full equality and the targets that have been set. This increase in access is in line with the objectives of SDG Goal 6 which focuses on universal access to clean water. However, this program still requires improvement and optimization because around 2.41% of households still need to be covered by clean water services by the target of SDG goal 6.

**B. Efficiency**

Efficiency is related to the amount of resources, such as manpower, time, and cost, needed to achieve a program goal. The main question in measuring efficiency indicators is, "How much cost and time is needed to achieve the program goal?" (Olimpius Kurniawan et al., 2023).

The clean water supply system management and development program by the Bojonegoro Regency Government has shown high-cost efficiency. The following is the planned and realized data for the Regional Revenue and Expenditure Budget (APBD) and Bojonegoro Regency in 2023 in the Drinking Water Supply System Management and Development Program:

**Table 5. Budget Realization for the Drinking Water Supply System Management and Development Program in Bojonegoro Regency in 2023**

<b>Budget Allocation</b>	<b>Budget Realization</b>	<b>Budget Difference</b>	<b>Percentage of Realization (%)</b>
Rp 22.080.962.000	Rp 21.090.135.528	Rp 990.826.472	95.51%

*(Source: LKPJ 2023 DPKPCK of Bojonegoro Regency)*

**Table 6. Efficient Use of Resources for the Management and Development Program for the Drinking Water Supply System of Bojonegoro Regency in 2023**

Capaian Kinerja	Serapan Anggaran	Tingkat Efisiensi
98.23%	95.51%	102.85%

*(Source: LKjIP 2023 DPKPCK of Bojonegoro Regency)*

Based on the data above, the program for managing and developing the drinking water supply system of Bojonegoro Regency has been successfully realized with efficient budget usage, with an efficiency level reaching 102.85%. This shows that development management is carried out optimally, and there is no significant waste.

In addition, based on the results of an interview with the Bojonegoro Regency Public Works and Public Housing Agency, the Infrastructure, Facilities, and Public Utilities Department stated, "The time needed to complete the construction of this clean water facility is approximately 60 days. Construction began at the beginning of the month and is scheduled to be completed at the end of the second month. In an effort to ensure that construction runs smoothly and in accordance with the established standards, we have appointed a consultant as a supervisor and an implementing team to carry out the construction." (Interview with the Bojonegoro Regency Housing, Residential Areas, and Public Housing Agency (DPKPCK), November 18, 2024).

The Tebon Village Government, Padangan District, said something similar "The construction of clean water facilities in our village was relatively fast and was completed within two months. The community was greatly helped by the process that ran smoothly and according to schedule. The work began with thorough preparation and good coordination between the village, consultants, and related agencies. All stages, from excavation, and pipe installation, to completion, ran efficiently and without any significant obstacles. In a relatively short time, we were able to feel the benefits immediately, and of course, this is very positive for the community who previously had difficulty getting access to clean water." (Interview with the Tebon Village Government, November 13, 2024).

In terms of efficiency, this program has achieved relatively high efficiency in achieving its objectives. This shows that the resources allocated for developing a clean water supply system have been used optimally, per the principle of sustainability in natural resource management, which is part of the SDGs principle. This efficiency is critical in supporting the achievement of SDGs Goal 6 which emphasizes the importance of sustainable water management.

### **C. Adequacy**

The implementation of a policy needs to be measured to what extent the program is designed to provide solutions for the community. Therefore, the program must be able to reduce problems so that the needs of the community can be met (Arif Budy Pratama & Ajeng Tri Isnani, 2018). Adequacy is a condition in which the community's needs are met. The

fundamental question in the adequacy indicator is "Can the clean water supply system development program meet the needs of the community in Bojonegoro Regency?".

This program is considered unable to meet the needs of the community in Bojonegoro Regency. The following is data on the development activities of the SPAM pipe network in rural areas in the management and development program of the clean water supply system by the Bojonegoro Regency Government.

**Table 7. Development of SPAM Pipeline Networks in Rural Areas**

<b>Description</b>	<b>Indicator</b>	<b>Target</b>	<b>Realization</b>	<b>Achievement</b>
SPAM Pipeline Network Development in Rural Areas	Number of house connections served through Labor-Intensive Activities/Community-Based SPAM (SR)	3,368	1,729	51.34 %

*(Source: LKPJ 2023 DPKPCK of Bojonegoro Regency)*

From the data in the table above, the construction of piped water supply networks in rural areas in Bojonegoro Regency has yet to reach the target. The construction only reached 51.34% or 1,729 of the target of 3,368 house connections (SR). In the Government Agency Performance Report (LKjIP) of the Housing, Settlement Areas and Public Works Service (PKPCK) in 2023, the percentage of people served by piped clean water networks was 22.78% or around 89,617 house connections (SR) of the total district requirement of 395,867 SR. However, the coverage of people with access to clean water has reached 93%. This figure comprises 12.82% (50,750 SR) through the PDAM pipe network and 57.40% from non-piped clean water access.

According to information obtained through interviews with the Bojonegoro Regency PKP Cipta Karya Office, Infrastructure, Facilities, and Public Utilities, it was stated, "The main obstacle we face is related to the availability of water in certain areas. To overcome this, we coordinate with several stakeholders to solve this problem by providing a clean water supply through direct delivery to areas prone to drought during the dry season." (Interview with the Bojonegoro Regency PKPCK Office, November 25, 2024). Coordination with stakeholders is important because in implementing a policy, the government certainly cannot act alone. However, in implementing a program, pros and cons will certainly arise in society. Therefore, with coordination with relevant parties, the policy can be implemented appropriately and quickly, or in other words, to minimize obstacles in the field, one of which is rejection from parties who feel disadvantaged. This is reinforced by the information in the article (Samian, 2023) which shows that to overcome the problem of recurring drought in Bojonegoro Regency, a coordination meeting has been held involving various parties, including BBWS Bengawan Solo, BPBD, and Perumda Tirta Buana. One of the steps taken is increasing the availability of raw water as a long-term solution, in addition to the short-term solution in the form of dropping clean water.

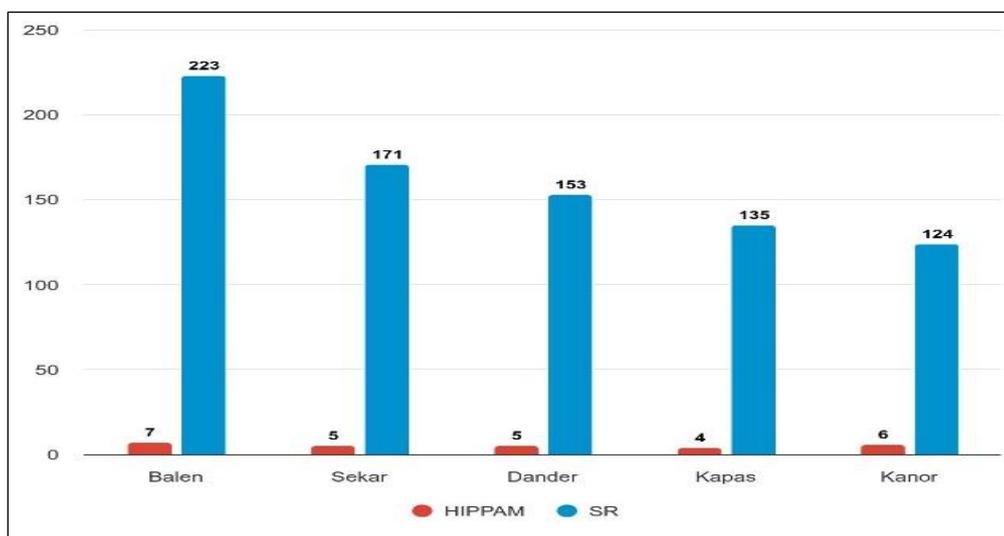
The indicator of the adequacy of the clean water supply system development program shows that although the piped network service has only reached 22.78% of the total need, the overall access of the community to clean water has met 93%. This indicates that non-piped clean water sources play a significant role in meeting the community's needs. The government's efforts to overcome shortages, especially in drought-prone areas, through direct distribution of clean water demonstrate a commitment to ensuring the availability of sufficient clean water for the entire population.

#### D. Equity

The policy aims for equality, referring to the results and output of the policy, which are distributed fairly and evenly to the community (Arif Budy Pratama & Ajeng Tri Isnani, 2018). The main question in the equalization indicator is "Has the clean water supply system development program been distributed evenly?" In this case, researchers collected information from several sources to find out whether the results of the clean water supply system development program in Bojonegoro Regency can be utilized by the entire community of Bojonegoro Regency.

The results of an interview with the Bojonegoro Regency Public Works and Public Utilities Agency, Infrastructure, Facilities, and Utilities revealed that the water supply system's implementation does not need to be delayed in various regions. This statement is in line with the statistics of clean water data in Bojonegoro Regency in 2023, which shows a gap between regions. The following is data on the five regions with the highest distribution of clean water in Bojonegoro Regency in 2023.

Figure 1. Statistics of Clean Water Data for the 5 Most in Bojonegoro Regency in 2023



(Source: Satu Data Bojonegoro)

Based on the 2023 Clean Water Data 5 Most, it shows that Balen District has the highest number of house connections (SR), which is 223—then followed by Sekar District (171 SR), Dander (153 SR), Kapas (135 SR), and Kanor (124 SR). On the other hand, HIPPAM's clean water supply services in the five districts are relatively minor, with 4 to 7 services. This

inequality shows that access to clean water services is still dominated by house connections (SR). In contrast, the role of HIPPAM as an alternative provider of clean water services has not been maximized. To achieve SDGs Goal 6, which focuses on sustainability and equal access to clean water across all levels of society, a fairer and more effective distribution strategy is needed, considering each region's needs and geographical conditions.

### **E. Responsiveness**

Responsiveness refers to the reaction or response of program beneficiaries to the implementation of the policy (Arif Budy Pratama & Ajeng Tri Isnani, 2018). The responses given are based on the content/value of the program policy. If the policy is good, it will get a positive reaction from the community, and vice versa. The main question in the responsiveness indicator is "Does the clean water supply system development program policy in Bojonegoro Regency have value and provide a positive impact on the beneficiary community?" (Olimpius Kurniawan et al., 2023).

Based on research on responsiveness indicators, the clean water supply system development program in Bojonegoro Regency received a positive response from both the community and the government. This program has had a very positive impact on the lives of the people of Bojonegoro Regency. Water can now be accessed more quickly and efficiently as they need it. Before this program, many people had difficulty obtaining clean water, so they often relied on wells or other water sources. Not only that, the condition of the water, which is classified as not straightforward, and water sources with inconsistent provision can hinder daily activities and raise health concerns.

However, after the program was implemented, the community felt that their lives were much better. With the availability of clean water, they no longer face obstacles in meeting daily needs, such as cooking, washing, or maintaining cleanliness. In addition, the much better water quality has reduced the risk of disease due to consumption of unsafe water. This also eliminates the need to buy water so that people can save more money. This program also significantly changes the community's quality of life, both directly and indirectly. The time previously spent looking for water can now be allocated to other productive activities. With these benefits, this clean water development program has made a real contribution to improving community welfare and creating a healthier and more decent living environment. This is in line with the objectives of SDG Goal 6, which prioritizes not only access but also the quality of water that is decent and safe for consumption.

### **F. Accuracy**

The accuracy indicator relates to the extent to which a program or a policy has been by the target or person who meets the criteria that have been set. The key to target accuracy is data that matches the criteria or requirements of the program. The main question in the accuracy indicator is, "Has the clean water supply system development program in Bojonegoro Regency been on target?" (Olimpius Kurniawan et al., 2023).

According to the results of an interview with the Bojonegoro Regency Public Works and Public Utilities Agency, the determination of priority areas for program recipients was carried out through coordination with several parties, such as the Regional Development Planning Agency (BAPPEDA), the Regional Disaster Management Agency (BPBD), and the local village government. The clean water supply system development program is focused on areas affected by drought. The following is data on 6 sub-districts in Bojonegoro Regency with the most significant number of villages affected by drought along with details of the development that has been carried out in 2023:

**Table 8. Data on 6 Sub-districts with the Largest Number of Villages Affected by Drought and the Development of Clean Water Systems in Bojonegoro Regency in 2023**

No	Sub-district	Number of Villages	Number of Villages Affected by Drought	Development	
				HIPPAM	SR
1	Sumberrejo	26	13	4	53
2	Ngasem	17	13	1	37
3	Kedungadem	23	12	1	5
4	Tambakrejo	18	8	3	26
5	Sukosewu	14	8	0	0
6	Sugiharwas	17	8	2	66

(Source: BPBD of Bojonegoro Regency, Satu Data Bojonegoro)

**Table 9. Data on Clean Water Development in 6 Sub-districts with the Most in Bojonegoro Regency in 2023**

No	Sub-district	Development	
		HIPPAM	SR
1	Balen	7	223
2	Sekar	5	171
3	Dander	5	153
4	Kapas	4	135
5	Kanor	6	124
6	Kalitidu	4	106

(Source: Satu Data Bojonegoro)

Based on the data presented in Table 8 and Table 9, the development of a clean water supply system in Bojonegoro Regency in 2023 has not been on target. In Table 8, it can be seen that Sumberrejo District has the highest number of villages affected by drought, namely 13 villages with the development of only 4 HIPAM units and 53 house connections (SR). Meanwhile, Sukosewu District has many villages affected by drought, namely 8 villages that did not receive any HIPAM development and only received 66 SR units. Meanwhile, in Table 9, it is explained that the most extensive clean water development data was carried out in Balen District with 7 HIPAM units and 223 SR units. This shows that although several districts receive significant development priority, other districts with high drought impact still need adequate allocation.

This inequality indicates the need for evaluation and equity in the region's clean water supply system development program.

#### 4. CONCLUSION

Based on the research results, the clean water supply system development program in Bojonegoro Regency has significantly contributed to achieving SDGs goal 6. This program can improve the quality of life of the people of Bojonegoro Regency by expanding access to clean water services. Based on the evaluation using William N. Dunn, there are several findings, namely:

- A. Effectiveness: The clean water supply system development program has succeeded in increasing the percentage of households with access to clean drinking water sources, with an achievement of 97.59% and an achievement of 98.23% in the 2023 LKPJ. Improved water quality and ease of access have also positively impacted the community, as acknowledged through interviews.
- B. Efficiency: The clean water supply system development program's budget efficiency level is 102.85%, indicating that resource management has been carried out optimally without significant waste, supporting the principle of sustainability.
- C. Adequacy: The clean water supply system development program in Bojonegoro Regency has shown adequacy for most households. However, this adequacy is still limited to certain areas with limited water supply capacity. To overcome this, the PKP Cipta Karya Service has coordinated with stakeholders by delivering clean water to drought-prone areas to help overcome temporary gaps.
- D. Equity: The clean water supply system development program has yet to be fully distributed throughout the region. There is an imbalance between sub-districts with high drought impacts and sub-optimal development allocations. Data shows that several sub-districts affected by drought received minimal development compared to others.
- E. Responsiveness: The clean water supply system development program has received a positive response from the community. Better access to clean water improves the quality of life and reduces health risks and the economic burden on the community. This shows that the policy's needs are relevant.
- F. Accuracy: Determining the priority of clean water supply system development areas in Bojonegoro Regency has yet to be entirely based on the level of community needs and the impact of the drought they experience. The imbalance in development allocation is a challenge that must be immediately fixed to improve targeting accuracy.

Overall, the clean water supply system development program has aligned well with SDGs Goal 6, which focuses on universal access and sustainable clean water management. However, challenges in equity, adequacy, and targeting accuracy still need to be addressed to achieve the universal access target by 2030. In order to achieve these goals more optimally, there needs to be more attention to equity, resolving sufficiency issues, and increasing more equitable distribution for areas affected by drought.

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