Efficiency of the Community-Based Drinking Water and Sanitation Provision Program (PAMSIMAS) in Sungai Sebesi Village, Kundur District, Karimun Regency

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Abstract. Sungai Sebesi Village is geographically a village that has peat soil conditions so that the water is red and cannot be used for daily purposes. The Community-Based Water Supply and Sanitation Program (PAMSIMAS) in Sungai Sebesi Village is a program that facilitates and meets the needs of clean water for the community in Sungai Sebesi Village. The purpose of this study is to see the extent of the ability of the Pamsimas program in an effort to meet the needs of clean water in Sungai Sebesi Village. This research is a descriptive research using a qualitative approach. Data collection techniques are carried out through observation, interviews, and documentation. In this study using the theory of The Liang Gie about efficiency. Efficiency measurement indicators consist of Input indicators and Output indicators. The results of this study are seen from a) Input Indicators, Pamsimas Program in Sungai Sebesi Village seen from the series of activities, production costs, and production time. b) Output Indicators, the efficiency of the Pamsimas Program in Sungai Sebesi Village has not been efficient. It can be seen from the target, satisfaction, and distribution of tasks

Keywords: Efficiency, Pamsimas Program, Sungai Sebesi Village

1 Introduction

Water has become a vital need in all communities worldwide. Due to its shared importance, water is considered a strategic commodity to sell [1]. Water is essential because it is used for many daily activities, including drinking, cooking, and bathing. The value of clean water in everyday life impacts people's commitment to healthy living.

To fulfill clean water and sanitation services, the government has a target, namely:*millennium development goals* In the drinking water and sanitation sector (WSS-MGD), the goal is to improve community welfare and development through the Community-Based Drinking Water and Sanitation Provision (PAMSIMAS) program. The PAMSIMAS program is a national flagship program (central and regional governments) aimed at improving rural residents' access to adequate drinking water and sanitation facilities using a community-based approach. PAMSIMAS is a program launched by The Ministry of Public Works and Public Housing (PUPR) and its implementation are in the PU Cipta Karya Service which coordinates with the Regency/City Health Service in implementing the Pamsimas program [2].

The Pamsimas I Program, which began in 2008-2012 and Pamsimas II in 2013-2015, has succeeded in increasing the number of poor rural and peri-urban residents who can access drinking water and sanitation services, as well as improving the values and behavior of clean and healthy living in approximately 12,000 villages spread across 233 districts/cities. To continue to

increase access for rural and peri-urban residents to drinking water and sanitation facilities, the Pamsimas Program was continued in 2016-2021 specifically for villages in the Regency. The government's commitment to providing clean water and sanitation services to date has reached approximately 37,000 Pamsimas units and has served 25.9 million people. The Ministry of Public Works and Housing targets access to clean drinking water to reach 100%. In 2023, Pamsimas implementation is sourced from the State Budget with a target of 1,063 villages/sub-districts in Indonesia.

As a stimulant program with a community-based approach, the Pamsimas program places the community as the main actor and also as the person responsible for implementing activities. Karimun Regency is one of the regencies in the Riau Islands Province that implements the Pamsimas program. Karimun Regency has implemented the Pamsimas Program since 2020. In 2020, there were 5 sub-districts and 6 villages that received Pamsimas program assistance. Continued in 2021, as many as 3 sub-districts and 3 villages received Pamsimas Program assistance. In 2022, there were 6 sub-districts and 7 villages/wards that received Pamsimas Program assistance. As of 2022, of the total number of sub-districts and villages/wards in Karimun Regency, namely 14 sub-districts and 71 villages/wards, there were 10 sub-districts, 16 villages/wards, and 16 Pamsimas Program implementation points in Karimun Regency. And there are still 6 villages/sub-districts that are the target recipients of the Pamsimas program with the 2023 State Budget.

Kundur District is one of the sub-districts targeted by the PAMSIMAS program. Kundur District has six villages/sub-districts: Gading Sari, Lubuk, Sungai Sebesi, Sungai Ungar, Tanjungbatu Barat, and Tanjungbatu Kota. Of these six villages/sub-districts, only two have received the Community-Based Drinking Water and Sanitation Provision (PAMSIMAS) program: Sungai Ungar and Sungai Sebesi.

Sungai Sebesi Village was chosen as the location for the Pamsimas program due to the difficulty of the residents of Sungai Sebesi to access clean water. Located in a coastal area, Sungai Sebesi frequently experiences prolonged clean water shortages. Furthermore, the soil in Sungai Sebesi Village is peat, which causes the water to be red. Residents of Sungai Sebesi Village, who live in the peatland area, meet their clean water needs by using the Regional Water Company (PDAM), collecting water from neighboring villages, purchasing water, and collecting rainwater [8], [9]..

The water source for the Community-Based Clean Water and Sanitation Provision (PAMSIMAS) program is a single drilled well. The well is located in Dusun III Parit Baru and is managed by the Village-Owned Enterprise (BUMDes), which then becomes an asset of the BUMDes. This program is certainly greatly assisted by the community, considering that clean water is one of the Village Government's priorities in addressing the community's complaints about the clean water crisis experienced by the people of Sungai Sebesi Village every year. In addition, residents who use the PAMSIMAS well will be charged a monthly fee by the Village Government. Village. The monthly fee for PAMSIMAS program recipients is Rp. 15,000 as a fixed fee, and a usage fee of Rp. 3,000 per cubic meter.

2 Method

This study is a descriptive study using a qualitative approach. Qualitative research is often referred to as naturalistic research because the research is conducted in natural conditions, then the data from the research results are more concerned with the interpretation of data found in the field [4]. The type of qualitative descriptive research in this study is intended to obtain information regarding the ability of the Community-Based Drinking Water and Sanitation

Provision (PAMSIMAS) program in meeting clean water needs in Sungai Sebesi Village, Kundur District, Karimun Regency [10], [11].

3 Discussion

Input

Input efficiency is closely related to productivity. Efficiency is used to measure performance. For organizations, work efficiency ensures smooth task execution, resulting in maximum results. To support work efficiency, several methods are required, including a series of activities, production costs, and production time[9], [10], [12].

Series of Activities

The series of activities referred to are a series of activities carried out in the development of the Pamsimas Program until the implementation of the Pamsimas Program in Sungai Sebesi Village. First, the activity carried out was conducting socialization to the community regarding the Pamsimas program. Second, there was mutual cooperation among the community for the development of the Pamsimas Program water source. Third, is a series of activities carried out during the implementation of the Pamsimas program in Sungai Sebesi Village. The third activity is conducting a water pH feasibility test to determine whether the water is suitable for distribution to the community. Fourth is related to efforts made to create equitable benefits for all residents of Sungai Sebesi Village. Efforts carried out by the BUMDes and the Village Government include collaborating with Pamsimas as a water supply institution, and pursuing programs from the Regency or Provincial Government related to the provision of clean water facilities [5].

Production cost

The production costs referred to are the budget used for the development of the Pamsimas Program. The budget for the Pamsimas Program in Sungai Sebesi Village comes from the State Budget (APBN) and the Village Budget.
(APBDes). This budget is used for the construction of water sources, pipe networks, and the construction of water reservoirs or water towers.

Production Time

The production time in question refers to the length of the Pamsimas well construction process in Sungai Sebesi Village. The construction time for Pamsimas includes the construction of the water source, the construction of the water tower, and the construction of the piping network to the community's homes. In Sungai Sebesi Village, the Community-Based Water Supply and Sanitation Program (PAMSIMAS) took four months to complete.

Output

Output efficiency is the extent to which the results/output of a program are achieved. Output efficiency here describes the targets achieved, satisfaction, and division of tasks (*job desk*).

Target Achievement

The target achievement of the Pamsimas Program in Sungai Sebesi Village is seen from how many people in Sungai Sebesi Village benefit from the Pamsimas Program. The target is an indicator to see how efficient a program is. The Pamsimas Program in Sungai Sebesi Village is

expected to be able to address the clean water crisis that occurred in Sungai Sebesi Village. Based on statistical data from Sungai Sebesi Village, Kundur District in 2022, the total number of houses in Sungai Sebesi Village is 842 houses spread across 4 hamlets. The Pamsimas Program in Hamlet III Parit Baru was only able to supply water to 83 houses in Hamlet III Parit Baru. The large gap between the community in need and the Program's ability to meet the needs can be concluded that the Pamsimas Program has not been able to meet the clean water needs in Sungai Sebesi Village.

Satisfaction

Satisfaction is measured by whether or not the community using Pamsimas is satisfied with the Pamsimas program. Beneficiaries of the Pamsimas program experience the benefits they receive from the program. One of these is easier access to clean water, which they can use for daily needs. Despite these benefits, however, there are still challenges faced by the community with the Pamsimas program. These include smelly water, dirty water, and poor water flow. The following are several interviews conducted by researchers with Pamsimas users.

Job Description

The Pamsimas program in Sungai Sebesi Village is managed by the Bertuah Sebesi Village-Owned Enterprise (BUMDes). Within the Bertuah Sebesi BUMDes, there are two activity units: the Clean Water Unit and the Tent Rental Unit. Within the Clean Water Unit, there is a group called SPAMS (Source Management Unit). SPAMS manages all aspects of the Pamsimas program. The division of tasks within SPAMS includes supervision, maintenance, and billing.

The SPAMS was established to manage the operational implementation of the Pamsimas program. The Bertuah Sebesi Village-Owned Enterprise (BUMDes) is responsible for three types of oversight through SPAMS:

1) Administrative oversight, carried out as a form of management accountability, such as operational cash inflows and outflows.
2) Quality oversight. Water quality is assessed by conducting PAMSIMAS water samples at laboratories in the Regency to check the quality of the water distributed to the community. This is carried out by the Village-Owned Enterprise (BUMDes) at least once a year.
3) Service supervision, regarding the availability of the community to receive clean water properly or not, and*responsiveness* regarding public complaints.

Monitoring and maintenance of the Pamsimas program are carried out at two locations: at the source and in people's homes. Monitoring at the Pamsimas water source is routine because the water pump is automatic; if the water level in the tower or reservoir is low, the pump will automatically start to refill the tower. Monitoring at people's homes is only carried out when there are complaints or grievances from the community regarding the water supply.

Sungai Sebesi Village is geographically located on peat soil, making its water red and unusable for daily use. The Community-Based Drinking Water and Sanitation Provision Program (PAMSIMAS) in Sungai Sebesi Village facilitates and fulfills the clean water needs of the community. The purpose of this study was to assess the effectiveness of the PAMSIMAS program in meeting the clean water needs of the community. This study used The Liang Gie's theory of efficiency and Ibnu Syamsi's theory as supporting theories.

In this study, using input indicators (series of activities, production costs, and production time), and output indicators (targets, satisfaction, division of tasks), the results showed that the Community-Based Drinking Water and Sanitation Provision Program (PAMSIMAS) in Sungai

Sebesi Village has not been able to meet the need for clean water in Sungai Sebesi Village.

The discussion in this study differs from the three reference sources in previous studies, namely: First, Fanny Elizabeth Marbun, Anak Agung Gde Raka Dalem, and I Ketut Muksin (2022), with the title Efficiency of Clean Water Use at Alila Villas Uluwatu, Bali. Second, Debi Herlianto (2019), with the title Efficiency of water source management with the Pamsimas program in Wonosidi Village, Tulakan District, Pacitan Regency. And third, Yudiatmaja, Yudithia, Samnuzulsari, Suyito, and Edison (2020), with the title*Social capital of local communities in the water resources management: an insight from Kepulauan Riau.*

None of the previous studies described above examined the efficiency of the Community-Based Drinking Water and Sanitation Program (PAMSIMAS). Furthermore, the focus of these previous studies differed from this study. While previous studies focused on optimizing savings, management, and governance, this study focuses on the extent to which the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) can meet clean water needs.

Therefore, this study contributes to finding the results of the efficiency or inefficiency of the Community-Based Drinking Water and Sanitation Provision Program (PAMSIMAS), especially to see the ability of the program to meet the need for clean water in the Sungai Sebesi Village area, Kundur District, Karimun Regency.

4 Conclusion

The research that has been conducted through data analysis techniques, namely observation, interviews, and documentation with the research title Efficiency of Community-Based Drinking Water and Sanitation Program (PAMSIMAS) in Sungai Sebesi Village, Kundur District, Karimun Regency, can be seen that this research answers the problem formulation regarding whether or not the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) is able to meet the need for clean water.

Based on a series of techniques and data analysis by researchers, it can be concluded that the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) in Sungai Sebesi Village has not been able to meet the clean water needs of the community in Sungai Sebesi Village. This can be seen from the still limited water sources from the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) in Sungai Sebesi Village, making it unable to meet the needs of the entire Sungai Sebesi Village community.

This research has implications for the study of efficiency theory from Ibn Syamsi (input: energy, time, steps; output: target, division of tasks, satisfaction, product, service) and The Liang Gie theory (a work: a series of activities; results: target), both theories discuss efficiency from the aspect of effort and results which can be seen from the indicators of each theory from experts. However, between the two theories from Ibn Syamsi and The Liang Gie, neither sees efficiency from the aspect of production costs. But researchers in conducting this research found the aspect of production costs and used it as a reference in this research alongside other indicators from the theories of Ibn Syamsi and The Liang Gie.

In conducting this research, the researcher acknowledged that it still has limitations. First, the study focused solely on the ability of the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) to meet clean water needs. Second, the researcher measured this ability only among communities using the Community-Based Drinking Water and Sanitation Program (PAMSIMAS).

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