International Journal of Sustainable Development and Planning
Vol. 19, No. 1, January, 2024, pp. 247-258
Journal homepage: http://iieta.org/journals/ijsdp

Clean Water Issues, Community Behavior and Communication Models in Sustainable Development Goals 6 in Banten West Java Indonesia

Neka Fitriyah[1*], Tatik Yuniarti[2], Eko Wahyono[3], Reza Amarta Prayoga[3], Riri Maria Fatriani[4], Arditya Wicaksono[3], Nurbaety Setram[3], Herma Juniati[3], Gustaf Wijaya[3], Latifa Nuraini[5]

[1] Department of Communication Science, University of Sultan Ageng Trtayasa, Banten 42163, Indonesia
[2] Department of Communication Science, University of Islam 45 Bekasi, Bekasi 17113, Indonesia
[3] Research Center for Social Welfare, Village and Connectivity National Research and Innovation Agency, Jakarta Pusat 10340, Indonesia
[4] Department of Government Science, University of Jambi, Jambi 36361, Indonesia
[5] Research Center for Plant Conservation, Botanical Gardens, and Forestry, National Research and Innovation Agency, Jakarta Pusat 10340, Indonesia

Corresponding Author Email: neka_fitriyah@untirta.ac.id

https://doi.org/10.18280/ijsdp.190123

Received: 19 June 2023
Revised: 16 November 2023
Accepted: 25 November 2023
Available online: 31 January 2024

Keywords:
community-culture, clean-water, development-communication, Sinergity, participation

ABSTRACT

Banten Province has four regencies and four cities, the city with the highest Regional Original Income is Tangerang City and the lowest is Serang City. The total population is 11.904.562 people with the densest population occupied by Tangerang City as many as 1.895.486 people while the area with the smallest population is Cilegon City with 434.896 people. The purpose of this study is to describe the data on the achievement of SDGs 6 in the Banten region as well as to find out the problems that occur in the implementation of the program. Qualitative method used in this research with the aim of integrating secondary data with qualitative data in order to produce a comprehensive picture. Secondary data was obtained from the report of the Indonesian Central Statistics Agency in 2022, while qualitative data was obtained through interviews and observations. The results of this study indicate that there are some differences in the achievement of SDGs 6; the problem of disparity in infrastructure development for SDGs 6 which causes infrastructure inequality in accessing clean water and implementing healthy environmental sanitation; economic inequality/poverty; problems of education and public knowledge are still weak and have an impact on the weak literacy of SDGs 6 as well; the weakness of community PHBS which is difficult to change. The participatory development communication model is a solution to the weak participation of stakeholders in achieving SDGS 6 in Banten Province. The recommendation resulting from this research to build synergy between various sectors. The implication of this research is the need for new policies to be made to foster public awareness about healthy lifestyles, policies on socialization, dissemination of information and management innovations, and environmental sustainability.

1. INTRODUCTION

Initially clean water was a social commodity that could be obtained easily, but now clean water is a commodity that has an economic value and is difficult to obtain freely. Most of the world's population has not been able to access clean water properly [1, 2]. The availability of clean water in the world is only 80% able to meet the needs of the population in 2025 [3], this means that in 2025 there are still 20% of the world's population who have not been able to reach clean water.

Especially in Indonesia, the discourse on the scarcity of clean water has begun to be discussed in 1998, at that time 28 countries have experienced water scarcity and it is predicted that this will increase to 56 countries by 2025 [4]. Meanwhile, the daily water requirement per person is approximately 20 liters with an estimated 4 liters for consumption and 16 liters to meet other needs [5]. In the Arctic region, inadequate water and sanitation services are associated with poorer health status and this burden is higher among rural and indigenous populations [6]. In principle, access to adequate clean water will have implications for improving the health status and economic productivity of the community [7].

The SDGs are a global development concept designed to solve poverty, minimize inequality and protect the environment, in which there are 17 goals with 169 targets to be achieved by 2030. Explains that the goals are global and universal, taking the diversity of countries interms of existing realities, available opportunities and levels of development into account [8]. The 2030 Agenda is a common foundation for addressing the mentioned problems and challenges that threaten the wellbeing and livelihood of humanity now and in the future [9]. Local government has also significant tasks and

responsibilities in managing urban water provision both provincial government and city/district government.

The strategy is to balance economic, social and environmental development [10]. Effendy [11] emphasize the need for the SDGs to adopt a scientifically based approach that is able to integrate the SDGs program in a systematic and coherent manner. The biggest challenge in achieving the SDGs for clean water and sanitation is how scientific findings related to clean water and sanitation are integrated in various development sectors [12]. Ineffective communication between institutions causes the implementation of the SDGs program to run partially [13, 14]. In the end, transparent and accountable institutions in clean water management will be able to increase social awareness and sustainable water availability [15, 16].

BPS Province reports [17] that in 2021, 17.26% of rural communities in Indonesia do not have access to clean water, 3.92% are felt by urban communities, even though since 2016 Indonesia has adopted the SDGs. This data indicates that access to clean water in Indonesia is still unequal and has an impact on the Human Development Index (HDI) which grew by 0.49% compared to the previous year, which was 72.29% from 71.94 %. Hutton and Chase [18] explained that the lack of clean water and proper sanitation has an impact on the decline in Gross Domestic Product by 7%, has an impact on poor nutritional status and socio-economic conditions of the community. Low access to clean water and sanitation also has a significant impact on economic productivity, health, the environment and other social issues. Karon et al. [1] even revealed that "in 2016, one billion people still practice open defecation and over 600 million do not have access to even a basic level drinking water" and many poor people experience it. It is important to note that the availability of drinking water infrastructure in Indonesia has not been commensurate with the speed of population growth, both due to urbanization factors and the increase in drinking water consumption.

The implementation of SDGs 6 in Banten West Java Province is not much different from the problems described above. The SDGs have not involved all stakeholders, so a comprehensive planning is needed. Handling clean water and environmental sanitation by the government, until now still encounters various obstacles, the number of existing facilities is not proportional to the growth rate of the regional population [19]. Another important thing in achieving the SDGs is the lack of knowledge and community participation in sanitation and maintenance of clean water facilities and infrastructure. The results of the 2013 Basic Health Research (Riskesdas) reported that the percentage of households in Banten Province that applied Clean and Healthy Living Behavior (PHBS) was only 34.2%.

The numbers simultaneously represents the weakness of government governance in achieving environmental health and sanitation programs as well as the low level of public awareness in implementing PHBS. Although the achievement of the SDGs in Banten Province 2017 showed an average score of 2,07 with a fairly good category, namely C, the biggest SDGs challenge in Banten Province was still on the health and economic scale (Towards the SDGs in Indonesia 2017). The most important thing in achieving the SDGs by 2030 is closely related to the sustainable management of the natural environment and its resources [20]. Therefore, research on mapping the achievements of the SDGs, the problems faced and the development communication model needed in the implementation of SDGs 6, are urgently carried out as evaluation materials and references in formulating future policies.

From the description above, the purpose of this research is to describe the achievement of access to clean water and environmental sanitation and to look at the problems in implementing the SDGs program. The development communication model and strategy in achieving the SDGs program is the output produced by the renewed implementation of the SDGs for clean water and environmental sanitation based on local potential.

Collaboration between the Government and the private sector is crucial. Limited resources and a lack of assistance owing to gaps in the parties' understanding may be resolved not just via communication but also through government collaborative methods. This conversation demonstrates the numerous attempts undertaken by the government and business sector in Banten to resolve this issue.

There are various problems in achieving SDGs 6 in Banten Province which cause the achievement rate to be uneven in each region. Some of these problems are poor clean living behavior of the community, difficult clean water potential, uneven access and distribution of clean water and environmental sanitation programs, limited government budgets, unstructured collaboration and cooperation with the private sector low public understanding of healthy lifestyles. These problems, if not resolved immediately, will hamper the achievement of the SDGs program broadly and have an impact on the lives and survival of the community and an impact on the achievement of regional development indices.

From the description of the problem above, the problem of this research is how and how far the achievement of SDGs 6 in Banten province, such as what is the completion and what is the strategy. Therefore, the purpose of this study is to describe the achievement of SDGs 6 and environmental sanitation and to see the problems of implementing the SDGs program both from the aspect of community behavior, the private sector, or the government aspect. Development communication models and strategies in achieving the SDGs program are outputs resulting from the renewal of SDGs implementation for clean water and environmental health, while collaboration between the government and the private sector is an alternative implementation offer to overcome the problems and problems of achieving SDGs 6 in Banten Province. This study also seeks to see limited resources and a lack of supporting systems due to gaps in understanding of the parties. This discussion showed the various efforts made by the government and business world in Banten to overcome all problems in achieving SDGs 6.

This research contributes to the development of social science humanities knowledge about various behaviors and community responses in facing environmental problems, maintaining a healthy lifestyle, and community participation in development. This research also contributes to collaboration patterns that must be implemented in the implementation of SDGs 6, so that the achievement of SDGs in Indonesia has a measurable, controlled, and directed strategy.

2. STUDY MATERIALS AND METHODS

The research was conducted for 6 months in 2021 located in Banten West Java Province. The location selection is based on SDGs 6 achievement data which explains that the achievement of SDGs 6 in Banten Province is not evenly

distributed, there are different achievements in several regions in one province but the need for clean water, environmental sanitation, and supporting systems is very high. This condition reflects a variety of problems that affect the implementation of the SDGs 6 program which represents the overall problem in achieving SDGs 6 in Indonesia, so Banten Province was chosen as a location that has the significance of solving clean water and environmental sanitation problems.

This reserch uses a qualitative method approach which is a place of various escalations of research practices that have different meanings at each stage. Qualitative methods are generally accepted among policymakers and other research commissioners, but primarily as part of mixed methods studies, either to help design or to refine the findings of, a quantitative component [21]. This study uses a qualitative approach, which according to Denzin and Lincoln [22] is a place for various escalations of research practices that have different meanings at each stage. Then researchers study social *settings* and political *settings* by building an understanding or interpretation of the meaning intended by the government, the public and the private sector that is expressed before the researcher. In the next stage, the researchers chose a case study strategy as a basis for understanding clean water issues and achieving the SDGs based on different values, beliefs and scientific theory. It is said to be a case study because there is a gap between the phenomenon and the existing context [23], and is a method for examining the reality that occurs in a *real life context* [24].

The data used consists of primary and secondary data. Primary data were obtained from research results through observation and interviews while secondary data were obtained from the results of the 2021 Banten National Census and BPS, annual reports and literature studies. Interviews were conducted on 13 key informants consisting of elements of the government, community, politicians and private parties who have direct links in the management of clean water and environmental sanitation as well as those related to the handling and achievement of the SDGs 6 program in Banten Province. Key informant interviews provided 13 interview narrations, which were processed using the Nvivo 12 program to produce several categories of data.

The data analysis process (especially primary data) is carried out using Nvivo 12 software with stages: (1) Testing the contrast dimensions of all domains that have been analyzed through *Word cloud, treemap, matrix coding and comparison diagrams,* (2) Identifying organized domains by specifying various *cluster nodes,* (3) Create images to visualize relationships between domains, and (4) Look for universal themes one of six topics: message context, communication process, community behavior, SDGs 6 program in Banten Province. The data obtained are reduced, summarized, selected, and focused on the main and important things in forming nodes in Nvivo 12. The data is then disaggregated by units of concepts, themes, and certain categories to provide a sharper picture of the observations. Some of the data obtained based on interviews and observations were sorted by category to answer research problems. The results of the reduction produce three categories of data that need to be described: (1) The problem of achieving SDGs 6, (2) The achievement status of SDGs 6 in several areas in Banten, and (3) Development communication model as a solution.

Banten Province is located on the western tip of Java Island and is an expansion area of West Java Province, then became autonomous based on the Law no. 23 of 2000. Directly adjacent to the DKI Jakarta area as the State Capital, it is a distinct advantage for Banten Province. The existence of the sea in Banten Province is a potential sea route, the Sunda Strait is a sea traffic route traversed by large ships as a link between Australia and New Zealand with Southeast Asia such as Malaysia, Singapore and Thailand. This province consists of 4 cities (Cilegon, Serang, Tangerang and South Tangerang) and 4 districts (Serang, Pandeglang, Lebak and Tangerang) with an area of 9,662,92 km^2 , a population of 11,906,562 people with an HDI value of 72,45 [17]. Development disparities, economic inequality, poverty and health problems are still the basic problems faced by Banten Province.

3. RESULTS AND DISCUSSION

Referring to the results of Nvivo 12 data processing on the issue of clean water and the achievement of the SDGs 6 program in Banten Province, it was revealed that several problems caused the achievement of SDGs 6 face many challenges. The word Cloud Nvivo in question is as illustrated Figure 1 below:

Figure 1. Word cloud SDGs

Figure Word Cloud Nvivo 12 explains the results of the analysis of clean water problems and the achievements of SDGS 6 which are recorded through the number of words that often appear and are used as findings. Data from Nvivo 12 analysis related to SDGs 6 is used as a reference in describing the research results. Data analysis visualized through the word cloud, becomes an analysis scheme when discussing the program's road infrastructure. The visualization of the word cloud is then complemented by a word tree that operationalizes the connectedness of various concepts in a cluster of concept groups. Nvivo 12 data exploration shows the word SDGs to be the word with the largest range, then followed by the words water, development, government, policy, synergy, community and followed by other words. These frequently appearing words are the key in exploring the problems that occur in the achievement of SDGS 6 in Banten Province. The *word cloud* visualization then complemented by a *word tree* that operationalizes the connectedness of various concepts in a group of concepts that cannot be visualized through the word cloud. The *word tree* then becomes a reference in constructing results that are correlated with factual reality in the field. The *word tree* in question can be seen in Figure 2.

In the *word tree*, SDGs 6 and the environment are the main problems which are caused by issues such as the existence of stakeholders, community knowledge and literacy, ecological conditions, development programs, regional potential budgets, community participation, culture and local wisdom, CSR funds and private sector networks. The words that appear in the *word tree* represent several realities that are connected to one another. For example, exploration of the government regarding strategy, budget and development programs.

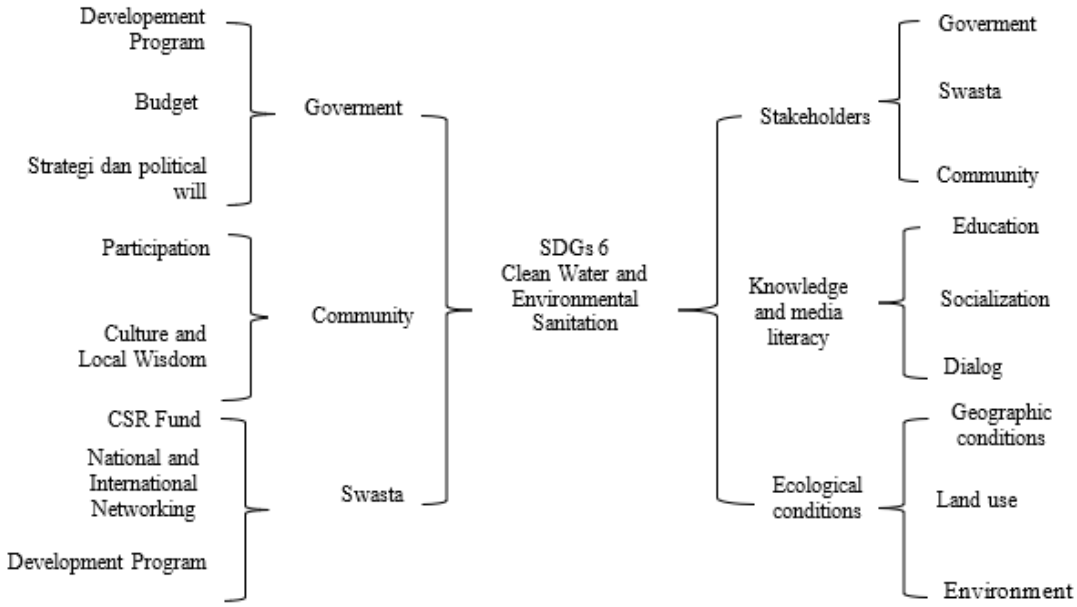

Figure 2. Word tree SDGs

For the community to emerge participation and community culture and local wisdom, it is intended that the community has potential that can and needs to be directed to achieve SDGs 6. The words in the *word tree* above are connected to each other to produce a description that refers to mapping the problem clean water in achieving SDGs 6 in Banten Province.

3.1 The problem of achieving SDGs 6

The issues of SDGs 6 in Banten Province are influenced by various aspects, these aspects were revealed through interviews with several key informants. The results of the interview show that the problem of achieving SDGs 6 in Banten Province consists of at least three issues, namely: (1) Structural and political, (2) Government budget, and (3) Socio-cultural. The first is a structural issue. This issue is intended as a structural condition in which government officials have the authority to manage SDGs 6 problems. Various observations have shown that structural positions are not always able to produce strategic political policies in managing SDGs 6 problems. Policies taken by the government are also faced with other development programs so that it is necessary to make various adjustments to the existing scale of development priorities. The implication is that the scale of development priorities results in unavoidable development disparities. This disparity in development then has an impact on the unequal distribution of SDGs 6 infrastructures in various regions, low economic productivity, education and knowledge of PHBS in the community.

The second issue is the government budget. This issue is related to the limited amount of the Regional Revenue and Expenditure Budget (APBD) and must be shared with other programs, health, public education, infrastructure and other programs. The third is socio-cultural issues. There are still many community cultures that are difficult to change in the implementation of PHBS, the ways in which people access and use clean water and the pattern of applying environmental sanitation which is far from standard, for example. Some riverbanks and rivers are still used as toilet facilities even though clean water facilities and infrastructure programs already exist, such as in the areas of Tanara, Cisadane and Bojonegara. In some areas, the community has been accustomed to using water sources directly from nature for generations, this habit is then difficult to change even though it has been intervened through the SDGs 6 development program. For more details on interview data related to SDGs 6 issues in Banten Province, the categories can be seen in Table 1.

Table 1 describes the problems in achieving SDGs 6 in Banten Province. The four issues revealed are interrelated and binding issues. The problem of education and low community knowledge, for example, has an impact on the poor PHBS of the community. Communities with a relatively lower level of education compared to other areas such as in Pandeglang and Lebak have poor PHBS and are less able to create good environmental sanitation in their place. Furthermore, the unequal development of SDGs 6 infrastructure between urban and rural areas has led to unequal achievement of SDGs 6 as well. The MCK program, the Pansimas Program and the uneven construction of clean water pipes have made it difficult for the community to obtain clean water.

Inequality in development then has a wide impact on the ways in which the community meets the need for clean water, for example by providing knowledge about the methods of collecting rainwater, finding springs and techniques for distilling water to make it fit for use. Strengthening the supporting infrastructure for SDGs 6 will ultimately be a solution to the development imbalances. Improvement of roads to the location of communal services, and expansion and ease of access to communal clean water services.

Poverty is also a crucial issue in handling problems and achieving SDGs 6 in Banten Province. BPS Banten Province reported that poverty in the province increased by 91.24 thousand people to 867.23 thousand people in March 2021, rise to 6.66%. This figure has a broad impact on the community's ability to access clean water. The community does not yet have access to a productive economy that is able to increase purchasing power and access to clean water.

Table 1. The problem of achieving SDGs 6 in Banten province

No.	SDGs 6 Issues in Banten Province	Government Policy	Sociological and Cultural Conditions	Solution
1.	SDGs 6 Infrastructure Development Disparities	Equitable development of districts and cities by applying a priority scale	The community has not been able to fully access the infrastructure that has been provided Communities have other ecological potentials that can be exploited	Infrastructure Development in supporting the SDGs 6 program: road access, transportation and placement of SDGs 6 facilities in strategic places Synergy of development programs with the private sector
2.	Economic Inequality/Poverty	Creating and optimizing the local market. Forming a community-based productive economy Maintain the availability and prices of raw materials	The community does not yet fully have productive economic resources Increase community productivity in local markets Local products have not yet been equipped with innovations and technologies that are capable of producing competitive products	Job creation. Creating village-based and MSME-based creative economic products. Innovative technology and innovation. Synergy in the use of technology and innovation with the private sector
3.	Low education and knowledge	Implement free education for the community Motivate people to take education	Basic education is limited to elementary and junior high school Basic education has not taught skills	Free basic education is designed until high school Providing skills training for students according to their interests and talents
4.	PHBS masyarakat community clean and healthy lifestyle	Create a measurable and controlled socialization program Strengthen community capacity	Many people's PHBS still refers to hereditary habits	PHBS socialization is continuous, comprehensive and measurable Empowerment programs are prioritized for target communities Synergy of community empowerment programs with the private sector

Table 2. Percentage of households by water source for cooking/bathing/washing

City/District	Branded Bottled Water	Water Refill	Leding	Boreholes/ Pump	Protected Well	Unprotected Well	Protected Spring	Unprotected Spring	Surface Water (River, Lake/Reservoir, Pond, Irrigation)	Rain Water
Pandeglang	0.09	0.00	2.04	30.41	35.55	8.24	10.02	8.51	4.83	0.09
Lebak	0.08	0.36	2.34	30.96	22.37	13.30	14.31	10.18	5.35	0.00
Tangerang	0.00	0.91	9.10	85.59	3.21	0.42	0.00	0.00	0.76	0.00
Serang	0.06	0.65	6.77	54.53	17.86	1.31	12.06	2.93	3.29	0.00
Tangerang City	0.53	1.17	15.25	80.54	1.82	0.00	0.32	0.00	0.00	0.00
Cilegon City	0.00	0.58	8.91	86.48	2.84	0.18	0.37	0.00	0.12	0.00
Serang City	0.00	0.08	4.92	86.27	6.76	0.39	0.00	0.00	1.58	0.00
South Tangerang City	0.37	0.02	4.37	92.84	1.65	0.00	0.00	0.05	0.00	0.00
Banten	**0.17**	**0.69**	**7.73**	**71.48**	**9.54**	**2.45**	**3.81**	**2.19**	**1.67**	**0.01**

An important that was successfully revealed in the interview was the issue of community PHBS which became the findings of the research category. Several academics explained that the first thing that needs to be done in improving community PHBS is strengthening community capacity through empowerment and participation. Empowerment that is carried out comprehensively and measurably will gradually change the way people think and behave. Ironically, the infrastructure program for SDGs 6 has not been accompanied by a program for empowering and strengthening the capacity of the community. The implication is that PHBS has not been understood by the community and has not received a full support so that community's PHBS is still far from healthy standards. This problem was then sharpened by the tendency of government development programs to prioritize the development of physical infrastructure which is not directly related to the efforts to empower and strengthen community capacity for PHBS.

3.2 Access to clean water

Clean water is water that is intended to fulfill needs such as drinking needs and the need for toilets with quality that meets health requirements. The availability of clean water includes the implementation of environmental sanitation which includes the provision of safe clean water, disposal of waste

from humans, animals and industry, food sanitation, clean and safe air, clean and safe houses [25]. The general condition of access to clean water for the people of Banten Province is very diverse, urban and rural communities have different access and reach. From various sources of clean water for cooking, bathing and washing needs, the people of Banten utilize 10 access to clean water to meet their needs. The complete data is as shown in Table 2.

The results of observations and interviews conducted, confirm the acquisition of statistical figures reported by BPS. Pandeglang Regency, for example, is an area of mountains and rice fields where the availability of water is quite well maintained. Furthermore, in Pandeglang there are no large industries so that there is no environmental pollution caused by industry. In Pandeglang there are no skyscrapers that cause disruption of water absorption areas, especially the people of Pandeglang treat water as a natural potential whose existence needs to be maintained and protected. In contrast to the Tangerang area, where industries and skyscrapers exist at a number of points, they have an impact on the disruption of water absorption areas and therefore there's only a few protected wells in Tangerang.

Several interviews explained that the difference in the way people get clean water is due to the inadequate infrastructure for SDGs 6 so that many people take advantage of existing natural resources. The large percentage of people who use drilled wells is a fact that access to drinking water provided by the government is not able to reach all levels of society so that people on their own will and initiatively create water sources independently to meet their needs. So far, the government's manufacture of clean water pipes is still limited to certain points, apart from the problem of access to water sources, the infrastructure that supports the pipe construction is still weak.

After being analyzed, this significant difference in numbers is motivated by ecological, geographical, economic and socio-cultural elements. The ecological element is related to the availability of natural resources that can be utilized by the community in meeting the needs of clean water. Banten Province has different ecological potentials between districts and cities, one of which is South Tangerang City which is ecologically an urban area. Tall buildings, industry and tourism which have implications for the lack of land availability, access to clean water and other types of clean water sources that can be accessed by the community [26]. Land use in the area that has not been developed has become a built area resulting in reduced green open land which has an impact on reducing the absorption zone and natural water availability.

Unlike the Pandeglang Regency which is geographically amountainous area, rice fields, the main livelihood of the community is farming so that the availability of clean water and irrigation is always maintained. Ecologically, the South Tangerang City area is an urban area where tall buildings, industry and tourism are increasingly mushrooming which has implications for the lack of land availability, access to clean water and the lack of other types of clean water sources that can be accessed by the community [26, 27]. In contrast to the Pandeglang Regency which is geographically a mountainous area and rice fields as its main source of livelihood for the community for farming, where the availability of clean water, land and settlements is quite extensive, as well as the water catchment area is still maintained [17]. In the percentage of access to clean water for protected wells, Pandeglang Regency also has the highest number, namely 25.55%, on the other hand, South Tangerang City only 1.6% of its people use protected well water [17]. The achievement of SDGs 6 in Banten Province is also observed from the way the community accesses the drinking water sources used. There are two categories in measuring it, first the source of drinking water is clean or not, secondly the source of drinking water is decent or not. The percentages of the two categories are as illustrated in Table 3.

For the category of clean drinking water, the highest percentage is in the Cilegon City area, 90.74%, while the largest percentage is in the Lebak area, which is 60.22% [17].

Table 3. Percentage of households by types of drinking water source

Districts/City	Source of Clean Drinking Water		Source of Proper Drinking Water	
	Yes	**Not**	**Yes**	**Not**
Pandeglang	49.16	50.84	82.01	17.99
Lebak	39.78	60.22	73.32	26.68
Tangerang	83.13	16.87	97.97	2.03
Serang	75.47	24.53	92.33	7.67
Tangerang City	92.44	7.56	98.00	2.00
Cilegon City	90.74	9.26	98.72	1.28
Serang City	77.92	22.08	98.38	1.62
South Tangerang City	71.41	28.59	99.22	0.78
Banten	**76.63**	**25.37**	**93.51**	**6.49**

The data in the Table 3, maps out which areas have access to clean drinking water, whether it is proper or not. The study [28] illustrates that the optimal fulfillment of clean water in Cilegon city is because the clean water supply system is designed to meet needs safely, starting from processing raw water that meets standards to distributing clean water to the population. Applying the Causal Loop Diagram (CLD) and Stock and Flow Diagram (SFD) models that visualize the availability of raw water and community needs makes it easier for the government to see the availability of clean water and community needs. By applying these two models, Cilegon city is able to guarantee the availability of raw water and clean water, even if the availability increases every year. Therefore, the people of Cilegon city are very free to use clean water, not worrying about its availability.

This data explains that many people in Lebak and Pandeglang regencies use unclean and inappropriate drinking water to meet their needs. Several factors cause people to use drinking water that is not clean and inappropriate because the residential areas are in the highlands, rocks so that people find it difficult to access clean water, plus the problem of weak local government budgets. Some of the contributing factors are the geographical condition of residential areas in the highlands, rocks that make it difficult for people to access clean water, and the problem of weak local government budgets. A further indicator that needs to be seen in the achievement of SDGs 6 is access to drinking water sources used by the community. How big the percentage of people using drinking water sources to meet their needs reflects how big the achievement of SDGs 6 in Banten Province is. The data in Table 4 describes the various sources of drinking water used by the community.

From the data in the Table 4, the source of drinking water used by the people of Banten, the largest percentage is in the use of refilled water, which is 36.92%, while the smallest percentage is 0.22% in the rainwater indicator [17]. The large

use of refilled water as a source of drinking water, because it is considered more hygienic and more practical by the community. Some motives of urban communities choose to use refilled water because it is cheaper, easier and more practical, both branded and unbranded. Urban slum dwellers even choose to use refilled water, both branded and unbranded, even urban slum residents prefer refilled water because the cost is 3x cheaper than bottled drinking water [29]. Likewise, research results from the Indonesian Ministry of Health in 2010 found that urban communities chose refilled drinking water because it was considered practical and considered more hygienic [30] (Table 5).

Table 4. Percentage of households by sources of drinking water

Districts /City	Branded Bottled Water	Water Refill	Leding	Boreholes/ Pump	Protected Well	Unprotected Well	Protected Spring	Unprotected Spring	Water (River, Lake /Reservoirs, Ponds, Irrigation)	Rain Water
Pandeglang	2.29	17.07	1.70	24.79	26.19	5.01	10.97	7.76	2.62	1.53
Lebak	1.09	8.08	1.44	26.30	21.79	11.69	15.00	11.39	2.44	0.05
Tangerang	18.34	51.87	2.78	25,21	1.73	0.60	0.00	0.00	0.00	0.00
Serang	7.06	42.91	0.75	25.56	7.42	0.54	11.68	2.28	0.63	0.63
Tangerang City	36.73	43.91	3.07	15.75	0.15	0.00	0.21	0.00	0.00	0.00
Cilegon City	27.38	57.82	0.66	12.18	1.74	0.00	0.23	0.00	0.00	0.00
Serang City	23.28	43.89	1.16	29.09	2.44	0.01	0.00	0.10	0.00	0.04
South Tangerang City	28.83	20.28	1.75	48.17	0.89	0.00	0.09	0.00	0.00	0.00
Banten	**19.23**	**36.92**	**2.08**	**26.57**	**6.38**	**1.77**	**3.92**	**2.17**	**0.57**	**0.22**

Source: BPS 2021

Table 5. Development communication issues

Sector	Development Communication Issues	Strategy
Government	The socialization of the SDGs 6 program to the public has not been optimal, either through the media or face to face There is not master plan yet that has become a reference for the government and the private sector in the implementation of SDGs 6 in a comprehensive, measurable and implemented manner	Creating a development communication model that is able to synergize various sectors An information system model that can be accessed together in achieving SDGs 6
Private sector	There has not been a continuous and comprehensive dialogue with the government that discusses SDGs 6 issues that need to be implemented by the private sector Socialization of the use of CSR funds to the public which has not yet been accompanied by the concept of achieving measurable SDGS 6	Develop a dialogical communication model with the government and the community regarding the implementation of SDGS 6 and distribution of CSR funds
Public sector	The SDGS 6 program is not much known which requires an optimal community participation The community has difficulties in getting information about the SDGs 6 program that has been and will be implemented in the community	Creating empowerment programs and strengthening community capacity Involving an active participation of the community in the SDGs 6 program

Source: Research elaboration results

The problem of using refilled drinking water in Indonesia lies in the quality of drinking water that does not meet the health standards set by the government. Many found that the quality of refill drinking water was not hygienic [30]. Refill water still contains bacteria, unhygienic tools, non-standardized distillation processes which have an impact on the quality of the water produced [31]. If the quality of drinking water does not meet the requirements, especially bacteriological quality, it will cause health problems such as diseases: diarrhea, cholera, typhoid, hepatitis, dysentery and gastroenteritis.

3.3 SDGs 6 development communication model

In achieving SDGs 6 in Banten Province, many things have been conducted such as implementing the SDGs program in the RPJMD which has legal force and budgetary power. This RPJMD then becomes a reference for district and city governments to implement it even at the village government level. This means that in terms of program planning and implementation, the scheme for achieving SDGs 6 has been built systemically and synergistically between various sectors. This means that in terms of program planning and implementation, the scheme for achieving SDGs 6 has been built systemically between various sectors and then built a comprehensive cooperation scheme with the private sector. Some of the data obtained lead to the development communication process that has not been implemented optimally. The issue of how the SDGs 6 program is socialized and responded well by all stakeholders is a problem that has not been resolved until now. Some of the problems that were successfully revealed in the field. Some of the issues that were successfully uncovered in the field when implementing SDGs 6 in Banten Province can be seen in the Table 6.

Table 6 consists of three columns that describe the obstacles in implementing the SDGs 6 program, one of which is caused by the development communication process. The program socialization is not yet optimal, there is no dialogue between the government and the private sector and the public who do not know this program well are factual problems in the field

that require immediate solutions. Seeing the complexity of this issue there are three aspects in development communication related to the degree of analysis used. These aspects include: First, a focused approach. In achieving SDGs 6 in Banten Province, a target-focused approach has been implemented and stated in the RPJMD for each period. The village, district and city governments have so far made many SDGs programs that are tailored to the needs of the community. The problem lies when there are many other programs that have the same priority but different targets and program formats. The solution lies in structuring the political system that needs to be synergized with the needs of SDGs 6. For example, by making regulations on policies, budgets and implementation and optimally achieving SDGs 6.

Second, optimizing the role of mass media in development. The main problem with the development program lies in the weak use of media. Currently, the media used for socialization have not been managed properly and their reach and impact have not been measured. In practice, there is no synergy between the SDGS 6 program and the need for information exposure. Whereas in some cases, optimally disseminating information related to the implementation and achievement of SDGs 6 is an effective strategy. Messages conveyed by the government both internally and externally (public and private) can be directed to increase knowledge so that public PHBS behavior becomes better. The implication is that no matter how strong the development communication design is, if it is not disserted with optimizing the role of the media, it will only create new problems that have an impact on the lack of knowledge, participation and community contribution in the SDGs 6 program. Although media literacy and media affordability are required, this approach is an approach that can gradually increase public critical awareness, increase participation and contribution so that the achievement of SDGs 6 can improve.

Third, the cultural approach to village communities. This approach is intended as an effort to mobilize the potential for communication to change the orientation and habits of the community. From the data previously disclosed, many people in Banten Province still have not implemented PHBS in their daily activities. For example, people's open defecation behavior, poor environmental sanitation, various diseases are widespread in the community. Some of the causes are the lack of knowledge about PHBS, people's habits that are still difficult to change and the cultural carrying capacity is also weak so that social control between communities is also low. The cultural approach taken so far is still partial and only when there is momentum for activities related to SDGs 6. The impact is that SDGs 6 in Banten Province has not yet fully received the cultural support of the community. For Banten Province, the development problem lies in the literacy of the related community SDGs 6 which is still weak. Knowledge, participation and community contribution are difficult to achieve optimally. This weak literacy, one of which is caused by information that has not been evenly distributed and has not been right on target. The implication is that the issue of SDGs 6 is also partially understood by stakeholders.

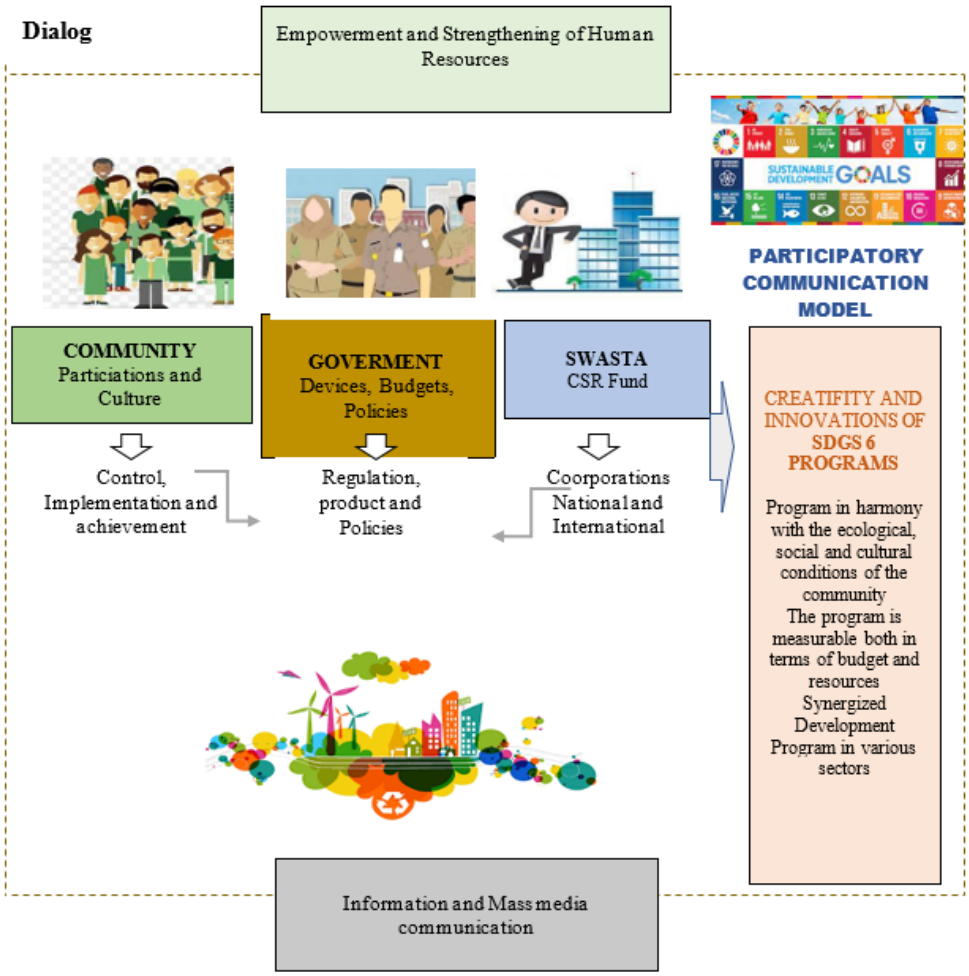

Figure 3. Communication participatory models

Participatory development communication models are believed to be the most promising approach to reduce dependence, build self-confidence and community independence [32]. Participatory communication is an approach based on dialogue, which allows the sharing of information, perceptions and opinions among the various stakeholders and thereby facilitates their empowerment, especially for those who are most vulnerable and marginalized. And the participatory development communication model for the achievement of SDGs 6 in Banten Province. The communication participatory models on how to synergize the SDGs 6 program in various development sectors. Several other elements that need to be synergized are the strengthening of development programs, stakeholders, technology and innovations produced and the process of strengthening community capacity through various outreach activities and media. Strengthening SDGs 6 programs requires community participation, the program must be measurable and made in short medium and longterm achievement schemes.

These stakeholders significantly contribute to improving water services and maintaining water resources [33]. Several local government agencies are involved in water provision, namely local development planning board, public works agency, environmental agency, housing and settlement agency and health agency. Other stakeholders in urban water management among others are: nongovernmental organizations (NGOs), private sector, water company associations, water operators, academia, practitioners, and community-based organizations. In practice, the achievement of SDGs 6 in Banten Province is still found in many program plans that are not in accordance with the needs of the community, and there are various inequalities. Inequality in the development of SDGs can be seen in Lebak and Pandeglang Regencies, these two regions have low levels of clean water consumption and access to clean water is still difficult. Various findings, among others, describe the lack of synergy between stakeholders in formulating and implementing policies, behavior and culture of community, availability of clean water, community reacha. And the participatory development communication model for the achievement of SDGs 6 in Banten Province is as illustrated in the Figure 3.

The communication participatory models on how to synergize the SDGs 6 program in various development sectors. Several other elements that need to be synergized are the strengthening of development programs, stakeholders, technology and innovations produced and the process of strengthening community capacity through various outreach activities and media. Strengthening SDGs 6 programs requires community participation, the program must be measurable and made in short medium and longterm achievement schemes. In practice, the achievement of SDGs 6 in Banten Province is still found in many program plans that are not in accordance with the needs of the community, and here are various inequalities. Inequality in the development of SDGs can be seen in Lebak and Pandeglang Regencies, these two regions have low levels of clean water consumption and access to clean water is still difficult.

Stakeholders in the SDGs 6 program consist of the government, the private sector and the community. The government from the provincial government apparatus to the village level which has the authority to have the stamina and commitment to carry out the SDGs 6 program until the achievement status is really good. Characterized by an adequate and controlled budget allocation, the SDGS 6 program is implemented comprehensively and provides space for wider community participation. The private sector is intended as an element involved in development that represents SOEs, companies and non-government institutions. The private sector has the advantage with Coorporate Social responsibility (CSR) funds that can be synergized to realize the SDGs 6 program. So far, many private parties have CSR programs related to the provision of clean water, drinking water services and environmental sanitation programs, such as those carried out by PT Aqua Danone, Krakatau Steel Tbk, Nestle and other companies.

The main problem is that the SDGs 6 program carried out by the government and the private sector has not been optimally synergized through a measurable and evaluated cooperation road map. The assumption is that if an intensive dialogue about the program for achieving SDGs 6 is carried out optimally, the implementation of the SDGs program will be more coordinated, measurable and on target. Furthermore, the government also needs the private sector as a partner in program implementation, and vice versa, the private sector needs the government as a program maker, regulation and implementation (Figure 4 and Figure 5).

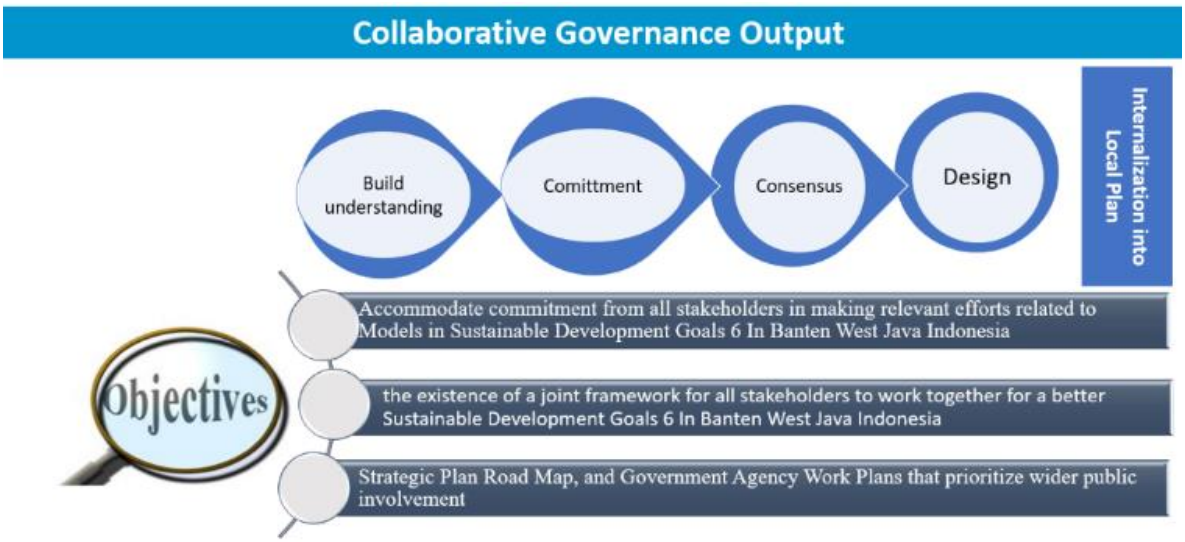

Figure 4. Collaboration concept

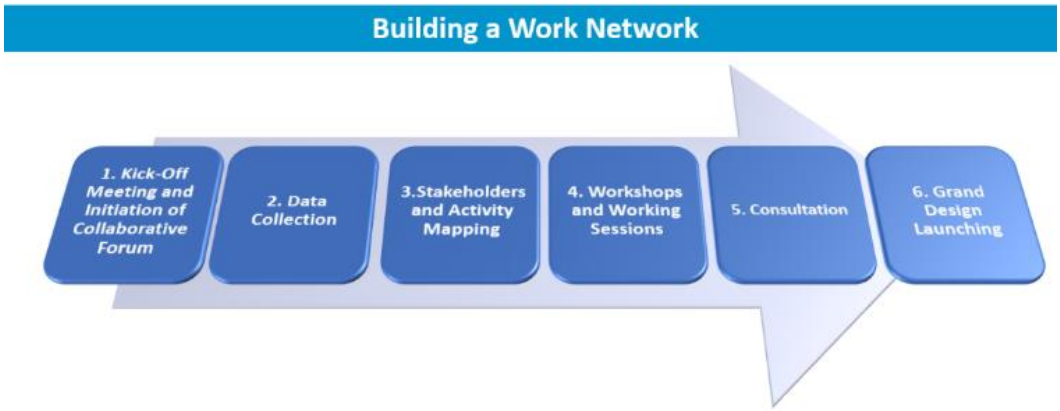

Figure 5. Collaboration process

In this article, the biggest challenge for communication between all stakeholders in the next phase is creating systematic government collaboration [34] output. There are at least 4 stages, the first is to build an agreement to solve the problem in the Banten context, namely clean water and healthy living behavior, secondly, stakeholders are required to make a big commitment that this problem can be solved together, the third step is to agree on concrete and systematic steps. These four phases are how limited financial resources, people and tools are focused into detailed and impactful programs.

The actualization of this collaboration is outlined in a work flow from regular meetings of the parties to find joint solutions, share data and information together so that in this phase the strengths and weaknesses can be seen which can lead to strategies being taken, then massive actualization into a campaign that raises citizen awareness, this campaign will produce a response or feedback that is sometimes rarely heard, but this is the important phase, dialogue and consultation is the gap for this program to be accepted by the public, the final phase of program implementation where all steps are measurable, open and accountable.

Citizen participation and empowerment are critical sustainability elements [35]. Collaborative processes enable government agencies to directly invite stakeholders to make joint decisions in formal, consensus-oriented, and freedom-oriented forums, aimed at creating or implementing public policies or managing programs. A work process like this can eliminate program obstacles or blockages that are not responded to by the public or are deemed unimportant by policy makers because the main focus is the involvement of all parties to find solutions.

The community is a stakeholder that is no less important than the government and the private sector. In the SDGs 6 program in Banten Province, the community is often seen as an object of development, not as a subject of development. So far, the planning for the SDGs 6 program in Banten Province has been partly taken from the proposals of the village government and partly based on the results of field studies. Meanwhile, the private sector is based on project proposals and CSR program mapping based on a survey of community needs. The implication is that there are increasingly narrow spaces for participation that limit the public's participation in development.

Another thing that needs to be built in achieving SDGS 6 is a dialogue and synergy between several stakeholders. The government with the power of authority, regulation, budget and policies will more easily instruct the planning and implementation of programs that refer to SDGs 6. The private sector with CSR funds and flexibility will be able to find solutions and facilitate program achievements. Meanwhile, people with cultural strengths and various other potentials, if they are positioned as development subjects, will be easier to be invited to participate and cooperate. An intensive dialogue between various stakeholders has become a medium in synergizing various ideas and programs. Other aspect is the political climate that supports program achievements, for example the mechanisms, policies, budgets and human resources involved really refer to the principle of accountability. The result of this process is the achievement of the SDGs which produces creative and innovative ideas.

The regional potential of Banten Province is quite large, from the strength of the structure and culture of the community, Local Government Revenue (PAD), the development budget, the ever-increasing HDI, natural resources (SDA) that support people's lives. This potential ideally becomes the basic capital and leads to the empowerment and capacity building of the community and stakeholders. The goal is to generate ideas and creativity in the program and the achievement of SDGs 6. More importantly, an information system that needs to be designed starting from the packaging of information, the media use, distribution of information and the provision of discussion or control rooms. Utilizing social media and digital media that are measurable and affordable to a wide audience is an alternative so that the intended information reaches the public. With an information system that is designed in such a way and supported by technology, it will be easier for people to access the information they need. Accessibility of information also needs to be pursued in remote communities who are the target of the program, so that there is no information gap.

The findings on the achievements of the SDGs 6 program in Banten Province illustrate information related to data and problems that can be used as a reference in designing policies. The model offered for overcoming the problems of clean water, environmental sanitation, and development programs is an implementative and measurable model so that it is easily applied in various situations and conditions. What has not been reached in this study is the policies and political interventions that need to be carried out by the government. The findings regarding the participatory development communication model found in this study are conceptually found in many previous studies, it's just that this study raises the concept of synergy and collaboration between all components and mapping stakeholder activities. Stakeholder activities in

achieving SDGs 6 are designed to be more planned, measurable, and controlled, as an effort to improve the achievement of SDGs 6 in the future. In other words, the results of this study strengthen the results of previous studies by carrying out synergy and collaboration in participatory development communication. One thing that needs to be done by future researchers is the pattern of intervention and political policies that need to be found so that the achievement of SDGs 6 in Banten Province is faster and existing social problems can be resolved immediately.

4. CONCLUSIONS

Access to clean water and community environmental sanitation is important in implementing PHBS and achieving SDGs 6. Specifically, in Banten Province, the achievement of SDGs 6 is different in each district and city due to various unresolved issues. First, the problem of disparity in infrastructure development for SDGs 6 which causes infrastructure inequality in accessing clean water and implementing healthy environmental sanitation. Second, economic inequality/poverty caused by development programs that have not led to economic growth and strengthening the creative economy of the community. Third, problems of education and public knowledge are still weak and have an impact on the weak literacy of SDGs 6 as well. Fourth, the weakness of community PHBS which is difficult to change because of their habits that are passed down from generation to generation.

The achievement of SDGs 6 in Banten Province is the achievement of community access to clean water by 76.63% and 93.51% of the community already consuming proper drinking water to meet their needs. To meet the needs of drinking water, the people of Banten Province use refilled water more, the percentage is 36.92%, while to fulfill the need for bathing, 71.48% of the people use water from boreholes or pumps. The SDGs 6 development communication model must be able to provide efforts to strengthen the capacity of development programs, strengthen the capacity of stakeholders and strengthen policies and optimize information systems that are integrated in development programs. The participatory development communication model is a solution to the weak participation of stakeholders in achieving SDGS 6 in Banten Province. This model encourages dialogic communication between various stakeholders so as to form critical awareness and participation needed in development.

There are several recommendations resulting from this research, firstly to build synergy between various sectors so as to produce a road map for achieving SDGs 6 which must be targeted together. The second is the socialization of the SDGs program which needs to be synergized in various media (conventional and social) so that its reach is wider and the results can be measured in stages. Third, strengthening community capacity through empowerment programs with the aim of strengthening community participation so that PHBS and the achievement of SDGs 6 are better. Fourth, the development of integrated SDGs 6 infrastructure so that the community can not only access clean water but make it easier to obtain clean water.

The implication of this research is the need for new policies to be made to foster public awareness about healthy lifestyles, policies on socialization, dissemination of information and management innovations, and environmental sustainability. Furthermore, this research provides recommendations and contributions to the synergy model, and participatory development communication collaboration in implementing the SDGs 6 program in a directed, measurable and controlled manner. By applying the model offered, the problem of achieving SDGs 6 can be solved and towards more advanced achievements.

5. LIMITATIONS AND FUTURE RESEARCH

The limitation of this study is that it has not touched the policy aspects and political interventions of legislators, the implication of there are problems that cannot be answered in this study, namely the pattern of policies and political interventions of SDGS 6. In the future, other researchers can initiate this issue and find patterns of policy and political intervention that will answer political problems that have not been revealed in this study.

ACKNOWLEDGMENTS

The author would like to thank the Sultan Ageng Tirtayasa University Communication Science Study Program and Plasma Institue which has contributed greatly to the completion of the research.

REFERENCES

[1] Karon, A.J., Cronin, A.A., Cronk, R., Hendrawan, R. (2017). Improving water, sanitation, and hygiene in schools in Indonesia: A cross-sectional assessment on sustaining infrastructural and behavioral interventions. International Journal of Hygiene and Environmental Health, 220(3): 539-550. https://doi.org/10.1016/j.ijheh.2017.02.001

[2] Guijarro, C., Fuchs, K., Bohrn, U., Stütz, E., Wölfl, S. (2015). Simultaneous detection of multiple bioactive pollutants using a multiparametric biochip for water quality monitoring. Biosensors and Bioelectronics, 72: 71-79. https://doi.org/10.1016/j.bios.2015.04.092

[3] Boretti, A., Rosa, L. (2019). Reassessing the projections of the world water development report. NPJ Clean Water, 2(1): 15. https://doi.org/10.1038/s41545-019-0039-9

[4] Kornita, S.E. (2020). Strategi Pemenuhan Kebutuhan Masyarakat terhadap Air Bersih di Kabupaten Bengkalis. Jurnal Samudra Ekonomi dan Bisnis, 11(2): 166-181. https://doi.org/10.33059/jseb.v11i2.1883

[5] Fogden, J., Wood, G. (2009). Access to safe drinking water and its impact on global economic growth. HaloSource Inc.

[6] Bressler, J.M., Hennessy, T.W. (2018). Results of an Arctic Council survey on water and sanitation services in the Arctic. International Journal of Circumpolar Health, 77(1): 1421368. https://doi.org/10.1080/22423982.2017.1421368

[7] Purwanto, E.W. (2020). Pembangunan akses air bersih pasca krisis Covid-19. Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning, 4(2): 207-214. https://doi.org/10.36574/jpp.v4i2.111

[8] Pactwa, K. (2021). Achieving United Nations sustainable development goals by the mining sector–A Polish

example. Gospodarka Surowcami Mineralnymi, 37(1): 57-80. https://doi.org/10.24425/gsm.2021.136289
[9] Fartash, K., Khayyatian, M., Ghorbani, A., Sadabadi, A. (2021). Interpretive structural analysis of interrelationships of the sustainable development goals (SDGs) in Iran. International Journal of Sustainable Development and Planning, 16(1): 155-163. https://doi.org/10.18280/ijsdp.160116
[10] Inskeep, E. (1987). Environmental planning for tourism. Annals of Tourism Research, 14(1): 118-135. https://doi.org/10.1016/0160-7383(87)90051-X
[11] Effendy, R. (2015). The moral values as the foundation for sustainable community development: A review of the Indonesia government-sponsored National Program for Community Empowerment Urban Self Reliance Project (PNPM MP). Life, 6(7): 1-23.
[12] Bayu, T., Kim, H., Oki, T. (2020). Water governance contribution to water and sanitation access equality in developing countries. Water Resources Research, 56(4): e2019WR025330. https://doi.org/10.1029/2019WR025330
[13] Mogot, Y.D., Husnita, H. (2021). Sistem komunikasi penyusunan rencana aksi daerah pada program sustainable development goals (Sdgs) provinsi Papua. Jurnal Common, 5(1): 88-102. https://doi.org/10.34010/common.v5i1.5122
[14] Mogot, Y.D., Husnita, H. (2021). Papua provincial government communication system in preparation of regional action plans on the sustainable development goals (SDGs) program. Jurnal Common, 5(1): 88-102.
[15] Milan, B.F. (2017). Clean water and sanitation for all: Interactions with other sustainable development goals. Sustainable Water Resources Management, 3(4): 479-489. https://doi.org/10.1007/s40899-017-0117-4
[16] Grassi, A., Smiley, S.P., Roberti di Sarsina, T., Signorelli, C., Marcheggiani Muccioli, G.M., Bondi, A., Romagnoli, M., Agostini, A., Zaffagnini, S. (2017). Mechanisms and situations of anterior cruciate ligament injuries in professional male soccer players: A YouTube-based video analysis. European Journal of Orthopaedic Surgery & Traumatology, 27: 967-981. https://doi.org/10.1007/s00590-017-1905-0
[17] BPS Provinsi Banten. (2021). Provinsi Banten Dalam Angka. https://banten.bps.go.id/publication/2021/02/26/344951df21aeedca2572f336/provinsi-banten-dalam-angka-2021.html.
[18] Hutton, G., Chase, C. (2016). The knowledge base for achieving the sustainable development goal targets on water supply, sanitation and hygiene. International Journal of Environmental Research and Public Health, 13(6): 536. https://doi.org/10.3390/ijerph13060536
[19] Widiastuti, A. (2019). Environmental sanitation management in regional development in the City of Serang. Jurnal Ekonomi-Qu, 9(2): 178-199. http://doi.org/10.35448/jequ.v2i2.7166
[20] Terama, E., Milligan, B., Jiménez-Aybar, R., Mace, G.M., Ekins, P. (2016). Accounting for the environment as an economic asset: Global progress and realizing the 2030 Agenda for Sustainable Development. Sustainability Science, 11: 945-950. https://doi.org/10.1007/s11625-015-0350-4
[21] Brown, A.P. (2010). Qualitative method and compromise in applied social research. Qualitative Research, 10(2): 229-248. https://doi.org/10.1177/1468794109356743
[22] Denzin, N.K., Lincoln, Y.S. (Eds.). (2023). The Sage Handbook of Qualitative Research. Sage Publications.
[23] Borbasi, S. (2004). Navigating the Maze of Nursing Research: An Interactive Learning Adventure. Australia: Elsevier.
[24] Yin, R. (2003). Case Study Research–Design and Methods. Sage, Thousand Oaks, California.
[25] Pratiwi, R., Nitibaskara, T.U., Salampessy, M.L. (2019). KELEMBAGAAN MASYARAKAT DALAM PENGELOLAAN HUTAN ADAT (Studi Kasus di Kasepuhan Pasir Eurih, Desa Sindanglaya, Kecamatan Sobang, Kabupaten Lebak, Provinsi Banten). Jurnal Belantara, 2(1): 62-69. https://doi.org/10.29303/jbl.v2i1.131
[26] Suryanti, S., Umami, A., Firmansyah, R., Widyasaputra, R., Pertanian, F. (2020). Di kabupaten bantul provinsi diy. Journal Law and Government.
[27] Suryanti, S., Umami, A., Firmansyah, R., Widyasaputra, R. (2020). Empowerment of organic agriculture with the budikdamber hydroganic model in the era of the Covid-19 Pandemic in Bantul District, Diy Province.
[28] Shofa, M.J., Widyarto, W.O. (2018). Model sumber daya air untuk kawasan industri dan perumahan dengan pendekatan sistem dinamis. Jurnal Rekavasi, 6(2): 117-123.
[29] Raksanagara, A.S., Fitriyah, S., Afriandi, I., Sukandar, H., Sari, S.Y.I. (2018). Internal and external aspects related to quality of refill water station production: Qualitative study in Bandung City. Majalah Kedokteran Bandung-MKB-Bandung Medical Journal, 50(1): 53-60.
[30] Novita, E., Pradana, H.A., Purnomo, B.H., Puspitasari, A.I. (2020). River water quality assessment in East Java, Indonesia. Journal of Water and Land Development, (47): 135-141. https://doi.org/10.24425/jwld.2020.135040
[31] Dewanti, R.A., Sulistyorini, L. (2017). Bacteriological quality analysis of refillable drinking water in Sememi Village, Benowo District. The Indonesian Journal of Public Health, 12(1): 39-50. https://doi.org/10.20473/ijph.v12i1.2017.39-50
[32] Bessette, G., Rajasunderam, C.V. (1996). La Communication Participative Pour le Développement: Un Agenda Ouest-Africain. CRDI, Ottawa, ON, CA.
[33] Mulyana, W., Prasojo, E. (2020). Indonesia urban water governance: The interaction between the policy domain of urban water sector and actors network. International Journal of Sustainable Development and Planning, 15(2): 211-218. https://doi.org/10.18280/ijsdp.150211
[34] Benton, J.E. (2013). Local government collaboration: Considerations, issues, and prospects. State and Local Government Review, 45(4): 220-223. https://doi.org/10.1177/0160323X13515683
[35] Koontz, T.M. (2006). Collaboration for sustainability? A framework for analyzing government impacts in collaborative-environmental management. Sustainability: Science, Practice and Policy, 2(1): 15-24. https://doi.org/10.1080/15487733.2006.11907974