Implementation of Settlement Infrastructure Policy to Realize Proper and Safe Sanitation in the City of Depok

Dudi Mi'raz Imaduddin¹, Faris Shafrullah², Leni Indrawati³*, Muchlis Hamdi⁴, Hadi Prabowo⁵, Kusworo⁶, Bahrullah Akbar⁷, Khasan Effendy⁸, Sampara Lukman⁹, Sedarmayanti¹⁰, Solahuddin Ismail¹¹

¹ Doctoral Program IPDN, Jatinangor

² Alumni University of Padjadjaran, Bandung

³*Lecturer University of Azzahra, Jakarta

^{4, 5, 6, 7, 8, 9} Lecturer IPDN Jatinangor, Bandung

¹⁰ Lecturer University of Dr. Sutomo, Surabaya

¹¹ Lecturer School of Government Universiti Utara Malaysia

³* Author's correspondence: lenindra12@gmail.com

Abstract

Depok City in an effort to create a clean, comfortable, safe and healthy area, so it is necessary to establish and organize a Healthy City. In order to realize the implementation of a Healthy City, it is necessary to support the quality of the physical, social environment, change people's behavior through the active role of the community and the private sector as well as the Regional Government in a directed, coordinated, integrated and sustainable manner.

The aim is to realize hygienic and sanitary community behavior independently in order to improve the health status of the community as high as possible, in an effort to create a clean, comfortable, safe and healthy area condition.

The method used is qualitative with data triangulation. The data was obtained from interviews conducted with community beneficiaries of sanitation development, village officials, sub-district officials, and officials serving in the Depok City Government.

Findings in the field that the Depok City area, especially areas that have slum settlements, are polluted by polluted soil, water and environment conditions. This condition occurred in 73 areas where soil and water samples were taken for laboratory testing. There were 67 (91.78%) locations that were polluted and did not meet the requirements, while there were 6 (8.22%) locations that were not polluted and met the requirements.

Keyword: Infrastructure, Slums, Adequate and Safe Sanitation

I. INTRODUCTION

The unequal availability of clean water is an important issue because it affects all aspects of life, from health to public welfare. Ease of access to clean water is also believed to be a way to break the chain of poverty. Water is a basic human need which in Article 33 of the 1945 Constitution paragraph 3 "Earth and water and the natural resources contained therein are

controlled by the state and used for the greatest prosperity of the people". This means that the state guarantees the right of every citizen to obtain water for the fulfillment of daily basic needs and regulates the right to water. The regulation is clearly a contract between the government and its citizens, which means that the state guarantees the right of every citizen to obtain water for meeting basic daily needs and

to regulate the right to water (Akpabio, and Rowan, 2021), (Victral and Heller, 2021).

Based on the 2017 BPS census data, from 80 million Indonesians, only 70.04% of the population has access to proper drinking water, which means that there are still 29.96% or almost who do not have access to proper drinking water. According e-monev to monitoring of Community-Based Total Sanitation (STBM), during 2020 there has been an increase of 16.14% to 78.74% of community access to sanitation (latrines). Even though it is estimated that by 2030 all provinces will be able to achieve 100% "access to safe drinking water", but it has not answered the Sustainable Development Goals (SDGs) target, namely "access to safe drinking water". This figure is still below the target of 100 percent. In Depok City, there are still a lot of people who live in slums, because of the lack and difficulty of getting money to support themselves and their families. Starting from the disposal of sewage to the provision of clean water. There are still many residents of Depok City who do not have a place to dispose of their feces and practice defecate carelessly. Related to this will be related to the contamination of water around the residents' homes, making the area have the impression of being dirty and slum. This is in line with the sanitation problem which is a classic problem that never ends. According to the World Health Organization (WHO), Indonesia is the third country with the worst or inadequate sanitation in 2017.

The rivers that flow through Depok City, are important for social, agricultural and industrial activities, most of them are in a worrying condition, because they are polluted by domestic waste such as from households and industry, the importance of water sustainability and efforts to reduce the environmental impact of the production sector, which requires water as a raw material later. It is necessary for all parties to work together to ensure the availability and sustainability of fresh water because it has an important role for life and livelihood.

Another environmental problem in Depok City, namely groundwater pollution is a condition where man-made chemicals enter the soil, so that the polluted soil enters the sub-surface layer and changes the natural soil environment. This pollution usually occurs due to leakage of liquid waste or chemicals in industrial or commercial facilities, the use of pesticides or chemicals and waste water from landfills that enter and are dumped into the ground unqualified (illegal dumping), pollutes the soil surface, it can evaporate, be washed away by rainwater and enter the soil. Pollution that enters the soil is then deposited as toxic chemicals in the soil. Toxic substances in the soil can have a direct impact on humans when they come into contact or can contaminate groundwater and the air above it, where the pollution is a deviation from its normal state. The normal state of water still depends on the determining factors, namely the use of the water itself and the origin of the water source. Pollution can cause health problems such as headaches, dizziness, fatigue and eye irritation and skin rashes due to chemical exposure and can also have an impact on the ecosystem.

The West Java Provincial Government in encouraging regencies and cities to achieve the sanitation development performance target in the 2018 Settlement Sanitation Development Acceleration (PPSP) program, for waste water treatment of 67.01 percent of the achievement target of the 2018 Regional Medium-Term Development Plan (RPJMD) of 69 percent, while the target for achieving universal access to sanitation is 90 percent in 2019. Meanwhile, achievement of urban solid waste management in West Java Province in 2017 was 67.11 percent of the 2018 RPJMD target of 70 percent, and the national achievement target of 80 percent in 2019. Depok City took the initiative to synergize sanitation development funding through financial assistance programs for districts/cities from 2015 to 2017, a budget of 661.7 billion, a grant mechanism was developed from the West Java Provincial Government to the Depok City Government, to accelerate achievement universal access, the

thing but is welcomed in community development efforts and accelerating the Open Defecation Free (ODF) target, which means that:

- 1. All people who defecate only in the latrine and dispose of feces/baby droppings only in the latrine;
- 2. No visible human feces in the surrounding environment:
- 3. There is no unpleasant odor due to the disposal of feces/human waste;
- 4. There is an improvement in the quality of existing latrines so that all go to healthy latrines;
- 5. There is a monitoring mechanism for improving the quality of latrines;
- 6. There is the application of sanctions, regulations or other efforts by the community to prevent the occurrence of defecation in any place;

- 7. There is a general monitoring mechanism created by the community to ensure that all houses have healthy latrines;
- 8. In schools located in the community, there are latrine facilities and a place for washing hands with soap that can be used by students during school hours; and
- Analysis of institutional strength in the city becomes very important to create institutions and mechanisms for effective and efficient implementation of activities so that the objectives of the ODF community can be achieved.

Slum settlements are a problem faced by almost all big cities in Indonesia, including Depok City, where Depok City is one of the supporting cities for the nation's capital. health, environment and education and poverty. The slum areas in Depok City can be seen in the table below.

Table 1. Housing Areas and Slums in Depok City

| No | Sub Districts | Villages | Residents | Area (Ha) | Total (Ha) |
|----|---------------|-------------|-----------|-----------|------------|
| 1 | Sukmajaya | Abadi Jaya | 19 | 4 | 25.09 |
| | | | 21 | 6.64 | |
| | | | 28 | 9.29 | |
| | | | 29 | 5.16 | |
| 2 | Pancoran Mas | Depok | 9 | 4.59 | 42.83 |
| | | | 13 | 6.99 | |
| | | | 14 | 4.98 | |
| | | | 19 | 13.06 | |
| | | | 20 | 13.21 | |
| 3 | Pancoran Mas | Depok Jaya | 14 | 2.83 | 2.83 |
| 4 | Beji | Kemiri Muka | 3 | 1.38 | 1.38 |
| 5 | Beji | Pondok Cina | 1 | 2.02 | 3.35 |
| | | | 5 | 1.33 | |
| 6 | Cinere | Cinere | 1 | 4.96 | 12.13 |
| | | | 2 | 4.6 | |
| | | | 8 | 2.57 | |
| 7 | Cinere | Gandul | 3 | 1.59 | 3.55 |

| | | | 5 | 1.96 | |
|----|-----------|---------------|----|------|--------|
| 8 | Cipayung | Bojong Pondok | 9 | 2.02 | 8.53 |
| | | Terong | 10 | 3.28 | |
| | | | 11 | 1.66 | |
| | | | 12 | 1.57 | |
| 9 | Cipayung | Cipayung Jaya | 6 | 5.46 | 8.45 |
| | | | 8 | 2.99 | |
| 10 | Cimanggis | Cisalak Pasar | 6 | 3.08 | 3.08 |
| 11 | Tapos | Sukamaju Baru | 2 | 3.48 | 21.52 |
| | | | 3 | 8.66 | |
| | | | 4 | 9.38 | |
| | Total | | · | | 132.74 |

Source: SK Walikota Depok 591/250/Kpts/Bapp/Huk/2015

The problems of slum settlements and sanitation in Depok City are as follows:

- The high level of pollution makes the availability of water unfit for consumption where 52 strategic rivers in Indonesia are in a polluted state including the Ciliwung river and the Citarum river.
- Groundwater pollution is a condition where man-made chemicals enter the soil so that the polluted soil enters the subsurface layer and changes the natural soil environment.
- 3. Environmental pollution also causes health problems.
- 4. The number of slum areas in Depok City.
- The number of low-income people in Depok City who live in slum areas is quite high.
- The development of proper sanitation infrastructure in Depok City is still minimal.

II. METHOD

The method used is qualitative with triangulation of data (Creswell, 2014), surveys and requests for data and interviews with informants or residents who use sanitation development in slum settlements in 10 subdistricts of Depok City. Furthermore, it was reconfirmed the statement of the results of the interview with the Head of the Neighborhood

Association, the Head of the Citizens Association, and officials on duty at the Depok City Housing and Settlement Service.

III.RESULTS

The study was conducted on several residents who benefit from sanitation development in slums in 10 sub-districts of Depok City, requests for document data and interviews were conducted on the Heads of Neighborhood Units, Heads of Residents Associations, and officials on duty at the Depok City Housing and Settlement Service. The results of the interview revealed that:

The sanitation beneficiaries in Sukmajaya Subdistrict admitted that they were very happy and pleased with the construction of proper and safe sanitation in their respective homes and in public places, so that it would be easier for them to access when going to defecate. In addition, residents of slum settlements in Sukmajaya District feel that there is proper and safe sanitation development, community residents no longer open defecation in gardens, rice fields, nearby rivers.

Likewise, statements from residents who use sanitation buildings in the Districts of Pancoran Mas, Beji, Cinere, Cipayung, Cimanggis and Tapos. They feel happy, happy and feel the benefits directly with the construction of sanitation in their area. This condition is recognized by them as being able to change the culture from open defecation behavior to a more orderly and more hygienic behavior in a relatively more proper and safe sanitation area. Furthermore, interviews were conducted with the heads of neighborhood associations in the local village. They admit that the existence of sanitation development in their area is really very beneficial for its citizens. They assume that so far, the behavior of residents who are not orderly, not disciplined to defecate, even often defecate carelessly and in open places, such as in rice fields, rivers, streams, gardens, and sports fields, causing a very strong odor and less comfortable. This makes the area reluctant to be visited by neighboring residents. When the sanitation development program began to be implemented, most of the community members felt happy, because what was a basic need for the community members would be met by the local government. The community recognizes the benefits that are felt by the sanitation development program, namely changing lifestyles to become healthier, so that diarrheal diseases that often attack the surrounding community will disappear and the area will be free from disease.

Furthermore, interviews were conducted with the Heads of the Citizens Association in the local Kelurahan. They admit that the existence of sanitation development in their area is really very beneficial for its citizens. They assume that all this time, residents defecate in the open, some in gardens, rice fields and rivers, causing pollution with a pungent and unpleasant odor. Conditions like this make the area increasingly slum, which is marked by the behavior of residents defecating openly. With the sanitation development program, it is hoped that the region and its citizens will be healthier and more prosperous.

Interviews were conducted with medical personnel, nurses, midwives, pharmacists, laboratory officers and health extension workers who act as partners who supervise the implementation of sanitation development in several sub-districts. Cooperation and involvement in the implementation of sanitation

development activities are coordinated by environmental health workers or sanitarians who have their competence and expertise in the field of environmental health. Meanwhile, medical personnel, nurses, midwives, pharmacy staff, laboratory officers and health extension workers act as partners in making this activity a success. Interviews were conducted with medical personnel on duty in the field related to sanitation development in slum settlements. They stated that socialization and education had not been carried out to all community beneficiaries of sanitation development. Whereas the socialization carried out at the kelurahan office or community hall was only attended by a small number of community members. Meanwhile, education is carried out in the form of changing the culture of the people who like to open defecation or they have not used the toilet facilities in their homes, but defecate in rivers, gardens, rice fields. This condition has the potential to pollute ground water and the environment.

Furthermore, interviews were conducted with officials from the Depok City Housing and Settlement Service. They stated that the sanitation development policy in slum areas has not been supported by the existence of academic text documents, feasibility study documents, Work Plans and Conditions (WPC) documents, and Detail Engineering Design (DED) documents, so that the implementation of this policy does not seem to have gone through careful planning. . This condition is indicated by the non-fulfillment of some of these conditions. The implementation of the sanitation development policy in slum settlements is carried out in stages. The achievements of the stages of sanitation development in slum settlements can be seen in the following table.

Table 2. Sanitation Development in Depok City 2017-2021

| No | Year | Number of Households Accessed to Sanitation | Number of Households | Achievements (%) |
|----|------|--|-------------------------|------------------|
| 1 | 2017 | 451.041 | 545.065 | 82.75 |
| 2 | 2018 | 477.931 | 545.066 | 87.68 |
| 3 | 2019 | 538.472 | 547.472 | 98.36 |
| 4 | 2020 | 571.797 | 578.710 | 98.81 |
| 5 | 2021 | 585.934 | 590.983 | 99.15 |

Source: Dinas Perumahan dan Permukiman Kota Depok

Based on the table above, that the number of households that can access sanitation is increasing, so the potential for a healthier environment and can reduce people infected with diarrheal diseases.

Furthermore, interviews with officials from the Department of Housing and Settlements of Depok City. They stated that the sanitation development policy in slum areas had been carried out with laboratory tests for water and soil. This activity was carried out to ensure slum areas for the period July 2019-September 2020 for 73 water sampling locations. The results of the test of water and soil conditions at that location are:

Table 3. Results of Laboratory Tests on Soil and Water Conditions in Depok City

| Nic | Address | Sample Date | | Laborat | tory Test | | |
|-----|--|-------------|--------------|---------|-----------|-------|------|
| No | Address | Sample Date | Bacteriology | Physics | Chemistry | Arsen | Iron |
| 1 | Jl. Depan Masjid Baitul Rahman | 26-09-2020 | Q | Q | NQ | Q | Q |
| 2 | PKM Pasir Putih Jl. Raya Pasir Putih | 18-06-2020 | NQ | Q | NQ | Q | Q |
| 3 | Jl. Griya Sawangan Asri | 18-06-2020 | NQ | Q | NQ | Q | Q |
| 4 | Gg. Masjid Al Ishlah RT 2/6 Kel. Cisalak | 27-06-2020 | Q | Q | NQ | Q | Q |
| 5 | Jl. Burangrang 2 No. 2 RT. 1/8 Kel. Abadi Jaya | 27-06-2020 | Q | Q | Q | Q | Q |
| 6 | Lingkungan Bojong RT 7/19 Kel Abadi Jaya | 27-06-2020 | Q | Q | NQ | Q | Q |
| 7 | Jl. Kediri I No. 172 RT 7/16 Kel Mekarjaya | 26-06-2020 | NQ | Q | Q | Q | Q |
| 8 | Kp. Serab RT 2/1 Kel. Tirtajaya | 26-06-2020 | NQ | Q | NQ | Q | Q |
| 9 | Kp. Serab RT 8/2 Kel. Tirtajaya | 26-06-2020 | Q | Q | NQ | Q | Q |
| 10 | Kp. Rawadenok RT 3/2 Rangkapanjaya Baru | 25-06-2020 | NQ | Q | NQ | Q | Q |

| 11 | Jl. Puskesmas Parakan Jaya | 25-06-2020 | NQ | Q | NQ | Q | Q |
|----|--|------------|----|----|----|---|---|
| 12 | RT 1/9 Kel. Ratu Jaya | 26-06-2020 | NQ | NQ | NQ | Q | Q |
| 13 | RT 6/1 Kel. Pondok Jaya | 26-06-2020 | NQ | Q | NQ | Q | Q |
| 14 | Jl. Raya Cipayung RT 6/2 Kec Cipayung | 25-06-2020 | Q | Q | Q | Q | Q |

| 15 | Jl. Blok Rambutan RT 2/4 Kec Cipayung | 25-06-2020 | Q | Q | NQ | Q | Q |
|----|--|------------|----|---|----|---|---|
| 16 | Jl. Ciliwung RT 1/1 | 15-07-2020 | NQ | Q | NQ | Q | Q |
| 17 | Jl. Ciliwung 43 RT 2/1 | 15-07-2019 | NQ | Q | NQ | Q | Q |
| 18 | RT. 5/16 Kel. Beji | 19-07-2019 | Q | Q | NQ | Q | Q |
| 19 | RT. 6/16 Kel. Beji | 19-07-2019 | Q | Q | NQ | Q | Q |
| 20 | RT. 1/10 Kel. Tanah Baru | 13-07-2019 | Q | Q | NQ | Q | Q |
| 21 | RT. 1/11 Kel. Tanah Baru | 13-07-2019 | Q | Q | NQ | Q | Q |
| 22 | Jl. Raya Grogol RT. 1/1 Grogol | 15-07-2019 | Q | Q | NQ | Q | Q |
| 23 | Jl. Raya Grogol RT. 2/1 Grogol | 15-07-2019 | NQ | Q | NQ | Q | Q |
| 24 | Jl. H. Rosid RT. 4/1 Cinere | 16-07-2019 | Q | Q | NQ | Q | Q |
| 25 | Jl. H. Rosid RT. 2/1 Cinere | 16-07-2019 | Q | Q | NQ | Q | Q |
| 26 | Kp. Sidamukti RT. 3/1 No. 21 | 18-07-2019 | NQ | Q | NQ | Q | Q |
| 27 | Kp. Sidamukti RT. 3/1 No. 8 | 18-07-2019 | NQ | Q | NQ | Q | Q |
| 28 | Jl. Raya Pondok Petir | 17-07-2019 | NQ | Q | NQ | Q | Q |
| 29 | Kampung Pamulang Vilage | 17-07-2019 | NQ | Q | NQ | Q | Q |
| 30 | RT. 1/10 Kel. Tugu Cimanggis | 03-07-2019 | NQ | Q | NQ | Q | Q |
| 31 | RT. 3/3 Kel. Tugu Cimanggis | 03-07-2019 | Q | Q | NQ | Q | Q |
| 32 | Jl. Bungur RT. 4/2 | 04-07-2019 | NQ | Q | NQ | Q | Q |
| 33 | Jl. Masjid II No. 33 RT. 9/3 | 04-07-2019 | Q | Q | NQ | Q | Q |
| 34 | Gg. Sangging RT. 1/1 PGS | 05-07-2019 | NQ | Q | NQ | Q | Q |

| 35 | Gg. Sangging III RT. 3/1 No. 75 PGS | 05-07-2019 | Q | Q | NQ | Q | Q |
|----|-------------------------------------|------------|----|---|----|---|---|
| 36 | Jl. Nusantara Hankam | 05-07-2019 | NQ | Q | NQ | Q | Q |
| 37 | Jl. Tipar Raya RT. 3/8 Mekarsari | 05-07-2019 | Q | Q | NQ | Q | Q |
| 38 | Jl. Tipar Raya RT. 5/8 Mekarsari | 05-07-2019 | NQ | Q | NQ | Q | Q |

| | | | | ľ | T | 1 | |
|----|--|------------|----|---|----|---|---|
| 39 | Jl. Pedurenan Depok RT. 1/1 | 08-07-2019 | NQ | Q | NQ | Q | Q |
| 40 | RT. 3/7 Kel. Tapos | 08-07-2019 | NQ | Q | NQ | Q | Q |
| 41 | Kampung Kebayun RT. 2/20 No. 58 Kel. Tapos | 08-07-2019 | NQ | Q | NQ | Q | Q |
| 42 | RT. 6/2, Jatijajar | 09-07-2019 | Q | Q | NQ | Q | Q |
| 43 | RT. 4/4, Jatijajar | 09-07-2019 | Q | Q | NQ | Q | Q |
| 44 | Jl. Tanjung 5 No.7 RT. 7/20 Kel. Sukatani | 09-07-2019 | Q | Q | Q | Q | Q |
| 45 | Jl. Tanjung DDG No. 10 RT. 5/20 | 09-07-2019 | Q | Q | Q | Q | Q |
| 46 | Cilangkap RT. 3/7 Tapos | 11-07-2019 | NQ | Q | NQ | Q | Q |
| 47 | Cilangkap RT. 5/7 Tapos | 11-07-2019 | Q | Q | NQ | Q | Q |
| 48 | Kampung Sindang- karsa RT. 1/3 | 11-07-2019 | Q | Q | NQ | Q | Q |
| 49 | Jl. Kenari Raya RT. 3/13 | 11-07-2019 | Q | Q | NQ | Q | Q |
| 50 | Jl. Raya Tapos RT. 3/3 Kel. Cimpaeun | 11-07-2019 | NQ | Q | NQ | Q | Q |
| 51 | Jl. Raya Tapos RT. 4/3 Kel. Cimpaeun | 11-07-2019 | NQ | Q | NQ | Q | Q |
| 52 | Jl. Raya Muchtar, Gg. Poncol Sawangan Lama | 17-06-2019 | Q | Q | NQ | Q | Q |
| 53 | Jl. Raya Muchtar, batasan dg. Jl.RSUD Kota Depok, Sawangan Baru | 17-06-2019 | Q | Q | NQ | Q | Q |
| 54 | Jl. Pemuda No. 2 RT 4/RW 8 Pancoran Mas | 24-06-2019 | Q | Q | Q | Q | Q |

| 55 | Jl. Pemuda RT 3/RW 8 Pancoran Mas | 24-06-2019 | Q | Q | NQ | Q | Q |
|----|--|------------|---|---|----|---|---|
| 56 | Jl. Pemuda RT 1 / RW 8 Pancoran Mas | 24-06-2019 | Q | Q | NQ | Q | Q |
| 57 | Jl.Keramat Jaya No. 25 Kec.Pancoran Mas | 24-06-2019 | Q | Q | NQ | Q | Q |

| | Vanament Ionia | 1 | | | | 1 | |
|-----|-----------------------|------------|-----|-------|----------|-----|----|
| 50 | Keramat Jaya | 24.06.2010 | 0 | | NO | | |
| 58 | RT 1 / RW12 | 24-06-2019 | Q | Q | NQ | Q | Q |
| | Kec.Pancoran Mas | | | | | | |
| | Keramat Jaya | | | | | | |
| 59 | RT 2 / RW12 | 24-06-2019 | NQ | Q | Q | Q | Q |
| | Kec.Pancoran Mas | | | | | | |
| | Jl. Pertiwi Raya | | | | | | |
| 60 | No. 31 Kedaung | 19-06-2019 | NQ | Q | NQ | Q | Q |
| | Kec. Sawangan | | | | | | |
| 61 | Puskesmas Kedaung | 10.06.2010 | 0 | | NO | | |
| 01 | Kec. Sawangan | 19-06-2019 | Q | Q | NQ | Q | Q |
| | Komplek BSI II | | | | | | |
| 62 | Jl. Anggrek Raya | 19-06-2019 | Q | Q | NQ | Q | Q |
| | Sawangan | | | | , | | |
| | Komplek BSI II, | | | | | | |
| 63 | Jln. Podang Raya | 19-06-2019 | Q | Q | NQ | Q | Q |
| | Pengasinan Sawangan | | • | | | | |
| | Jl. Jeruk No. 5 | | | | | | |
| 64 | Duren Seribu | 20-06-2019 | NQ | Q | NQ | Q | Q |
| | Bojongsari | 20 00 2019 | 110 | \ \ \ | 110 | ~ | Q |
| | Jl. Delima No.2 | | | | | | |
| 65 | Duren Seribu | 20-06-2019 | Q | Q | NQ | Q | Q |
| 0.5 | Bojongsari | 20-00-2019 | Q | Q | NQ | Ų | Q |
| | | | | | | | |
| 66 | RT. 7/4 Gang H. | 02-07-2019 | NQ | Q | NQ | Q | Q |
| | Daman Kel.Curug | | | | | | |
| | Jl. Gas Alam Komplek | | | | | | |
| 67 | Dep. Koperasi | 02-07-2019 | Q | NQ | NQ | Q | NQ |
| | Blok A No. 19 | | _ | | | | |
| | RW.9 Kel.Curug | | | | | | |
| 68 | Perumahan Griya Elok | 01-07-2019 | Q | Q | NQ | Q | Q |
| | RT 3/22 | 2017 | • | * | - · • | _ ~ | * |
| 69 | Komplek Villa Pertiwi | 01-07-2019 | NQ | Q | Q | Q | Q |
| 0, | RT. 1/16 Sukamaju | 01 07-2017 | 110 | ν. | Υ | ٧ | ν |
| 70 | Kampung Sawah | 01-07-2019 | NQ | NQ | NQ | 0 | Q |
| /0 | RT. 1/1 Jatimulya | 01-07-2019 | INQ | INQ | NQ | Q | Ų |
| 71 | Kampung Sawah | 01-07-2019 | Q | Q | Q | Q | Q |
| | | 1 | - | I | - | | |

| | RT. 2/1 Jatimulya | | | | | | |
|----|---|------------|----|---|----|---|---|
| 72 | Jln. Murajaya Kampung Sugutamu RT. 6/25 Baktijaya | 27-06-2019 | Q | Q | NQ | Q | Q |
| 73 | Jln. Murajaya Kp. Sugutamu RT. 6/25 Baktijaya | 27-06-2019 | NQ | Q | NQ | Q | Q |

Source: Depok City Health Office;

Note: NQ = Not Qualified; Q = Qualified

Based on the table above, 73 locations were taken as soil and water samples for laboratory testing. The results of laboratory tests, there are 6 (8.22%) locations that are clean and not

contaminated with bacteria, chemical elements, physics, arsenic, and iron that can damage the health condition of the human body and the environment. The areas are as follows:

Table 4. Unpolluted Area

| | Address | Sample Date | Laboratory Test | | | | | |
|----|---|----------------|-----------------|---------|-----------|-------|------|--|
| No | | | Bacteriology | Physics | Chemistry | Arsen | Iron | |
| 1 | Jl. Burangrang 2 No. 2 RT. 1/8 Kel. Abadi Jaya | 27-06-20 | Q | Q | Q | Q | Q | |
| 2 | Jl. Raya Cipayung RT 6/2 Kec Cipayung | 25-06-20 | Q | Q | Q | Q | Q | |
| 3 | Jl. Tanjung 5, No.7 RT. 7/20, Kel. Sukatani | 09-07-19 | Q | Q | Q | Q | Q | |
| 4 | Jl. Tanjung DDG No. 10 RT. 5/20 | 09-07-19 | Q | Q | Q | Q | Q | |
| 5 | Jl. Pemuda No. 2 RT 4/RW 8 Pancoran Mas | 24-06-19 | Q | Q | Q | Q | Q | |
| 6 | Kp. Sawah RT. 2/1 Jatimulya | 01-07-19 | Q | Q | Q | Q | Q | |

Source: Depok City Health Office; Note: NQ = Not Qualified; Q = Qualified

Meanwhile, as many as 67 (91.78%) land locations contain bacteria and polluted water that does not meet the requirements for public consumption.

IV. DISCUSSION

In making healthy city policies and communitybased total sanitation in the form of Mayor Regulations and Mayor Decrees, it turns out that there is no academic text, so the policy is still weak in its implementation. This condition is evident from the Mayor's Decree Number 591/250/Kpts/Bapp/Huk/2015 concerning the determination of housing and slum settlements in Depok City which was issued in 2015, with Mayor Regulation Number 40 of 2019 concerning the implementation of a healthy city, which was issued in 2019, and Mayor's regulation Number 64 of 2019 concerning the implementation of community-based sanitation, which was issued in 2019. This shows that the Depok City government is not responsive, so that the action taken is too late. It should act

more quickly to create a healthy city by reducing slum settlements through empowerment, outreach and education to its citizens through the development of community-based total sanitation in slum settlements in Depok City.

The Depok City Government has not yet conducted laboratory tests on the level of groundwater pollution and the level of environmental pollution in locations where sanitation has been built. The Depok City Government must carry out laboratory tests again at locations where sanitation has been built, to ensure that the slums are clean from pollution.

Because the Depok City Government has not tested groundwater pollution and environmental pollution at locations where sanitation has been completed, it is not yet known whether the sanitation development site is said to be still polluted by groundwater and its environment, or sanitation development in slum areas has not been properly targeted and the goal. The Depok City Government needs time for coordination between related agencies, in order to realize a healthy Depok City.

V. CONCLUSION

The Depok City Government should carry out laboratory tests again on the level of groundwater and environmental pollution on locations where sanitation development has been carried out in urban areas that have slum settlements. This must be done to ensure that the ground water is suitable for consumption and to ensure a clean environment, as well as to eliminate the potential for interference with ecoli bacteria and prone to vomiting and defecation. If everything has been done, then Depok City will become a clean, comfortable, safe and healthy area according to the objectives of the policies that have been made.

VI. ACKNOWLEDGEMENT

The authors would like to thank the Mayor of Depok, Mr. Deputy Mayor of Depok, Mr. Secretary of the City of Depok, and all parties who have assisted in providing data and information for the writing of this article.

REFERENCES

- Achmadi, 2005. Hubungan antara Kualitas Fisik Rumah dan Kejadian Tuberkulosis Paru dengan Basil Tahan Asam positif di Balai Kesehatan Paru Masyarakat Semarang, Salam, Vol.1.
- 2. Agustino, L. 2008. Dasar-dasar Kebijakan Publik. Bandung: Alfabeta.
- 3. Ahmed, Jamil., Wong, Li Ping., Chua, Yan., Hydrie, Igbal, Zafar, Piaw. Muhammad., Channa, Najeebullah. 2021. Drinking water, sanitation, and hygiene (WASH) situation in primary schools of Pakistan: the impact of WASH-related interventions and policy on children school performance, Environmental Science and Pollution Research.29:1259-1277 https://doi.org/ 10.1007/s11356-021-15681-w
- 4. Akpabio, M, Emmanuel., and Rowan, S, John. 2021. The political economy of coordinating water, sanitation hygiene management policies and programmes for Nigeria. Water International. Vol. 46, No. 3, 365-382.https://doi.org/10.1080/02508060.20 20.1867454.
- 5. Alan, A. D. 1989. Is Public Ekspenditure Productive. Journal Of Monetary Economics 23.
- 6. Alston P, & Bowles, J. 2004. Social Method and Research Analysis. London: Cambridge University Press.
- 7. Azwar A. 1990. Pengantar Ilmu Kesehatan Lingkungan. Jakarta: Yayasan Mutiara.
- 8. Bahtiar. 2006. Kondisi Sanitasi Lingkungan Kapal Penumpang PT Pelni KM. Lembelu. Makasar Sulawesi Selatan.
- 9. Budihardjo, E. 1998. Sejumlah Masalah Pemukiman Kota. Bandung.
- Bunasor, S. 2011. Sumberdaya Air dan Kesejahteraan Publik : Suatu Tinjauan Teoritis dan Kajian Praktis. Bogor: IPB Press.
- 11. Chandra, B. 2006. Pengantar Kesehatan Lingkungan . Jakarta: EGC.
- 12. Creswell, John W. 2014. Research Design (qualitative, quantitative and mixed methods approaches), eds 4th, Sage Publications, Inc. USA.

- Dickin, Sarah., Bayoumi, Moustafa., Giné, Ricard., Andersson, Kim., and Jiménez, Alejandro. 2020. Sustainable sanitation and gaps in global climate policy and financing. npj Clean Water. 3:24; https://doi.org/10.1038/s41545-20-0072-8
- 14. Dunn, William, 2003, Pengantar Analisis Kebijakan Publik, Gajah Mada Press, Yogyakarta.
- 15. Echeverría, Albuja, Santiago, W., Albornoz, Belén, María. 2020. Political authority and policy change: Water and sanitation policy in Ecuador from the policy networks approach, Revista Española de Ciencia Política. Núm. 52. Marzo, pp. 147-175
- Ekane, Nelson., Kjellén, Marianne., Westlund, Hans., Ntakarutimana, Amans., Mwesige, Daniel. 2020. Linking sanitation policy to service delivery in Rwanda and Uganda: From words to action. Development Policy Review, 38:344–365. DOI: 10.1111 /dpr.12428
- 17. Emil, S. 2018. Tujuan Pembangunan Berkelanjutan Indonesia. Bandung: Unpad Press Graha Kandaga.
- 18. Fadila, Fieghie., Shafrullah, Faris., Indrawati, Leni, Sedarmayanti, Ismail, Solahuddin, Susetyowati, Eko, Firmanti, Anita,. Noermijati, Hussein, Sunaryo, 2022. Analysis of the Effect of Competency, Qualification, and Performance Mediated by the Merit System on Talent Management. Journal of Positive Psychology and Wellbeing.
- Gaebler, Ted, and David Osborne, 2012, Reinventing Government: How The Entrepreneurial Spirit Is Transforming, Addison Wesley Publishing Company, Massachussets.
- 20. Grigg, N. 1988. Infrastructure Engineering and Management. John Wiley and Sons.
- 21. Grindle, Merilee, S. 1980. Politics and Policy Implementation in The Third World. New Jersey: Princeton University Press.
- 22. Hamdi, Muchlis, 2014. Kebijakan Publik: Proses, Analisis. Partisipasi, Ghalia Indonesia, Bogor.
- 23. Indrawati, Leni., Shafrullah, Faris, Ahmad Mansyur, Akbar, Bahrullah, and Lukman, Sampara, 2021, The Effect of The Implementation of Operational

- Education Costs on The Realization Good Governance in The Government of The DKI Jakarta Province, Journal Natural Volatiles & Essential Oils, 8 (5): 9405-9416.
- 24. Islamy, I. M. 2009. Prinsip-prinsip Perumusan Kebijakan Negara. Jakarta: Bumi Aksara.
- 25. Kodoatie, J. 2005. Pengantar Manajemen Infrastruktur. Yogyakarta: Pustaka Pelajara.
- 26. Kusnoputranto, H. 1986. Kesehatan Lingkungan. Jakarta: Fakultas Kesehatan Masyarakat Universitas Indonesia.
- 27. Mangkunegara, A. P. 2003. Perencanaan dan Pembangunan SDM. Bandung: Refika Aditama.
- 28. Mariana Gutierres Arteiro da Paz, Ana Paula Fracalanza. 2020. Social control in basic sanitation at Guarulhos (SP): the Municipal Council of Urban Policies, Ambiente & Sociedade n São Paulo. Vol. 23, 1-19; DOI: http://dx.doi.org/10.1590/1809-4422as oc20 190019r1vu2020L4AO
- 29. Muanda, Christophe., Goldin, Jacqueline., and Haldenwang, Rainer. 2020. Factors and impacts of informal settlements residents' sanitation practices on access and sustainability of sanitation services in the policy context of Free Basic Sanitation. Journal of Water, Sanitation and Hygiene for Development, 10.2. 238-248; doi: 10.2166/washdev.2020.123..
- 30. Neuman, W. L. 2000. Social Research Methods: Qualitative and Quantitative Approaches. Allyn & Bacon Incorporated.
- 31. Oyedotun, Timothy,, Temitope, D., Moonsammy, Stephan., 2021. Linking national policies to beneficiaries: Geospatial and statistical focus to waste and sanitation planning, Environmental Challenges, 4, 100142, https://doi.org/10.1016/j.envc.2021.100142.
- 32. Purwanto, S., Sudiharjo, & Bambang Ristanto. 2001. Penyediaan Air Bersih, Proyek Pengembangan Pendidikan Tenaga Sanitasi Pusat Pendidikan dan Latihan Pegawai. Jakarta: Departemen Kesehatan RI.
- 33. Putranto, H. 1993. Kesehatan Lingkungan. Jakarta: Departemen Pendidikan dan Kebudayaan Universitas Indonesia.

- 34. Rahardjo, A. R. 2005. Dasar-dasar Ekonomi Wilayah. Yogyakarta: Graha Ilmu.
- 35. Rasyid, Ryaas, 2016, Makna Pemerintahan, Tinjauan Dari Segi Etika dan Kepemimpinan, Yarsif Watampone, Jakarta.
- Riyadi, S. 1994. Pencemaran Air, Dasardasar dan Pokok-pokok Penanggulangan. Surabaya: Karya Anda.
- 37. Rohman, A., & Wiyono, T. 2010. Education Policy in Decentralization Era. Jakarta: Pustaka Pelajar.
- 38. Sadana, Agus. 2014. Perencanaan Kawasan Permukiman. Yogyakarta: Graha Ilmu.
- 39. Scherer, Nathaniel., Mactaggart, Islay., Huggett, Chelsea., Pheng, Pharozin., Rahman, Mahfuj-ur., Biran, Adam., and Wilbur, Jane. 2021. The Inclusion of Rights of People with Disabilities and Women and Girls in Water, Sanitation, and Hygiene Policy Documents and Programs of Bangladesh and Cambodia: Content Analysis Using EquiFrame. International Journal of Environmental Research and Public Health. 18 (10), 5087.
 - https://doi.org/10.3390/ijerph18105087
- 40. Setiawati., Faris, Shafrullah., Leni, Indrawati., Suryadi., Nurhattati, Fuad., Matin., Putri, Ayu, Pratiwi., Kusnan., Asral. 2022. Implementation of Web-Based Budgeting System (e-Budgeting) to Increase Accountability of School Financial Management In Jakarta Selatan, Journal of Positive School Psychology, Vol.6, No.4, 3827 3835.
- 41. Shafrullah, Faris., 2019a. Corruption, Income Inequality, and Poverty in Indonesia, International Journal of Economics, Commerce and Management. United Kingdom ISSN 2348 0386 Vol. VII. Issue 8.
- 42. Shafrullah, Faris., Fadila, Fieghie., Indrawati, Leni., Sedarmayanti., Ismail, Solahuddin., Susetyowati, Eko, Firmanti, Anita., Pratiwi, Ayu, Putri., 2022b. The Effect Of Qualifications, Competencies, And Performance On The Merit System In The Ministry Of Public Works And Public Housing. Journal of Positive School Psychology, 6(4), 4540 4548.
- 43. Shafrullah, Faris., Sedarmayanti, Ismail, Solahuddin., Akbar, Bahrullah., Effendy, Khasan., Lukman, Sampara., Kurniawati,

- Layla., Indrawati, Leni., Fadila, Fieghie., Pratiwi, Ayu, Putri., Asral., Kusnan. 2022c. Risk Management for Fire Disaster Prevention in DKI Jakarta Province, Journal of Positive Psychology and Wellbeing.
- 44. Tatom, J. 1993. Paved with Good Intentions, The Mythical National Infrastructure Crisis Policy Analysis. Cato Institute
- 45. Ugwu, Nkeiruka, Paschaline., Obodoechi, Ndubuisi, Divine., Samuel, Chukwuagoziem, Agu., and Olisa. Davidmac, Ekeocha. 2021. Does economic policy in Nigeria enhance and sustainable water sanitation facilities?, Journal of Water, Sanitation and Hygiene for Development. Vol 12 No 1, 23. doi: 10.2166/washdev. 2021.094.
- 46. Van Meter D. And C. Van Horn. 1975. The Policy Implementation Process: A Conseptual Framework. Administration and Society.
- 47. Victral, Madureira, Davi., Heller, Léo, 2021. The Human Rights to Water and Sanitation in Policy Responses to the COVID-19 Pandemic: An Analysis of Brazilian States, Water (Switzerland), 1, 13, 228. https://doi.org/10.3390/w13020228
- 48. Whittington, Dale., Radin, Mark., and Jeuland, Marc. 2020. Evidence-based policy analysis? The strange case of the randomized controlled trials of community-led total sanitation, Oxford Review of Economic Policy, Volume 36, Number 1, pp. 191–221.
- 49. Winarno, B. 2007. Kebijakan Publik : Teori dan Proses. Media Presindo. Yogyakarta.
- 50. Winarno, Budi. 2016. Kebijakan Publik Era Globalisasi (Teori, Proses dan Studi Kasus Komparatif). CAPC (Center of Academic Publishing Service). Yogyakarta.
- 51. Wiyono, Djoko, 1999. Manajemen Mutu Pelayanan Kesehatan Teori, Strategi, dan Aplikasi. Vol. 1. Airlangga University Press, Surabaya.