



## Indonesian Clean Water Availability in SDGs: Analysis of Emerging Legal Problems

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### Article Info

Received: 19<sup>th</sup> May 2023

Accepted: 13<sup>th</sup> November 2023

Published: 28<sup>th</sup> December 2023

#### Keywords:

Climate Change; Clean Water Availability; Sustainable Development Goals.

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#### DOI:

10.24843/JMHU.2023.v12.i04.p01

### Abstract

*The right to access clean water is a fundamental human right and an important part of SDGs. Indonesia as a country committed to developing SDGs-compliant policies to respond to climate challenges need to make sure that it has enough normative support from its legal framework. Using normative legal research method, this study analyzes the emerging legal problems regarding the Indonesian government's responsibility to provide clean water to its citizens. To support the analysis, this study employs the statutory approach to find the normative problems contributing to a number of possible legal problems that might hinder Indonesia's commitment to SDGs, particularly the one to make sure that every person has the right to access clean water. Analysis of this research finds that there are normative confusions within the Indonesian legal framework that are related to the government's responsibility in providing access to clean water, along with the urgency to tackle to these normative issues to better deal with the emerging legal problems, in the face of climate change.*

## I. Introduction

Access to clean and safe water is a fundamental human right that is essential for life and health.<sup>1</sup> According to the United Nations (UN), access to clean water is essential for the realization of other human rights, including the right to food, the right to health, and the right to an adequate standard of living.<sup>2</sup> Despite this, many people around the world lack access to safe and clean drinking water, and Indonesia is no exception. The problem of clean water availability in Indonesia is significant, especially in rural areas, where many people still rely on contaminated sources of water, such as rivers and ponds. Indonesia's unique geographical nature, while offers various of natural resources, is in

<sup>1</sup> Celso Maran de Oliveira, "Sustainable Access to Safe Drinking Water: Fundamental Human Right in the International and National Scene," *Ambiente e Agua - An Interdisciplinary Journal of Applied Science* 12, no. 6 (November 2017): 985-1000, <https://doi.org/10.4136/ambi-agua.2037>.

<sup>2</sup> Grazia Scocca, "Strengthening International Water Security: The European Union's Proposal," *World Water Policy* 5, no. 2 (November 2019): 192-206, <https://doi.org/10.1002/wwp2.12014>.

itself a challenge in providing the basic needs to every Indonesian citizen. As an archipelagic country, Indonesia's islands are spread across its huge territory, making it difficult for the government to make sure that the basic rights, including the right to the access of clean water of all Indonesians are fulfilled. Indonesian villages, which account to 43 percent of Indonesians total population, are an important target of SDGs.<sup>3</sup> A report by World Health Organization (WHO) revealed that seven out of ten Indonesian households consume drinking water contaminated with *E. coli*.<sup>4</sup> There's a significant gap between access to basic water services in rural and urban areas in Indonesia, which led to Indonesians supplying themselves using ground water.<sup>5</sup> The Indonesian government has made significant efforts to address the issue of clean water availability, including the National Drinking Water Supply Program (PAMSIMAS), which aims to increase access to clean water in rural areas. However, despite these efforts, access to clean water in Indonesia remains a critical challenge.<sup>6</sup>

One of the main reasons for the lack of access to clean water in Indonesia is the inadequate infrastructure for water supply and treatment. Many rural communities rely on surface water sources, such as rivers, which are often contaminated with pollutants and pathogens. Additionally, the limited capacity of water treatment plants in many areas exacerbates the problem of water contamination.<sup>7</sup> Inadequate infrastructure also contributes to the high rate of non-revenue water, which is water that is produced but not billed due to leakage or theft. To support these infrastructures, there needs to be a solid legal infrastructure, built by a good normative structure that can make sure that the government can get every stakeholder in any community to contribute to the efforts of making sure that every person has access to clean water. The absence of clear policies and regulations leads to a lack of accountability and transparency in the water sector. It also creates challenges for water service providers and hinders the development of effective partnerships between the government and the private sector. Without clear policies and regulations, it is challenging to ensure the sustainability of water supply and treatment systems.

Access to clean water is a fundamental human right that is essential for life and health. Despite significant efforts by the Indonesian government to improve access to clean water, the problem of clean water availability remains a significant challenge, particularly in rural areas. The inadequate infrastructure, lack of policies and

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<sup>3</sup> Hunggul Yudono Setio Hadi Nugroho et al., "Toward Water, Energy, and Food Security in Rural Indonesia: A Review," *Water* 14, no. 10 (May 2022): 1–25, <https://doi.org/10.3390/w14101645>.

<sup>4</sup> WHO, "Improving Access to Safe Drinking Water in Indonesia," World Health Organization, 2021.

<sup>5</sup> R Cahyadi, D Kusumaningrum, and P Prasetyoputra, "Self-Supplied Water in Indonesia: Recent Spatial and Socio-Demographic Conditions and Its Future Development," *IOP Conference Series: Earth and Environmental Science* 1062, no. 1 (July 2022): 1–8, <https://doi.org/10.1088/1755-1315/1062/1/012038>.

<sup>6</sup> Mohamad Syahru Nadhif, "Analisis Manajemen Keuangan Penyediaan Air Minum Dan Sanitasi Berbasis Masyarakat (PAMSIMAS) Desa Tegalsari Barat Dalam Perspektif Ekonomi Syariah," *Sahmiyya* 1, no. 1 SE-Articles (June 2022): 27–35, <https://doi.org/10.28918/sahmiyya.v1i1.5387>.

<sup>7</sup> Ahmad Komarulzaman, Jeroen Smits, and Eelke de Jong, "Clean Water, Sanitation and Diarrhoea in Indonesia: Effects of Household and Community Factors," *Global Public Health* 12, no. 9 (September 2017): 1141–55, <https://doi.org/10.1080/17441692.2015.1127985>.

regulations, and limited funding contribute to the problem of water scarcity and hinder the provision of clean water in Indonesia. Addressing these challenges requires a comprehensive approach that includes investment in infrastructure development, development of clear policies and regulations, and the provision of adequate funding for clean water services. By taking these steps, Indonesia can ensure access to clean water for all citizens, as mandated by international standards. The issue of clean water availability is a critical challenge that many countries face, including Indonesia. This literature review examines the current state of research on the availability of clean water in Indonesia, with a focus on the government's responsibility and emerging problems. The review includes a legal study that analyzes the legal framework for ensuring access to clean water in Indonesia and how it relates to international standards.

Several studies have identified emerging problems that hinder the provision of clean water in Indonesia. For example, a study by Damuri identified inadequate infrastructure, lack of funding, and weak governance as the main challenges to clean water availability in Indonesia.<sup>8</sup> The study argues that the lack of funding for water services and infrastructure development has contributed to the limited access to clean water and sanitation, particularly in rural areas. The study also suggests that weak governance in the water sector has resulted in ineffective coordination among government agencies, limited capacity of local governments, and inadequate community participation. A different study conducted by Barkey et al provides a different perspective by highlighting the impact of climate change on clean water availability in Indonesia.<sup>9</sup> The study argues that climate change has led to more frequent and severe droughts, which have reduced the availability of clean water in many parts of the country. The study also suggests that the Indonesian government needs to develop more resilient water infrastructure and improve water management practices to mitigate the impacts of climate change on water availability.

A legal study by Paudel, Adhikhari, and Bhusal found that environmental legal framework plays a key role in ensuring that governments are responsible in making sure that everyone gets access to clean water.<sup>10</sup> It highlights the need to improve the legal framework for water management in Indonesia to ensure the right to water for all citizens. The study also identifies emerging problems, climate change, and the management of the impacts of climate change, which hinder the provision of clean water in Indonesia. A legal study conducted by Setiawan, Utama, and Lisdiyono also found that there's an urgent need to develop the legal framework in Indonesia regarding these issues, with the emphasis on good governance, highlighting that water availability is an important element of social justice.<sup>11</sup> Addressing these challenges requires a

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<sup>8</sup> Yose Rizal Damuri, "Infrastructure in Indonesian Economic Development: Potentials & Issues," *Japan SPOTLIGHT* 36, no. 6 (2017): 16-19.

<sup>9</sup> R A Barkey et al., "Modeling of Climate Change Impact on Water Availability in Metropolitan Mamminasata, Indonesia," *IOP Conference Series: Earth and Environmental Science* 280, no. 1 (2019): 1-15, <https://doi.org/10.1088/1755-1315/280/1/012011>.

<sup>10</sup> Ganesh Paudel, Shankar Adhikari, and Prabin Bhusal, "Integration of Forest and Climate Change Policies in Nepal," *Journal of Forest and Natural Resource Management* 1, no. 1 (February 2019): 1-13, <https://doi.org/10.3126/jfnrm.v1i1.22647>.

<sup>11</sup> Ady Setiawan, Yos Johan Utama, and Edy Lisdiyono, "Social Justice and Water for All: Constructing a Local Legal Framework for a Good Governance," *INTERNATIONAL JOURNAL*

comprehensive approach that includes improving the legal framework, investing in water infrastructure development, strengthening governance, and adapting to the impacts of climate change. A crucial research gap is found in this literature review, which is the assessment of the Indonesian and their government roles in Indonesia's commitment to SDGs, which includes the provision of clean water to everyone, through the lens of legal framework. While previous studies approached the issue of water availability separately from the concept of SDGs, this study focuses on approaching the issue of water availability as an important part of Indonesia's commitment to SDGs. This is done to make sure that the legal development of Indonesia is in line with its commitment to realizing all the SDGs. By recognizing the conceptual relationship between clean water availability and SDGs, this research dives into the existing normative building blocks that are supporting Indonesia's commitment to SDGs, and analyzes the potentials and challenges of making sure that clean water is available for all Indonesians. It's important to address this issue and analyze the government's liability in many problems that can lead to the lack of access to clean water which is a fundamental human right, as already declared by many international treaties and conventions.

## 2. Research Method

This study employed the normative legal research method to analyze the existing positive laws in Indonesia.<sup>12</sup> This was done to analyze the normative problems that are affecting the efforts to provide clean water to every citizen of Indonesia. To support the analysis, this study employed the statutory approach using secondary data in the form of primary law sources, namely *Undang-Undang Dasar 1945*, Law No. 27 of 2019 on Water Resources, Law No. 32 of 2009 on Environmental Protection and Management, and Law No. 23 of 2014 on Regional Government.

## 3. Results and Discussion

### 3.1. Clean Water Availability and Water Infrastructure in the Conceptualization of SDGs Through the Public Trust Doctrine

The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a global agenda aimed at promoting sustainable development, reducing poverty, and protecting the environment.<sup>13</sup> The sixth goal of the SDGs specifically focuses on ensuring the availability and sustainable management of water and sanitation for all. This goal recognizes the importance of access to clean water and sanitation for human development and well-being, particularly in developing countries where the lack of

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OF CIVIL ENGINEERING AND TECHNOLOGY (IJCIET) 11, no. 1 (2020): 209-16, <https://doi.org/10.34218/ijciet.11.1.2020.023>.

<sup>12</sup> Hari Sutra Disemadi, "Lenses of Legal Research: A Descriptive Essay on Legal Research Methodologies," *Journal of Judicial Review* 24, no. 2 (November 30, 2022): 289, <https://doi.org/10.37253/jjr.v24i2.7280>; David Tan, "Metode Penelitian Hukum: Mengupas Dan Mengulasi Metodologi Dalam Menyelenggarakan Penelitian Hukum," *Nusantara: Jurnal Ilmu Pengetahuan Sosial* 8, no. 8 (2021): 2463-78.

<sup>13</sup> Giulia Mugellini and Jean-Patrick Villeneuve, "Monitoring the Risk of Corruption at International Level: The Case of the United Nations Sustainable Development Goals," *European Journal of Risk Regulation* 10, no. 1 (March 2019): 201-7, <https://doi.org/10.1017/err.2019.16>.

access to these basic needs can result in widespread illness, malnutrition, and poverty. The SDG 6 highlights the need for investment in water infrastructure and the adoption of sustainable practices to ensure the provision of clean water and sanitation for all, particularly in marginalized communities. By promoting the availability and sustainable management of water and sanitation, the SDG 6 aims to improve health outcomes, increase economic productivity, and promote gender equality, ultimately contributing to the overall achievement of the SDGs by 2030.

The public trust doctrine is an important doctrine that provides a theoretical framework of analysis on natural resource management.<sup>14</sup> It places public trust as the focal point of analysis and analyzes how it relates to the government's ability in delivering fair policies regarding natural resource management. The doctrine itself has evolved to include relevant issues regarding the environments, as opposed to natural resource distribution. It's particularly important in the realm of environmental law, which is ever so relevant with the push for sustainable development.<sup>15</sup> This doctrine highlights the need in developing the exploration of the implementation and execution of relevant policies, measuring the efficacy and integrity of their application in actualizing the Sustainable Development Goals, particularly Goal 6, which is centered around ensuring availability and sustainable management of water and sanitation for all. The analysis is built upon the existing fundamental norms of those policies, which in this case, is the Undang-Undang Dasar 1945 as the constitution.

Clean water availability and water infrastructure are key components of the Sustainable Development Goals (SDGs) because they are essential for promoting sustainable development and eradicating poverty. The availability of clean water is a basic human need and is essential for human survival. Access to clean water is necessary for drinking, cooking, sanitation, and hygiene, and is particularly important in developing countries where waterborne diseases are a major cause of illness and death.<sup>16</sup> In addition to its fundamental role in promoting human health, access to clean water is also critical for supporting economic growth, agriculture, and various other sectors. By providing access to clean water, communities can improve crop yields, increase livestock production, and support small business development, ultimately contributing to poverty reduction and economic development. To achieve the SDGs, it is essential that investment in water infrastructure is increased to ensure the availability and sustainable management of clean water for all, particularly for marginalized communities.

The Public Trust Doctrine not only protects natural resources from privatization, but also from environmental degradation, as thoroughly explained by Sax in his infamous

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<sup>14</sup> Michael Blumm and Mary Wood, *The Public Trust Doctrine in Environmental and Natural Resources Law*, Carolina Academic Press, 3rd Editio (Durham: Carolina Academic Press, 2021), <https://ssrn.com/abstract=3761017>, p. 3.

<sup>15</sup> John C. Dernbach and Schang Scott E., "Liberating Sustainable Development From Its Non-Historical Shackles," *Arizona State Law Journal* 53, no. 3 (February 2022): 723–54.

<sup>16</sup> Theodore H. Tulchinsky, "John Snow, Cholera, the Broad Street Pump; Waterborne Diseases Then and Now," in *Case Studies in Public Health* (Elsevier, 2018), 77–99, <https://doi.org/10.1016/B978-0-12-804571-8.00017-2>.

essay.<sup>17</sup> Sax also questioned the existence of public rights to prevent the infringements of public interests regarding this. This perspective came from the common understanding that perpetual use of common properties is dedicated for the public, which in itself alone, doesn't provide a conceptual map that a legal system can take to navigate in realizing a regulatory delivery or inspection. SDGs as a conceptual framework is helpful to the cause of the Public Trust Doctrine as it provides the conceptual mapping of necessary elements to ensure sustainability, including access to clean water. Furthermore, with the rise of climate change and its impacts on the livelihoods of many people around the world, SDGs also came as a supporting conceptual framework, which eventually became an important agenda for Indonesia and other countries, further advancing the cause of the Public Trust Doctrine.

Investment in water infrastructure is indeed a critical component of achieving the SDGs.<sup>18</sup> Water infrastructure includes the development and management of water supply and sanitation systems, as well as the conservation and sustainable use of water resources. The provision of water infrastructure is essential to ensure that communities have access to clean and safe water, and to manage water resources sustainably. Sustainable water infrastructure can also support economic growth, agriculture, and various other sectors, by providing water for irrigation, industrial processes, and energy generation. Furthermore, sustainable water infrastructure can help to mitigate the impacts of climate change by improving water storage and supply, and reducing vulnerability to water-related disasters such as droughts and floods. To achieve the SDGs, investment in water infrastructure must be increased, and the development of water infrastructure must be carried out sustainably, taking into account the needs of communities and the environment.

To achieve this goal, the SDGs call for the development of policies and programs aimed at increasing investment in water infrastructure, promoting sustainable water resource management practices, and improving access to clean water and sanitation. Furthermore, the SDGs emphasize the importance of community participation in the management and protection of water resources, as well as the need for capacity-building programs and technology transfer to promote sustainable water resource management.

Despite these efforts, challenges still exist in achieving the SDGs related to clean water availability and water infrastructure. In many countries, water infrastructure is outdated and insufficient, and investment in water infrastructure is often insufficient. Furthermore, climate change and increasing water scarcity pose additional challenges to achieving the SDGs related to water resources. One of the major challenges in achieving the SDGs related to clean water availability and water infrastructure is the lack of investment in water infrastructure, particularly in developing countries. Many communities lack access to clean water and adequate sanitation, and the lack of investment in water infrastructure has a significant impact on the quality of life of these communities. In the case of sub-tropical and tropical communities, water availability

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<sup>17</sup> Nehaluddin Ahmad, "Human Right to Water under International Law Regime: An Overview," *Commonwealth Law Bulletin* 46, no. 3 (2020): 415-39, <https://doi.org/10.1080/03050718.2020.1770618>.

<sup>18</sup> Tazvivinga Terrence, "Solving Zimbabwe's Urban Water Supply Crisis through Private Sector Participation," *AfricaGrowth Agenda* 17, no. 1 (March 2020): 14-17, <https://doi.org/10.10520/EJC-1b9ce655e3>.

becomes a serious threat, with the possibility of triggering dangerous droughts.<sup>19</sup> Furthermore, outdated and insufficient water infrastructure can lead to the contamination of water sources, which can have severe health consequences for communities.

Ensuring clean water availability and adequate water infrastructure to support sustainable development is a challenging task, and one of the major obstacles in achieving this goal is climate change and its impact on water resources. As climate patterns shift, we observe an increased occurrence of extreme weather events such as droughts and floods. These weather patterns can lead to water shortages and loss of water quality, which can pose a significant challenge to the provision of clean water.<sup>20</sup> In addition, the increasing population and expanding urbanization have resulted in an increased demand for water resources, which in turn, is leading to a higher risk of water scarcity. Thus, it is crucial to prioritize sustainable water management practices to ensure adequate and equitable access to water resources in the face of these challenges.

Additionally, the SDGs emphasize the importance of partnerships and collaboration among governments, communities, and private sectors in promoting sustainable water resource management practices. This approach can foster the sharing of knowledge, resources, and expertise, and promote the development of innovative solutions to address the challenges related to water availability and infrastructure. Through such collaborations, we can work towards achieving the SDG 6 goal of ensuring the availability and sustainable management of water and sanitation for all.

Government commitment and community participation in the management and protection of water resources is also essential to achieving the SDGs related to clean water availability and water infrastructure. Community-based approaches to water management, such as community-managed water supply systems, have proven to be effective in promoting sustainable water resource management and improving access to clean water. These approaches emphasize the involvement of local communities in the planning, implementation, and management of water infrastructure, thereby promoting sustainability and ensuring the needs of local communities are met.

### **3.2. Government's Constitutional Responsibility Through the Lens of Public Trust Doctrine**

The Indonesian Constitution, Undang-Undang Dasar 1945 (UUD 1945) plays a pivotal role in protecting the fundamental rights of every citizen, including the right to access clean water.<sup>21</sup> In accordance with Article 28H of UUD 1945, this right is important, as it directly relates to the well-being of every person. The provision of Article 28H paragraph

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<sup>19</sup> Mohammad Taufik et al., "Study of Government's Strategy on Clean Water Availability in Indonesia," *Jurnal Kesehatan Lingkungan Indonesia* 21, no. 1 (February 2022): 111-21, <https://doi.org/10.14710/jkli.21.1.111-121>.

<sup>20</sup> Halim Lee et al., "Sustainable Water Security Based on the SDG Framework: A Case Study of the 2019 Metro Manila Water Crisis," *Sustainability* 12, no. 17 (August 2020): 1-19, <https://doi.org/10.3390/su12176860>.

<sup>21</sup> Josina Augusthina Yvonne Wattimena, "Pemenuhan Hak Atas Air Bersih Dan Sehat, Serta Hak Menggugat Masyarakat," *Balobe Law Journal* 1, no. 1 (March 2021): 1-16, <https://doi.org/10.47268/balobe.v1i1.497>.

(1) states that *“Every person is entitled to live prosperous physically and spiritually, to have a place to reside, and to acquire a good and healthy living environment as well as be entitled to obtain health care.”* The availability of clean water is a crucial human need, as it is essential for sustaining life, and the government is responsible for ensuring that all citizens have access to this basic necessity. Therefore, it is imperative for the government to fulfill this obligation, which will help promote the welfare of the Indonesian people and enhance the nation's development.

The perspective of the UUD 1945 is significant due to its recognition of the fundamental right to access clean water, which is essential for the welfare of individuals. The provision of clean water is a crucial aspect of maintaining the overall health and well-being of the population, and it is the government's responsibility to ensure that this right is upheld for all citizens. In addition to its importance for human survival, clean water also plays a critical role in promoting societal development. This is explained through Article 28H paragraph (2) which states that *“Every person is entitled to receive ease and special treatment in order to obtain the same opportunity and benefit in order to achieve equality and justice.”* Although only implicitly implied, the connection between the right to access clean water and welfare is connected through the fact that despite Indonesia's geographical nature separates many of its territories, every person should receive the same kind of support, which can be attributed to this provision. It supports various economic sectors, such as agriculture and industry, and facilitates the growth of communities. The UUD 1945's emphasis on the provision of clean water thus has far-reaching implications for the advancement of the Indonesian nation as a whole.

The paradigm for this perspective, according to the Public Trust Doctrine, revolves around the fact that water is a natural resource that has the characteristics of utilization that is used by many people's livelihoods, of which its mandate of management is given to the government by the people.<sup>22</sup> Therefore, the interpretation of Article 28H as a fundamental norm of government responsibility in making sure that every Indonesian has access to clean water is justified, although water itself is not always directly related to justice. To support this connection, the concept of social justice can be expanded, by including access to essential resources as a fundamental rights that directly affects the lives of everyone.<sup>23</sup> Furthermore, this paradigm also highlights that the government is responsible in providing access to clean water, along with providing necessary measures to solve relevant problems and ensure that cause.

The acknowledgement of the government's responsibility to provide clean water to the people is an essential element of the UUD 1945. The government is obligated to fulfill this responsibility, as reflected in the various laws and regulations in place. UUD 1945 is the highest in the hierarchy of positive laws in the Indonesian legal system, making it necessary for other sources of law to follow the basic principles provisioned In UUD

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<sup>22</sup> Alif Duta Hardenta and Ardianto Budi Rahmawan, “Manifestasi Partisipasi Publik Dalam Doktrin Kepercayaan Publik Bagi Pemenuhan Komitmen Perubahan Iklim Indonesia,” *Jurnal Hukum Lingkungan Indonesia* 9, no. 1 (2023): 157–86, <https://doi.org/10.38011/jhli.v9i1.493>.

<sup>23</sup> Setiawan, Utama, and Lisdiyono, “Social Justice and Water for All: Constructing a Local Legal Framework for a Good Governance.”



1945 as the basic norms.<sup>24</sup> In the context of providing access to clean water, the government has legislated a number of laws that are related to many factors that may contribute to it, be it directly or indirectly. Law No. 27 of 2019 on Water Resources (Water Resources Law) and Law No. 32 of 2009 on Environmental Protection and Management (Environment Law) are the products of the principles provisioned by the UUD 1945 above. In the context of providing access to clean water, both emphasize the important role that clean water plays in the effort to make sure that every person has a human living condition. The implementation of such laws and regulations is critical to ensuring that the provision of clean water is upheld as a fundamental right for all Indonesians, which will lead to improved health, enhanced welfare, and the sustainable development of the nation.

The government has taken several measures to ensure the realization of the right to clean water, including the establishment of the National Water Supply Company (PDAM).<sup>25</sup> This organization has been tasked with the responsibility of managing and providing clean water to the citizens. Moreover, the government has implemented several policies and programs that aim to enhance access to clean water for all. The Drinking Water Supply System Program (PAMSIMAS) is also one of the measures the government has taken to ensure the provision of clean water, especially for rural areas.<sup>26</sup> These policies and programs are crucial in promoting the welfare of the Indonesian people and ensuring sustainable development, which ultimately benefits the nation as a whole. They also play a crucial role in advancing the cause of the Public Trust Doctrine, where the government is proactively ensuring access to clean water as an essential natural resource, for public perpetual use. An expanded paradigm of this is the recognition of SDGs as an official government agenda, to further emphasize the government's roles in all of the issues related to it.

Despite the government's efforts, there are still persistent challenges regarding access to clean water, especially in rural areas, where many villages lack basic infrastructure for clean water supply. In light of this, the government must redouble its efforts to ensure that every citizen has access to clean water, regardless of their location. Achieving this objective will require an increase in investment towards water infrastructure development, such as the construction of water supply systems and purification plants. Additionally, providing subsidies to water companies could help make water more affordable and accessible to low-income households. Implementing education programs that promote water conservation practices can also play a significant role in ensuring the sustainable use of clean water. By taking a comprehensive approach to addressing the challenges faced in the provision of clean water, the government can ensure that the right

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<sup>24</sup> Otong Syuhada, "REKONSTRUKSI POSITIVISME DALAM HIERARKI PERATURAN PERUNDANG-UNDANGAN DI INDONESIA," *Journal Presumption of Law* 2, no. 2 (October 2020): 1-23, <https://doi.org/10.31949/jpl.v2i2.796>.

<sup>25</sup> Anak Agung Dewi Utari, "Perjanjian Kerja Sama Antara Pemerintah Dengan Badan Hukum Swasta Dalam Pengelolaan Air Bersih Ditinjau Dari Eksaminasi Publik Atas Putusan Privatisasi Air Jakarta," *Pamulang Law Review* 4, no. 1 (August 2021): 31-42, <https://doi.org/10.32493/palrev.v4i1.12789>.

<sup>26</sup> Revi Lasmita, Aras Mulyadi, and Manyuk Fauzi, "ANALISIS PENGELOLAAN AIR PROGRAM PAMSIMAS SEBAGAI SUMBER AIR BERSIH DI KECAMATAN KUANTAN MUDIK KABUPATEN KUANTAN SINGINGI," *Jurnal Ilmu Lingkungan* 14, no. 1 (2020): 66-79, <https://doi.org/10.31258/jil.14.1.p.66-79>.

to clean water is upheld for all Indonesians, promoting the overall welfare and sustainable development of the nation.

In addition to being a fundamental right, access to clean water is closely linked to other human rights recognized in the UUD 1945. The right to health, the right to food, and the right to a clean environment are all interconnected with the right to clean water, making the right to clean water one of the prerequisites of human well-being.<sup>27</sup> As such, the provision of clean water is essential in promoting and protecting these rights for all citizens. Additionally, the lack of access to clean water often disproportionately affects women and girls, who are typically responsible for collecting and managing household water supplies. By providing access to clean water, the government can promote gender equality and empower women and girls, allowing them to pursue educational and economic opportunities, and achieve their full potential. Overall, the recognition of the right to clean water in the UUD 1945 has far-reaching implications for the promotion of human rights and sustainable development in Indonesia.

In addition to recognizing the government's responsibility to provide access to clean water, the UUD 1945 also emphasizes the importance of community participation in the management and protection of water resources. Article 33 paragraph (3) of UUD 1945 states that "*The land and waters and the natural resources contained in it shall be controlled by the state and utilized for the optimal welfare of the people.*" This provision emphasizes the most basic principle behind the power given to the government to control the natural resources within the Indonesian territory, including water, which is to make sure that it is used to improve the welfare of every Indonesian citizen. It's important to note that the provisions included within Article 33 is themed for providing basic economic principles behind the power of the government in governing the many resources that Indonesia has. Therefore, the concept of providing clean water as implicitly mentioned in Article 33, should also employ the other principles such as "*togetherness, efficiency with justice, sustainability, environment insight, autonomy, as well as by safeguarding the balance of progress and national economic unity.*" The government must, therefore, involve the community in the design, implementation, and monitoring of water supply and sanitation programs to ensure their sustainability and effectiveness. This can be achieved by promoting community-based approaches to water resource management, supporting the establishment of community water committees, and providing training and capacity-building programs for community members.

### 3.3. Environmental Challenges in Providing Clean Water

Providing clean water is essential to ensuring the health and well-being of communities.<sup>28</sup> However, environmental challenges can make it difficult to provide clean water, particularly in developing countries. One of the main environmental

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<sup>27</sup> Cecilia Tortajada and Asit K Biswas, "Achieving Universal Access to Clean Water and Sanitation in an Era of Water Scarcity: Strengthening Contributions from Academia," *Current Opinion in Environmental Sustainability* 34 (2018): 21–25, <https://doi.org/https://doi.org/10.1016/j.cosust.2018.08.001>.

<sup>28</sup> A Majeed Nadeem, Roland Cheo, and Huang Shaoan, "Multidimensional Analysis of Water Poverty and Subjective Well-Being: A Case Study on Local Household Variation in Faisalabad, Pakistan," *Social Indicators Research* 138, no. 1 (2018): 207–24, <https://doi.org/10.1007/s11205-017-1652-y>.

challenges in providing clean water is the contamination of water sources.<sup>29</sup> Water sources can become contaminated through various means, including industrial pollution, agricultural runoff, and untreated sewage. Contaminated water can lead to the spread of waterborne diseases, which can have severe health consequences, particularly for children.

Climate change poses a significant threat to water resources and impacts the provision of clean water. In addition to droughts, climate change can also lead to increased flooding, which can negatively affect the quality of water resources.<sup>30</sup> Furthermore, the melting of glaciers and ice caps due to rising global temperatures can alter water availability, and in some cases, increase the risk of water contamination. To address these challenges, sustainable water management practices, such as rainwater harvesting, water conservation, and watershed management, must be promoted and implemented. Additionally, community participation in the management and protection of water resources is essential for the success of water supply and sanitation programs.

Moreover, the management of wastewater is another critical aspect of providing clean water. Inadequate management of wastewater can lead to water pollution and the spread of waterborne diseases. Therefore, the SDGs call for the implementation of sustainable wastewater management practices, such as the treatment and reuse of wastewater, to reduce the impact of wastewater on water resources and public health. Sustainable wastewater management can also help to conserve water resources and promote the circular economy.

In addition, the mismanagement of water resources can also have adverse impacts on the environment. Over-extraction of groundwater can lead to land subsidence and the collapse of underground aquifers, which can permanently reduce the availability of water resources, especially when done without a good scientific consideration.<sup>31</sup> Furthermore, the discharge of untreated wastewater and pollutants into water sources can result in water pollution, which can have detrimental effects on aquatic ecosystems and human health. Such is the case with Jakarta, where flooding occurs often, caused by, among other things, the over-extraction of groundwater.<sup>32</sup> As such, sustainable water resource management practices, including water conservation and wastewater treatment, are essential to ensuring the availability and sustainability of clean water.

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<sup>29</sup> Sarker Faroque and Nigel South, "Water Pollution and Environmental Injustices in Bangladesh," *International Journal for Crime, Justice and Social Democracy* 11, no. 1 (March 2022): 1-13.

<sup>30</sup> Toqeer Ahmed, Mohammad Zounemat-Kermani, and Miklas Scholz, "Climate Change, Water Quality and Water-Related Challenges: A Review with Focus on Pakistan," *International Journal of Environmental Research and Public Health* 17, no. 22 (November 2020): 1-22, <https://doi.org/10.3390/ijerph17228518>.

<sup>31</sup> Hairuo Yu et al., "Analysis of the Influence of Groundwater on Land Subsidence in Beijing Based on the Geographical Weighted Regression (GWR) Model," *Science of The Total Environment* 738 (2020): 1-60, <https://doi.org/https://doi.org/10.1016/j.scitotenv.2020.139405>.

<sup>32</sup> Bosman Batubara, Michelle Kooy, and Margreet Zwarteveen, "Politicising Land Subsidence in Jakarta: How Land Subsidence Is the Outcome of Uneven Sociospatial and Socionatural Processes of Capitalist Urbanization," *Geoforum* 139 (2023): 1-9, <https://doi.org/https://doi.org/10.1016/j.geoforum.2023.103689>.

Sustainable water resource management practices are crucial to addressing the environmental challenges related to providing clean water. This includes the promotion of water conservation and efficiency measures, such as fixing leaks in pipes, using low-flow faucets and toilets, and implementing rainwater harvesting systems. Additionally, the protection and restoration of ecosystems, such as forests and wetlands, can help to maintain the quality and quantity of water resources. The implementation of wastewater treatment systems is also necessary to prevent water pollution and ensure the safety of water sources. Furthermore, investing in the development of water infrastructure, such as water supply and sanitation systems, is essential to ensure that communities have access to safe and affordable drinking water.

To elaborate further, community involvement in the provision of clean water is essential in ensuring its sustainability. Community members can actively participate in the management and protection of water resources by, for example, creating community-based organizations that oversee the distribution of clean water, implementing water conservation practices, and monitoring water quality.<sup>33</sup> In addition, education and awareness-raising campaigns can help to encourage behavior change and promote sustainable water use. Such campaigns can include training on how to properly use and maintain water supply and sanitation systems, as well as information on the importance of water conservation and the protection of ecosystems. By involving communities and promoting education and awareness, the provision of clean water can become an ongoing effort that ensures the availability and sustainability of water resources for future generations.

Expanding on the importance of the human right to water and sanitation, it is crucial to note that access to clean water is a basic necessity for human survival and well-being. Lack of access to clean water disproportionately affects marginalized communities and exacerbates existing inequalities. For example, women and girls are often responsible for fetching water, and the time and effort required to collect water can prevent them from attending school or engaging in income-generating activities.<sup>34</sup> Thus, ensuring access to clean water can promote gender equality and empower women and girls. Additionally, improving access to clean water can have positive impacts on health outcomes, as waterborne diseases are a significant cause of illness and death, particularly in developing countries. By addressing the human right to water and sanitation, governments can promote social and economic development and create more equitable societies.

To summarize, providing clean water is a complex and multifaceted challenge that requires a holistic approach. The provision of clean water is essential for human health, environmental sustainability, and economic development. However, achieving the sustainable development goals related to clean water availability and water infrastructure is not without challenges, such as climate change, increasing water

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<sup>33</sup> Nwamaka Okeke-Ogbuafor, Tim Gray, and Selina Marguerite Stead, "A Comparative Analysis of the Role of Traditional and Modern Community-Based Organizations in Promoting Community Development in Ogoniland, Nigeria," *Community Development Journal* 53, no. 1 (January 2018): 173–89, <https://doi.org/10.1093/cdj/bsw018>.

<sup>34</sup> M Rafiqul Islam, "Water Access in Changing Climate in Bangladesh: A Study of Social Impacts on Women Who Manage Household Water," *Bandung* 7, no. 1 (2020): 107–29, <https://doi.org/https://doi.org/10.1163/21983534-00701006>.

scarcity, and ecosystem degradation. To address these challenges, it is necessary to promote sustainable water resource management practices, community participation, education and awareness-raising campaigns, and international cooperation. Ultimately, ensuring the availability and sustainability of clean water resources for all requires ongoing efforts and a long-term commitment from governments, communities, and individuals.

### **3.4. Legal Challenges in Providing Clean Water**

The provision of clean water is a fundamental human right, guaranteed by international human rights law and enshrined in the Indonesian Constitution. However, despite legal and constitutional guarantees, the reality is that millions of Indonesians still lack access to safe and clean water, particularly in rural and remote areas. The failure of the government to ensure access to clean water has raised significant legal challenges related to government liability. One of the primary legal challenges in ensuring government liability for the failure to provide clean water is the complex and fragmented nature of water governance in Indonesia. The responsibilities for water management and governance are divided between various government agencies, including the Ministry of Environment and Forestry, the Ministry of Public Works and Public Housing, and the Ministry of Health, among others.<sup>35</sup> This fragmentation has created legal uncertainties and complexities regarding the responsibilities of each agency and has led to a lack of clear accountability when it comes to ensuring access to clean water.

An important legal challenge in the realm of clean water provision is the limited capacity of local governments to effectively implement and enforce water regulations. Many local governments face obstacles such as insufficient technical expertise and financial resources, which hinder their ability to provide adequate clean water infrastructure. As a result, they often rely on support from the national government. However, the national government's timely provision of adequate resources to support local governments has been slow, resulting in delays and inadequate implementation of water regulations.

Moreover, there are issues of corruption and lack of transparency in the allocation of water resources and the distribution of clean water. Corruption in the water sector has been a long-standing problem in Indonesia, leading to the misallocation of water resources and the diversion of funds meant for water infrastructure development.<sup>36</sup> Lack of transparency in decision-making processes and budget allocation also contributes to the failure of the government to ensure access to clean water, as it creates opportunities for vested interests to influence decision-making and siphon resources.

Moreover, the legal framework pertaining to water governance in Indonesia is antiquated and insufficient, with laws and regulations that inadequately tackle the current environmental challenges. The existing regulatory framework lacks robust

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<sup>35</sup> Wahyu Mulyana and Eko Prasajo, "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, no. 2 (March 2020): 211-18, <https://doi.org/10.18280/ijmdp.150211>.

<sup>36</sup> Febrio Kacaribu et al., "Government Initiatives to Unlock Private Participation in Infrastructure," in *Unlocking Private Investment in Sustainable Infrastructure in Asia*, 2022, <https://doi.org/10.4324/9781003228790-16>.

provisions for ensuring water quality and safeguarding the environment, resulting in a dearth of legal avenues for individuals impacted by water pollution or contamination. The absence of clear-cut legal frameworks for water governance further exacerbates issues related to accountability and transparency in the management of water resources, thereby posing significant challenges in addressing water-related environmental concerns in the country. An example of this is the Environment Law which was enacted in 2009. This law was enacted even before Indonesia adopted SDGs, therefore making it conceptually less relevant to the framework of efforts in Indonesia's commitment to SDGs.

One of the most important aspects of SDGs is the understanding of the concept itself, which in essence has to be supported by all stakeholders in the Indonesian society. For this to happen smoothly, there needs to be a serious effort in improving education as widespread understanding of SDGs is important to make sure every SDGs related policy is supported by relevant communities and stakeholders.<sup>37</sup> Unfortunately, education isn't properly emphasized in Indonesia's Environment Law. The law only mentions education vaguely, through Article 65 paragraph (2) which states that *"Everyone has the right to environmental education, access to information, access to participation, and access to justice in fulfilling the right to a good and healthy environment."* This provision doesn't explain anything about how anyone can actually obtain that right. Assuming that it already exists for every person as the provision implies, this provision is meaningless without any further contextualization and actualization. Furthermore, the law also explains, through Article 63 paragraph (1) letter w, paragraph (2) letter q, and paragraph (3) letter n, that the government has the duty and authority in *"providing education, training, coaching, and awards."* While it's easy to think of this provision as the contextualization and actualization of the right to "environmental education", it still doesn't provide any basis for people to hold the government accountable in the exercise of this right.

In the context of access to clean water, the Environment Law doesn't have any provision that explicitly use the term "clean water", as it only relies on Article 65 paragraph (1) which states that *"Everyone has the right to a good and healthy environment as part of human rights."* Through this provision, clean water is assumed to be a part of the "good and healthy environment" which is not wrong normatively speaking. However, the importance of the word "access" needs to be seriously addressed as it's an important prerequisite for other rights. It's already explained by Article 33 paragraph (3) of UUD 1945 that water, among other natural resources, is *"controlled by the state and utilized for the optimal welfare of the people."* Therefore, there needs to be an emphasis on access to create a normative basis for government liability. In the failure to provide access to clean water.

In order to effectively tackle the legal challenges associated with providing clean water and ensuring government accountability, a comprehensive and coordinated approach is imperative. This entails the establishment of a more integrated and cohesive legal framework for water governance, replete with unambiguous and enforceable provisions

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<sup>37</sup> Barbara Bruns, Isabel Harbaugh Macdonald, and Ben Ross Schneider, "The Politics of Quality Reforms and the Challenges for SDGs in Education," *World Development* 118 (2019): 27-38, <https://doi.org/https://doi.org/10.1016/j.worlddev.2019.02.008>.

for water quality and environmental protection. Furthermore, concerted efforts are warranted to enhance the capacity of local governments in implementing and enforcing water regulations, while also addressing concerns related to corruption and opacity in the allocation and distribution of water resources and clean water. Such measures are crucial in overcoming the legal obstacles and fostering effective water governance in Indonesia.

Furthermore, it is necessary to ensure public participation in water management and governance, as it can help to ensure that water management and governance decisions take into account the needs and interests of local communities and that environmental and social impacts are adequately addressed. Public participation can also help to raise awareness about the importance of clean water and the environmental challenges associated with providing it, creating a culture of environmental responsibility that encourages individuals and communities to work together to protect and preserve water resources. Government needs to be held accountable for its failure in making sure that every citizen can exercise their basic human rights as explained by UUD 1945. This is even more important in the context of access to clean water, because despite the recognition of the right to clean water in the Indonesian Constitution and various regulations, the lack of clean water availability persists in many parts of the country. One of the main challenges in addressing this issue is the normative problems and restrictions in the Indonesian legal framework.

Firstly, the complex regulatory framework and overlapping jurisdictions of different government agencies make it difficult to ensure accountability and enforceability of regulations related to clean water. The legal framework related to water management in Indonesia is spread across various laws, regulations, and policies. For instance, Law No. 32 of 2009 on Environmental Protection and Management (Environment Law) regulates the protection and management of water resources, while Law No. 23 of 2014 on Regional Government (Regional Government Law) regulates the roles and responsibilities of local governments in managing water resources. The overlapping jurisdictions of different government agencies and the lack of clear guidelines and protocols for inter-agency coordination often result in confusion and inefficiencies in water management.

Another normative problem within the Indonesian legal system has to do with Law No. 17 of 2019 on Water Resources (Water Resources Law). This law doesn't use the term "clean water", and instead uses the terms "water" and "drinking water" as its basic terminologies. While it's not entirely wrong for a law to use such basic term, it certainly is a problem when the law itself is supposed to be a highly specific one such as Water Resources Law. Generalization of water terminologies like this can lead to ineffective contextualization and actualization of the law itself. Clean water will always be related to sanitation, even though it doesn't necessarily have to be related with drinking water.<sup>38</sup> This is also another way that the government can turn its back on possible legal liability. This problem is reflected on the provisions throughout the law. For starter, the word "sanitation" is only mentioned once, through the explanation of Article 24 paragraph (4) letter d which states that "*Protection and preservation of Surface Water Sources is carried out*

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<sup>38</sup> Tortajada and Biswas, "Achieving Universal Access to Clean Water and Sanitation in an Era of Water Scarcity: Strengthening Contributions from Academia."

through activities:) arrangements for sanitation infrastructure and facilities.” This normative confusion is rather unfortunate, as it doesn’t follow a good normative basis laid out by Article 6 which states that “The state guarantees the people's right to water in order to meet the minimum daily basic needs for a healthy and clean life in sufficient quantity, good quality, safe, sustainable and affordable.”

Secondly, the enforcement of regulations related to water management in Indonesia is weak. Despite the existence of various regulations, many individuals and corporations continue to engage in practices that harm the environment and deplete water resources. The enforcement of regulations related to water management is often hindered by inadequate resources, lack of coordination among government agencies, and corruption. This situation creates a situation where the regulatory framework in place is not enforced, and those who violate the regulations are not held accountable.

Thirdly, the lack of public participation in water management and governance is another normative problem in Indonesia. The participation of local communities in water management and governance can provide valuable knowledge and insights into the needs and priorities of the community. However, the participation of local communities in water management and governance in Indonesia is often limited. The lack of public participation can result in water management and governance decisions that do not reflect the needs and interests of local communities. Furthermore, it can lead to a lack of accountability for government agencies and private entities involved in water management.

The normative problems and restrictions in the Indonesian legal framework pose significant challenges to ensuring government liability on the failure to provide clean water. These challenges are closely linked to the environmental challenges in providing clean water, as the lack of effective regulations and enforcement can result in environmental harm and depletion of water resources. To address these challenges, it is essential to improve the regulatory framework related to water management and governance and strengthen the enforcement of regulations. Additionally, promoting public participation in water management and governance is essential to ensure that decisions related to water management and governance take into account the needs and interests of local communities.

#### **4. Conclusion**

The normative analysis of this study found that Indonesia still has a lot of normative confusion regarding the terminologies of access to clean water. There’s also a lack of emphasis on “access” as an important factor of the right to access clean water as mentioned by SDG number 6 and implied by UUD 1945. Furthermore, a number of legal problems such as enforcement issues, government liability, and the lack of public participation also show that Indonesia does need to revise the existing legal framework to support its commitment in SDGs, especially the one to make sure that every person has the right to access clean water.

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### **Laws and Regulations**

The 1945 Constitution of the Republic of Indonesia

Law No. 27 of 2019 on Water Resources

Law No. 32 of 2009 on Environmental Protection and Management

Law No. 23 of 2014 on Regional Government