

Access to Justice in Water Rights: Balancing Social and Economic Value of Water Resources

Ronny Winarno¹, Yudhia Ismail², & Vita Fibriyani³.

^{1, 2, 3} Faculty of Law, University of Merdeka Pasuruan, Indonesia.

Article history:

Received 2024-10-19

Revised 2024-11-20

Accepted 2024-12-01

Keywords:

Access to Justice; Water Right; Water Right; Social and Economic Value; Water Resources.

DOI:

doi.org/10.26905/idjch.v15i3.15068.

Corresponding Author:

Ronny Winarno.

E-mail: ronny.winarnoprof@gmail.com

Abstract: Indonesia is a country with a significant water resource (incredibly raw water). When compared to ASEAN countries, the amount of raw water in Indonesia ranks first. However, the fulfillment of the right to water (raw water) for community needs is still very weak. If analyzed, one of the factors is the imbalance between the social value and economic value of water resources. Water resources, which are now a commodity, experience a lot of exploitation, which is detrimental to society. The urgency of this research is to provide a strategy and model for balancing the social and economic value of water resources, which is currently unclear. Based on the theory of justice, green economy, and resource-based theory, it is directed to fulfill the research objectives. Firstly, the strategy is to fulfill the right to water for the community equitably based on the green economy. Second, the balance between social and economic values is contained in water resources so as to fulfill the right to water equitably within the framework of the green economy. Therefore, the balance model between the social value and economic value of water resources is carried out based on the principle of green economy. Produce outputs in the form of policies/regulations that still pay attention to the needs of water rights but also control the utilization of water for commercial purposes.

1. Introduction

Water is a gift from God and a source of life ¹. All life comes from water, and it is because of water that life ends ². Every living thing, especially humans, may still be able to survive without food for up to one week. However, it will not be able to survive less than a week without water ³. When defining water broadly, it certainly includes water in the sea, rainwater, surface water, and underground water. Each has its designation. More specifically, if the water in question is to meet

¹ Nadia Astriani et al., "Pengelolaan Sumber Daya Air Berdasarkan Kearifan Tradisional: Perspektif Hukum Lingkungan," *Arena Hukum* 13, no. 02 (August 31, 2020): 197-217, <https://doi.org/10.21776/ub.arenahukum.2020.01302.1>.

² B. Suresh Lal and B. Suresh Lal, "Water for Life: Issues and Challenges," *www.ijsr.net*, 2019, <https://doi.org/10.21275/ART20199011>.

³ Shintaloka Pradita Sicca, "Berapa Lama Manusia Bisa Bertahan Hidup Tanpa Minum Air?," *KOMPAS*, March 31, 2023, <https://health.kompas.com/read/23C31120000968/berapa-lama-manusia-bisa-bertahan-hidup-tanpa-minum-air>.

the needs of human life, then the definition is clean water, which is usually found in the underground layer (groundwater) or can also be referred to as raw water.⁴

Geographically, Indonesia is a country that has large groundwater (raw water) reserves⁵, especially when compared to countries in ASEAN⁶. That is why it is necessary to have a state as a ruling organization that regulates water resources as part of the resources that control the lives of many people⁷, based on Article 33, paragraph (3) of the 1945 Constitution of the Republic of Indonesia. As well as strengthening state sovereignty in order to create people's welfare.⁸ Followed by providing derivative arrangements in Law Number 17 of 2019 concerning Water Resources.

As a typical rapid urbanization area and an emerging scientific and technological creative center, Shenzhen is confronted with the pressure of balancing water supply and demand. Based on clarifying the whole water cycle of the city, a system dynamics model was constructed to investigate the complex interactions throughout the water cycle within the social-economic-ecological system.

However, even though Indonesia has an abundant amount of raw water and regulations as a legal umbrella, it still causes problems in fulfilling the right to water. This cannot be separated from the tug-of-war between the social value and economic value of water resources.⁹ It is undeniable that water today is not only part of the social needs of society, but has become a trade commodity¹⁰. However, along with economic growth, the privatization aspect of water resources is getting stronger. Indonesia is among the countries that can freely trade water (including bottled drinking water). The social aspect of community needs has been put aside.¹¹ In fact, water in its current condition has turned into a resource that is increasingly scarce. It is even categorized as non-renewable goods¹². As a result in the ASEAN region, even though Indonesia has a large amount of raw water, in terms of fulfilling the right to water and sanitation Indonesia is ranked number 2 from the bottom.

Under these conditions, it is necessary to conduct research related to the fulfillment of the right to water in an equitable manner. Still maintaining the economic aspect, but not too dominating the social aspect, while still paying attention to the environmental aspect, which in this case

⁴ Trias Palupi Kurnianingrum Monika; Yosephus Mainake, Sulasi Rongiyati/ , Luthvi Febryka Nola, and Ismala Dewi Suhayanti, "Aspek Hukum Pengelolaan Sumber Daya Air Perpustakaan Pusat Sosial Ekonomi dan Kebijakan Pertanian," n.d., <https://kikp-pertanian.id/psekp/opac/detail-opac?id=11928>.

⁵ Aslamatur Rizqiyah, "Ironi, Indonesia Jadi Negara Dengan Sumber Daya Air Terbanyak Tapi Kualitas Sanitasi dan Air Minum Buruk," *GoodStats*, November 22, 2024, <https://goodstats.id/article/ironi-indonesia-jadi-negara-dengan-sumber-daya-air-terbanyak-tapi-kualitas-sanitasi-dan-air-minum-buruk-tEe2Y>.

⁶ Syaiful, "7 Negara Dengan Cadangan Air Tawar Terbesar di Dunia, Terdapat Indonesia," Fakultas Hukum | Inovatif, Berkepribadian dan Mandiri, January 14, 2022, <https://hukum.uma.ac.id/2022/01/14/7-negara-dengan-cadangan-air-tawar-terbesar-di-dunia-terdapat-indonesia>.

⁷ Ronny Winarno, Endang Retnowati, and Ardhiwinda Kusumaputra, "Kedaulatan Negara Atas Pengelolaan Sumber Daya Air Yang Bermoral Menuju Kemakmuran Rakyat.," *Jurnal Yustitiabelen* 10, no. 1 (January 31, 2024): 87-104, <https://doi.org/10.36563/yustitiabelen.v10i1.946>.

⁸ Anna Triningsih, "Penguasaan Negara Atas Sumber Daya Air Sebagai Upaya Mendukung Ekonomi," *Jurnal Legislasi Indonesia* 17, no. 3 (September 29, 2020): 343, <https://doi.org/10.54629/jli.v17i3.610>.

⁹ Egidius Patnistik, "Privatisasi Dan Tantangan Pemenuhan Hak Atas Air Halaman All - Kompas.com," *KOMPAS*, March 13, 2023, <https://www.kompas.com/tren/read/2023/03/13/103840665/privatisasi-dan-tantangan-pemenuhan-hak-atas-air?page=all>.

¹⁰ Ronny Winarno and Ardhiwinda Kusumaputra, "Water Resources Concession Law Based on Justice for Water Rights," *Jurnal Analisis Hukum* 3, no. 2 (November 10, 2020): 169-79, <https://doi.org/10.38043/jah.v3i2.2692>.

¹¹ Heri Prasetyo, "Privatisasi Air Bersih Dalam Perspektif Ekonomi Islam," *Journal Competency of Business* 6, no. 02 (January 31, 2023): 17-38, <https://doi.org/10.47200/jcob.v6i02.1593>.

¹² Robert Maliva and Thomas Missimer, "Non-Renewable Groundwater Resources," in *Environmental Science and Engineering*, 2012, 927-51, https://doi.org/10.1007/978-3-642-29104-3_36.

also pays attention to the green economy aspect. There needs to be a balance between them in order to create sustainability for each generation. Moreover, it is also based on Indonesia's sustainable development goals 2030, one of which guarantees the availability and management of clean water and sustainable sanitation for all ¹³. Later, it also pays attention to traditional values related to water resources ¹⁴. So, there are two main problems in this research. First, how to fulfill the right to water equitably? Second, how to create balance in social and economic value in the access to justice of water right?

2. Method

Methods of this research, based on a descriptive and explanatory approach, uses the legal empirical research method ¹⁵. Able to provide a comprehensive picture sourced from primary data and supported by secondary data. Relevant to the topic of this research is the relationship between the variables of water rights fulfillment and the balance between the social and economic value of water resources. Especially for areas that geographically have great potential for raw water but are occupied by private companies (privatization) of water resources. Thus creating the potential for the right to water to be violated.

Based on the purposive sampling method ¹⁶, Namely from 5 (five) regions that are considered strategic with indicators of the existence of private companies that cultivate water resources (groundwater/raw water) along the islands of Java and Bali, 2 (two) regions were taken, namely Pasuruan District, East Java and Sukabumi District, West Java. Types and Sources of Research Data selected are qualitative data in the form of interview results, observation results at the research location, discussion results (FGDs), and document analysis related to the research topic.

The Research Analysis Technique uses qualitative analysis. This research is expected to contribute both theoretically and empirically to the fulfillment of the right to water in an equitable manner based on the green economy, which balances the social and economic value of water resources. Later, it can become a reference in formulating policies or regulations related to water resources.

3. Strategy for Equitable Water Rights Fulfillment

Water is a part of human life. It is the beginning and the end of life. It is not wrong when, in its development, water has various values. Water, which was initially more inclined to social/cultural values, has now developed with economic/commercial values. This cannot be separated from the needs side, which, when viewed from an economic point of view, is where there is a need, and there will be a supply chain that can be utilized for profit. Such conditions then have an impact on the paradigm of tug-of-war between social and commercial/economic interests over water resources.

¹³ Bapenas, "Peta Jalan SDGs 2023-2030 - IDN - SDGs Indonesia," SDGs Indonesia," April 19, 2024, <https://sdgs.bappenas.go.id/product/peta-jalan-sdgs-2023-2030-idn>.

¹⁴ I. Nyoman Nurjaya, "Pengelolaan Sumber Daya Alam dalam Perspektif Antropologi Hukum". (Jakarta: Prestasi Pustaka Publisher, 2008). 87.

¹⁵ Jason M Chin et al., "Improving the Credibility of Empirical Legal Research: Practical Suggestions for Researchers, Journals and Law Schools," *Law Technology and Humans* 3, no. 1 (July 27, 2021), <https://doi.org/10.5204/lthj.1875>.

¹⁶ Ma. Dolores C. Tongco, "Purposive Sampling as a Tool for Informant Selection," *Ethnobotany Research and Applications* Vol. 5 (2007) December 31, 2007, <https://ethnobotanyjournal.org/index.php/era/article/view/126>.

When based on social/cultural values in society, water is seen as a symbol of purity. It becomes something sacred. Sandi, one of the community leaders in Ngadiwono Village, Pasuruan Regency, also conveyed this. In Ngadiwono Village, there is a water source that is termed “Ndase Banyu.” The word “ndase” is Javanese for “head” while “banyu” means “water”. The water source referred to as “ndase banyu” is sacred to the community. It is located in the middle of the forest in the mountainous region, precisely near the Mount Bromo mountain area. The sacredness of the water source place is not solely for magical reasons but to maintain the continuity of water availability so that not just anyone can enter the area. This is also because the area around the water source, including part of Ngadiwono Village, is a water catchment area. In fact, the distribution of water for housing and agricultural needs is carried out regularly by community groups accommodated by the Village Government.

Admittedly, the community does have to pay for the flow of water that is used to meet home and agricultural needs. The village community has agreed to the fee, which ranges from Rp 25,000 to Rp 100,000 per month. It is managed through the village government, and the money is used to maintain or restore water sources in Ngadiwono village. In the beginning, some people refused to make contributions on the basis that this water belongs to all community members, so why pay? There was also concern that the money would not be trusted or misused. However, with the efforts made ranging from periodic maintenance of pipes and water pumps, robo-planting of trees, or traditional ceremonies carried out for the sustainability of water sources, the community became convinced of the costs they incurred.

Over time, efforts to maintain water sustainability in the Ngadiwono Village area have continued. Nevertheless, it cannot be denied that at certain times, especially during the dry season, the community must really control the use of water wisely, primarily to fulfill agricultural needs. There is still potential for conflict between communities, especially in relation to the use of water for agricultural needs. On the other hand, this is also because in Ngadiwono Village, the Village Government does not yet have regulations at the village level that specifically regulate water sources, starting from their utilization to other efforts. The community persists with customary patterns and verbal agreements. Although from a positive perspective, the community can still maintain it, on the other hand, there are weaknesses when there are conflicts between communities.

This condition was then also tried to be clarified further by the Pasuruan District Government, one of them being Mukhsin from the Pasuruan District Environmental Service. It was conveyed that from the aspect of environmental management, Ngadiwono Village is one of the concerns of the Regional Government, considering that the village is one of the areas categorized as water catchment and infiltration areas. One of the programs launched by the Environmental Agency is to make efforts to conserve natural resources, including water. However, it must be recognized that regulations, especially those at the regional level, still need to be supported in order to provide certainty in efforts to build water resources conservation. Given also that Pasuruan Regency is an area with abundant potential water resources, especially groundwater.

Based on a statement from the Gunung Gede Pangrango National Park Office, Situgunung National Park Resort, Sukabumi, West Java, forest areas, especially in the mountains, play an important role in controlling the availability of water sources. The role of officers, especially those in the Situgunung National Park Management Resort (in Indonesia known as *Pengelola Taman Nasional* - PTN), is not only focused on forest/natural resource conservation but also on the entire

ecosystem, including animals. There is a principle of respecting nature and the noble values of the community that have been applied from the past until now, as is the case in the Ciptagelar kasepuhan area. In the area around Situgunung, there is no unique community such as kasepuhan, but there are traces of sacred heritage, also known as “petilasan.” This is also the reason that noble values are still preserved to maintain the sustainability of nature, especially in order to maintain the availability of water sources for the community. It was even said that the Situgunung area is only labeled as a provider because the user is under the mountain. One example is in the Cicurug area, where there are many drinking water companies. Indeed, we acknowledge that there are programs such as Corporate Social Responsibility (CSR) from these companies, such as tree planting. However, in particular, it is not easy if it is directly related to the form of water recovery. Moreover, officers who are in the PTN area, as well as at the *Balai Besar* level, are only implementers. The policies taken will be based on the policies/regulations formed by the Ministry of Environment.

Based on the description of this opinion, it can be understood that from the social/cultural perspective, there are efforts to fulfill the right to water. Starting from the aspect of local wisdom, the role of the government, to the private sector in the form of CSR. However, if based on the theory of justice from a legal perspective, there is still a gap in the emergence of injustice, namely when there are not fully clear regulations in terms of fulfilling the right to water, especially at lower levels of government such as at the local government or village government level. Moreover, the Ministry of Environment admitted that there is still no harmonization and synchronization in terms of structuring water resources, especially at the level of government regulations and ministerial regulations. Even though the Ministry of Public Works and Public Housing, the Directorate General of Water Resources, also said that there is still no harmonization between ministries, especially in the discussion of water resources, both in the scope of surface water and groundwater.

Drinking water and liquid sanitation public services in Morocco constitute a communal prerogative (Organic law 113-14, 2016). Communes have the choice of either managing it themselves or delegating the management to another public or private operators. Three fundamental principles must be respected while exercising the management. The constitution of the Kingdom of Morocco stipulates, indeed, equal citizen access to services, continuous service supply and fair territory (Constitution of the Kingdom of Morocco, 2011). These principles can only be truly guaranteed through two main axes for durable water resource management, e.g. resource saving and its protection against pollution. Indicators are set up to evaluate the performance of these two management aspects, which are still regarded as insufficient to figure out the reality.¹⁷

Managing watershed development on a sustainable basis usually entails a balance between the needs of humans and nature, both in the present and in the future. From a watershed or water resources development basis, these problems can be classified into five general categories: lack of water quantity, deterioration in water quality, ecological impacts, weak public participation, and weak economic value.¹⁸ The first three categories can be combined to make up physical sustain-

¹⁷ A. Habib, B. Bouchaib, and S. Housni, “A critical analysis of water economics in public water and sanitation services in Morocco”, *Arab Gulf Journal of Scientific Research*, Vol. 40 No. 3, (2022), pp. 280-301. <https://doi.org/10.1108/AGJSR-04-2022-0034>.

¹⁸ A. Said, G. Sehlke, D.K. Stevens, T. Glover, D. Sorensen, W. Walker, T. Hardy, “Exploring an innovative watershed management,” approach: from *feasibility to sustainability*, *Energy*, Volume 31, Issue 13, 2006, Pages 2373-2386, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2006.02.002>.

ability while the last two categories can be defined as social and economic sustainability. Therefore, integrated watershed management should be designed to achieve physical sustainability utilizing, to the greatest extent possible, public participation in an economically viable manner.

On the other hand, if you look at the various privatizations that are still being carried out in Indonesia, there are no regulations that can limit them. The existence of unbalanced efforts between water extraction for business needs, for example, resale in the form of bottled drinking water, with conservation and recovery efforts, has resulted in the availability of water sources in the community. One example is in the community around Lumbang, Pasuruan Regency, where water conditions, especially groundwater, have also decreased in quantity.

When examined again based on the existing regulations, namely Law Act No. 17/2019, there is still uncertainty in terms of fulfilling the right to water. This can be seen in Article 15,16,17 of Law Act No. 17/2019, which still does not fully provide flexibility to the Regional Government and the Village level in structuring the water resources sector. Policies made still have to wait for policies from the central government. Whereas the purpose of regulating water resources, as stated in Article 3 letter a of Law Act No. 17/2019, is clearly stated to fulfill the needs of the right to water.

It is at this point that it is important to be consistent with the basic objectives of regulations, especially in Law Act No. 17/2019. In addition, since the existence of Government Regulation No. 30/2024 on Water Resources Management (hereinafter referred to as PP 30/2024), the context in terms of water resources management should be more consistent and equitable. In addition, based on the principle of green economy, companies engaged in the business of utilizing water resources should be oriented toward recovery efforts, not just providing forms of assistance. Therefore, some strategies can be carried out in an effort to fulfill the right to water in an equitable manner.

However, water with moderate and low restriction categorizations were recommended for use in irrigation of plants with moderate salt tolerance and sensitive salt-resistant crops, respectively due to high Soil sodicity. With the characterization of groundwater parameters and potential maps, graphs and charts pregnant with information on aquifer peripheral covering layers, which advises on vulnerability; potential capacity of aquifer and geochemical and agronomic information, stakeholders can assure the survival of coastal fauna and flora as well as appropriate planning and management for long-term water supply for domestic, industrial, agriculture and social uses under recurring, demanding, and harsh climatic circumstances at a low cost.¹⁹

Water is a non substitutable resource and a social good, which governments must perforce provide to its citizens in the right quantity and quality. An integrated urban metabolism model is useful in understanding the status quo of an urban water and sanitation system.²⁰ By defining and measuring the values of relevant hydrological performance indicators – deliverables of the model referred to – a thorough knowledge of the present performance and the gaps, which need to be plugged en route to a sustainable urban water infrastructure, can be obtained, as demonstrated in this paper. This then forms the bedrock for decision-making and policy formulation for change to

¹⁹ N.J. George, J.E. Thomas, "Groundwater potential and quality assessments of a coastal environment: a case study of the location of Federal University of Technology Ikot Abasi (FUTIA), Akwa Ibom State, Nigeria." *J Coast Conserv* 27, 31 (2023). <https://doi.org/10.1007/s11852-023-00956-w>.

²⁰ Ruchira Ghosh, Arun Kansal, and G Venkatesh. "Urban Water Security Assessment Using an Integrated Metabolism Approach – Case Study of the National Capital Territory of Delhi in India" *Resources* 8, no. 2 (2019): 62. <https://doi.org/10.3390/resources8020062>.

be introduced top-down as well as advice, which would enable the much needed bottom-up support to policies.

First, in substance, which is related to the regulatory aspect, it needs to be encouraged to produce legal products that provide more direction for legal certainty in the fulfillment of the right to water. Increase and emphasize the role of the regional government as well as the village government in efforts to fulfill the right to water. In addition, the regulations, starting from the statutory level to the regional level, must be able to provide responsibility to companies that utilize water sources for sale through a form of recovery. This means that regulatory consistency is also needed.

Second, structurally, it is achieved through institutional strengthening and synergy. The persistence of sectoral egos at the ministerial level clearly impacts the structural order and implementation at the local government level. Suppose the implementation of tasks or roles at the regional and even village levels depends on central policies. In that case, the Ministry of Environment, the Ministry of Public Works and Public Housing, and the Directorate General of Water Resources should also build synergy. It is intended to concretely not only provide a form of assistance for access to water but also maintain its sustainability. It is even possible to build synergy with other ministries, such as the Ministry of Energy and Mineral Resources (ESMD), the Ministry of Investment, the Ministry of Industry, and also the Ministry of Trade.

Third, habitually, which, in this case, builds habits to maintain the availability of water. Respecting traditional values in maintaining the availability of water sources for those who live in specific communities. It should not even provide ease of doing business in terms of utilizing water for sale. Indeed, in this case, it cannot be denied that the paradigm of water has economic value, but in this case, it must still pay attention to social values. Implementing the Sustainable Development Goals (SDGs), which have 17 essential points. One of the points outlined in the 17 goals is about access to clean water and sanitation.²¹ There are three aspects outlined in the goals on access to clean water and sanitation, including (1) Provision of access to decent and safe drinking water and sanitation is implemented with policies to improve institutional governance and organizing capacity for the provision of decent and safe drinking water; (2) Increasing institutional capacity in sanitation management services; and (3) Accelerating the provision of raw water from protected water sources, increasing integration in drinking water supply and utilizing technology in raw water management.

4. Model for Balancing the Social and Economic Value of Water Resources to Fulfill the Right to Water

It cannot be denied that Article 33 of the 1945 Constitution contains economic value in the capitalist sense. However, Article 33 also contains a social value in the sense of togetherness and kinship to create the greatest prosperity for the people. Water is constitutionally recognized as a vital resource that sustains the livelihood of many people, emphasizing its role as an essential element of human life. From a social aspect, water must be fully utilized equally (equitably) so that everyone, especially in all parts of Indonesia, can enjoy water for their daily needs, such as drinking, bathing, and cooking. Based on the basic theory of justice in the frame of the welfare law state,

²¹ Bapenas, "Peta Jalan SDGs 2023-2030 - IDN - SDGs Indonesia, *loc.cit.*

the state has a central role in realizing access to the fulfillment of the right to water easily, even free of charge.

From an economic aspect, water is seen as a commodity/tradable object. There are no regulations that limit or prohibit the sale of water, even to the point of exporting it abroad. It is based on the needs that exist in society, so the basic economic principle of supply and demand applies. When there is a need and even dependence in society, then there will also be an economic transaction model that is oriented to generate profits. The presence of the state in the frame of the welfare law state is to control the commercialized use of water resources. Although constitutionally, the state does not reject the privatization of water resources, it has the responsibility to control it. Moreover, on the basis of the power possessed by the state as the highest organization.²² The state has control/power over all natural resources in its territory. That power should be used to control the privatization of water resources.²³

The enactment of Law Act No. 32 of 2009 on Environmental Protection and Management (hereinafter referred to as Law Act No. 32/2009), Law Act No. 6 of 2023 on the Stipulation of Government Regulation in Lieu of Law Act No. 2 of 2022 on Job Creation into Law (hereinafter referred to as Law Act No. 6/2023), Law Act No. 17/2019, PP No. 30/2024, should be a strong legal basis in efforts to build a balance of social and economic values. However, it is still problematic, especially in terms of fulfilling the right to water.

On that basis, in the context of balancing this, several things are done. First, there is a need to strengthen the principle of the green economy in the regulation of water resources.²⁴ The understanding of green economy in the scope of water resources is intended as a form of principle that balances social and economic values. Social values do not dominate it, but it is also not fully oriented toward economic aspects. As for the aspects embodied in the green economy, the company's responsibility is not only to provide CSR assistance in the form of grants or reforestation but also to restore water sources. According to Endang Retnowati, a speaker at the Focus Group Discussion (FGD) on September 27, 2024, companies basically have corporate responsibility.

However, not a few companies carry out their corporate responsibility socially as a form of completing their obligations. Companies should also be emphasized to recover from the impacts caused, especially when it comes to the use of water resources. Companies should also provide free access to water for the surrounding community, primarily to fulfill their basic needs. It is sad to see that there is a large company that produces bottled drinking water, but the surrounding population is affected by water shortages. Worse, the surrounding stalls actually sell drinking water products from the production of these large companies. It is as if the company is neglecting its corporate responsibility. Primarily, if it is based on the principle of the green economy, it was also conveyed that the context of green economy for companies is essentially limited to not only the production process but also other activities and impacts caused by the company.

²² Sisca F Usman, "Konstitusionalisme dan Pemenuhan Hak Atas Air Pada Negara Dengan Konstitusi Bernuansa," *Jurnal Ilmiah Mandala Education* 8, no. 3 (August 1, 2022), <https://doi.org/10.58258/jime.v8i3.3431>.

²³ Aminuddin Ilmar, "Hak Menguasai Negara: Dalam Privatisasi BUMN Edisi Pertama". (Jakarta: Kencana, 2012). 23.

²⁴ Thanachaporn Thathongkham and Rattaphong Sonsuphap, "The Social Green Economy: A Perspective on a Forest Community Project in a Developing Country," *Corporate and Business Strategy Review* 4, no. 4 (January 1, 2023): 62-68, <https://doi.org/10.22495/cbsrv4i4art7>.

On that basis, the green economy will also have an impact on the social value of water resources, namely the realization of the fulfillment of the right to water. Companies certainly cannot only be profit-oriented. There is an obligation to fulfill social responsibility, both in the social sense and for the needs of society as well as the environment. It is this context of recovery that leads to sustainability. It is also based on the principle of intra-generational and inter-generational justice. In addition, based on the opinion of the United Nations Environment Program (UNEP), the green economy is an economy that results in increased human welfare and social justice while significantly reducing environmental risks and ecological scarcity.²⁵

Such alignment reflects the fundamental principles of the green economy, which include the well-being principle, justice principle, planetary boundaries principle, efficiency and sufficiency principle, and good governance principle. This relationship can be illustrated through the following correlation:

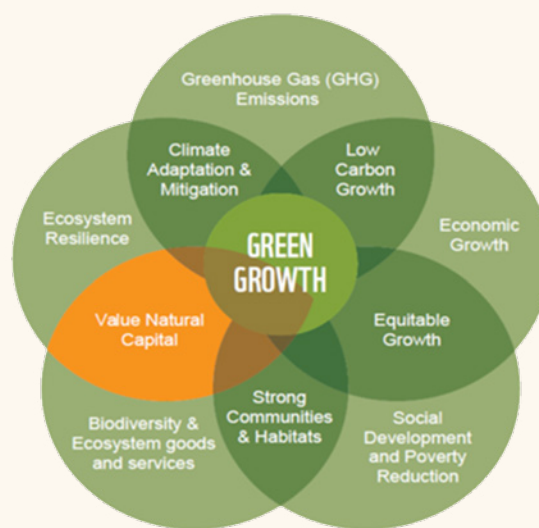


Figure 1. Diagram / Basic chart of intersection of green economy obtained from UNEP 2011

The second is to formulate policies or regulations that are oriented toward the social and economic value of water resources. It is also meant to play a central role in the community and government at the district/city and village levels. The community in the area where the water resources will be utilized can be invited to participate in decision-making. It is at this point that it becomes important to strike a balance between social and economic values in order to create mutual sustainability in the fulfillment of the right to water.

The particularly stresses the role of the great global transmissions of the nineteenth and twentieth centuries in presenting intractable barriers to returning to less complicated eras of resource conflicts.²⁶ These transitions are manifest in total and urban populations' growth and shift to urbanization; radical shifts in the nutrition demanded by the new economic and social developments;

²⁵ Anonim, "The Green Tinge of Success," *Strategic Direction 3 MCB Business Strategy Publications, Emerald Publishing Limited*; 5, no. 3 (January 16, 2019): 23-24, <https://doi.org/10.1108/sd-12-2018-0248>.

²⁶ P. Rogers, "The Triangle: Energy, Water & Food Nexus for Sustainable Security in the Arab Middle East." *Water, Energy & Food Sustainability in the Middle East: Springer, Cham.* (2017): 21-47. https://doi.org/10.1007/978-3-319-48920-9_2.

the radical changes in land use and chemicals in agriculture; a rapid shift in emphasis on renewable energy resources and reduced reliance on fossil fuels; and finally the great challenge of climate change. All of these transitions have major implications for water security both globally, and regionally. Globally this is well articulated by DuBois (The case for “energy-smart food for people and climate”. Food and Agriculture Organization of the United Nations.

While the water security situation for the Arab Middle East Region is generally considered bleak, the paper is fairly optimistic that, at least water resource use, until 2050 will be still manageable if the eleven “technical fixes,” outlined in the paper are pursued. These technical fixes are not to be construed as purely engineering the water supply, but fixes to many of the economic and social barriers to a more secure water future. They cover major national policy choices such as international trade in virtual water, traditional water engineering of traditional and non-traditional sources, improving efficiency in use via agronomic research, improvement of post harvest food and value chains, and softer options such as trading among users, pricing, rationalizing property rights and legal protection for third parties.

5. Conclusion

The strategy for the fulfillment of equitable water rights is carried out starting from the approach in the substance of the regulation, including regulatory consistency. Institutional structures must synergize with each other, especially at the ministerial level. Followed by the habit of directing the pattern of conservation and restoration of water resources. Therefore, the balance model between the social value and economic value of water resources is carried out based on the principle of green economy. Produce outputs in the form of policies/regulations that still pay attention to the needs of water rights but also control the utilization of water for commercial purposes.

6. Acknowledgement

Thanks to Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi, Direktorat Jenderal Pendidikan Tinggi, Riset, Dan Teknologi has been given the opportunity as a research grant recipient. Thanks to Universitas Merdeka Pasuruan.

7. References

- Anonim, “The Green Tinge of Success.” *Strategic Direction* 35, no. 3 (January 16, 2019): 23–24. <https://doi.org/10.1108/sd-12-2018-0248>.
- Astriani, Nadia, Ida Nurlinda, Amiruddin A. Dajaan Imami, and Chay Asdak. “Pengelolaan Sumber Daya Air Berdasarkan Kearifan Tradisional: Perspektif Hukum Lingkungan.” *Arena Hukum* 13, no. 02 (August 31, 2020): 197–217. <https://doi.org/10.21776/ub.arenahukum.2020.01302.1>.
- Chin, Jason M, Alexander C DeHaven, Tobias Heycke, Alexander O Holcombe, David T Mellor, Justin T Pickett, Crystal N Steltenpohl, Simine Vazire, and Kathryn Zeiler. “Improving the Credibility of Empirical Legal Research: Practical Suggestions for Researchers,” *Journals and Law Schools. Law Technology and Humans* 3, no. 1 (July 27, 2021). <https://doi.org/10.5204/lthj.1875>.
- George, N.J., Thomas, J.E. “Groundwater potential and quality assessments of a coastal environment: a case study of the location of Federal University of Technology Ikot Abasi (FUTIA), Akwa Ibom State, Nigeria.” *J Coast Conserv* 27, 31 (2023). <https://doi.org/10.1007/s11852-023-00956-w>.

- Ghosh, Ruchira, Arun Kansal, and G Venkatesh. "Urban Water Security Assessment Using an Integrated Metabolism Approach—Case Study of the National Capital Territory of Delhi in India" *Resources* 8, no. 2 (2019): 62. <https://doi.org/10.3390/resources8020062>.
- Habib, A., Bouchaib, B. and Housni, S. "A critical analysis of water economics in public water and sanitation services in Morocco", *Arab Gulf Journal of Scientific Research*, Vol. 40 No. 3, (2022), pp. 280-301. <https://doi.org/10.1108/AGJSR-04-2022-0034>.
- Ilmar, Aminuddin. *"Hak Menguasai Negara: Dalam Privatisasi BUMN Edisi Pertama."* Jakarta: Kencana, 2012.
- Lal, B. Suresh, and B. Suresh Lal. "Water for Life: Issues and Challenges." *www.ijsr.net*, 2019. <https://doi.org/10.21275/ART20199011>.
- Maliva, Robert, and Thomas Missimer. "Non-Renewable Groundwater Resources." *Environmental Science and Engineering*, 927–51, 2012. https://doi.org/10.1007/978-3-642-29104-3_36.
- Nurjaya, I. Nyoman. *"Pengelolaan Sumber Daya Alam dalam Perspektif Antropologi Hukum."* Jakarta: Prestasi Pustaka Publisher, 2008.
- Patnistik, Egidius. "Privatisasi Dan Tantangan Pemenuhan Hak Atas Air." KOMPAS, March 13, 2023. <https://www.kompas.com/tren/read/2023/03/13/103840665/privatisasi-dan-tantangan-pemenuhan-hak-atas-air?page=all>.
- Prasetyo, Heri. "Privatisasi Air Bersih Dalam Perspektif Ekonomi Islam." *Journal Competency of Business* 6, no. 02 (January 31, 2023): 17–38. <https://doi.org/10.47200/jcob.v6i02.1593>.
- Rizqiyah, Aslamatur. "Ironi, Indonesia Jadi Negara Dengan Sumber Daya Air Terbanyak Tapi Kualitas Sanitasi dan Air Minum Buruk." GoodStats, November 22, 2024. <https://goodstats.id/article/ironi-indonesia-jadi-negara-dengan-sumber-daya-air-terbanyak-tapi-kualitas-sanitasi-dan-air-minum-buruk-tEe2Y>.
- Rogers, P. "The Triangle: Energy, Water & Food Nexus for Sustainable Security in the Arab Middle East." *Water, Energy & Food Sustainability in the Middle East: Springer, Cham.* (2017): 21-47. https://doi.org/10.1007/978-3-319-48920-9_2.
- Said, A. Sehlke, G. Stevens, D.K. Glover, T. Sorensen, D. Walker, W. Hardy, T. "Exploring an innovative watershed management," approach: from feasibility to sustainability, *Energy*, Volume 31, Issue 13, 2006, Pages 2373-2386, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2006.02.002>.
- Sicca, Shintaloka Pradita. "Berapa Lama Manusia Bisa Bertahan Hidup Tanpa Minum Air?" KOMPAS, March 31, 2023. <https://health.kompas.com/read/23C31120000968/berapa-lama-manusia-bisa-bertahan-hidup-tanpa-minum-air>.
- Suhayanti, Monika. Trias Palupi Kurnianingrum. Yosephus Mainake. Sulasi Rongiyati. Luthvi Febryka Nola. and Ismala Dewi. "Aspek Hukum Pengelolaan Sumber Daya Air Perpustakaan Pusat Sosial Ekonomi dan Kebijakan Pertanian," n.d. <https://kikp-pertanian.id/psekp/opac/detail-opac?id=11928>.
- Syaiful. "7 Negara Dengan Cadangan Air Tawar Terbesar Di Dunia, Terdapat Indonesia." Fakultas Hukum | Inovatif, Berkepribadian dan Mandiri, January 14, 2022. <https://hukum.uma.ac.id/2022/01/14/7-negara-dengan-cadangan-air-tawar-terbesar-di-dunia-terdapat-indonesia>.
- Thathongkham, Thanachaporn, and Rattaphong Sonsuphap. "The Social Green Economy: A Perspective on a Forest Community Project in a Developing Country." *Corporate and Business Strategy Review* 4, no. 4 (January 1, 2023): 62–68. <https://doi.org/10.22495/cbsrv4i4art7>.
- Tongco, Ma. Dolores C. "Purposive Sampling as a Tool for Informant Selection," *Ethnobotany Research and Applications* Vol. 5 (2007) December 31, 2007, <https://ethnobotanyjournal.org/index.php/era/article/view/126>.

Triningsih, Anna. "Penguasaan Negara Atas Sumber Daya Air Sebagai Upaya Mendukung Ekonomi." *Jurnal Legislasi Indonesia* 17, no. 3 (September 29, 2020): 343.
<https://doi.org/10.54629/jli.v17i3.610>.

Usman, Sisca F. "Konstitusionalisme dan Pemenuhan Hak Atas Air Pada Negara Dengan Konstitusi Bernuansa." *Jurnal Ilmiah Mandala Education* 8, no. 3 (August 1, 2022).
<https://doi.org/10.58258/jime.v8i3.3431>.

Winarno, Ronny, and Ardhiwinda Kusumaputra. "Water Resources Concession Law Based on Justice for Water Rights." *Jurnal Analisis Hukum* 3, no. 2 (November 10, 2020): 169-79.
<https://doi.org/10.38043/jah.v3i2.2692>.

Winarno, Ronny, Endang Retnowati, and Ardhiwinda Kusumaputra. "Kedaulatan Negara Atas Pengelolaan Sumber Daya Air Yang Bermoral Menuju Kemakmuran Rakyat." *Jurnal Yustitabelen* 10, no. 1 (January 31, 2024): 87-104.
<https://doi.org/10.36563/yustitabelen.v10i1.946>.
