

Justice in Water Resources Management: An Analysis of Inter-Institutional Legal Authority in Indonesia..

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Abstract: Water is one of the most important resources, not only supporting human life but also helping balance ecosystems. The Indonesian constitution emphasizes that the ground, water, and natural resources contained therein are governed by the state for the greatest prosperity of the people. The area of Mount Ciremai National Park (TNGC) in Kuningan Regency, West Java, is of great significance as a water catchment area and the primary source of raw water for local people and PDAM. But water resource management in this region is hampered by major difficulties, including overlapping jurisdictions among authorities and unequal access. This research intends to assess the scope and boundaries of the legal jurisdiction of the organizations involved in water use in TNGC, identify the core problem of policy execution, and develop an ideal policy model to prevent regulatory discrepancies. The method utilized is normative juridical, with an approach based on legislation, concepts, and comparison, employing literature studies. The study results demonstrate regulatory disharmonization across the Water Resources Law, the Forestry Law, and the Local Government Law, with implications for legal uncertainty and inequalities in benefit distribution. Local communities are often marginalized, and institutional players such as PDAM are more powerful. This research proposes an ideal policy model based on the principles and comparison of water resources management systems in several other countries. The ideal policy for water resource utilization in TNGC can be realized by forming a Government Regulation that contains a single coordinating authority through a cross-sectoral management body, the existence of a quota for water utilization is scientifically determined based on the carrying capacity of the ecosystem, and the participation of local communities in monitoring and decision-making..

Keywords: Legal Authority, Water Resources, Equitable Governance.

Introduction

Water is a natural resource essential to human life. All community groups are seeking the best water source to meet their daily needs (Weningtyas & Widuri, 2022), not only for humans but also for other living things and their surroundings. Water resources are unevenly available in quantity and quality. Various efforts are needed to improve the environmental sustainability and economic development of water's functions and benefits (Santoso, 1999). This is only possible if water resources are managed through comprehensive rules and regulations, not merely through technology (Aspan et al., 2023). The emergence of the state with the management of water sources is a manifestation of the right to control the state, in order to meet the needs of the community for clean water sources, where

the existence of the state can provide protection for water resources to meet the needs of clean water for all people in Indonesia (Pratiwi, 2022). Water is a natural resource controlled by the state, and in the Indonesian legal system, water management aims to maximize people's prosperity. Thus, all policies related to the use of water resources must ensure ecological sustainability, equity, and legal certainty in their implementation (Yulius P. K. Suni & Djoko Legono, 2021). Water resource management development is closely associated with all aspects of existence. The main notion of policy in management goes from supplying clean water to building a fair and equitable irrigation system, and even to protecting ecosystem services (Wulandari & Ilyas, 2019).

Water use at the general level encompasses agriculture, industry, homes, recreation and environmental activities, including protection provided for the management of natural resources. In the reality of state administration, water resource management often faces problems of objects and subjects, problems of water objects such as decreasing discharge in water sources and high sedimentation rates in water reservoirs such as dams, embankments, lakes, and sites, which cause the supply of raw water to be increasingly limited as a result. Moreover, water quality is deteriorating due to high levels of pollution in rivers and other water sources. Flooding during the rainy season and drought during the dry season have been caused by land conversion, notably in the catchment area (upstream), which harms the watershed (Astriani, 2021). In the meantime, the use of water as a resource for multiple interests produces conflicts of interest (Weningtyas & Widuri, 2022), such as the overlap of policies and regulations across government agencies at both the central and regional levels (Sahide et al., 2023). The autonomous regions are entitled to regulate and administer their own affairs in accordance with existing laws and regulations and community goals. However, socio-political structures challenge water resources management as power is closely linked to social networks in water governance (Sahide et al., 2023).

The uniqueness of water resource management in Indonesia lies in its high fragmentation, not only across national institutions but also between centralized and decentralized governance bodies, which are constantly evolving (Sahide et al., 2023). This also happens, especially in regions of great conservation significance, such as Mount Ciremai National Park (TNGC), which is known as a water tower in the Ciayumajakuning area (Cirebon, Indramayu, Majalengka, and Kuningan). In addition, this region is a regulator of the hydrological cycle, particularly of water systems and water resources. The community also uses several spring water sources in the Mount Ciremai area for agricultural irrigation, household clean water, fisheries, and industrial operations (Wulandari & Ilyas, 2019). So far, water resources management in the Mount Ciremai area has encountered problems, namely that water resources management policies have not been integrated with the regulations of each institution, resulting in a lack of clarity in the rules of procedure and mechanisms for water resources management (Puspitasari Rochman et al., 2023). Various laws and regulations vest jurisdiction in a number of institutions to manage and use water resources. Law Number 17 of 2019 on Water Resources, Law Number 41 of 1999 on Forestry, and Law Number 5 of 1990 on the Conservation of Biological Natural Resources and Their Ecosystems (Siswantoro et al., 2021) each sets mandates that are not always in tune (Suprpto et al., 2018). Meanwhile, Law Number 23 of 2014 concerning Regional Government grants local governments broad authority to manage local resources, including water. The disharmony between these sectoral regulations creates a difference in the legal power, namely the disharmony in the implementation of management functions carried out by authorized institutions such as the TNGC Center under the Ministry of Environment and Forestry (KLHK), the River Region Center (BWS) under the Ministry of PUPR, and Regional Governments, including Regional Drinking Water Companies (PDAM).

Water resources are governed by a patchwork of rules and regulations, yet uneven jurisdiction over water use sometimes creates legal uncertainty. "This is not the case only in Indonesia, but in a number of other countries. The United States itself has its own disputes, such as over Colorado River water and the catastrophe in Flint, Michigan, which illustrate how disputes can arise from policy differences between states and industrial sectors. There are issues occurring between the agricultural, industrial, and environmental sectors in Australia, especially in the Murray-Darling Basin. But in the Netherlands, there is a dispute about how water is shared in the Rhine Delta region. Farmers need water for agriculture, while environmental groups want to safeguard the freshwater ecosystems. The United States, Australia, and the Netherlands also have legal systems that split power between central and municipal governments. However, they have more formal procedures for handling regulatory conflicts, such as the Prior Appropriation system in the United States, Water Trading in Australia, and Water Boards in the Netherlands.

The uneven balance of powers in the usage of water resources in the TNGC area directly impacts the local community. Confusion arises among the public regarding legal permissions, authority, and limits on the use of these resources when there is an overlap in water-use laws (Wahidin, 2014). Horizontal conflicts occur between residents and business actors, even between the community and the government. This is due to disagreements and differences in interests between the central government and local governments, as well as among local conservation area managers (Ariyanto et al., 2023). Regulatory impediments are often not on the side of indigenous peoples or smallholders who have drawn on water sources from protected regions for decades. This may lead to the law being delegitimized in the public eye and impede public participation in environmental conservation.

In the TNGC area, several conflicts of authority have been observed, particularly regarding the use of springs for commercial purposes by PDAM and the private sector. There are allegations of disputes between national park administration organizations and local governments over the issuance of water withdrawal licenses. This is intended to make local governments more responsive to local needs and to ensure that water utilization activities are carried out in accordance with spatial plans and sustainable environmental policies (Sutrisno et al., 2015), particularly regarding the distribution of benefits and responsibility for environmental impacts. Based on media reports and field research, the structure is unclear about the primary authority in the licensing and supervision process, such that policy implementation often proceeds without proper coordination (Mertokusumo, 2010).

Legally, this phenomenon indicates the poor legal integration framework in Indonesia's natural resource governance. Legal certainty is one of the fundamental foundations of the state of law (Rule of law) that becomes confused when there is no clarity on the boundaries of authority amongst institutions. In the paradigm of legal positivism, where law is understood as a hierarchical, written norm, this state of regulative disparity constitutes a structural fault in the national legal system (Astriani, 2022). Therefore, there is a need to conduct normative research on existing regulations to identify points of difference and to develop a policy integration model that is consistent with legal principles and the requirements of sustainable water resource management.

LITERATURE REVIEW

Theory of Law and Justice

Legal philosophy cannot be divorced from the study of water resources usage, which highlights the need for justice as a normative foundation. Based on the idea of justice as fairness, which holds that the principle of justice must guarantee a fair distribution of resources, especially for the most disadvantaged populations (Rawls, 2009). This approach applies to water management in conservation

areas. It is often the local community group that is most affected by the limitations on use.

Furthermore, the capability approach to justice holds that fairness should be assessed by the real capacity of individuals or groups to acquire and use resources. In water resource management (Mon, 2009), this indicates that the mere presence of the rule of law not only formally guarantees rights but also ensures society's practical capacity to use them sustainably. Therefore, the theory of law and justice provides a normative basis for understanding that the use of water resources is not only an administrative issue but also connected to the principles of distributive justice, ecology, and the community's actual ability to access these resources.

Arrangements in Water Resources Management

Water resources management in Indonesia is governed by a number of overlapping legal instruments. The basic foundation is Article 33 of the 1945 Constitution, which assigns the state the responsibility for governing and managing water resources for the benefit of the people. A number of sectoral laws provide for the application of the constitution. First, Law No. 17 of 2019 on Water Resources states that water is a basic right and is under state control, prioritizing the principles of sustainability and fairness. This law replaces Law No. 7 of 2004, which the Constitutional Court ruled was too prone to privatization. Second, Law No. 41 of 1999 on Forestry and Law No. 5 of 1990 on the Conservation of Biological Natural Resources and Their Ecosystems determine that national park areas, including TNGC, are maintained by the state primarily for conservation. This makes the Ministry of Environment and Forestry the lead agency.

Furthermore, Law No. 23 of 2014 on Regional Government grants local governments jurisdiction over the provision of essential amenities, including clean water. At the technical level, Regulation of the Minister of Environment and Forestry No. P.15/MENLHK/2019 on National Park Management regulates the methods of utilization of environmental services, including water in conservation areas. The lack of legislative coherence frequently leads to uncertainty about authority, particularly among the central government, regional governments, and regional enterprises. Water resources management is the responsibility of a number of entities, such as central government agencies, local governments, and technical units directly related to the conservation and public services sector. This dispersion of authority, on the one hand, is the spirit of decentralization in natural resource management. On the other side, there is the possibility for overlap, policy disharmony, and even conflicts of authority among agencies.

Ministry of Environment and Forestry (MoEF)

The area of Gunung Ciremai National Park (TNGC) was set by Decree of the Minister of Forestry No. SK.424/Menhut-II/2004. Management of National Parks is the responsibility of the Ministry of Environment and Forestry, through the National Park Office, in accordance with Law No. 5 of 1990 on Conservation of Biological Natural Resources and Law No. 41 of 1999 on Forestry. Its principal purpose is to conserve biodiversity, particularly protecting water catchments and sources of spring water. Thus, the authority of the Ministry of Environment and Forestry is preventive, so as to preserve the forest ecosystem sustainably and ensure the sustainability of water resources.

Ministry of Public Works and Public Housing (PUPR)

Law No. 17 of 2019 about Water Resources designates the Ministry of PUPR as an authority in the raw water supply. The ministry is authorized to create and run irrigation systems, dams, and raw water distribution for domestic and industrial usage. For TNGC, the raw water source for PDAM Kuningan Regency and its environs is water from conservation areas, and the Ministry of PUPR has technical authority over the distribution network.

Local Government (Province and Regency/City)

Law No. 23 of 2014 on Regional Government grants local governments authority to provide public services, including clean water. The government of Kuningan Regency and the West Java Regional Government play a role in regulating water use to support the local community, small businesses, and the tourism sector. In practice, local governments usually cooperate with PDAM (a BUMD) in distributing water to the community.

Regional Drinking Water Companies (PDAM) and BUMDs

PDAM, as a technical operator, is responsible for supplying clean water to the community. But PDAM's authority often creates friction with the National Park Agency's conservation authority. PDAM is interested in drawing water from spring sources located in conservation forest regions, but the Ministry of Environment and Forestry only allows their use to protect environmental sustainability. This conflict of interest often leads to a power struggle within the field. The legal architecture demonstrates regulatory fragmentation that may give rise to conflicts of authority. Therefore, there is a need to harmonize legal rules to ensure that the use of water resources is not only legal but also substantially fair.

Previous Research

Many prior studies have indicated that the regulation of water resources in Indonesia is rife with concerns of fairness and authority. (Sahide et al., 2023) Conducted a study on the implementation of shared duties of water resources management bureaucracies in managing water resources. The results showed that the sectoral bureaucracy between the Ministry of Environment and Forestry (MoEF), which has a strong influence on the forests of the upstream states by relying on the mandate of managing its land and vast areas, and the Ministry of PUPR with significant budget allocations and strong alliances in shaping the power of the take-up more meaningful decisions from various sub-sectors and continues to strongly influence implementation actions. This contestation is still evolving and not yet constituted. The altering policy contestation will have substantial repercussions in transforming water resources politics.

The problem of social justice in Indonesia's water governance remains quite serious. Policies favoring commercial or industrial interests often hinder access for local populations. Research by Jundiani et al. (2025) shows that although the national regulation has acknowledged that water is a public right, its implementation is still faced with serious problems, such as unequal access to water between urban and rural areas, the dominance of industries in utilizing water resources, and weak community participation in the policy-making process. Therefore, Indonesia's legal framework for natural resources remains weak in upholding the principles of justice and sustainability.

This research has its own innovation and advantages over these investigations. First, the research focuses on a case study of the Gunung Ciremai National Park Area (TNGC), a conservation area that is a vital water catchment and the main source of raw water. This choice of location allows for a more grounded consideration of the issues of authority and justice. The TNGC is a meeting point of conservation interests, public services, and local communities' needs. Secondly, this study combines three analytical approaches: legislative, conceptual, and comparative. This method allows the study not only to address regulatory disharmonisation but also to provide an ideal model grounded in the concepts of justice and sustainability. This study intends to investigate the forms and limitations of legal authority across institutions governing water use in TNGC, identify fundamental problems in policy implementation, and develop an ideal policy model to eliminate regulatory discrepancies.

RESEARCH METHODS

This study employs a normative juridical (doctrinal legal) research method that examines law as a system of norms embodied in legislation, legal doctrines, judicial decisions, and legal principles governing the use of water resources in conservation areas. The normative approach is appropriate because the central issue of this research concerns the fragmentation of legal authority among institutions responsible for water resource governance within the Mount Ciremai National Park (TNGC) area and its implications for justice and legal certainty.

The research utilizes three complementary approaches. First, the statutory approach is applied to analyze the hierarchy, coherence, and consistency of laws and regulations governing water resource management in Indonesia. The primary legal instruments examined include Article 33 paragraph (3) of the 1945 Constitution, Law Number 17 of 2019 concerning Water Resources, Law Number 41 of 1999 concerning Forestry, Law Number 5 of 1990 concerning the Conservation of Biological Natural Resources and Their Ecosystems, Law Number 23 of 2014 concerning Regional Government, and relevant implementing regulations.

Second, a conceptual approach is employed to examine legal doctrines and theoretical perspectives on authority, justice, environmental governance, sustainable development, and public trust doctrine. This approach draws upon the theories of justice developed by John Rawls and Amartya Sen, particularly concerning distributive justice, procedural justice, and equitable access to natural resources. These theoretical frameworks are used to evaluate whether existing legal arrangements provide fair access to water resources for local communities and other stakeholders.

Third, a comparative legal approach is utilized to compare water resource governance models in selected jurisdictions, namely Germany, South Africa, India, and Australia. These countries were selected because they represent diverse legal traditions and governance mechanisms concerning water allocation, conservation, public participation, and institutional coordination. The comparative analysis aims to identify best practices and institutional arrangements that may contribute to developing a more integrated and equitable water governance model for Indonesia.

The legal materials used in this study consist of primary, secondary, and tertiary legal materials. Primary legal materials include constitutional provisions, statutes, government regulations, ministerial regulations, and relevant judicial decisions. Secondary legal materials include scholarly books, peer-reviewed journal articles, research reports, and academic commentaries on water governance, environmental law, and natural resource management. Tertiary legal materials include legal dictionaries, encyclopedias, and other supporting references that facilitate the interpretation of legal concepts.

Data collection was conducted through library research, involving the identification, selection, and systematic examination of relevant legal documents and academic literature. The collected legal materials were analyzed using qualitative legal analysis, including statutory interpretation, legal harmonization analysis, and comparative legal reasoning. The analysis focused on identifying normative inconsistencies, overlapping authorities, and regulatory gaps that contribute to governance fragmentation in the utilization of water resources within the TNGC area.

To strengthen the analytical framework, this study applies a legal harmonization analysis model to examine the vertical and horizontal consistency of legal norms across sectors. The findings are subsequently evaluated through the lens of justice theory and sustainable governance principles to

formulate an ideal policy model capable of reducing regulatory disparities, strengthening inter-institutional coordination, and ensuring equitable access to water resources while maintaining

RESEARCH AND DISCUSSION RESULTS

Forms and Limits of Inter-Agency Legal Authority in the Utilization of Water Resources in the TNGC Area

The legal basis for the administration of water resources in Indonesia is based on Article 33, paragraph (3) of the 1945 Constitution, which reads: "The earth, water, and natural resources contained therein are controlled by the State and used for the greatest prosperity of the people. This concept is the constitutional basis for the state's function of control, and not merely possession. Decision No. 85/PUU-XI/2013 of the Constitutional Court confirms that water is an important branch of production for the state that must be handled by the state to safeguard the rights of the people. Under the public trust doctrine, the state functions as a trustee with the duty to preserve, control, and distribute water resources for the public benefit. This means there should be no domination or exploitation of the people's interests, notably those of the community near the conservation area. Thus, from the very beginning, there was a constitutional requirement that all state agencies involved in water management be subject to the principle of state control directed towards the welfare of the people and social justice.

The regulations on water resources are substantially in line with the mandate of the 1945 Constitution. The Water Resources Law of 2019 governs water as a right of the people. The Forestry Law and the Conservation Law promote the protection of forest regions. But, as is often the case with regulations, they are open to interpretation. For example, the Minister of Environment and Forestry Regulation No. P.15/MENLHK/2019 allows the use of water environmental services in the area of the national park, but on the other hand, Government Regulation No. 121/2015 on Water Resources Management (which has now been invalidated by the 2019 Natural Resources Law) once provided a broader space for commercial use.

Disharmonization between the sectoral laws is also present. The Water Resources Law focuses on people's access to water, whereas the Forestry Law focuses on protecting forest lands. The Local Government Law grants the Regional Government the authority to deliver public services, but does not explicitly permit access to water sources in conservation areas. This overlap is what creates confusion. Who has the authority to issue water-use permits in TNGC?

Administratively, the Mount Ciremai National Park Area is located in 2 (two) district regions, namely Kuningan and Majalengka, and a tiny section of Cirebon Regency of West Java Province. The Mount Ciremai National Park area is located upstream of the Jamblang, Pekik, Subah, Cisanggarung, Cimanuk, Bangkaderes, and Ciwaringin watersheds (Noerdjito & Mawardi, 2017), which play an important role as a provider of water channeled downstream for various purposes such as agriculture, settlements, industry, etc. (Tamim et al., 2023). Apart from the sources of spring water scattered throughout the Mount Ciremai National Park Area. The potential of water resources in the Mount Ciremai National Park Area is very important in meeting the community's need for clean water.

Mount Ciremai has a close relationship with the districts below it, including Kuningan Regency, Majalengka Regency, Cirebon Regency, Cirebon City and Indramayu Regency. Indramayu Regency is one of the hubs of rice production in the Cirebon Region and is very dependent on water for agricultural activities. Cirebon Regency and City need water resources to deliver clean water for the community and industry, such as the development of a clean water supply by Cirebon City PDAM, which is mainly dependent on water from the Cipaniis spring source in Kuningan Regency (Ramdan, 2006). This is because the sources of clean water in Cirebon City are limited and do not meet the set quality

standards¹.

The management and distribution of water in the Mount Ciremai area has become a severe problem for the district and city governments in Cirebon. This is driven by the growing need for clean water, not just within specific administrative districts but also in the linkages between upstream and downstream areas. Therefore, a cooperative structure is needed to guarantee the fair, effective, and sustainable use of water resources (Puspitasari Rochman et al., 2023). Inter-regional collaboration in water management cannot be separated from the shared commitment to protecting the sustainability of water resources.

The overlap of water management within the TNGC's authority has real ramifications, particularly legal confusion. The public and PDAM are often unclear about whether water extraction permits should be sought from the Ministry of Environment and Forestry, the Regional Government, or through coordination between the two. In addition, conflicts occur between institutions, with the Ministry of Environment and Forestry preferring to limit access for conservation, while the local government and PDAM want an increase in the water quota to meet community needs. In practice, it is easier to obtain a permit from commercial interests (PDAM or industry) than from local communities, which merely require water for basic needs.

The administration and exploitation of water resources in Indonesia involve a variety of entities, whose functions and obligations are defined by laws and regulations. In the Mount Ciremai National Park Area (TNGC) there are several main institutions having formal authority, namely: (1) Kuningan Regency Regional Government especially through the Environment Agency and the Regional Drinking Water Company (PDAM); (2) Mount Ciremai National Park Office as a technical implementation unit under the Ministry of Environment and Forestry (MoEF); and (3) Cimanuk-Cisanggarung River Area Center (BWS) as a representation of the Ministry of PUPR which handles the technical management of water resources;

Regional Autonomy provides opportunities for regions to use natural resource management for the welfare of their communities and to ensure the sustainability of their environments. Decentralization is the philosophy and spirit of the country's founding, with the partition of territory, including its authority. This is provided for in Article 18 of the Constitution of 1945, before and after amendment. The amendment of the 1945 Constitution has, in fact, encouraged the implementation of regional autonomy in a broad and concrete manner. It is hoped that underdeveloped regions can develop and align with other regions to advance the welfare of their people (Anugrah, 2021). The authority of the Kuningan Regency Regional Government in the utilization of water resources in the Gunung Ciremai National Park Area is regulated in Articles 23 and 29 of Law Number 17 of 2019 concerning Water Resources that Natural Resources Management is regulated by the Provincial Regulation or Regency/City Regulation. In addition, Law Number 23 of 2014 concerning Regional Government in the Attachment section of the Division of Concurrent Government Affairs between the Central Government and the Provincial and Regency/City Regions also regulates Concerning the authority of local governments in managing drinking water resources. The legislation allows city and district governments with water resources to manage them as a source of Original Regional Revenue (PAD). Local governments might take advantage of this opportunity by collaborating with other regions in need of a raw water supply. This collaboration method can include calculating of the quantity of cash or compensation expenses in a transparent and fair manner, so as to give benefits for both sides.

¹ Kuningan Regency Government, "Kuningan-Cirebon Sign Water Management Cooperation," Kuningan Regency Diskominfo, 2021, <https://www.kuningankab.go.id/berita/kuningan-cirebon-tandatangani-kerja-sama-pengelolaan-air>. accessed on May 29, 2025 at 1:07 AM

Hence, in addition to water supply to the needy population, this method may also contribute to the sustainability of water resources and the welfare of the area owning water sources ².

In the legal framework that applies in Indonesia, there are five alternative forms of interregional cooperation models that can be applied, namely: fee-for-service contract (FSC), joint agreement (JA), establishment of jointly-formed authorities (JFA), intercommunality (IK), and the establishment of a coordination forum (Coordination Forum/WK). One specific example of this partnership in action is Cipaniis Spring in Paniis Village, Pesawahan District, Kuningan Regency, which is the main source of raw water for the Cirebon City PDAM. The sustainability of spring water management is critical to ensure the availability of clean water for the community. This water supply is to be used sustainably by cooperation between Kuningan Regency and Cirebon City through an environmental service payment plan. The partnership is governed by the Water Utilization Partnership Agreement Number 44 of 2004 regarding the Utilization of Cipaniis Springs in Paniis Village, Pesawahan District, and is revised through Agreement Numbers PKS/46/2021 and 600/PKS.48-EkonSDA/2021. The partnership seeks to promote sustainable allocation and consumption of Cipaniis water across regions as well as the protection and conservation of water catchment areas

The authority of the Mount Ciremai National Park Office in the utilization of water resources in the Mount Ciremai National Park Area is regulated in the Regulation of the Minister of Environment and Forestry (Permenhut) No. P.64/Menhut-II/2013, which has been amended by the Regulation of the Minister of Environment and Forestry Number: P.18/MENLHK/SETJEN/KUM.1/4/2019) concerning the Utilization of Water and Water Energy in Wildlife Sanctuaries, National Parks, Forest Parks, and Nature Tourism Parks. Article 5. Use of Water 1. It is allowed to use water as a water mass for commercial and non-commercial activities on the Utilization of Water Resources in wildlife sanctuaries, national parks, nature tourism parks, and Forest Parks. This regulation governs the use of water as an environmental service for non-commercial and commercial activities in conservation areas. The village has used water from practically all the spring sources in the Mount Ciremai National Park Area. Referring to the Decree of the Director General of Nature Conservation Forest Protection Number: SK.40/KSDAE/SET/KSA.3/1/2017 concerning the Determination of Water and Water Energy Utilization Areas in Mount Ciremai National Park, there are 106 spring water sources.

In general, from 2017 to November 2022, Mount Ciremai National Park has provided economic benefits in the form of water to communities in the vicinity and downstream areas, including Cirebon, Indramayu, Majalengka, and Kuningan (Ciayumajakuning). The total number of families who use water in the Mount Ciremai National Park Area is 17,129, and the number of industries that utilize water is 14. The calculation of water valuation using the market price technique yielded an average economic value of non-commercial water of IDR 61.5 billion/year and of commercial water of IDR 25.1 billion/year. The Mount Ciremai National Park surrounding neighborhood uses water mostly for household purposes and for irrigation of agricultural land. In addition to community non-commercial use, the spring water sources in the Mount Ciremai National Park Area are also commercially utilized by the private sector (businesses). This commercial usage of water is done by applying for a water utilization business license (IUPA. Business Licensing Process for the Utilization of Water Environmental Services / Water Utilization Business Permits (PB-PJWA/IUPA Process) 2022, 8 sites The Water Utilization Permit (IPA) In the Water Utilization Permit (IPA), as many as 2 places have already permits (Decree of the Director General of Natural Resources and Ecosystem Conservation), and 8

² Kuningan Regency Government, 2023. "Pursuing PAD Increase, Kuningan Regional Secretary Discusses Water Compensation with Cirebon City Government" - <https://kuningankab.go.id/home/kompensasi-ditentukan-ulang-pembahasan-kerjasama-pengelolaan-air-antara-pemkab-kuningan-pemkot-cirebon/>, accessed on May 29, 2025 at 01:07

places are in the process of applying for licenses. The spring water source is located in the conservation area of Mount Ciremai National Park, the application for licenses to use water resources must be submitted to the Ministry of Forestry through the Mount Ciremai National Park Office³.

The Cimanuk Cisanggarung River Area Center (BBWS) is also authorized to use water resources in the Mount Ciremai National Park (TNGC) area. This authority is based on the Regulation of the Minister of Public Works and Public Housing (Permen PUPR) Number 16 of 2020 concerning Spatial Planning of River Areas. In addition, BBWS is authorized under the Regulation of the Minister of Public Works and Public Housing Number 14/PRT/M/2015 on the Implementation of Flood Control. The regulation states that the Cimanuk Cisanggarung River Area Center (BBWS) is responsible for preparing programs, carrying out construction, operation and maintenance in the context of conservation and utilization of water resources, and controlling water damage in rivers, beaches, dams, lakes, lakes, lakes, reservoirs and other water reservoirs, irrigation, swamps, ponds, groundwater, raw water, as well as the management of urban main drainage in the Cimanuk-Cisanggarung River Area. Cimanuk Cisanggarung River Area Center (BBWS) utilizes water resources by providing raw water for agriculture, flood control, and the development of other water resources for domestic and industrial needs.

Therefore, it may be inferred that the form of legal authority that governs the use of water in the Mount Ciremai National Park (TNGC) has not been explicitly established, and the boundaries between institutions are fuzzy. This highlights the necessity for regulatory harmonization and clarity of a single body acting as a cross-sector coordinator

Normative Problems in the Implementation of Water Resources Utilization Policy in TNGC

Regulatory fragmentation is one of the most important challenges in water utilization in TNGC. The orientation of each sectoral law is distinct. For example, Law Number 17 of 2019 concerning Water Resources stipulates that the central government ensure the integrated and sustainable management of water resources. However, there is no explicit coordination mechanism among the Ministry of Environment and Forestry, the Ministry of Public Works and Housing, and local governments regarding the use of water resources in conservation areas. On the other hand, Law Number 5 of 1990 concerning the Conservation of Biological Natural Resources and Their Ecosystems and Law Number 41 of 1999 concerning Forestry state that the use of resources in national park areas is regulated by the Ministry of Environment and Forestry through national park management units. However, the implementing regulation of the rule, such as the Regulation of the Minister of Environment and Forestry Number P.76 of 2015, does not regulate the coordination relationship with the water management institutions, such as river area centers and local government.

Sectorally, upstream lands are frequently overlapping with state forests (Sahide, 2023). In practice, local authorities, through Regional Drinking Water Companies (PDAM), routinely request permits to take water from springs in the national park region. This creates an issue if there are two different licensing routes, one through the Ministry of Environment and Forestry and the other through the BWS, each with its own technical and administrative authority. This overlap results in a dualism of authority and provides the door to alternative readings of who is truly authorized to issue permits and to set utilization quotas. One real example illustrating this condition is the use of water from the Cibulan

³ Eki Nurhuda Almutaqin. 2025. Spring Water Source Management in the NGGC Area, Here's the Permit!. Brass, Mass. <https://kuninganmass.com/pengelolaan-sumber-mata-air-di-kawasan-tngc-begini-perijinannya/>. accessed on May 29, 2025 at 20.00 WIB

and Cidewata Springs by the Kuningan Regency PDAM. The TNGC Center stated that extracting water without a conservation permit violated local norms, but PDAM said it had met the requirements for technical licensing from BWS. This case study demonstrates the absence of an integrative mechanism that connects conservation objectives to the needs of public services. This blurred line of power not only makes the permitting procedure more complex, but also affects the protection of the conservation area itself ⁴.

The second problem is the limited access to the water supplies for the local communities. According to the Central Statistics Agency (BPS), there is a huge discrepancy in availability to potable water, with metropolitan areas having far more access than rural ones. Another point to consider is that fairness in water resources law is tied to the environmental impact of the policies chosen. The ecological justice of water management is frequently sacrificed in favor of the state's economic objectives. This means that the current regulations do not yet adequately safeguard fair distribution. There are often conflicts between the right of local residents to use water resources and the right to use water in the industrial sector (Jundiani et al., 2025).

The Water Resources Law of 2019 states that water is the basic right of the population. In practice, however, villages around TNGC are typically faced with difficulty in securing water-use permits, while PDAMs or companies with higher cash have better chances of acceptance. This imbalance of access produces distribution inequities. Communities living around the springs, which they use as a source of water for their homes and small farms, are in competition with PDAMs which take significant quantities of water from the springs to distribute to the city. Therefore, local residents are typically simply "spectators" of water resources management strategies, although being the most immediately affected.

In addition, a concern is the recognition of the rights of indigenous or local peoples that have protected spring water sources for decades. Conservation regulations typically find themselves neglected since there is no defined formal space for them to occupy. This circumstance illustrates the difference between formal justice (law justice) and material justice (substantive justice). Another issue in the implementation of the program is the lack of cooperation across institutions. The Ministry of Environment and Forestry through the TNGC Center on conservation, PUPR on distribution of raw water, and local government through PDAM on the provision of public services. But there is no one organization that is the major coordinator that can connect the interests across sectors.

Decentralization in Indonesia sometimes affects water governance, as authority is dispersed without effective coordination. For TNGC, the National Park Agency has ecological authority and limited supervisory power; the Regional Government has public service authority and limited jurisdiction over the conservation area; and PUPR has sole responsibility for technical infrastructure. The National Park Authority's supervisory capacity is typically constrained by funding and staffing levels. In reality, a comprehensive monitoring mechanism is required for monitoring water output and the sustainability of the spring water ecosystem. The situation is also made worse by the weak enforcement of environmental rules. Many of the illegal or over-permitted operations have not been rigorously enforced due to limited coordination between law enforcement officials and technical institutions.

Ideal Policy Model in Water Resources Utilization to Avoid Regulatory Disparities in the

⁴ Eki Nurhuda Almutaqin. 2025. Spring Water Source Management in the NGGC Area, Here's the Permit!. Brass, Mass. <https://kuninganmass.com/pengelolaan-sumber-mata-air-di-kawasan-tngc-begini-perijinannya/>. accessed on May 29, 2025 at 20.00 WIB

TNGC Area

Water resources in conservation areas must be used in accordance with the principle of distributive fairness. The importance of a fair allocation of basic resources and substantive justice that guarantees meaningful access for vulnerable populations. For water resource management in Gunung Ciremai National Park (TNGC), the appropriate policy model must guarantee three essential aspects, namely:

Ecological justice, i.e., it points out that water is not only a human right, but also an integral aspect of the ecosystem, which must be administered taking into consideration the balance of the environment.

Distributive justice is justice that focuses on the fair allocation of water resources to all levels of society, particularly those susceptible to water scarcity. The notion is that water is a prerequisite to human existence and should be provided equitably and without discrimination to rural and urban communities. However, in practice, water distribution is typically unequal due to industry dominance and privatization, which limits access for disadvantaged groups.

Procedural justice, i.e., making sure that all actors/institutions have space to participate in decision-making (Jundiani et al., 2025).

The principles of ideal water resource governance can be described as follows:

Cross-sector coordination agencies. The necessity to form the Mount Ciremai National Park Water Management Agency (TNGC) involves the Ministry of Environment and Forestry, the Ministry of Public Works and Housing, the Regional Government, PDAM, and local community leaders. This agency is responsible for setting water intake quotas, permit systems, and monitoring techniques. The co-management paradigm shifts the decision-making process from a sectoral-based to a deliberative-based one among stakeholders.

Rights of local communities and mechanisms of participation. The ideal policy should involve local communities as beneficiaries but also as managing actors. A community-based monitoring plan can enable the community around the TNGC to participate in monitoring spring water discharge, report potential violations, and be paid for conservation activities.

The comparison of international law in water resource management in many nations might be a mirror for the Government of Indonesia in establishing water resource management rules. Countries have taken different approaches to safeguarding the availability, access, and sustainability of water resources due to diverse legal systems, economic capacity, and geographical and biological factors. Water management systems in industrialized nations like Germany are generally more structured and adhere to rigorous standards grounded in the ideals of environmental sustainability and distributive fairness. On the other hand, many developing nations, such as India and South Africa, face major obstacles to implementing water justice due to a lack of infrastructure, conflicts of interest between the private and public sectors, and insufficient law enforcement. Such variations demonstrate the importance of political and economic elements in shaping justice (Jundiani et al., 2025).

Through a comparative study, Indonesia not only gains an overview of best practices but also identifies weaknesses to avoid in domestic policy design.

Germany

Germany, for example, has a well-functioning water management system, in which access to water is strictly monitored and subject to rigorous standards. In Germany, water services are managed by municipally owned corporations that prioritize public service over profit (Johnson & Geisendorf,

2022). Water pricing is transparent, covering expenditures in green infrastructure and operational costs. In addition, German policy supports the “polluter pays” idea whereby polluting enterprises are required to pay for the rehabilitation of polluted water supplies. Such systems encourage equitable access to clean water and long-term sustainability of water resources.

South Africa

The South African government has made water justice a primary goal since the end of apartheid. South Africa’s constitution clearly guarantees water as a human right, and the government is required to provide clean water to all inhabitants. The key policy implemented is the “free basic water” policy, which provides 6,000 liters of water free of charge to each family per month. The policy may sound like it is promoting equity, but the reality of its execution is less straightforward. Poor infrastructure and considerable water loss from pipeline breaks continue to cause water shortages in many areas. In addition, the anticipated benefits of these policies are often difficult to realize due to corruption in the water management sector, which hinders the fair allocation of water (Jundiani et al., 2025). South Africa’s water resource management specifically recognizes water as a human right that must be guaranteed by the state. This legal framework embraces the highest priority of Equitable Access, wherein every citizen has the right to a minimum decent supply of water without discrimination.

Regulatory issues of water rights in Indonesia and South Africa are comparable. In both countries, regulations have developed to achieve the state’s purpose of fulfilling the right to water for the people. Water rights policy in both countries is largely in line with General Comment No. 15, which acknowledges water as a right of each individual and sets an obligation on the state to realize this right. The difference between the two countries’ environments is the level of regulation. In South Africa, there is an explicit reference to water rights in the Constitution, namely Article 27(1) of the Constitution of the Republic of South Africa, 1996. South Africa also has rules that explicitly address the right to water in the Water Services Act No. 108 of 1997 and the National Water Act.

Law No. 39, 1998 3. The Indonesian Constitution, the 1945 Constitution of the Republic of Indonesia, does not contain an explicit provision obliging the state to provide the people with the right to water. However, the term “right to water” has been explicitly stated in the law and regulation under the 1945 Constitution of the Republic of Indonesia, especially Law Number 17 of 2019 concerning Water Resources. The results of this study reveal that the regulatory considerations do not necessarily affect the problems of water rights disparity in Indonesia and South Africa. On the contrary, laws can be crucial to ensure the fulfillment of water rights in both countries. This strategy can be an inspiration for Indonesia to improve the preservation of the rights of local populations, especially in conservation areas such as Gunung Ciremai National Park which has been prone to being sidelined by institutional and commercial interests (Imawan, 2023).

India

India, a developing country, presents a great challenge in ensuring water justice to its population, unlike Germany, a developed country. One of the primary difficulties in India is the uneven distribution of water between urban and rural areas. Natural water sources are typically unstable and contaminated year-round. Millions of people in rural regions still rely on them, whereas major cities such as Delhi and Mumbai have relatively superior water distribution networks. Moreover, Indian government policies tend to favor agricultural use of groundwater, which accounts for the bulk of the reserves, over the residential needs of the poor. Privatization of water services in several large Indian cities further exacerbates access challenges through high prices, making it harder for low-income households to obtain sufficient clean water (Jundiani et al., 2025).

In its numerous verdicts, the Supreme Court of India has interpreted Article 21 of the Constitution of India (Right to Life) to include the right to clean water. The Indian government also has a system of water users associations, which enable communities to manage the allocation of irrigation water themselves. This idea can be a reference for Indonesia to strengthen the rights of local populations in water management in conservation areas.

Australia

Australia also provides an example of water resource management, particularly in response to the challenges posed by climate change (Kaushik et al., 2023). Australia has a water trading system in which water rights can be traded as commodities within a tightly controlled framework. This method promotes water-use efficiency by enabling farmers and industry to buy or sell water-use rights when needed. But the system is also criticized for potentially inequitable access, as those with greater buying power have access to more water, while smaller towns and low-income people who depend on water for their fundamental necessities may lack it.

Based on the theory and comparison of the above water resources management system, the ideal policy for the use of water resources in TNGC can be realized by the formation of Government Regulation containing the following formulations:

A single coordinating authority in the form of a cross-sectoral management organization.

The scientific basis for the establishment of the water use quota is the carrying capacity of the ecosystem.

The local community is involved in monitoring and decision-making.

This paradigm provides not only legal clarity but also bridges the gap between the objectives of public services and social justice. The implementation of these principles will enable Indonesia to avoid regulatory discrepancies and achieve equitable, sustainable, and constitutional water governance.

CONCLUSION

The key concerns are regulatory fragmentation, insufficient coordination between institutions, and the lack of legal certainty aimed at social justice. The state's strict mandate to control water for the greatest welfare of the people is already contained in Article 33, paragraph (3) of the 1945 Constitution. However, implementing this requirement at the level of sectoral legal jurisdiction results in an overlapping division of authority. The Ministry of Environment and Forestry is responsible for conserving forest areas; the distribution of raw water is regulated by the Ministry of PUPR; and public services are provided by local governments through PDAM. But the lack of institutional integration casts doubt on who holds primary authority to regulate water use in the TNGC. It results in a clash of authority in the administration of water resources.

The implementation problem is becoming increasingly complicated in guaranteeing fair access for local communities. Water is a basic right, but communities surrounding protected areas are often not equally served by institutional entities such as the PDAM and industry. This leads to distributive unfairness as the interests of vulnerable people and fundamental domestic necessities are sidelined. So there is a need for a cross-sectoral coordinating agency, so that decision-making is not partial but grounded in deliberation and common interests. Therefore, the primary conclusion of this study is that the governance of TNGC water resource exploitation has not fully matched the ideal of justice. Legal uncertainty and unequal access due to regulatory fragmentation and implementation difficulties.

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