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Local Wisdom-Based Water Resources Conservation: Enhancing Local Wisdom in Society 5.0

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Abstract: Local wisdom as capital for sustainable water resource conservation is becoming increasingly important in the era of Society 5.0. It is characterized by technological transformation and extensive interconnection. In this context, implementing local wisdom values in the conservation of water resources is a significant challenge. This paper discusses the challenges faced in conserving sustainable local wisdom-based water resources in the era of Society 5.0, such as cultural and technological changes. This paper also examines legal regulations in water resource conservation based on local wisdom, such as how laws regulate water use and budget arrangements for water resource conservation. The method used is a literature study of several legal materials using concept and statutory approaches, then analyzed to answer the problems studied. The results show that it is necessary to strengthen the recognition and protection of local wisdom through the preparation or revision of laws and regulations that recognize the values of local wisdom in the conservation of water resources, a collaboration between stakeholders to build citizen communication and consultation; and regulatory adjustments to support the conservation of water resources in the era of society 5.0.

Keywords: Conservation; Environment; Local Wisdom; Society 5.0; Water Resources

1. Introduction

The existence of water is very important for humans to support life and livelihood. However, because water availability is increasingly limited, the state is needed as a regulator which is very important in proper management to maintain its sustainability. A state through the government is necessary, hence, the management of water resources can be sustainable and of course considers local wisdom contained in it. Local wisdom is one of the main aspects that must continue to be preserved in terms of managing water resources, especially in the current era of very rapid technological development.

With advances in technology, water resource management can be more optimal, effective and targeted by considers the level of environmental sustainability so that it can continue to be sustainable.[1] This can only happen if water resources management is regulated comprehensively in complete legal regulations, not only regarding technology

[1] Khoday, Kishan. "Decolonizing the Environment: Third World Approaches to the Planetary Crisis." *Indonesian Journal of International Law* 19 no. 2 (2021): 189-211.

and management, but also the short-term and long-term impacts caused by water resources management with the various consequences that can arise. The impact in question is the condition and situation of the local community, including local wisdom within it.

Local wisdom in the context of water resources conservation refers to local knowledge, values and practices related to sustainable water resources conservation. This local wisdom includes various aspects such as customary law, local traditions, and indigenous people's knowledge regarding water resources. Local wisdom is acquired and inherited from generation to generation,[2] so that the form of local wisdom can be seen through a cultural approach, namely consisting of local knowledge, local culture, local skills, local sources and local social processes.

Aspects of sustainable water resource management require the existence of economic, ecological and social functions that are interconnected with each other.[3] To improve ecological functions, efforts are made to focus on preserving water resource areas. Efforts are made to increase socio-cultural functions by involving community participation, especially communities around water resource areas. Apart from that, as an economic function where resource management supports the sustainability of the production system, conservation and utilization of the wealth contained therein as well as various forms of integrated use, this can be supported by local wisdom. Through local wisdom, indigenous communities in Indonesia can survive various water resource crises.

The clean water crisis as a result of increasing world population is a real threat. The struggle for water resources between individuals, communities and industries that need clean water supplies is inevitable. Water scarcity is predicted to become more widespread in the future. The pressure of climate change, increasing population, and limited water resources are worsening the world's water crisis.[4] As the World Meteorological Organization (WMO) report states, along with population growth, the number of people with inadequate access to clean water is also expected to increase to more than 5 billion in 2050, from 3.6 billion in 2018.[5]

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[2] Affandy, Sulpi. "Penanaman Nilai-nilai kearifan lokal dalam meningkatkan perilaku keberagamaan peserta didik." *Atthulab: Islamic Religion Teaching and Learning Journal* 2, no. 2 (2017): 201-225.

[3] Ricardo, Rico, Achmad Kautsar, Eka Puspitawati, and Syifa Salsabila. "Analysing The Effect of Corporate Environmental Performance on Corporate Financial Performance: Does A Nonlinear Relationship Occur?" *Journal of Central Banking Law and Institutions* 2, no. 3 (2023): 435-460.

[4] Amanda, Septiani. "Rencana Mitigasi Dan Kesiapsiagaan Badan Penanggulangan Bencana Daerah Bojonegoro Untuk Menangani Bencana Kekeringan." *CHEMVIRO: Jurnal Kimia dan Ilmu Lingkungan (JKIL) 1, No. 1 (2023): 12-16.*

[5] Nikensari, Sri Indah, Sekar Destilawati, and Siti Nurjanah. "Studi environmental kuznets curve di asia: sebelum dan setelah millennium development goals." *Jurnal Ekonomi dan Pembangunan* 27, no. 2 (2019): 11-25.

This situation requires serious handling if the clean water crisis is not to cause a humanitarian crisis. The presence of Society 5.0 era demands the use of environmentally-friendly technology amidst rapid industrial growth which often damages the environment and at the same time threatens the continuity of water ecosystems. The use of technology in the era of Society 5.0 must be able to absorb the values of local wisdom in the management, use and utilization of water resources to prevent the spread of the clean water crisis.

Water resource management in traditional community *Kajang* in South Sulawesi and *Baduy* in West Java is an example of water resource management with local wisdom values. How water resources are managed wisely and sensibly as a single unit to maintain the sustainability and balance of environmental functions. Even developed countries like Japan, in a study as quoted by Anna Solcerova et al,[6] have a tradition of "*Uchimizu*" which means throwing water. In Japanese there is the term "*Mizubunka*", where the word "*mizu*" means water and "*bunka*" means culture. *Mizubunka* means everything that Japanese people do that is related to the use of water for human survival.[7]

The era of Society 5.0 refers to the concept of new societal development, which was initiated by Japan as part of their strategic vision. This era is a continuation of the previous era, namely Society 4.0, which was marked by the adoption of digital technology and the industrial revolution. Society 5.0 emphasizes the concept of humans as the center of attention and improving human welfare through the integration of intelligent technology. Society 5.0 combines artificial intelligence (*AI*), *Internet of Things* (*IoT*), big data, robotics and other technologies to create a society focused on people and sustainable solutions.[8] This era aims to overcome various social, economic and environmental problems faced by humans in a holistic way.[9]

The biggest challenge in the era of Society 5.0 in relation to water resources management is the adaptation of environmentally-friendly technology. There is synergy between dynamic technological development and progress and static conditions of local wisdom. Because one of the main focuses in the era of Society 5.0 is integrating advanced technology with aspects of everyday life, including the environmental and natural resources sectors, the aim is to improve efficiency, sustainability, and quality of human life through the use of smart technologies in sectors such as energy,

[6] Solcerova, Anna, Tim Van Emmerik, Koen Hilgersom, Frans Van de Ven, and Nick Van de Giesen. 'Uchimizu: a cool (ing) tradition to locally decrease air temperature." *Water* 10, no. 6 (2018): 741.

[7] Trahutami, Sri Wahyu Istana. "Sumber Daya Air Sebagai Salah Satu Faktor Alam Penunjang Harapan Hidup Tinggi Masyarakat Jepang." *Kiryoku* 5, no. 2 (2021): 308-312.

[8] Cuellar, Michael. "A virtue ethical approach to the use of artificial intelligence." Data and Information Management (2023): 100037.

[9] Forester, John. "Ecological wisdom through deliberative improvisation: Theory and practice in challenging cases." *Journal of Urban Management* 8, No. 1 (2019): 12-19.

transportation, agriculture, health, and the environment. In the context of water resource conservation, Society 5.0 can encourage the use of smart technology for more efficient water management, real-time monitoring of water quality, optimization of water distribution systems, and handling climate change which affects water availability.[10] By integrating appropriate technology and synergizing with local wisdom values, the era of Society 5.0 can help achieve the goal of sustainable water resource conservation and provide benefits to society at large.

Another challenge is the extent of political will for sustainable water resources development in Indonesia.[11] At the norm level, the effectiveness of implementing Act No 17 of 2019 concerning water resources is strongly supported by legal politics and the government's intentions as a regulator. In this context, the government's political intentions are still not optimal, considering that there are still many implementing regulations implementing Act No 17 of 2019 that have not been implemented. This shows that the government is not very responsive, adaptive and progressive in protecting water resource management in general, let alone looking at local potential such as local wisdom which is the domain of indigenous communities. In fact, the development of the era of Society 5.0 requires speed, quickness and the ability to respond while protecting the existence of local wisdom, especially in the management of water resources. From this background, there are two problems raised in this paper, namely how the legal contribution overcomes the challenges of water resource conservation based on local wisdom and what obstacles and challenges are faced in integrating local wisdom in water resource conservation efforts in the era of Society 5.0.

2. Method

This research is normative-legal research. The approach to the problems in this paper is carried out through conceptual approach and statute approaches. With a conceptual approach, it is intended to examine concepts relating to water resource conservation based on local wisdom in the era of Society 5.0. With a statute approach is based on the Water Resources Law and other relevant laws and regulations. Both approaches are intended as tools for analyzing existing problems to obtain maximum results. Through these approaches, it is intended to objectively explain the problems raised in this paper. The legal analysis in this paper is an open system, which means that legal rules must be thought of in a relationship with legal norms which are based on legal principles and concepts. In this study, legal interpretation is used.

[10] Smuts, Hanlie, and Alta Van der Merwe. "Knowledge management in society 5.0: A sustainability perspective." *Sustainability* 14, no. 11 (2022): 6878.

[11] Wijayanti, Yureana, Martin Anda, Lisma Safitri, Samsuri Tarmadja, and Oki Setyandito. "Water-energy nexus development for sustainable water management in Indonesia." In *IOP Conference Series: Earth and Environmental Science*, vol. 426, no. 1, p. 012058. IOP Publishing, 2020.

3. Local Wisdom-Based Water Resources Conservation: Challenges and Integrating in Society 5.0

Water is a very important resource for human life and ecosystems. However, due to climate change, population growth, urbanization and intensive human activities, the world's water resources are facing increasing pressure[12]Consequently, to achieve environmental sustainability, conservation of water resources becomes very important. Water resource conservation involves efforts to maintain the quality and quantity of water, as well as managing water use wisely. The main goal is to ensure that water resources can meet current needs without compromising future needs. Water resources conservation is a concept that refers to efforts to protect, manage and use water sustainably. This concept recognizes that water is a limited resource and is important for the sustainability of human life, ecosystems and the economy.

In the context of environmental sustainability, conservation of water resources is a crucial step to protect ecosystems, maintain human health, maintain food security, and reduce vulnerability to climate change. Through sustainable and collaborative efforts, we can ensure availability and sustainability water resources for future generations. Extension campaigns and information programs can help encourage positive behavioral change.[13] By implementing these principles, it is hoped that we can maintain the sustainability of water resources and ensure their availability for current and future generations. Currently, Society 5.0 is a socio-economic concept proposed by the Japanese government as a strategy to face the challenges of modern society by making innovative use of information and communication technology. This concept aims to combine the physical world (*physical space*) with the virtual world (*cyberspace*) through digital technology and artificial intelligence in order to create a sustainable and human-centric society.

The following are some of the main principles in the Society 5.0 concept. *First*, integration of technology and society, this concept tries to integrate advanced technologies such as artificial intelligence, Internet of Things (IoT), big data, and robotics with people's daily lives. The goal is to create innovative solutions and empower people in various aspects of life such as education, health care, transportation, energy and the environment; *Second*, Human Centric. Society 5.0 places humans at the center of attention in technological development and socio-economic transformation. The main goal is to improve the quality of life and human welfare by utilizing technology positively. *Third*, sustainable development, this concept recognizes

[12] Whittemore, Donald O., James J. Butler Jr, Geoffrey C. Bohling, and Blake B. Wilson. "Are we saving water? Simple methods for assessing the effectiveness of groundwater conservation measures." *Agricultural Water Management* 287 (2023): 108408.

[13] Widiyono, Try, and Md Zubair Kasem Khan. "Legal Certainty in Land Rights Acquisition in Indonesia's National Land Law." *Law Reform* 19, no. 1 (2023): 128-147.

the importance of sustainability in social and economic development. Society 5.0 emphasizes the importance of considering environmental, social and economic impacts in the use of technology and the development of sustainable solutions. *Lastly*, collaboration and community involvement, the era of Society 5.0 encourages collaboration between government, the private sector, academics and the general public in designing and implementing innovative solutions. Community participation in identifying problems and creating relevant solutions is considered important in this concept.

In the era of Society 5.0, digital technology acts as a link between humans, data and systems. Some of the key roles of digital technology in social and economic transformation are: a) Data collection and analysis, digital technology enables large data collection and rapid analysis, which provides deep insights into various aspects of human life, including water management; b) Sustainability and efficiency, digital technologies can be used to optimize the use of water resources, reduce waste and increase efficiency in water infrastructure; c) Individual empowerment and public participation, digital technology gives individuals greater access to monitoring and managing water resources directly. In addition, through online platforms, the public can participate in decision making regarding water resource conservation.

The concept of Society 5.0 aims to achieve social, economic and environmental sustainability through the use of innovative technology. The ultimate goal is to create a society that is sustainable, inclusive, and has a high quality of life by overcoming various challenges and harnessing the potential of technology for the common good. The era of Society 5.0 has significant impact on water resource conservation, including:[14]

a. Smarter water management. By using digital technology, water resource management can be carried out in real-time and responsively. So that the information obtained from monitoring enables more effective decision making in allocating water resources.
b. More active community participation. In the era of Society 5.0, society can be more actively involved in water resource conservation efforts. Digital technology allows for participatory and collaborative platforms for communities to contribute to data collection, monitoring and decision making related to water resources management.
c. Innovation in water saving technology. The era of Society 5.0 encourages the development of innovative technology to save water. Examples include the use of smart sensors to optimize agricultural irrigation or effective rainwater collection

[14] Mulyanti, Dewi, Ida Farida, Hendi Budiaman, and Fahmi Zulkifli Lubis. "Perlindungan Hukum Pengelolaan Sumber Daya Air Di Era Revolusi Industri 4.0." In *Proceeding Justicia Conference,* Vol. 1, 2022: 37-50.

and use systems. However, the challenge faced is how to integrate local wisdom in the use of this modern technology. Important to ensure that the technology and approaches used reflect local values and knowledge in water resource conservation efforts.

The concept of local wisdom refers to the knowledge, values, practices and policies held by a community group in a particular area. Local wisdom arises from long-term human experience in interacting with their environment, facing local challenges, and developing solutions that suit specific needs and conditions. The relevance of local wisdom in water resources management often has a deep understanding of the water cycle, hydrological conditions and climate patterns in their region. This knowledge can include traditional water capture systems, sustainable water use, and maintenance of local water infrastructure. Local wisdom often reflects community adaptation to local environmental conditions, including ways of managing and utilizing water resources that are appropriate to the geographic, ecological and cultural characteristics of an area. The concept of local wisdom is important in the context of preserving cultural diversity, environmental protection and sustainable development. Recognition and respect for local wisdom can help maintain ecological sustainability, support the social and economic sustainability of communities, and preserve valuable cultural diversity.

For example, some local wisdom in the management, utilization and utilization of water resources can be found in the indigenous community *Kajang*, in Bulukumba, South Sulawesi, and *Baduy* in West Java. The local wisdom practiced by traditional community *Kajang* is related to the principles of life called "*kamase-masea"*, part of the "*pasang ri kajang"* which explicitly orders *Kajang* people to live simply and modestly.[15] For *Kajang* people, there are 4 (four) sources of basic human needs that come from the forest, namely *kaju* (wood), *uhe* (rattan), *bani* (bees) and *doang* (shrimp). As stated in this rule: "*Raunna ngonta' bosi, aka'na ngonta' tumbusu"* which means "'from the leaves of the tree/wood it binds or brings rain, then from its roots arise spring". Furthermore, the water from the spring flows from the forest on the mountain or upstream, until it flows to areas downstream. The water is then used for farming, meeting drinking water needs and for daily needs.[16] As an ecological function, where forests are seen as regulators of water management or "*appariek bosi, appariek tumbusu*", which causes rain and stores water reserves.

[15] Salle, Kaimuddin. "Kebijakan lingkungan menurut pasang: Sebuah kajian hukum lingkungan adat pada masyarakat Ammatoa kecamatan Kajang kabupaten Daerah Tingkat II Bulukumba." U*npublished doctoral dissertation*. Makassar: Universitas Hasanuddin, (1999).

[16] Badewi, Muhammad Hadis. "Etika lingkungan dalam pasang ri kajang pada masyarakat adat Kajang." *Publikasi Media. Pendidik. Pancasila dan Kewarganegaraan* (2018): 43-51.

Local wisdom in the use of water resources is also found in the traditional community *Baduy* in West Java. Both *Baduy Dalam* and *Baduy Luar* really appreciate the existence of the river water they have. They will not allow river water to be polluted by rubbish. This is because it is through river water that they bathe, wash, defecate and urinate. Even drinking to quench their thirst also comes from river water. Hence, people who pollute river water with rubbish will be a major violation and will receive harsh punishment from *Baduy* law enforcers, namely "*Jero Tujuh*", a kind of sanction for violators of customs.[17]

Japan, as a developed country, also has a tradition of utilizing water. In Japanese there is the term "*Mizubunka*". The word "*mizu*" means water and "*bunka*" means culture. Mizubunka means everything that Japanese people do that is related to the use of water for human survival.[18] The essence of local wisdom in the context of water resources conservation involves in-depth understanding and practices developed by local communities in managing, protecting and using water resources sustainably. This reflects the human relationship with the environment, especially in terms of water as an important element in life.

In the context of water resources conservation, the following are the principles underlying the local wisdom-based water resources conservation philosophy:

a. Ecological balance. Local wisdom respects the ecological balance between water, land and living things. This principle teaches the importance of maintaining the quality and quantity of water resources for the survival of life.
b. Sustainable management. Local wisdom teaches the importance of sustainable management in the use of water resources. This includes practices such as rainwater capture, efficient use of irrigation, and planting vegetation that can improve the water cycle.
c. Common ownership and communal living. Local wisdom-based water resource conservation philosophies often prioritize shared ownership and communal thinking in managing water resources. This encourages cooperation between community members in water use, including fair arrangements for distributing water resources.
d. Rituals and traditions. Local wisdom is often expressed through rituals and traditions involving water. Practices such as purification ceremonies, fertility rituals or water sacrifices are considered a form of respect for water resources and remind people of the importance of preserving them.

[17] Islami, Ahmad Zaky et al. "Sebuah Kajian Literasi Sains Masyarakat Suku Baduy." Serang: Untirta Press dan IDB (2018).

[18] Solcerova, Anna, et al. *Op.Cit.* p. 741

e. Local knowledge and wisdom. Local communities often have valuable local knowledge about the hydrological and ecological characteristics of their area. This knowledge is often acquired through generations and incorporates practical wisdom in managing water resources efficiently.

In facing the challenges of water resource conservation, involving local wisdom in the philosophy of water resource management can provide valuable insights and sustainable solutions. By respecting traditional knowledge and practices, a better understanding can be gained about how to maintain the sustainability of water resources and build a harmonious relationship between humans and the environment. Integrating local wisdom with scientific approaches and sound policies is an important step in overcoming the challenges of water resource conservation. Recognizing and respecting local knowledge will enable more inclusive decision making, sustainable solutions, and long-term protection of water resources that are essential to our lives.

The role of local wisdom can be a solution in maintaining water resource conservation. The community's local wisdom regarding water sources can be an effective conservation and environmental resource management effort. Apart from that, water resource management based on local wisdom can also be an asset for sustainable development. Thus, the role of local wisdom in the philosophy of water resource conservation can be a solution in facing challenges in the era of the industrial revolution 5.0.

The integration of local wisdom faces several legal challenges that need to be considered. Society 5.0 is a concept that connects the physical world with the digital world, and aims to achieve a sustainable society run by smart technology. The following are some of the legal challenges that may arise in integrating local wisdom in the context of Society 5.0:

a. Intellectual property rights. Local wisdom is often related to traditional knowledge and local culture that has been inherited from generation to generation. Legal challenges arise when this knowledge is accessed and used by other parties without permission or recognition to the community that owns that wisdom. Legal protection of traditional intellectual property rights is important to prevent misuse and plunder of local knowledge.
b. Technology regulation. The era of Society 5.0 involves the use of advanced technologies such as artificial intelligence (AI), *Internet of Things* (IoT), and data analytics. Legal challenges arise in regulating the use of these technologies to ensure that they do not violate the rights of local communities or have a negative impact on local wisdom and traditional culture.

c. Policy conflict. The integration of local wisdom in the context of Society 5.0 may conflict with more dominant national or international policies. Differences between local wisdom and the existing regulatory framework can give rise to legal and policy conflicts that need to be resolved wisely.

d. Participation and consultation. Integration of local wisdom requires strong participation and consultation with local communities. Legal challenges arise in ensuring that decision-making processes reflect the aspirations and interests of local communities. The need to build effective mechanisms for community participation in decision making can be a challenge in legal and administrative contexts.

e. Environmental protection and sustainability. Integration of local wisdom must be in line with environmental protection and sustainability efforts. Legal challenges may arise in aligning local wisdom with existing environmental regulatory frameworks, such as environmental protection, natural resource management, or climate change mitigation laws.

To overcome this challenge, it is important to build an adequate legal framework that recognizes, protects and promotes local wisdom in the era of Society 5.0. Local community involvement, dialogue between various stakeholders and a humanity-centered approach can help create just laws and support sustainable integration between local wisdom and advanced technology.

4. Water Resources Conservation: Policies for Water Law in Indonesia

Legal contribution to overcoming the challenges of water resource conservation based on local wisdom in the era of Society 5.0. Pay attention to two laws related to water resources management, namely: Act No 17 of 2019 concerning Water Resources and Act No 6 of 2023 concerning the Stipulation of Government Regulations in Lieu of Act No 2 of 2022 concerning Job Creation into Law can provide a legal framework that covers various aspects related to water resource conservation, including recognition of local wisdom.

Obstacles and challenges faced in integrating local wisdom in water resource conservation efforts in the era of Society 5.0. In integrating local wisdom in water resource conservation efforts in the era of Society 5.0, there are several obstacles and challenges faced such as conflicts of interest between local communities and other parties in water resource management.[19] In addition, local communities have limited

[19] Chaiphar, Weerakul, Thongphon Promsaka Na Sakolnakorn, and Aree Naipinit. "Local wisdom in the environmental management of a community: analysis of local knowledge in Tha Pong Village, Thailand." *Journal of Sustainable Development* 6, no. 8 (2013): 16.

access to the technology and information needed to manage water resources. Thus, there is a lack of support and attention from the government in developing local wisdom and managing water resources based on local wisdom.

To overcome obstacles and challenges in integrating local wisdom in water resource conservation efforts in the era of Society 5.0, there are several legal solutions that can be considered legal recognition of local wisdom, namely by establishing a clear legal basis for the recognition and protection of local wisdom related to water resources. This can be done by integrating local wisdom principles and values in laws or policies related to water resource conservation. Strong legal recognition can provide legitimacy and protection for local wisdom, as well as ensure the involvement of local communities in decision making.

Encouraging community participation by developing a legal framework that encourages active participation of local communities in water resources management. This could involve establishing participatory mechanisms, such as public consultation forums or water resources management committees involving local community representatives. Through inclusive participation, local wisdom can be recognized, heard and taken into account in decision making regarding water resource conservation. Protection of intellectual property rights by regulating the protection of intellectual property rights related to local wisdom. As well as providing incentives for local communities to maintain and involve themselves in conserving water resources.

As result, collaboration between stakeholders by encouraging collaboration between various stakeholders, including the government, local communities, the private sector and non-governmental organizations. Cross-sector collaboration and active participation from various parties can help overcome obstacles and reach agreements that integrate local wisdom in water resource conservation policies and practices. This can be realized through a legal framework that facilitates dialogue, negotiation and cooperation between different stakeholders.

The application of several legal solutions can help overcome obstacles and challenges in integrating local wisdom in water resource conservation efforts in the era of Society 5.0. It is important to consider the local context, engage relevant stakeholders, and take concrete action to implement these solutions. Apart from that, efforts are also needed to increase public understanding and awareness of the importance of water resource conservation and local wisdom in water resource management, as well as strengthening community participation in water resource management.[20] As a determining factor for

[20] Sahide, Muhammad Alif K., Micah R. Fisher, Nurul Hasfi, Emban Ibnurusyd Mas'ud, Ahsan Yunus, Fatwa Faturachmat, Siti Halimah Larekeng, and Ahmad Maryudi. "Navigating the Hidden Politics of Water Resource Bureaucracies in Indonesia: Mapping Issue-Elements and Alliances." *Hasanuddin Law Review* 9, no. 1 (2023): 57-87.

success in carrying out the agenda in government, political will and political action are needed from the government in developing local wisdom values for local wisdom-based water resource management in the era of Society 5.0.

In this case, the government needs to have optimal political will in implementing local wisdom-based water resources management in the era of Society 5.0. This political will was marked by the formation of implementing regulations from Act No 17 of 2019 to ensure that the regulations stipulated are truly implemented optimally. Provisions such as "the people's right to water are not an ownership right to water, but is only limited to the right to obtain and use a certain amount of water quota in accordance with the allocation which is determined by government regulations" as regulated in Article 8 paragraph (7) of Act No 17 of 2019. Of course, the criteria for rights must first be determined and what if the company that manages the water considers it to be property rights, so that other community members cannot access the water, even though in reality, the water source whose rights have been changed can originally be accessed by everyone person.

In the same way, it is important for the government to establish political and legal policies that are able to accommodate the changes and dynamics of society in the era of Society 5.0, in determining who, how and what rights the community has over water resources. In the context of control over the management of water resources by groups or companies, the government should establish adaptive, responsive and progressive legal regulations within it. Adaptive legal rules mean that the implementing regulations must be adaptive to local wisdom on the one hand and changes and community demands on the other hand. Meanwhile, responsive regulations mean that the implementing regulations of Act No. 17 of 2019 needs to considers the substantive justice for society.

Water resources management must not favor the interests of groups or factions, because the most important thing is how the interests of society in general can be guaranteed.[21] Meanwhile, the importance of creating progressive regulations means that the government's perspective in making regulations must look at society or humans as the main postulate of legal enforcement. Implementing regulations of Act No 17 of 2019 must be based on "human existence", in this case, it must ensure that universal human values are protected (*constitutional rights*).[22]

[21] Gunningham, Neil. "Environment law, regulation and governance: Shifting architectures." *Journal of Environmental law* 21, no. 2 (2009): 179-212.

[22] Aspan, Zulkifli, and Ahsan Yunus. "The right to a good and healthy environment: Revitalizing green constitution." In *IOP Conference Series: Earth and Environmental Science*, vol. 343, no. 1, p. 012067. IOP Publishing, 2019.

The government's legal political agenda in laying down the postulates of implementing regulations for Act No. 17 of 2019, which totals 24 (twenty-four) technical regulations, including regulations in the form of regional regulations is one of the important instruments. In this case, the government needs to pay attention to the dynamics of society in the era of Society 5.0 and changes that are developing so rapidly. Water resource management must continue to prioritize local wisdom as an important aspect that must be protected, but also needs to pay attention to community dynamics and the need to adapt responsively and progressively to developments in society that continue to experience change.

The government as a regulator must have a legal political agenda in order to regulate the existence of local community wisdom in the era of Society 5.0. In the context of community involvement to substantively protect local wisdom, Act No 17 of 2019 has ordered delegates to establish further regulations regarding community participation in water resources management. However, at a practical level, the implementing regulations ordered have not yet been established by the government. The starting point for regulations regarding the protection of local wisdom amidst the dynamics of the era of Society 5.0 has not yet been fully implemented.

For this reason, political will to lay the foundations for comprehensive water resources management by balancing societal progress in the era of Society 5.0 to continue to provide optimal protection for the existence of local community wisdom. Water resources management must pay attention to the preservation and maintenance of various conditions and situations of the community and all its components, in this case the principles of local wisdom that live and are maintained by the local community.

5. Conclusion

Legal recognition of local wisdom in relation to water resources conservation is an important first step. By integrating local wisdom values and principles in laws or policies, local wisdom can be officially recognized and protected by law. In addition, involving local communities in decision making through participatory mechanisms gives appropriate respect to local wisdom. In this case, legal arrangements can provide incentives for local communities to maintain their local wisdom and play an active role in conserving water resources. Changes in values and culture, lack of understanding and appreciation, technical challenges, centralized decision making, and managing conflicts of interest are the main obstacles and challenges in local wisdom-based water resource conservation in the era of Society 5.0. Solutions involve legal recognition of local wisdom, community participation, collaboration between stakeholders and education to increase understanding of local wisdom.

Overcoming these challenges is important to achieve successful integration in water resources conservation in the era of Society 5.0. Apart from that, efforts are also needed to increase public understanding and awareness of the importance of water resource conservation and local wisdom in water resource management, as well as strengthening community participation in water resource management. Overall, through legal solutions that support recognition, protection, participation and collaboration, the contribution of local wisdom in overcoming the challenges of water resource conservation in the era of Society 5.0 can be realized. Thus, it is awake sustainability of water resources and community welfare can be achieved.

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