

Gender-Responsive Policy in Water Management: An Outlook in ‘Citarum Harum’s Program

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ABSTRACT

In Indonesia, rivers, crucial for clean water, currently face alarming pollution. Unfortunately, women, key in ensuring water quality, lack opportunities. This study aims to depict the state of the Citarum River, women's involvement, and propose ways for women to optimize their role in managing domestic waste for river restoration. Using qualitative methods, the research identifies a connection between environmental issues and patriarchal challenges, emphasizing the need for comprehensive, gender-friendly policies. Recommendations from UN Water policies can be adapted for effective implementation in Indonesia. According to the research, the issue of the environment or water is a component of the traditional patriarchy problem, requiring gender-friendly strategies at all tiers. Even with initiatives to include women in areas such as water empowerment, women continue to be excluded from decision-making processes. Based on the research, it is recommended that women be made aware of their significance in gender-friendly policies and that their opinions should be considered during the decision-making process.

Keywords: rivers, water quality, women's empowerment

ABSTRAK

Di Indonesia, sungai-sungai yang sangat penting untuk air bersih saat ini menghadapi pencemaran yang mengkhawatirkan. Namun, peran perempuan yang merupakan kunci dalam memastikan kualitas air kurang mendapat kesempatan. Penelitian ini bertujuan untuk menggambarkan kondisi Sungai Citarum, keterlibatan perempuan, dan mengusulkan cara agar perempuan dapat mengoptimalkan peran mereka dalam mengelola limbah domestik untuk restorasi sungai. Dengan menggunakan metode kualitatif, penelitian ini mengidentifikasi hubungan antara masalah lingkungan dan tantangan patriarki, menekankan perlunya kebijakan yang komprehensif dan ramah gender. Rekomendasi dari kebijakan UN Water dapat disesuaikan untuk implementasi yang efektif di Indonesia. Hasil penelitian menunjukkan bahwa isu lingkungan atau isu air merupakan bagian dari masalah klasik patriarki, sehingga diperlukan kebijakan strategis yang ramah gender di semua level. Meskipun perempuan telah terlibat dalam kegiatan pemberdayaan air, dalam proses pengambilan keputusan perempuan seringkali tidak diikutsertakan. Penelitian ini merekomendasikan perempuan untuk diberikan edukasi bahwa kebijakan berbasis ramah gender dan bahwa suara dan keterlibatan mereka sangat diperlukan termasuk dalam proses pengambilan keputusan.

Kata Kunci: sungai, kualitas air, pemberdayaan perempuan

Introduction

Environmental problems and global warming have become concerns not only at the national and international levels but also on a global scale. The crises and environmental issues have affected almost every region, even those previously unaffected. These crises pose threats to global security and human survival, with their impacts becoming increasingly apparent. Consequently, various movements have emerged with the goal of mobilizing and raising awareness to encourage greater care for environmental issues.

One of the most significant environmental problems is global warming, leading to climate change and a faster rise in global temperatures. The heightened emissions of greenhouse gases have resulted in the trapping of the sun's heat, contributing to temperature increases. Beyond temperature rise, water quality has diminished, accompanied by increased water evaporation, leading to a reduction in the Earth's water volume. Water, as the source of life and a critical natural resource for humans, plays a pivotal role. Approximately two-thirds of the Earth's surface is covered by water, and while the overall quantity remains relatively constant, natural changes and water circulation processes contribute to maintaining clean water suitable for consumption and use by living organisms. However, issues arise when water undergoes pollution and undergoes repeated use cycles, raising questions about its safety for consumption and utilization.

Water pollution is a condition where hazardous substances, including chemicals or microorganisms, contaminate rivers, lakes, seas, or other bodies of water, rendering them toxic to living creatures.¹ Several articles highlight that rivers are significant sources of greenhouse gases, and water pollution exacerbates their emissions.² Most pollutants originate from untreated wastewater, agricultural runoff, and increased sediment accumulation. This leads to urban water bodies becoming centers of greenhouse gas emissions, with projections indicating a continued rise in these emissions. The escalating trends in urbanization, intensified agriculture, and aquaculture underscore the need for concerted efforts to enhance water quality. Consequently, various programs have been initiated to restore and rehabilitate rivers by reducing pollution.

Based on research conducted by the OECD (Organization for Economic Co-operation and Development), clean water and sanitation have gender dimensions in many developing countries, as women play a crucial role as the primary collectors of resources. Easy and secure access to clean water will provide women with more time to explore economic opportunities and access better education.³ The Ministry of Women's Empowerment and Child Protection (KemenPPPA), actively promoting gender equality and women's empowerment through various policies, collaborates with the Ministry of Environment and Forestry to involve women in environmental management, including access to water resource management.

Ci Tarum or Citarum is the longest and largest river in the Tatar Pasundan region of West Java Province, Indonesia. This historically, economically, and socially significant river has been one of the most polluted rivers in the world since 2007. The river plays a crucial role in the lives

¹ Rumah.com, "Pengertian Pencemaran Air, Penyebab, Jenis, Dan Dampak Buruknya."

² Keegan, "Perubahan Iklim: Sungai-Sungai Yang 'Mengembuskan' Gas Rumah Kaca."

³ OECD, "Gender and the Environment: Building Evidence and Policies to Achieve the SDGs."

of the West Java community, supporting agriculture, water supply, fisheries, industry, waste disposal, and electricity for 25 million people. Millions of people directly depend on this river for their livelihoods.⁴ The major sources of pollution in the Citarum River come from domestic pollution, such as household wastewater and garbage, followed by pollution from livestock, industry, and fisheries.⁵

River restoration is crucial because poor sanitation, unhygienic behavior, and unsafe drinking water contribute to 88 percent of child deaths due to diarrhea worldwide. In addition to sanitation and hygiene behavior, poverty is also a significant factor driving the need for river restoration by the surrounding communities, as women are the most affected group in terms of access to clean water and sanitation. Such programs can accelerate gender mainstreaming in the environmental management sector, particularly water resources, and can act as agents of change to facilitate and introduce gender lens analysis in discussions, idea exchanges, and perspectives related to strategic issues in water management.

Women are recognized to have an equal role in the protection and management of the environment. In the context of climate change, for instance, internationally, the UNFCCC acknowledges the importance of equal participation between women and men in gender-responsive climate policies through a specific agenda addressing gender issues and climate change, including its incorporation into the Paris Agreement. However, to date, the role of women tends to be overlooked, both at the local and national levels.

Global water and sanitation practitioners have increasingly acknowledged the significance of integrating a gender perspective into water and sanitation issues. This recognition is grounded in the observation that women often play primary roles as users, providers, and managers of water within households, and are responsible for maintaining household hygiene. A gender approach provides a collaborative framework for both men and women, allowing their insights and abilities to jointly shape programs and achieve the goals of the water sector.⁶ In societal practices, however, men typically hold property ownership, head households, and dominate decision-making in public spaces, leading to the marginalization of women's perspectives and preferences.

Researchers employed a qualitative research method for this study. Qualitative methods were chosen to focus on natural and social settings, aiming to uncover the underlying meanings of emotions, motivations, and other aspects of human life, both at the individual and group levels.⁷ Ensuring validity involved triangulation across different sources, places, and times, incorporating various methods such as continuous observations, documentation, and interviews.⁸ The qualitative research aimed to comprehend phenomena experienced by research subjects,

⁴ Open Data Jabar, "Sungai Citarum."

⁵ Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, "KLHK Jelaskan Penanganan Pencemaran Sungai Citarum, Cisadane, Dan Ciujung."

⁶ Rohendi, "Peran Perempuan Dalam Konservasi Air Rumah Tangga."

⁷ Hillebrand and Berg, *Qualitative Research Methods for the Social Sciences*.

⁸ Woods, *Successful Writing for Qualitative Researchers*.

including behavior, perceptions, motivation, and activities.⁹ The research process included essential steps such as formulating questions and procedures, collecting specific data from participants, analyzing data inductively from specific to general themes, and interpreting the meaning of the data.¹⁰

The research design employed descriptive analysis, a method focused on describing, recording, analyzing, and interpreting existing conditions. Descriptive analysis aims to gather information about the current situation and examine relationships between variables.¹¹ This type of descriptive research was chosen for its qualitative nature, prioritizing descriptive data in the form of reports and descriptions while not excluding quantitative data.

Discussion

a. Ecofeminism, Empowerment and Gender Mainstreaming in Indonesia

According to ecofeminism, there is a bond between people and all of nature, including plants and animals. This viewpoint clarifies that people don't acknowledge that we ought to take responsibility for what occurs on Earth. As a result, people frequently overuse nature, create Weapon Mass Destruction /WMDs, and contaminate the ecosystem with other kinds of pollutants.¹²

The concept of ecofeminism asserts that feminism and ecological issues are conceptually, symbolically, and linguistically related. Karen J. Warren, in Tong¹³ argues that the Western mindset is shaped by an oppressive patriarchal framework of thinking that encompasses fundamental beliefs, values, and human assumptions about their surroundings:

- Hierarchical thinking framework: This refers to the concept that there are people above and below, and that people in the top position will have more rank, prestige, benefits, and privileges than people in lesser positions.
- Dualist mindset: distinguishing between two things while maintaining the mindset that they are mutually incompatible, diametrically opposed, and do not enhance one another. Men are seen to identify more rationally, whilst women are thought to identify more emotionally.
- Domination Logic: provides an argument or justifies for subordination.

Moreover, ecofeminism maintains that women and the natural world are interconnected. These two people are frequently seen as objects and treated as inferiors. In this instance, males rule not only the natural world but also other genders—in this example, women. Warren contends that nature has been feminized and women have been "naturalized" in a language setting. For instance, women are frequently portrayed as bitches, pussycats, foxes, chicks, snakes, and other animals. Conversely, nature and the earth are frequently referred to as "she," with the earth being

⁹ Moleong, *Metode Penelitian Kualitatif (Edisi Revisi)*.

¹⁰ Creswell, *Research Design: Pendekatan Kualitatif, Kuantitatif, Dan Campuran*.

¹¹ Mardalis, *Model Penelitian Suatu Pendekatan Proposal*.

¹² Tong, *Feminist Thought; A More Comprehensive Introduction*, 18.

¹³ Tong, 238.

portrayed as having been raped, dominated, conquered, controlled, penetrated, and so on.¹⁴

Hence, males have a power to do to women what they do to nature. Consequently, the emancipation of women and nature are interdependent, as the former would not materialize without the latter's dominance over the former. One may argue that ecofeminism views women's emancipation as an all-encompassing concept, given that socioeconomic restructuring and a reshaping of human perceptions of nature are necessary.¹⁵

Ecofeminism is believed to be a subset of ecological ethics, with origins in environmentalist philosophy.¹⁶ Françoise d'Eaubonne is credited with coining the term ecofeminism. He disclosed that the repression or oppression of women is directly linked to the exploitation of the natural world. It is impossible to separate the liberation of one thing from the emancipation of another.

Additionally, ecofeminism's four primary tenets were added by Karen J. Warren¹⁷:

- There is a significant link between environmental injustice and the oppression of women.
- In order to comprehend injustice against women and oppression against nature, it is crucial to comprehend the inherent link between the two.
- An ecological viewpoint has to be included by feminists in both theory and practice.
- A gender perspective is necessary for finding solutions to ecological issues.

Although ecofeminism has many sub-disciplines, including natural, spiritual, transformative, global, and vegetarian ecofeminists, all of them concur that people and non-human creatures and plants are interconnected. However, we frequently harm nature because we neglect our interactions with other non-human animals. Despite the fact that the earth is both our home and our origin.¹⁸

Economic empowerment is a critical issue in strategies aimed at alleviating poverty, conceptualized as being triggered by various factors, including disparities in resource ownership. Imbalances in income distribution, both in terms of quality and availability of resources and assets, contribute to poverty. Women and men face inequalities, with women having lower access to education, finance, and employment compared to men.¹⁹

The World Economic Forum's (WEF) Global Gender Gap Report provides insights into the ranking of Indonesia in terms of gender equality. In 2022, Indonesia achieved the 92nd position out of 146 countries, showcasing progress from its 101st position in the previous year.²⁰

¹⁴ Tong, 239.

¹⁵ Tong, 239.

¹⁶ Ibid.,

¹⁷ 243.

¹⁸ Tong, 264.

¹⁹ Nawawi, Soemitra, and Dalimunthe, "Women's Economic Empowerment Through Sharia Micro-Finance Institutions In Indonesia: A Qualitative Research," 255.

²⁰ Pahlevi, "Indeks Ketimpangan Gender Indonesia Menurut Elemen Pembentuknya (2022)."

Indonesia's score is influenced by a very low gender empowerment index in the political field, scoring 0.169, which is below the global average. In the areas of economic participation and opportunities, Indonesia scores 0.674, within the global average range. Meanwhile, in education and health, Indonesia receives high scores, reaching 0.97, approaching the ideal score of 1, indicating full equality.²¹

In terms of policy implementation, since 2000, Presidential Instruction No. 9 on Gender Mainstreaming has instructed all state officials up to the mayor level to implement gender mainstreaming. The National Development Program also states that national development must be based on a gender perspective to achieve equality and gender justice in family, society, and the state.²²

Women's empowerment aims at one thing, which is independence. Independence enables women to fend for themselves for their own livelihood. The current condition, where women's knowledge, skills, and creativity are low, leads to disempowerment, ultimately resulting in poverty. Therefore, assistance in the form of business capital, savings and loan programs, cooperatives, and other initiatives is needed to enhance women's income.²³

Economic empowerment is not only about economic aspects but is also related to capacity building. This allows women to have more power in decision-making and the ability to produce something beneficial. It all begins with increasing women's income, giving them a stronger position in decision-making, both within and outside the household.²⁴

Riant Nugroho (2008), as cited by Marthalina in 2018, presents four indicators of empowerment. First is access, encompassing equal rights to access productive resources. Second is participation, involving the involvement of various parties in utilizing limited resources. Third is control, where both men and women have equal control over resource utilization. The last is benefit, emphasizing the need for fair and equitable enjoyment of the outcomes of resource utilization by both genders.²⁵ Furthermore, to implement empowerment as explained above, three steps must be followed: prioritization, preparation, and protection. First, prioritization means that women, as the ones to be empowered, should be given higher priority. Second, preparation involves equipping women with the skills until they can fulfill the four empowerment indicators: accessing, participating, controlling, and utilizing resources. Lastly, protection means continuously providing protection until those who are to be empowered, in this case women, truly become empowered and self-reliant, eliminating the need for protection. In this context, Marthalina concludes that empowerment is a process that enhances strength, acquires, and provides power, from those who have power to those who lack or are not empowered.²⁶

²¹ Pahlevi.

²² Sutisna, "Through Community Educational Service," 472.

²³ Hasanah, "Pemberdayaan Perempuan Melalui Kegiatan Ekonomi Berkeadilan (Simpan Pinjam Syariah Perempuan)," 73.

²⁴ Hasanah, 76.

²⁵ Marthalina, "Pemberdayaan Perempuan Dalam Mendukung Usaha Mikro, Kecil, Dan Menengah (UMKM) Di Indonesia."

²⁶ Marthalina, 64.

Women's empowerment should be seen as an improvement in the overall well-being of society due to the dual roles often placed on women. Women's empowerment is necessary to enhance and actualize women's potential, enabling them to become independent, elevate their status through increased education and skills, and have bargaining power to liberate themselves from oppression in various fields, including politics, economics, socio-cultural, and legal aspects. Collaboration and cooperation with other parties, such as non-governmental or private organizations, are essential, for example, to expand business networks. Additionally, the adaptation of technology is needed to enhance the role and capacity of women through education and training.²⁷

Kushandajani (2019) revealed in her research in Lerep Village that in the political field, women are often not positioned as decision-makers. Society has constructed the role of men or husbands as the primary decision-makers. In rural life, for example, only husbands are present in decision-making meetings in the village, and they are considered to represent the voice of the entire family. Even when women hold positions such as secretaries, they are still not positioned in the decision-making process. Conversely, in other fields such as social and economic aspects, women have dominant roles in rural areas and are active in both areas, while men are considered too busy to work outside the home and are represented by their wives.²⁸

According to the OECD in 2008, as cited in Firmansyah and Sihaloho, women's empowerment and economic growth are closely intertwined. They mutually influence each other, as robust economic growth contributes to reducing gender inequality, and empowered women can enhance economic development. With women constituting nearly half of Indonesia's population, gender inequality is not only a social issue but also an economic challenge. If their potential is hindered, the nation's economy will also decline. Providing equal access to women can significantly contribute to reducing global poverty.²⁹

b. Gender-Based Approach to Sanitation and Hygiene

Access to sanitation and hygiene also requires a gender-based approach. Establishing gender-responsive sanitation can commence in schools, involving the provision of clean toilets and promoting cleanliness in classrooms, especially for adolescent girls, which can help mitigate the impact of various diseases. It is regrettable that each year, over 2.2 million people in developing countries die from diseases related to access to clean water, as well as issues of hygiene and proper sanitation. These diseases are preventable if sanitation issues related to cleanliness and water management are more attentively addressed.³⁰ It is crucial to enhance women's capabilities through training related to hygiene education, social development, sanitation, water availability, and more. As household water managers, women play a vital role in decision-making related to water. Women's roles in water management are often

²⁷ Purnamawati, I Gusti Ayu; Utama, "WOMEN'S EMPOWERMENT STRATEGIES TO IMPROVE THEIR ROLE IN FAMILIES AND SOCIETY," 125.

²⁸ Kushandajani, "Social and Economic Empowerment for Village Women as a Strategy of Village Development," 5.

²⁹ Firmansyah and Sihaloho, "The Effects of Women Empowerment on Indonesia's Regional Economic Growth," 12.

³⁰ UN WATER, "Gender, Water and Sanitation: A Policy Brief," 5.

underestimated, despite both genders having equal voices and rights.³¹

Daru Setyorini, a researcher from the Ecological Observation and Wetlands Conservation (Ecoton), highlighted the crucial role of women in environmental conservation, emphasizing that this role needs to be strengthened. Women, being household figures, influence consumption patterns and can control waste production. Women, especially mothers and daughters, usually take responsibility for maintaining household cleanliness, underscoring the importance of enhancing women's knowledge. Daru stated that the challenge in addressing waste and river pollution issues lies in the lack of understanding and concern among the community regarding rivers as a source of life, not just a dumping ground. Additionally, industries and governments often contribute to environmental damage by neglecting the issue.³²

In the WASH (Water Sanitation and Hygiene) practice, the involvement of women and children is essential. Empowering women as primary figures in WASH promotes household health. Given women's natural biological processes, such as menstruation, providing accurate information from an early age is crucial for understanding menstruation and maintaining personal hygiene.³³

At the household level, women and children are often in charge of taking care of the family, therefore educating women and girls about illness prevention may start at home. According to Karen J. Warren in Tong, there is a strong connection between women's oppression and environmental injustice, and a gender perspective is essential for resolving ecological problems.³⁴ As is widely recognized, Indonesia has a very strong patriarchal society. Girls and women are in an inferior position, so they take care of the house. Water management is a daily task for women in Indonesia, as they handle practically every aspect of home chores. Women's involvement and importance in environmental and water-related matters are thus necessary.

Women may be particularly affected by water scarcity, whether it is brought on by natural catastrophes or other causes. Women and children must walk longer to obtain water when there is a shortage. In addition, women are typically negatively impacted by disasters for a longer period because of systemic gender inequality, which prevents them from having adequate time or resources to deal with trauma. For instance, women were compelled to cook with floodwater during Mozambique's 2000 floods, which eventually raised the danger of infectious infections.³⁵

An example of women's involvement in river water management in Indonesia was demonstrated by *Komunitas Pejuang Kali Surabaya*. A group of 40 women from this community embarked on a river expedition in Surabaya from August 17-22, 2020, covering the stretch from Wringinanom in Gresik Regency to Jagir Wonokromo. During the River Trek Expedition, they observed waste accumulation, noted the prevalence of illegal structures, and reported these findings. The community emphasized the need for government commitment to providing adequate waste disposal facilities. According to them, it's not just about raising public

³¹ UN WATER, 6–7.

³² Riski, “Menguatkan Peran Perempuan Untuk Melindungi Sungai Dari Pencemaran.”

³³ Morna and UNWomen, “Mainstreaming Gender in Water and Sanitation Sector in Covid-19 Response.”

³⁴ Tong, *Feminist Thought: A More Comprehensive Introduction*, 243.

³⁵ UN WATER, “Gender, Water and Sanitation: A Policy Brief,” 10.

awareness but also ensuring the availability of facilities. They also stressed the importance of involving stakeholders such as experts in various fields like environmental science, sociology, and more.³⁶

c. 'Citarum Harum' and Regional Government's Initiative

Citarum Harum is a project aimed at addressing issues in the Citarum River, the longest river in West Java, with a target to improve its water quality to meet drinking standards. There have been changes in the water quality index indicators of the Citarum River, shifting from 'heavily polluted' to 'lightly polluted.' The program, outlined in Presidential Regulation No. 15 of 2018 on Accelerating Pollution Control and Damage Control of the Citarum River Basin, is scheduled to conclude in 2025. However, challenges persist in the Citarum area. The Citarum River is a lifeline for the people of West Java. The demand for clean water is increasing, parallel to urban population growth. The industrial demand for the Citarum River is also high, given the anticipated growth of industries in the future. Additionally, the river powers three hydropower plants in three reservoirs that provide electricity to illuminate and drive Java and Bali. Beyond that, the river contributes approximately 20 percent of the national rice stock from the northern part of West Java.³⁷

Governor of West Java, Ridwan Kamil (RK), presented the restoration of the Citarum River Basin at COP-26, the Climate Change Conference, in Glasgow, Scotland in 2021. Serving as a speaker at a COP26 side event, Ridwan Kamil highlighted the progress of the Citarum River, which is no longer considered the most polluted river globally. Governor of West Java, RK, has been appointed as the Commander of the Task Force for Pollution Control and Damage Control (PPK) of the Citarum River Basin. During the event, RK emphasized the application of the Pentahelix concept (Academia, Business, Community, Government, Media) to synergize in the project. Notable innovations, as per RK's interview with Mongabay Indonesia, include³⁸:

- a. Mandating businesses to install SPARING (*Sistem Pemantauan Kualitas Air Limbah secara Terus Menerus dalam Jaringan/Continuous Monitoring System for Wastewater Quality in Networks*). This ensures that liquid waste emissions from factories are continuously monitored.
- b. Establishing the Command Center for the Citarum Task Force. The Command Center monitors water quality in real time and integrates spatial data to provide comprehensive solutions.
- c. Integrating digital data with the industrial compliance information system. This system records inspection outcomes and allows for sharing with the public.
- d. Incorporating early warning systems into online monitoring in case of sudden pollution conditions, enabling swift tracing and follow-up actions for the pollution source.

To address the critical issues of pollution and damage in the Citarum River Basin, project

³⁶ Riski, "Menguatkan Peran Perempuan Untuk Melindungi Sungai Dari Pencemaran."

³⁷ Iqbal, "Pemulihan Sungai Citarum, Kisah Lama Dalam Cerita Baru (Bagian 5)."

³⁸ Iqbal.

funding is sourced from loans issued by Bappenas and ADB, amounting to approximately IDR 9.1 trillion. According to Governor RK, the ICWRMIP project (Integrated Citarum Water Resource Management Investment Program/ Citarum Roadmap) is necessary despite foreign loans. Such projects require substantial funding, and relying solely on the government budget might prolong implementation. In the initial phase, the project is designated as Technical Assistance, making it a grant. Subsequent phases involve infrastructure development financed through foreign loans.³⁹

The decision to seek foreign loans is also driven by the fact that the budget allocated for environmental purposes would not suffice for the Citarum Harum project. RK stated that the West Java Environmental Agency, within its jurisdiction, is tasked with supporting regional organizations in achieving Sustainable Development Goals (SDGs). There is a specific operational cost exception for regional waste management. RK aims to continually enhance the Air Quality Index by improving industrial compliance in waste management, managing livestock waste, eliminating community behaviors of disposing waste into rivers, and optimizing the performance of the Citarum River Basin Pollution Control and Damage Control Task Force by applying the Pentahelix concept.⁴⁰

The Citarum Command Center is a technological initiative designed to monitor and integrate various data related to the Citarum River. While it plays a crucial role in accelerating the recovery of the Citarum, its primary objective is to serve as a foundation for decision-making. This data hub provides solutions to issues that have traditionally been dealt with using conventional methods.⁴¹

One of the online platforms within this initiative is the One Map Policy application, presenting spatially based information. This unified mapping policy serves as a reference for stakeholders involved in decision-making related to the Citarum, with its progress visible to the public.⁴² Another application is E-Monev-Sislaphar, a reporting platform for the Citarum Task Force's Commitment Officer. It is intended for planning reporting, monitoring implementation, and periodic program evaluations. This data is confidential and not yet public.⁴³

The Task Force also possesses Onlimo, an information tool capable of displaying river water quality data. Onlimo is directly connected to parameters such as pH, BOD, COD, among others, and is also linked to the SPARING application of the Ministry of Environment and Forestry. This app is traditionally used to detect industrial liquid waste discharge through water debit and water level sensors. As a result, water quality data can be updated in real-time and online. Waste can be promptly detected, and information can be relayed to sector commanders, enabling immediate action against polluting industries.⁴⁴

³⁹ Iqbal.

⁴⁰ Iqbal.

⁴¹ Iqbal, "Pemulihan Citarum Untuk Dunia (Bagian 1)."

⁴² Iqbal.

⁴³ Iqbal.

⁴⁴ Iqbal.

d. Women's Involvement in the 'Citarum Harum' Policy

Women and children are particularly vulnerable to pollution issues in the Citarum River, with women being more exposed to river activities such as washing clothes, food items, and various daily necessities. The risk of diseases arises directly from bacteria like *E. coli* or indirectly due to exposure to heavy metals from consumed fish. Government intervention remains crucial as public awareness programs are on the decline, specifically regarding the dangers associated with water quality vulnerabilities.⁴⁵

This article emphasizes that women should be consulted first and, in more detail, when formulating policies related to water. Women are extensively involved in managing water for household needs. It is time for policy-making doors to be open to women, who serve as a valuable source of knowledge and a vital link concerning water. Spatial planning, including the arrangement of the Citarum River, should be critically reassessed to determine the adequacy of women's involvement, as decision-makers in bureaucratic levels are predominantly male.⁴⁶

The appointment of Colonel CAJ (K) Nurjanah Suat since October 2022 as the commander of sector 7 brings a fresh perspective to the management of the Citarum Harum Task Force. Notably, she is the first female sector commander assigned to oversee the Citarum River. Sector 7 covers a 16 km stretch of the river from Dayeuhkolot to Pangauban in Bandung Regency, including its 25 tributaries. As a woman, she involves the role of mothers in empowering the Citarum River for optimal sustainability.⁴⁷

Nurjanah's initiatives encompass a multifaceted approach to addressing environmental and community concerns in sector 7 of the Citarum River. She actively promotes environmentally conscious practices among women, emphasizing the importance of sustainable living and contributing to the overall well-being of the community. Firstly, Nurjanah encourages the use of environmentally friendly detergents among women in the community. This not only reduces the ecological impact of water pollutants but also aligns with a broader commitment to sustainable consumption practices. Furthermore, she advocates against the direct disposal of waste into the Citarum River. This call for responsible waste management underscores the need for a cleaner river ecosystem. Nurjanah's emphasis on waste reduction aligns with broader environmental goals and fosters a sense of responsibility among the community members.

A unique aspect of Nurjanah's approach is the encouragement of women to establish pharmacies and grocery stores in their residential areas and along the riverbanks. This initiative serves a dual purpose: providing essential services to the community and creating safe spaces for cultivating vegetables. By promoting local food production, Nurjanah aims to enhance food security, making the community less dependent on external sources.

The mandatory cultivation of corn in each sub-sector is a strategic move to ensure a stable and accessible food supply for the residents of sector 7. This agricultural initiative aligns with broader sustainability goals and contributes to the resilience of the community in the face of

⁴⁵ Azizah, "Menyimak Ricik Citarum Dari Sosok Perempuan."

⁴⁶ Azizah.

⁴⁷ Citarum, "KOMANDAN SEKTOR PEREMPUAN PERTAMA SIAPKAN GEBRAKAN PEMBERDAYAAN PEREMPUAN UNTUK CITARUM."

potential food shortages. Additionally, Nurjanah introduces environmentally friendly stoves fueled by waste to women in sector 7. This innovation not only addresses the issue of waste management but also promotes a sustainable and renewable energy source. The utilization of waste as fuel not only minimizes environmental impact but also offers a practical solution to enhance cooking efficiency.

On Sector 7, under Nurjanah's leadership, underscores the pivotal role of women in environmental conservation. By actively involving women in these initiatives, she highlights their potential as agents of positive change and acknowledges their importance in the ongoing efforts to preserve the Citarum River. Nurjanah's holistic approach demonstrates a commitment to sustainable living, community empowerment, and environmental stewardship.⁴⁸

In Indonesia, a gender perspective is needed to address the issue of water contamination. As previously indicated in the Citarum Harum program the authors believed that the actions conducted are reactive and use a minimum gender approach. Given its low political Gender Gap score, Indonesia is a prime example of the Ecofeminist viewpoint, which links environmental issues to the problems of gender equality.

This study revealed that issues that were once related to the environment or water were not separate issues, but rather a component of the larger issue of patriarchy. Supporting women's equality in local decision-making is crucial because advancing the water and sanitation sector's overarching objectives is to advance children's survival and development as well as the behavioural shifts necessary to fully take advantage of the benefits of these services. Realizing women's equality in decision-making is essential since, naturally, achieving this objective would not be possible without the full involvement of women. Women will need to fully participate since they carry most of the responsibility for clean water.

Economic expansion and women's empowerment are intimately related. Both have an impact on one another, and strong economic expansion will lower the degree of gender disparity. However, empowered women will have the ability to enhance the economy as a whole. Due to the fact that women make up over half of Indonesia's population, gender inequality is both a social and economic issue. The nation's economy will suffer if they are unable to reach their full potential. Giving women equal access will greatly contribute to the reduction of global poverty.

The goal of women's empowerment is independence. Women will be able to aid themselves for their own survival once they are independent. Women are now oppressed due to their low levels of creativity and expertise. Women are forced into poverty by their lack of authority. Economic empowerment will boost capacity in addition to the economy, giving women more influence over decisions and the ability to create valuable output. The woman's income is the first factor in all of this since it gives her negotiating power in decisions made both within and outside the home.⁴⁹

⁴⁸ Citarum.

⁴⁹ Hasanah, "Pemberdayaan Perempuan Melalui Kegiatan Ekonomi Berkeadilan (Simpan Pinjam Syariah Perempuan)," 73–76.

e. United Nations Water's Recommendations on Gender-Responsive Water Management Policies

As we have explained, as woman like Nurjanah is being appointed as leader in Sector 7 was a great start, yet the policies that are gender-friendly at all levels should be part of the anticipated solutions rather than being interim and reactionary. The authors proposed that we should research the advice from another organization that has expertise regarding issues connected to gender and water, in this case, United Nations Water (UN Water).

UN Water, a UN agency addressing water issues, aims to solve water and sanitation problems as part of the 6th Sustainable Development Goal, achievable by 2030. In addition to campaigns, data provision, and monitoring, the organization also offers various policy recommendations. Therefore, to achieve gender equality in managing safe and adequate water and sanitation, UN Water recommends involving women and men directly at various levels, including national, regional, community, organizational, and so on. It is reasonable to anticipate that certain UN Water policy recommendations could be implemented in Indonesia with modifications made to account for the specific circumstances, especially for Citarum Harum Program.

Several policies can be implemented at the National Government level, requiring a strong commitment to sanitation and water programs in government strategies, and incorporating a gender perspective into these agendas.⁵⁰ The authors have curated some of the policies that can be implemented by the National Government, Local Government, Communities, and Donors are summarized in the following points, starting with policies by the National Government:

- a. Managing resources to increase access to clean water and sanitation.
- b. Facilitating access to grants, loans, or resources needed for women's groups, NGOs, or small-scale clean water providers to maintain the availability of clean water and sanitation facilities.
- c. Strengthening rules, laws, and legislation related to access to land and water used for production purposes.
- d. Recognizing the crucial role of women in agriculture and fisheries, assisting them in gaining access to clean water and land ownership rights.
- e. Supporting and promoting women in decision-making positions and land ownership.
- f. Enhancing women's productivity in water use for agriculture and small businesses through training, market access, and information access.
- g. Strengthening the national framework for gender-responsive sanitation.
- h. Providing funds for hygiene facilities in schools and separating sanitation facilities for men and women.
- i. Conducting gender-based research to identify any community groups still lacking access to sanitation.
- j. Setting minimum percentage limits for women's participation in decision-making at various levels, from ministries to villages.

⁵⁰ UN WATER, "Gender , Water and Sanitation : A Policy Brief," 11.

- k. Helping facilitate gender-based research in water resource management.
- l. Allocating funds to enhance the capacity of both boys and girls.

As mandated by the 1945 Constitution of Indonesia, which states that 'the earth, water, and natural resources must be managed by the government and used to the greatest extent for the benefit of the people', the national government should shift towards direct water management and reconsider privatization efforts. The authors emphasize the need for strong regulations or legislation concerning water management. Additionally, land ownership and water facilities for agriculture or fisheries, especially in Indonesia as an agrarian country, should be given attention. The ownership of land by women is crucial to empower them in water management. Various studies supporting the achievement of Sustainable Development Goals (SDGs), such as gender equality, water, and sanitation governance, should be prioritized by the government for financial support and facilities to formulate data-driven and scientifically researched policies.

For Regional/Local level policies, the authors have curated some of the recommendation of UN Water:

- a. Advocating for gender mainstreaming at the local government and community levels.
- b. Promoting education on women's hygiene.
- c. Designing and implementing capacity-building initiatives tailored to the specific needs of both men and women in water, sanitation, and health education programs.
- d. Eliminating gender stigma and discrimination within public sector organizations.
- e. Advocating for budgets that are gender-sensitive, allowing local or village governments to align with policies based on gender equality values.

Promotion of gender mainstreaming requires long-term efforts to raise awareness in society. Despite the government's initiatives to improve the quality of life for women and strengthen the institutional capacity for gender mainstreaming, there is still a gap between the rights of men and women. Moreover, many communities remain patriarchal due to a lack of accommodation regarding the importance of equality between women and men. Promotional activities can help eliminate gender stigma and discrimination within public sector organizations. Thoughtful planning is also required to implement capacity-building for sanitation and clean water tailored to the specific needs of both men and women by outlining the necessary steps.

At the community or grassroots level and within community organizations:

- a. Advocate for better services with a focus on women and children.
- b. Assist in collecting information on the roles, access, needs, priorities, and perspectives of women related to water and sanitation issues.
- c. Support gender equality in decision-making at the local level.
- d. Empower women and girls to access information, training, and everything related to water and sanitation.⁵¹

The gathering of information, especially on the roles and perspectives of women related

⁵¹ UN WATER, 12.

to water and sanitation issues, will help provide a comprehensive understanding of how women can be involved in sanitation and access to clean water programs, especially to address many problems caused by the lack of access to clean water. The importance of supporting gender equality in decision-making at the local level needs to be emphasized because, as stated by UNICEF, the overall goal of development in the water supply and sanitation sector is to promote survival and development of children and to promote behavior change that is crucial to realizing the full benefits of water and sanitation services. Gender equality in decision-making must be realized because this goal will not be achieved without full participation from women. Full participation from women is required because most responsibilities regarding clean water are borne by women.

For donors and international organizations, UN Water provides the following action plan recommendations, that we have also selected to be implemented in Indonesia especially Citarum Harum:

- a. Engage women leaders, environmental activists, scientists, ministers, to serve as role models in water management efforts.
- b. Promote gender mainstreaming in water and sanitation.
- c. Collect and share examples and develop norms and guidelines for gender mainstreaming.
- d. Invest in capacity development in the water sector, with an emphasis on empowering the less privileged.
- e. Encourage media in developed and developing countries to cover gender and water issues more comprehensively.
- f. Promote equal opportunities for men and women.
- g. Provide capacity-building for staff.
- h. Collaborate with various partners to develop a gender-sensitive water policy framework.
- i. Support the development and implementation of gender-sensitive water policies at the national and international levels.⁵²

At this level, the researchers emphasize the role of the media in highlighting sanitation and water issues, as well as women's involvement, so that awareness is raised within society. Additionally, organizations or donors and investors should be more judicious in decision-making when investing in those who truly need it, enhancing the capacity of vulnerable individuals. Collaboration with various stakeholders, including local community organizations, is also crucial to ensure that these policies are implemented at the community level. It is also important to consistently promote gender-sensitive water management policies and equality between men and women.

⁵² UN WATER, 12.

Conclusion

Gender inequality in Indonesia, as explained above, is assessed in four areas: political empowerment, participation and economic opportunities, educational achievement, and health and survival. The results show that Indonesia scores very low in the field of political empowerment, falling below the global average range. This contrasts with other areas such as health, which approaches almost perfect scores above the global average range. Indonesia's low ranking is attributed to the dismal figures in the field of political empowerment. Supported by studies and research, it is evident that Indonesia still holds strong patriarchal cultural norms, making it customary not to place women in areas related to leadership, politics, decision-making, or policy at all levels, from the most basic such as family, neighborhood associations (RT/RW), villages, and so on. This ultimately denies women access to self-development, expressing their opinions, or having their thoughts heard, especially in matters related to the mentioned fields.

Even in areas closely related to women, such as water empowerment, where women and daughters are often involved in managing water in households and daily life, decisions are still made without the involvement of mothers or wives. Although there have been various efforts to involve women, it seems insufficient and not comprehensive, and it requires encouragement from all parties. Women themselves need to be given understanding and raised awareness that their voices are important, and they can contribute ideas to gender-friendly policymaking. From this research, it is found that the issue, initially considered an environmental or water-related problem, is not singular but part of the classic problem of patriarchy. Therefore, the expected solutions cannot be short-term and reactive but should involve gender-friendly policies that touch all levels. Some recommendations from UN Water policies are to be expected to be applied in Indonesia with adjustments to suit the local context. Further research can follow up on this study by conducting quantitative studies that precisely measure women's involvement in improving river water quality.

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