

Gender Inequality in The Regulation of Mangrove Ecosystem Conservation in Surabaya City

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ABSTRACT

This study examines the injustice reflected in mangrove conservation regulations, which should ideally encourage the involvement of all parties through the concept of gender equality in the practice of mangrove ecosystem preservation in Wonorejo and Keputih Sub-Districts, Surabaya. The study employs normative legal research methods with statutory and conceptual approaches. There is a gap between the normative frameworks found in the 1945 Constitution, Law No. 32/2009, and the CEDAW Convention, and the reality on the ground. Women's participation remains limited to downstream sectors such as processing mangrove products, while upstream stages—such as seedling cultivation, planting, and decision-making—are dominated by men. Current regulations on mangrove conservation have yet to reflect a gender equality perspective. This research recommends the formulation of regional regulations (Perda) or mayoral regulations (Perwali) that explicitly facilitate women's involvement in all stages of mangrove conservation, the integration of gender-responsive approaches in regional budgeting to enhance women's technical capacities, and the strengthening of participatory mechanisms and gender-sensitive complaint channels. The implementation of gender-responsive legal strategies is expected to enhance ecological effectiveness and foster social justice in line with the principles of sustainable development.

KEYWORDS: *gender; injustice; law; mangrove.*

INTRODUCTION

The mangrove ecosystem serves a highly vital ecological function, acting as a natural barrier against coastal abrasion, seawater intrusion, and high waves, while also playing a significant role as a carbon sink in mitigating climate change. Mangrove forests further contribute to local economic sectors through fisheries activities, marine product processing, and the development of community-based ecotourism. The preservation of this ecosystem constitutes a state obligation to ensure the right to a good and healthy environment, as guaranteed under Article 28H paragraph (1) and Article 33 paragraph (4) of the 1945 Constitution of the Republic of Indonesia, and further regulated through Law Number 32 of 2009 concerning Environmental Protection and Management. The situation in Wonorejo and Keputih Subdistricts, Surabaya, demonstrates that mangrove ecosystem conservation continues to face gender-based disparities in participation. Research conducted by Wiwik Afifah and Sofyan Hadi (2025) indicates that women are primarily involved only in post-harvest processing, whereas strategic roles such as seedling cultivation, planting, maintenance, and monitoring are predominantly monopolized by men. Limited access to technical training, information, and capacity-building opportunities has marginalized women from full participation in the ecosystem production process.

This situation reflects a structural inequality that contravenes the principle of substantive equality as enshrined in Article 28D paragraph (1) and Article 28H paragraph (2) of the 1945 Constitution of the Republic of Indonesia. It also deviates from the mandate of Law Number 7 of 1984

on the Ratification of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which obliges the state to eliminate all forms of discrimination against women in public life. Furthermore, Articles 3 and 8 of Law Number 39 of 1999 on Human Rights provide the legal basis for the necessity of more equitable policy interventions. However, implementation at the regional level has yet to be fully effective. The regional regulations currently in force in the City of Surabaya still employ gender-neutral legal language in a textual sense, without incorporating affirmative strategies or specific mechanisms to address deeply rooted social and cultural gender disparities. This neutrality is merely superficial, as it fails to capture the unequal social realities and instead reinforces an unjust status quo. Local legal instruments have yet to demonstrate a commitment to gender mainstreaming strategies (PUG) as mandated by Presidential Instruction Number 9 of 2000 on Gender Mainstreaming in National Development. There is no explicit reference to the National Gender Mainstreaming Strategy, either within regional regulations, development planning documents such as the Regional Medium-Term Development Plan (RPJMD) and Strategic Plans (Renstra), or in sectoral policies related to environmental management.

The absence of legal affirmation of women's roles has resulted in symbolic and marginal participation in environmental conservation projects, including mangrove restoration initiatives. This disparity also contradicts core principles of international environmental law, such as Free, Prior and Informed Consent (FPIC) and Access and Benefit Sharing (ABS), which emphasize inclusive participation at every stage of biological resource management. (Juliana, 2016) Moreover, this issue is closely linked to the Sustainable Development Goals (SDGs), which position Goal 5 (Gender Equality) and Goal 13 (Climate Action) as integral components of fair and inclusive environmental governance. (Dheti Puspita, 2024) The failure to integrate gender perspectives into mangrove governance risks undermining progress toward these goals and exacerbating both social and ecological inequalities in coastal areas.

This condition raises a fundamental question: What legal reforms can be implemented to promote gender-equitable participation in mangrove ecosystem conservation in the subdistricts of Wonorejo and Keputih, in accordance with the principles of environmental law and gender equality?

To date, legal studies that specifically address the integration of gender equality principles in local-level mangrove conservation remain highly limited. Most existing research tends to focus on the technical aspects of mangrove rehabilitation, general community participation, or ecological approaches, without distinguishing the legal standing of men and women. This has created a significant research gap—namely, the absence of normative elaboration that positions gender as a central issue in legal reform for mangrove ecosystem conservation. This research aims to formulate legal reforms that promote gender-equitable participation in the conservation of the mangrove ecosystem in the subdistricts of Wonorejo and Keputih, based on the principles of environmental law and gender justice. Another objective is to develop normative arguments that can serve as the foundation for enacting progressive, affirmative, and gender-responsive regional regulations. This study also seeks to contribute academically and provide legal recommendations useful to policymakers, particularly in drafting Regional Regulations or Mayoral Regulations in Surabaya that foster structural transformation toward inclusive and sustainable environmental conservation.

METHODOLOGY

This research is a normative legal study. According to Peter Mahmud Marzuki, legal research is a process of identifying legal rules, legal principles, and legal doctrines to answer the legal issues at hand (know-how). (Marzuki, 2017) The outcome of this research is to provide a prescriptive response to the legal problems formulated. Resolving a legal issue requires the use of various approaches as the basis for obtaining information from multiple perspectives. This research employs three types of approaches: the statute approach and the conceptual approach. Statute Approach, in addressing legal issues in greater depth, the statute approach is applied by examining relevant laws and regulations. This approach allows the researcher to analyze the consistency and coherence

between one legal instrument and another. Conceptual Approach, the conceptual approach is based on legal doctrines and scholarly perspectives that have developed within the field of law. This approach facilitates the formulation of legal definitions, legal concepts, and legal principles that serve as the foundation for constructing legal arguments. This research is normative legal research; thus, the legal materials used consist of primary and secondary legal materials. Primary legal materials are authoritative sources, meaning they carry legal authority. Secondary legal materials include all legal publications that are not official legal documents. The sources and types of legal materials used in this study are categorized into two types: primary legal materials and secondary legal materials.

a. Primary Legal Materials

The primary legal materials used in this research consist of statutes and regulations relevant to the research topic. These include:

1. The 1945 Constitution of the Republic of Indonesia
2. Law Number 32 of 2009 on Environmental Protection and Management
3. Law Number 39 of 1999 on Human Rights
4. Law Number 7 of 1984 on the Ratification of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)
5. Presidential Instruction Number 9 of 2000 on Gender Mainstreaming in National Development
6. Surabaya Mayor Regulation Number 65 of 2011 on the Supervision and Control of the Mangrove Area in the City of Surabaya

b. Secondary Legal Materials

Secondary legal materials are those that support the primary legal materials and are relevant to the research, such as textbooks—especially those on legal issues related to the research topic—as well as scholarly articles and legal journals.

The technique for collecting and processing legal materials is carried out through the method of inventory and categorization of legal sources. For primary legal materials, the process involves collecting and inventorying laws and regulations related to the legal issues under study. These legal sources include legislation and regulations, as well as delegated legislation and delegated regulations. Similarly, secondary legal materials consist of all legal publications that are not official legal documents, such as books and scholarly articles that are relevant to this research.

RESULTS AND DISCUSSION

A. Legal Issues and Gender Inequality in the Conservation of Mangrove Ecosystems in Coastal Areas

Mangrove forests are ecosystems composed of trees and shrubs that grow in coastal areas, particularly in tropical and subtropical regions. These forests are typically located between the high-tide and low-tide marks and possess unique characteristics that distinguish them from other ecosystems. Mangrove forests consist of tree species capable of surviving in saline and waterlogged environments, such as *Rhizophora*, *Avicennia*, and *Sonneratia*. Mangrove roots often have distinctive structures, such as pneumatophores, which protrude above the soil surface to facilitate oxygen intake. (Dheti Puspita, 2024) Mangrove forests serve as critical habitats for a wide range of flora and fauna, including fish, birds, and invertebrates, all of which depend on this ecosystem for survival.

The mangrove ecosystem plays a highly strategic and irreplaceable ecological role in maintaining the balance of coastal environments. This area provides a range of essential ecosystem services, including functioning as a natural barrier against coastal abrasion caused by ocean waves, buffering strong wind gusts, and filtering seawater intrusion into inland areas. Additionally, mangrove forests have the capacity to absorb toxic heavy metals and other pollutants, regulate microclimates, and store significant amounts of carbon. Ecologically, mangroves serve as critical habitats for various marine organisms, acting as feeding grounds, nursery grounds, spawning grounds, and migratory stopover sites for numerous bird species. (Hironori Arai et al., 2021) Given

these multifunctional roles, the presence of mangrove forests is crucial to the quality and sustainability of coastal environments. Geographically, mangrove forests are generally distributed in tropical and subtropical regions, between approximately 32° North and 38° South latitude. (Hironori Arai et al., 2021)

In addition, from a scientific perspective, mangroves possess a high capacity for absorbing and storing large amounts of carbon through the process of carbon sequestration, making them highly effective natural carbon sinks in the context of global climate change mitigation efforts. This capability not only reduces the concentration of greenhouse gases in the atmosphere but also contributes significantly to the achievement of Indonesia's commitments under the Nationally Determined Contributions (NDCs) as mandated by the Paris Agreement. (Hironori Arai et al., 2021) Furthermore, the complex root structure of mangroves serves as a natural barrier against coastal abrasion, extreme wave action, and seawater intrusion into inland areas. As such, the mangrove ecosystem functions as a vital buffer system for maintaining the stability of coastal zones, including the protection of residential areas, infrastructure, and agricultural land along the shoreline.

In addition to its high ecological value, the mangrove ecosystem also holds significant socio-economic functions, particularly for coastal communities that rely on surrounding natural resources for their livelihoods. Mangroves support the local economy through fisheries (such as crabs, shrimp, and fish), the provision of traditional raw materials (for example, for medicinal purposes or local construction), as well as the development of community-based ecotourism. This role positions mangroves as an essential component of local food security systems, as they provide natural habitats for marine biota that constitute the main source of protein for coastal populations. The socio-economic value of mangroves underscores that their conservation cannot be regarded merely as a technocratic environmental policy. Rather, the preservation of mangrove ecosystems forms part of the guarantee of socio-economic welfare rights for the people rights that are constitutionally protected under Article 28C paragraph (1) and Article 34 of the 1945 Constitution of the Republic of Indonesia, as well as the principle of the welfare state as reflected in Article 33 paragraph (4), which emphasizes sustainable and socially just development.

Furthermore, the legal approach to mangrove management must accommodate social justice by ensuring space for the participation of local communities in the formulation, implementation, and monitoring of environmental policies. This aligns with the principle of Environmental Justice, which demands the fair distribution of environmental benefits and burdens, as well as Access and Benefit Sharing (ABS) as stipulated in the Convention on Biological Diversity (CBD 1992) and the Nagoya Protocol 2010. Vulnerable groups, particularly women, often play key roles in mangrove product processing and fisheries activities, yet are frequently marginalized in decision-making processes and benefit-sharing mechanisms. Therefore, legal instruments governing mangrove conservation must also integrate the principles of gender equality and the mainstreaming of vulnerable groups, as mandated by Presidential Regulation No. 18 of 2020 concerning the 2020–2024 National Medium-Term Development Plan (RPJMN) and national gender mainstreaming policies.

The discourse on gender inequality becomes highly relevant when examining the actual conditions in the subdistricts of Wonorejo and Keputih, Surabaya. These areas possess mangrove zones with significant ecological and economic potential, yet they continue to face serious challenges particularly in the inclusion of vulnerable groups, such as women, in conservation efforts. Although the mangrove ecosystems in Wonorejo and Keputih serve as crucial ecological buffers and sources of livelihood for coastal communities, they are currently threatened by substantial degradation. Key contributing factors include massive development pressures, unplanned land-use conversions lacking ecological considerations, and the weak integration of inclusive environmental governance. In the absence of clear and enforceable regulations, mangrove conservation efforts in these areas have thus far largely depended on voluntary initiatives by local communities.

However, community involvement in mangrove conservation still reflects structural inequality, particularly in terms of gender participation. Women who interact directly with the coastal environment in their daily lives have not been fully included across all stages of conservation activities. Their participation tends to be limited to downstream sectors, such as post-harvest

processing, while upstream processes such as seedling cultivation, planting, and monitoring remain largely dominated by men. This indicates the absence of an environmental development approach grounded in social justice and gender equality, despite the fact that inclusivity is a key component of modern legal approaches to environmental protection. Field findings from a study conducted by Wiwik Afifah and Syofyan Hadi (2025) reveal that the social construction of women's roles in mangrove conservation remains largely confined to downstream sectors, particularly the processing of harvested mangrove products. In contrast, upstream activities such as seedling cultivation, planting, maintenance, and ecosystem monitoring are predominantly carried out by men. In practice, women are excluded from the core production processes of the mangrove ecosystem, either due to a lack of access to information or the absence of sufficient opportunities for participation from the outset.

This disparity reflects a form of structural injustice in the environmental division of roles, rooted in gender stereotypes. It results in the limited capacity of women to contribute meaningfully to environmental development as a whole. Moreover, the principle of substantive equality in environmental law requires the implementation of affirmative policies that not only create space but also empower historically marginalized groups. Therefore, an ideal mangrove conservation program should be designed using an inclusive and gender-sensitive approach, ensuring fair and proportional role distribution based on individual capacities and equal access to information. Gender inequality remains a fundamental issue in environmental governance in Indonesia, including in mangrove ecosystem conservation efforts. Social realities in various coastal regions show that women are often confined to domestic roles or supporting sectors such as post-harvest processing, packaging, or other informal activities which are frequently unrecognized in institutional structures or environmental policy frameworks. On the other hand, strategic decision-making spaces concerning environmental conservation and natural resource management continue to be dominated by men, both in community forums and local government institutions. The lack of female representation in policy-making positions leads to unequal access to information, training, and resources, further reinforcing the marginalization of women's roles within environmental governance systems. (Thalita Wenifrida Massenga, 2023) Yet, numerous studies have shown that active participation by women significantly enhances the effectiveness of conservation programs and supports the long-term sustainability of environmental interventions.

From a legal perspective, this situation constitutes a violation of the principle of substantive equality, which is guaranteed by various national legal instruments, such as:

- a. **Article 28D paragraph (1) of the 1945 Constitution of the Republic of Indonesia**, which guarantees that every person has the right to recognition, guarantees, protection, and fair legal certainty, as well as equal treatment before the law;
- b. **Article 28H paragraph (2) of the 1945 Constitution**, which affirms that every person has the right to receive special facilities and treatment to obtain equal opportunities and benefits in order to achieve equality and justice;
- c. **Law No. 39 of 1999 on Human Rights**, which extends the guarantee of protection for the rights to social justice, public participation, and non-discriminatory treatment;
- d. **Law No. 7 of 1984 on the Ratification of the CEDAW Convention**, which obligates the state to eliminate discrimination against women in all aspects of life, including access to public participation and decision-making;
- e. **Law No. 32 of 2009 on Environmental Protection and Management**, which affirms that environmental management must be carried out in a sustainable, equitable, participatory, and inclusive manner.

Referring to the existing legal framework, a deeper elaboration reveals a strong legal basis for gender mainstreaming in environmental management. First, Article 28D paragraph (1) of the 1945 Constitution of the Republic of Indonesia provides a constitutional guarantee that every citizen has the right to recognition, guarantees, protection, and fair legal certainty, as well as equal treatment before the law. In the context of environmental management, this provision may be interpreted as a

constitutional foundation affirming that women have equal rights to participate in decision-making, planning, and implementation of environmental conservation activities, including mangrove management. Any exclusion or limitation of women's roles without objective and rational justification may constitute a form of legal injustice and a violation of the principle of equal rights. Second, Article 28H paragraph (2) of the 1945 Constitution of the Republic of Indonesia affirms the obligation of the state to provide special facilities and treatment to ensure that every person has equal opportunities and benefits in accessing resources and policies. This serves as a fundamental basis for the concept of substantive equality, distinguishing it from mere formal equality. In the context of mangrove conservation, women who have been structurally marginalized must be afforded affirmative action measures in order to close the gap and fairly benefit from environmental programs. Third, Law No. 39 of 1999 on Human Rights (HAM Law). This law broadens the guarantee of protection for rights related to social justice, public participation, and non-discriminatory treatment, as provided in:

- a. *Article 3 paragraph (2):* "Every person shall be entitled to equal treatment before the law and government and shall have the right to legal protection without any discrimination."
- b. *Article 44:* "Every person shall have the right to participate in the implementation, supervision, and decision-making processes relating to public life, either directly or indirectly."
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The inequality observed in practice where women are only involved in the post-harvest processing stage and excluded from seedling, planting, and ecosystem monitoring activities reflects structural discrimination that undermines women's civil rights in the environmental sector. In this regard, the City of Surabaya may be deemed negligent in ensuring the fulfillment of women's right to meaningful participation. Fourth, Law No. 7 of 1984 on the Ratification of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). As a manifestation of Indonesia's commitment to international legal instruments, this law obligates the state to eliminate all forms of discrimination against women in all areas of life, including the right to participate in public decision-making and access to development resources. In relation to environmental conservation, this law emphasizes that the state must ensure the active involvement of women in all stages of planning, implementation, and evaluation of environmental policies. Thus, the exclusion of women from the processes of planning, training, and decision-making in mangrove conservation constitutes a violation of the right to participation as guaranteed under the Environmental Protection and Management Law (PPLH Law). This reflects that the State both at the central and regional levels bears a legal obligation to create equal participatory spaces for all stakeholders, including women and other vulnerable groups.

This disparity also contradicts the principles of Free, Prior, and Informed Consent (FPIC) and Access and Benefit Sharing (ABS) under international environmental law, which emphasize the importance of inclusive participation by all parties—including vulnerable groups and women in every stage of decision-making related to the management of biological resources. The FPIC principle refers to the right to voluntary and informed participation prior to any decision-making, as recognized in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and widely applied across various sustainable development instruments. Meanwhile, the ABS principle, as enshrined in the Convention on Biological Diversity (CBD) 1992 and the Nagoya Protocol 2010, affirms that the benefits derived from the utilization of genetic resources must be shared fairly and equitably with all contributing parties, including local communities and women. Therefore, allowing women to be left behind in environmental resource management not only undermines the effectiveness of conservation efforts but also constitutes a failure to uphold the State's constitutional mandates and international obligations in ensuring gender-sensitive ecological justice. The existing Regional Regulation (Perda) of the City of Surabaya has yet to align with the Sustainable Development Goals (SDGs) agenda, which has led to deviations from these global commitments. Goal

5 of the SDGs explicitly targets the achievement of gender equality and the empowerment of all women and girls. In the context of mangrove conservation, the issue of unequal participation between men and women reflects the following sub-goals:

- a) Target 5.5: “Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.” (Puspita, n.d.) The cases of Wonorejo and Keputih illustrate a significant disparity in roles, where women are only involved in post-harvest processing activities and are excluded from core technical activities such as seedling, planting, and monitoring. This reflects a neglect of the principle of *meaningful participation*.
- b) Target 5.a: “Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property.” (Puspita, n.d.) In the context of mangrove management, women have yet to be provided with adequate technical and educational access to productive activities, resulting in their continued marginalization in the control over natural resources.

Furthermore, Goal 13 of the Sustainable Development Goals (SDGs) emphasizes the need to “take urgent action to combat climate change and its impacts.” The mangrove ecosystem plays a vital role in climate change mitigation through its carbon sequestration function. However:

- a) Target 13.1: “Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.” (*Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development*, 2018) When women are excluded from core mangrove conservation activities, the community’s adaptive capacity becomes imbalanced, as half of the population is denied access to strategic roles. This poses a risk of weakening local ecological resilience.
- b) Target 13.b: “Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth, and local and marginalized communities.” (*Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development*, 2018) This implies that climate action strategies should be rooted in the empowerment of local women—not in their exclusion from technical activities and decision-making processes.

The core issue in Wonorejo and Keputih lies in the construction of traditional gender roles that confine women's involvement to domestic or supportive activities. Seedling, planting, and monitoring tasks are delegated exclusively to men, under the pretext that women lack technical knowledge. This reflects the presence of structural bias and discrimination which, if left unaddressed, will continue to widen the gaps in skills, participation, and access to the benefits of mangrove conservation. Ideally, the SDGs promote a cross-cutting approach that integrates climate change and social justice. (Soedjajadi Keman, 2007) However, in practice, mangrove conservation is still perceived as a purely ecological issue, with little regard for gender dimensions. Furthermore, there are no affirmative mechanisms or structured technical training programs to enhance women’s skills in mangrove conservation, and local policies have yet to integrate SDG indicators as the basis for inclusive participatory planning. (Devi Ratu Ng. D. Wulla & Muhammad Sarjan, 2024)

Most local regulations in Surabaya concerning environmental protection and community empowerment tend to employ gender-neutral legal language, meaning they do not explicitly discriminate against women. However, such formal neutrality becomes problematic when confronted with the deeply rooted structural inequalities within society. In the socio-cultural context, women are still frequently denied equal space in decision-making processes and technical involvement in environmental conservation activities, including mangrove ecosystem management. The absence of affirmative content in these legal norms results in regulations that, in effect, reinforce the status quo and fail to address systemic injustice. In other words, neutrality in legal drafting does not automatically lead to substantive equality, even though substantive equality is a foundational element of social justice and a central pillar of the sustainable development agenda. Therefore, a

merely gender-neutral legal approach must be transformed into one that is affirmative and responsive to existing social disparities.

In the context of environmental policy in the City of Surabaya, there is currently no affirmative content that specifically supports the involvement of women in mangrove conservation. There is no dedicated training allocation designed to enhance women's technical capacities, no guarantee of women's representation quotas in environmental planning and decision-making forums, and no established gender-sensitive indicators to measure program success. In fact, affirmative approaches should not be regarded as reverse discrimination, but rather as corrective strategies to address longstanding and systemic historical inequalities. The absence of such affirmative measures indicates that gender mainstreaming has yet to be fully adopted as a normative framework in the region's environmental policy, thereby impeding the realization of substantive equality and inclusive ecological justice. The structural weakness in Surabaya's local policies regarding gender mainstreaming in environmental conservation particularly in mangrove preservation is clearly evident in the absence of strong and operational normative foundations. One of the main indicators of this deficiency is the lack of explicit references to the National Strategy for Gender Mainstreaming (Stranas PUG) and Presidential Instruction No. 9 of 2000 on Gender Mainstreaming in National Development within local legal instruments. In fact, both instruments serve as national guidelines that must be adopted by all regional governments as part of their commitment to achieving gender equality across various sectors of development.

Furthermore, the principle of gender mainstreaming has yet to be adequately integrated into regional development planning documents, such as the Regional Medium-Term Development Plan (RPJMD), Strategic Plans (Renstra), and Local Environmental Action Plans. This lack of integration results in the absence of clear and measurable policy directions to ensure the active involvement of women in environmental conservation agendas. The minimal incorporation of gender perspectives reflects a broader issue that gender is not yet regarded as a critical dimension in the planning, implementation, or evaluation of local environmental policies. In addition, the absence of derivative regulations such as Mayor Regulations (Peraturan Walikota/Perwali) that technically regulate women's involvement in community-based environmental projects further hampers the implementation of equality principles on the ground. Without an operational and technical legal framework, initiatives to involve women tend to be sporadic, unstandardized, and heavily dependent on individual or community initiatives, rather than on a strong institutional system.

As a result of these various shortcomings, women's participation in mangrove conservation efforts in Surabaya remains largely symbolic and marginal. Their involvement is often confined to domestic or supporting roles such as post-harvest processing while decision-making, seedling cultivation, planting, and ecosystem monitoring continue to be dominated by men. This has led to limited influence by women over policy direction and benefit distribution within environmental programs, thereby reinforcing structural inequalities in a recurring manner. Accordingly, this issue should not be seen merely as an administrative failure, but rather as a systemic shortfall in realizing ecological and social justice within local legal frameworks. Normatively, such conditions call for a more transformative legal approach one that favors marginalized groups and promotes structural change through affirmative, participatory, and inclusive regulation.

B. Legal Reform Based on Gender Equality for the Sustainable Conservation of Mangrove Ecosystems

The prevailing gender participation disparity in the conservation of mangrove ecosystems in Surabaya, particularly in the sub-districts of Wonorejo and Keputih, indicates a normative vacuum within the framework of local environmental law. This vacuum not only reflects the absence of explicit legal provisions promoting women's involvement, but also underscores the lack of a substantive justice vision in the design of prevailing environmental policies. Legal reform of the Surabaya Municipal Regulation (*Peraturan Daerah*) on environmental conservation, specifically regarding the inclusion of women in mangrove preservation efforts, is an urgent measure required

to address this normative gap and to respond to the systemic role disparities that persist. Existing local regulations do not expressly provide affirmative measures for the inclusion of vulnerable groups particularly women across all stages of environmental governance. As a result, the current legal structure tends to fall short in delivering substantive justice, as it merely relies on normative neutrality without addressing the deeply rooted social inequalities.

This urgency is further reinforced by the necessity to ensure inclusivity in the management of natural resources and sustainable development an approach that must be oriented not solely toward environmental protection, but also toward achieving social justice for all segments of society. This aligns with the foundational principles of human rights law, environmental law, and the Sustainable Development Goals (SDGs), particularly Goal 5 (Gender Equality) and Goal 13 (Climate Action), both of which emphasize the importance of inclusion and justice in all development processes. Legal reform is therefore expected to facilitate the emergence of regulations that not only accommodate women's participation, but also provide legal protection, recognition of roles, and equitable access to and control over the benefits derived from conservation initiatives. In pursuing legal reform, a multidimensional approach is required one that integrates the theory of substantive justice, the principles of environmental governance, and a progressive legal theory that is gender-responsive. These three approaches serve as the analytical foundation for assessing the extent to which local legal systems are capable of delivering inclusive ecological justice.

The theory of substantive justice constitutes an expansion of the concept of formal justice, which merely emphasizes equality before the law. Substantive justice requires that law be understood contextually by acknowledging the social realities and structural barriers that hinder certain groups, such as women, from fully enjoying their rights. (Taufik, 2013) Justice is not measured solely by equal treatment, but by equitable outcomes that account for unequal starting positions. In the context of mangrove ecosystem conservation, this theory serves as a critical foundation for analyzing how local regulations in Surabaya may appear gender-neutral in form, yet fail to deliver justice to coastal women who have been historically marginalized in ecological production processes. (Dina N. Rasquinha, 2024) When women are only engaged in post-harvest activities while key processes such as seedling, planting, and monitoring are dominated by men formal neutrality becomes insufficient. The law must play an active role in enabling full and meaningful participation of women by ensuring access to training, facilitating opportunities, and affirming their role in decision-making processes.

Thus, substantive justice requires state intervention through affirmative legal policies to ensure that women receive differentiated yet equitable treatment to overcome their structural disadvantages. This principle is rooted in the constitutional mandate enshrined in Article 28H(2) of the 1945 Constitution (UUD 1945) and reinforced by Law No. 39 of 1999 on Human Rights, which guarantees the right to special treatment for vulnerable groups. Legal protection for women is already embedded within the Constitution, which recognizes the equal status of men and women. However, similar to other general statutes, this equality is often framed in gender-neutral terms. In practice, women require affirmative action to catch up and attain parity with men. Fortunately, amendments to the 1945 Constitution have significantly expanded the scope of human rights guarantees, including for women. Legal protection must operate on two fronts: preventive and responsive. The constitutional recognition and fulfillment of women's human rights represent a preventive legal guarantee, which ideally should be explicitly articulated within the Constitution. This foundation must then be operationalized through *lex specialis* legislation and implementing regulations. While the journey toward full legal recognition and enforcement of women's rights remains long, it must remain a consistent objective in the pursuit of gender justice. In parallel, responsive legal protection must also be strengthened to address systemic violations and challenges in the enforcement of women's rights. (Wiwik Affifah, 2018)

Environmental governance is a principle that emphasizes the importance of managing natural resources in a participatory, transparent, accountable, and equitable manner. This principle has evolved within the framework of international environmental law, alongside growing awareness that

environmental preservation cannot be entrusted solely to state authorities but must involve collaboration between the state, civil society, local communities, and the private sector.

In practice, this principle rests on four key pillars: (Elly Kristiani Purwendah, 2019)

1. Public participation in decision-making;
2. Access to environmental information;
3. Access to environmental justice; and
4. Equitable distribution of benefits.

Applying this principle to the context of Surabaya reveals that women's participation in mangrove conservation remains largely symbolic and procedural. The lack of female representation in decision-making forums, the absence of gender-inclusive technical training, and the failure to incorporate affirmative policies into local regulations all indicate a weak commitment to equitable environmental governance. By adopting this principle, the regional legal framework should not only aim to protect the environment, but also ensure meaningful and equal participation of all stakeholders, particularly those who have been historically marginalized. This aligns with the principles outlined in the 1998 Aarhus Convention and the 1992 Rio Declaration, both of which affirm the central role of the public in the protection of the environment.

Progressive legal theory, as developed by Satjipto Rahardjo, positions law as an instrument for achieving social change and substantive justice. Law should not be regarded as a sacred and final text, but rather as open to contextual interpretation and capable of evolving in accordance with the needs of society. Within this framework, law is not solely about legal certainty (*rechtszekerheid*), but also encompasses justice (*gerechtigheid*) and social utility (*doelmatigheid*). (Satjipto Rahardjo, 2014) When the law fails to respond to the needs of vulnerable groups, it must be restructured to adapt to social realities. Law experiences a bifurcation, serving both as a pursuit of justice and a mechanism for enforcing rules. Satjipto Rahardjo argues that the modern legal system is heavily procedural, which often leads to the marginalization of truth and justice. (Satjipto Rahardjo, 2011) Therefore, the law must be capable of designing regulations that are adaptive to societal conditions, including recognizing and accommodating existing diversity as part of the broader concept of justice envisioned in the legal ideal (*rechtsidee*).

This theory reinforces a gender-responsive approach to law a perspective that acknowledges and aims to correct gender inequalities shaped by entrenched social structures. In the context of mangrove conservation, this approach demands legal reform at the local level to explicitly recognize the role of women, establish mechanisms for inclusive participation, and promote affirmative gender-based policies. By adopting this approach, regulations that were previously neutral, symbolic, or even exclusive can be transformed into legal instruments that actively challenge structural inequalities. The concept of gender responsiveness is an integral part of progressive legal theory, as it embraces societal developments and incorporates them into both legal formulation and implementation ensuring not only women's participation in environmental conservation, but also that their voices and interests become an essential part of sustainable development.

The gender gap in women's representation in environmental governance particularly in the management of mangrove ecosystems in Surabaya underscores the urgency of revising local legal frameworks. Such legal reform is not only intended to enhance the effectiveness of ecological conservation, but also to ensure the fulfillment of the principle of substantive justice, as mandated by the Constitution, the Human Rights Law, and the core tenets of environmental governance. Broadly speaking, three key pillars can be proposed as the foundation for this legal reform framework:

1. Reformulating Local Regulations through the Revision of Surabaya Mayor Regulation No. 65 of 2011 on the Supervision and Control of Mangrove Areas in the City of Surabaya

The revision of Surabaya Mayor Regulation No. 65 of 2011 must explicitly regulate the involvement of women in all stages of mangrove ecosystem conservation, including nursery, planting, and monitoring activities. Regulatory improvements both at the level of regional regulation (Perda) and mayoral regulation (Perwali) should adopt an affirmative and gender-responsive approach, which includes the following:

- a. Substantively integrate gender mainstreaming, not merely as a formal requirement, but as a core element embedded within the legal and operational framework of environmental governance;
- b. Include technical provisions regarding the division of ecological labor based on gender-specific capacities and needs, in line with the principle of equitable ecological workload distribution as part of sustainable development policies in conservation and environmental management areas;
- c. Incorporate measurable indicators of women's participation within the evaluation instruments for policy implementation, such as in the Regional Medium-Term Development Plan (RPJMD) and Strategic Plan (Renstra), to ensure gender-equitable outcomes in environmental programs.

2. Adjustment of Gender-Responsive Regional Budget Planning

The formulation of the Surabaya City Regional Budget (APBD) must be revised to:

- a. Integrate budget allocations for enhancing women's capacity in environmental conservation efforts, particularly in coastal areas;
- b. Support the development of environmentally-characterized sub-districts (kelurahan) by giving affirmative priority to women, children, and other vulnerable groups;
- c. Provide cross-sectoral budget allocations—including through the Office for Women's Empowerment and Child Protection, the Office of Cooperatives and SMEs, and the Tourism Office—to strengthen women's roles in eco-tourism, fishery product processing, and technical ecological skills training.

This budgetary adjustment is not merely administrative, but constitutes a concrete manifestation of women's economic and social rights, which must be guaranteed by the state as part of its obligation to fulfill human rights.

3. Mandatory Implementation of Participatory Principles and Remedial Mechanisms

Legal reform must also ensure the existence of implementation mechanisms that protect women's rights to participate in environmental management. Several proposed legal obligations include:

- a. The Surabaya City Government (Pemkot Surabaya) shall develop participatory environmental policies at the sub-district (kelurahan) level and within mangrove conservation groups. These policies must guarantee that women's involvement is not merely symbolic or ceremonial but has substantive influence in decision-making processes;
- b. . The establishment of accessible and gender-responsive grievance mechanisms, based on the framework of human rights law and the Environmental Protection and Management Law (UU PPLH), to accommodate reports of discrimination or exclusion against women in mangrove conservation efforts;
- c. Encouragement of collaboration with independent institutions, such as the Indonesian Forum for the Environment (WALHI), National Human Rights Commission (Komnas HAM), or other environmental oversight bodies, to provide remedial measures for women affected by structural inequality.

As an affirmation at the conclusion of this discourse, the ultimate goal of legal reform and adjustment in the context of mangrove ecosystem conservation in Surabaya is to establish a conservation model that is not only ecologically effective but also socially just and gender-equitable. This approach emphasizes the importance of recognizing women as active subjects in regional environmental policymaking, rather than as mere complementary or symbolic figures. Therefore, it is essential to construct a robust legal foundation that explicitly guarantees the involvement of women in all stages of environmental governance—from planning and implementation to monitoring and evaluation. From a legal perspective, the urgency of this reform holds strong legitimacy grounded in various national and international legal instruments. Article 28H paragraph (2) and Article 28D paragraph (1) of the 1945 Constitution of the Republic of Indonesia affirm that every citizen is entitled to fair and equal treatment before the law, including in the context of environmentally-based public policy. This is further reinforced by Law No. 32 of 2009 on Environmental Protection and Management (PPLH), which guarantees the right of the public—including vulnerable groups such as women—to actively participate in environmental protection efforts.

Furthermore, the ratification of the CEDAW Convention through Law No. 7 of 1984 legally binds the state, including local governments, to eliminate all forms of discrimination against women, including in the fields of environmental management and sustainable development. At the policy implementation level, Presidential Instruction No. 9 of 2000 on Gender Mainstreaming in National Development serves as a normative reference that mandates all governmental institutions to systematically apply gender mainstreaming strategies. Accordingly, the proposed legal reform is not only normatively valid but also represents a concrete manifestation of Indonesia's constitutional mandates and international commitments to promote inclusive and transformative environmental justice.

CONCLUSION

The reformulation of legal provisions through a gender perspective is a crucial strategy to strengthen mangrove ecosystem conservation in Wonorejo and Keputih Subdistricts, Surabaya. Although national and international instruments—such as the 1945 Constitution of the Republic of Indonesia, Law No. 32 of 2009 on Environmental Protection and Management, and the CEDAW Convention provide a comprehensive normative framework, the implementation at the local level remains hampered by structural inequalities and the absence of affirmative regulations for women. By drafting and enacting regional or mayoral regulations (Perda or Perwali) that explicitly mandate women's participation at all stages of conservation—including seedling cultivation, planting, monitoring, and decision-making—and by integrating gender values into regional budget (APBD) planning, local governments can significantly enhance women's capacities. In addition, the implementation of gender-based participatory mechanisms and the strengthening of gender-responsive grievance channels in environmental governance will not only enhance governmental and societal accountability but also contribute to achieving justice. Thus, mangrove conservation will not only reinforce ecological sustainability but also foster a just, inclusive social order aligned with the principles of sustainable development.

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