



## **POLICY ORIENTATION PAPER**

# **Mechanism for Mainstreaming Gender in Aquatic Biodiversity Conservation and Environmental Management: A Case Study of the Dusorno Community Resource Management Area (CREMA) Community in Ghana**



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## Context

Aquatic biodiversity and its resources play a critical role in maintaining the health of both marine and terrestrial ecosystems. However, these ecosystems are increasingly threatened by global pressures including climate change, pollution, conflict, economic instability, and rapid population growth. To address these complex challenges and ensure the sustainability of aquatic ecosystems, there is a growing recognition within the conservation community of the need to involve vulnerable populations, particularly women and youth, in ecosystem management and restoration efforts. Women, in particular, often possess valuable knowledge about their natural environment due to their direct interaction with these resources over extended periods (AU-IBAR, 2022). Therefore, their active involvement and leadership are essential for effectively managing and improving aquatic ecosystems.

The African Union - Inter African Bureau for Animal Resources (AU-IBAR) is committed to promoting the participation of all stakeholders, including women and youth, in the conservation and management of aquatic resources through initiatives such as the African Blue Economy Strategy (AU-IBAR, 2019). Within the framework of the SIDA funded project, 'Conserving Aquatic biodiversity in African Blue Economy', a 'continental strategy for mainstreaming gender in aquatic biodiversity conservation and environmental management' was developed and endorsed by the AU Summit of African Heads of States and Government in 2024. This strategic framework draws stakeholders' perceptions and continental frameworks such as the Africa Agenda 2063, the Africa Blue Economy Strategy, the African Union Gender Equality Strategy, the Maputo Protocol, and the African Youth Charter, all of which align with global sustainability frameworks such as the Sustainable Development Goals (SDGs) and the Convention on Biological Diversity (CBD).

In line with the goals of Sustainable Development and Gender Equality highlighted above, this policy orientation paper seeks to enhance the role of women in aquatic biodiversity conservation and ecosystems within the framework of African Blue Economy and related strategies. Specifically, it aims to showcase how vulnerable groups, including women and youth, are involved in the development and implementation of climate-resilient adaptation strategies, specifically nature-based solutions (NbS) (AU-IBAR, 2022). By adopting a more inclusive approach, the policy orientation paper aims to address the challenges faced by women and youth within the Blue Economy while fostering sustainability and resilience.

## Introduction

The African continent is facing an annual loss of mangroves at a rate of 2%, with a decline of mangrove cover by 25% in the West African sub-region from 1980 to 2006 (Feka & Ajonina, 2011; IPBES, 2019). Specifically in Ghana, there has been a reduction of 24.3% in mangrove cover, with healthy vegetation and dense shrublands being progressively replaced by herbaceous shrubs/ grasslands and built-up areas (Sekey, 2023). Within the context of the Keta Lagoon Complex Ramsar Site (KLCRS), significant declines in mangroves and dense forests have been observed (a decrease of 24% in mangrove and dense forest surface area since 1991 and a 17% decrease in mangrove surface area in recent years (Duku *et al.*, 2021; Peters & Kusimi, 2023). The environmental challenges within the KLCRS necessitate concerted efforts focused on effective resource conservation.

Noting the significant negative environmental impacts on aquatic ecosystems, the AU-IBAR with support from the Sweden International Development Cooperation Agency (SIDA) is implementing a three-year project titled 'Conserving Aquatic Biodiversity and Ecosystems in African Blue Economy' (AU-IBAR, 2022). The project aims to enhance the policy environment, regulatory frameworks, and institutional capacities of AU Member states and Regional Economic Communities (RECs) to sustainably utilize and conserve aquatic biodiversity and ecosystems.

In line with the implementation of the project, AU-IBAR collaborated with the International Union for Conservation of Nature (IUCN) to achieve inclusiveness in the protection of fragile ecosystems and biodiversity within mangrove habitats in West Africa and to enhance their resilience to climate change. This support involved the development of gender-sensitive work plans to enhance the role of women in biodiversity protection and environmental governance by applying a Community Resource Management Area (CREMA) model in the Anlo-Keta Lagoon Complex Ramsar Site.

The Dusorno CREMA is made up of five communities namely; Galo, Sota, Galotse, Klonu, and Korsikope; and is located in the southern part of the Keta Lagoon Complex Ramsar Site. The Dusorno CREMA aims to conserve the fragile mangrove ecosystem identified in the aforementioned communities and to develop a gender-sensitive plan to enhance the role of women in biodiversity protection and environmental governance. The specific goal of the collaboration is to improve stakeholders' engagement in the management of both protected areas and unprotected mangrove sites.

## Rationale and Justification

Existing cultural and societal norms generally limit and affect how women participate in the management and conservation of natural resources. Women interact differently with the environment in comparison to men, hence, if they are excluded from crucial biodiversity restoration and conservation efforts their unique perspective and knowledge may not be considered in conservation activities (James *et al.*, 2021).

Although research evidence indicates a positive association between the engagement of women in environmental conservation programs and positive environmental outcomes several studies highlight that women often do not reap the full benefits of these programs (Armitage *et al.*, 2020). This lack of involvement of women can thereby perpetuate gender inequalities.

In Africa, for instance, the overexploitation of aquatic organisms for food and income remains a potent threat to resource sustainability, hence, there is an imperative need to safeguard vulnerable and marginalized groups, including women, and to implement adequate compensation systems. Such safety measures are vital to reducing the exposure of women to climate and weather risks and stopping the vicious cycle of poverty in communities.

Low levels of education among women in Africa contribute significantly to their underrepresentation in environmental management and conservation programs. In many traditional settings, women are not considered critical in decision-making and implementation processes because of these educational disparities, often being relegated to roles deemed less economically valuable by men. Enhancing women's literacy and educational opportunities is crucial to changing this dynamic.

The question is 'How do we empower women, as agents of change and frontrunners, to build new pathways or accelerate the transition to sustainability?' Women need to be equally and actively involved in processes to conserve and sustainably use biodiversity because they play critical roles in conservation efforts. They are often the primary land managers and resource users within their communities. Additionally, they face disproportionate impacts both from biodiversity loss and gender-blind conservation measures. Therefore, concerted efforts are needed at every level to improve the participation of women and girls in biodiversity conservation processes. By providing targeted training in leadership and environmental management, we can empower women to take on more substantial roles and ensure their contributions are recognized and valued. This not only helps to bridge gender gaps but also brings diverse perspectives essential for the success of

conservation initiatives.

The concept of 'Blue Justice' emphasizes women's ongoing struggle for access, control, and leadership over resources in aquatic ecosystems, including fishing rights and land tenure (World Bank, 2014). It highlights the need for dedicated efforts to improve women's access to these ecosystems and to increase their participation in biodiversity conservation efforts. These efforts focus on creating avenues for active participation and holding leadership roles, such as community committee membership or programme coordination (James *et al.*, 2021). Additionally, it is crucial to ensure women's ownership and access to these resources through community-based management and traditional systems (Armitage *et al.*, 2020).

A systemic and community-based management approach was adopted for gender mainstreaming in the Anlo-Keta Lagoon Complex Ramsar Site, in the coastal setting in Ghana as outlined below. It shows how such initiatives can empower women and contribute to a more sustainable future.

## I. Community Resource Management Area (CREMA) Model

- **Election of Dusorno CREMA Officials - Gender-Inclusive Leadership**

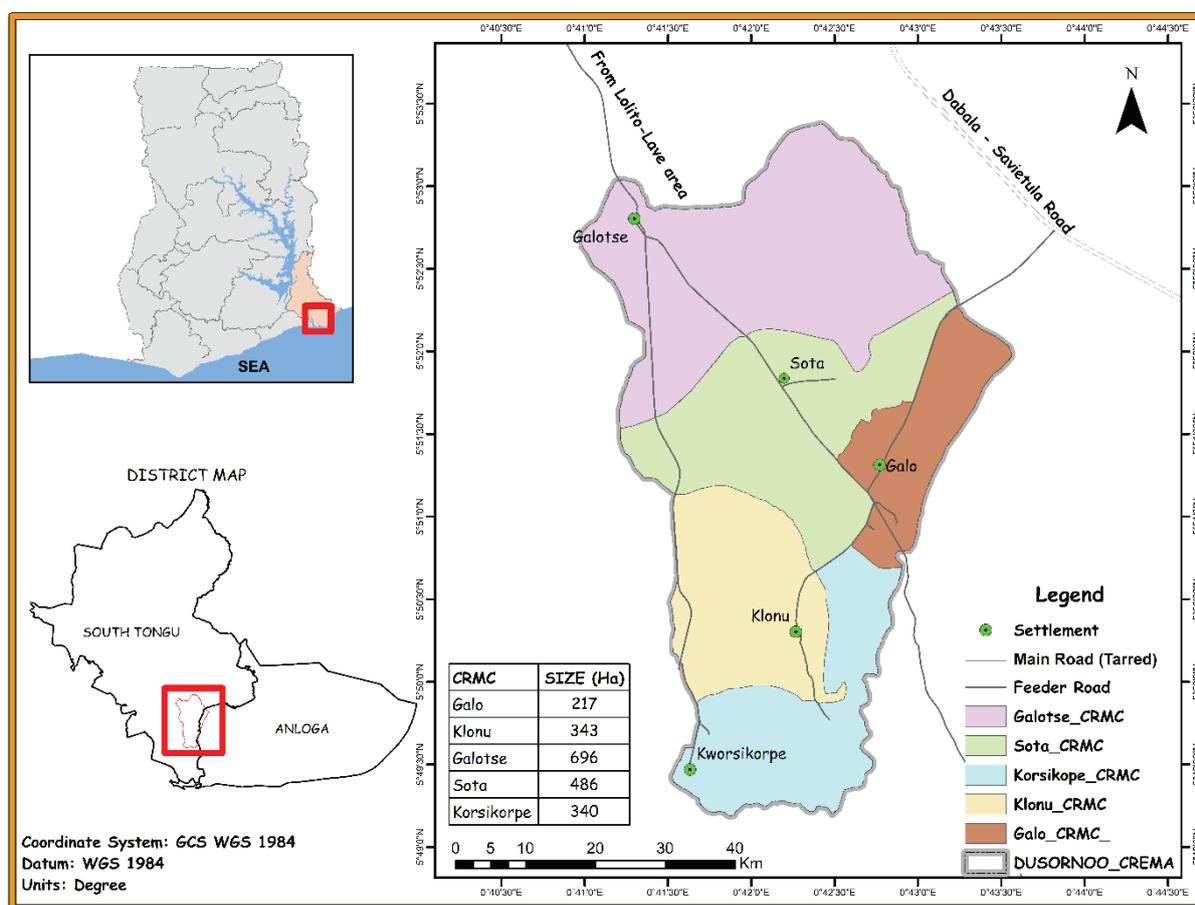
To improve governance and empower communities to safeguard mangrove resources within the landscape, the CREMA model was proposed in the Galo-Sota Galotse CREMA mangrove area, under the name Dusorno CREMA. To facilitate the implementation of the CREMA model, a community workshop was held to elect leaders for the communities to serve on the Community Resource Management Committee (CRMC) and CREMA Executive Committee (CEC), which are the main liaison with the community members. Emphasis was placed on electing women officials in critical decision-making roles to ensure their voices are heard and to foster more sustainable and equitable conservation practices. This inclusion of women is expected to lead to a more holistic understanding of community needs and perspectives, ultimately strengthening the CREMA's approach to mangrove management.

- **Training workshop for the Community Resource Management Committee (CRMC) and CREMA Executive Committee (CEC)**

A subsequent training workshop took place from the **2<sup>nd</sup> to 3<sup>rd</sup> of August 2023** at Anyanui, South Tongu District of the Volta Region -Ghana.

The target participants included community members comprising of local institutions and user groups working along the mangrove value chain, women and youth groups involved in fish-mongering and related activities as well as farmer groups from the five communities: Galo, Sota, Klonu, Korsikope and Galotse.

The training covered a range of topics, including leadership and strategic thinking, transformational leadership, team building and communication, time management, work and action plan development, and critically, the links between gender and access to mangrove resources. Additionally, the training explored the different challenges faced by men and women in terms of access, control, and governance of these resources. Participants also honed their presentation skills through a group presentation exercise.



Map of Dusorno CREMA  
Source: Duku, Mattah & Angnuureng, 2021

## 2. Development of a Gender-sensitive Community Resource Management Area (CREMA) Plan

AU-IBAR hired a consultant to develop a gender-responsive resource management plan. Thereafter, a multi-stakeholder workshop was organised to solicit inputs and validate the drafted management plan for the proposed Dusorno site.

The stakeholders in the workshop included community members comprising opinion leaders, resource user groups working along the mangrove value chain, youths, women groups involved in fish-mongering and related activities, and farmer groups demonstrate an inclusive approach to governance and sustainable management. This inclusive participation aligns well with the concept of Blue Justice, emphasizing equitable access to resources and fair decision-making processes.

A special consideration was made to ensure the voices of women and youth were heard and their perspectives integrated into the CREMA management plan. Women actively shared their local knowledge and experiences related to livelihoods and the impact of CREMA management on their well-being. Notably, they highlighted gender inequalities within the fishing industry, where women have limited access to socio-economic resources, high-value fish and profitable markets, resulting in lower incomes.

## 3. Community Livelihoods Assessment (CLA)

The final activity under the joint AU-IBAR/ IUCN collaboration for the gender mainstreaming project was capacity building on gender-specific livelihoods for the CREMA. To identify alternative livelihood options for communities, it was essential to conduct an initial socio-economic assessment of livelihoods. This assessment would allow the Dusorno communities to collectively deliberate and agree on the most appropriate alternative livelihood options for their community.

## 4. Identified Alternative Livelihood Options

Sustainable livelihood options such as sustainable fishing practices, eco-tourism ventures, coastal protection and use of alternative materials for construction and fuel were identified as vital to sustain livelihoods and steer the community away from economic activities that contribute to mangrove decline and degradation (Fröcklin *et al.*, 2013; Muringai *et al.*, 2021).

“Gender-specific livelihoods” to address the specific needs and challenges faced by women in the community. Hence, there was an emphasis on promoting income-generating activities traditionally undertaken by women and the introduction of options such as basket weaving to empower them economically. In addition, several resource conservation efforts within the Keta Lagoon Complex Ramsar Site (KLCRS) included; mangrove reforestation projects, sustainable harvesting of non-timber forest products, or initiatives promoting eco-friendly tourism.

## 5. Capacity Building on Identified Alternative Livelihoods

Recommendations from the gender-sensitive Community Livelihoods Assessment (CLA) report emphasize the need to enhance capacity for gender-sensitive livelihoods to alleviate pressure on mangrove resources. AU-IBAR, in collaboration with the IUCN and the Wildlife Division/ Keta Lagoon Ramsar Site, will implement the report’s recommendations to support the CREMA communities in capacity building. Identified vital options to ensure sustainable livelihoods and shift the community away from activities detrimental to mangroves include sustainable fishing practices, eco-tourism ventures, coastal protection and the use of alternative materials for construction and fuel. These activities will also reduce reliance on the mangroves, therefore protecting the fragile aquatic ecosystems.

## 6. Policy Measures and Recommendations

There was a need for continuous capacity and sanitization of CREMA communities through, for example, organizing an exchange program for CREMA executives, allowing them to visit other successful communities. This exchange would facilitate the sharing of experiences and insights, enhancing their understanding of the CREMA model’s benefits and implementation strategies.

Additionally, it is advisable to introduce viable and sustainable alternative livelihood activities within the CREMA communities. These alternative activities would serve to diversify income sources and reduce reliance on natural resources, thus alleviating pressure on the environment. By promoting such initiatives, the CREMA can contribute to both environmental conservation and socioeconomic development in the region.

As depicted above, the CREMA model can be applied in other contexts to promote gender-sensitive work plans in various NGOs and institutions while steering environmental conservation efforts.

Some best practices that will enhance the role of women in aquatic biodiversity and environmental management in AU member states (AU-MS) include (AU-IBAR, 2022):

- i. Capacity building and empowerment to improve women's equal access to resources and enhance gender mainstreaming within the CREMA models as well as other institutions of environmental management.
- ii. Communication and stakeholder engagement i.e., establishing a gender working group on mangrove conservation and management to promote gender-responsive communication strategies and to design instruments for private sector involvement in supporting gender inclusivity in mangrove biodiversity conservation and environmental management.
- iii. Incorporation of gender-responsive international protocols/policies into national law and institutional strengthening to appropriate mangrove resources for policy adaptation and execution.
- iv. Promoting gender-sensitive methods to research and innovation, as well as involving women in research and innovation.
- v. Value addition to extractive aquatic resources to mitigate post-harvest losses.

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