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# **A Continental Strategy for Gender Mainstreaming in Aquatic Biodiversity Conservation and Environmental Management in Africa**

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## Background

**A**quatic resources contribute to income and livelihoods for several rural communities in Africa and elsewhere (Muringai et al., 2021). Estimates show that 61 million people globally engage in the primary sector of capture fisheries and aquaculture (FAO, 2021a). However, the potential of aquatic resources for livelihoods improvement is threatened by the high rate of degradation and loss of aquatic biodiversity, attributed to overexploitation and unsustainable practices in aquatic environments (e.g. Numbere & Maduiké, 2022). The degradation of aquatic resources affects the day to day lives of resource dependent communities due to loss of opportunities for income, livelihoods and entrepreneurship (Iyiola et al., 2022). This situation persisted regardless of the increased interest in blue economy as a means to conserve aquatic resources, reducing the environmental risks, and improving the wellbeing and equity of communities (Okafor-Yarwood, 2020).

Women are central to the efforts towards blue economy due to their frequent interactions with aquatic environments in their daily economic activities and also in their efforts to meet the food and nutrition requirements of their households (Aregu et al., 2019). For instance, women play crucial roles as environmental stewards in their communities such as through adoption of practices that reduce degradation of resources and prevent the negative impact of climate change (Akinsemolu, & Olukoya, 2020). However, women face constraints in accessing resources and engaging in decision-making processes due to exclusive gender norms and social relations (Aregu et al., 2019). As well, women are rarely involved in problem identification and problem solving regarding aquatic biodiversity conservation in Africa. The inequality in opportunities and participation has undermined women's contributions as agents of positive change in aquatic biodiversity conservation and beyond (Armitage et al., 2020).

Initiatives such as afforestation and awareness creation on the need to conserve aquatic biodiversity and managing the environment have been underway (Iyiola et al., 2022). For instance, the realization of the interlinkages between ecological and social issues in aquatic biodiversity conservation has led to the development of holistic approaches such as the One Health approach. Such approaches aimed at addressing the challenges in biodiversity conservation, environmental management, public health, and animal health sectors in a harmonized manner and with due consideration of the interlinkages among the different components. For that reason, gender equality and women's empowerment were highlighted as an integral part of the design and implementation of the approach in line with the UN 2030 Agenda for sustainable development (FAO, UNEP, WHO, WOA, 2022).

Past studies in aquatic biodiversity conservation and environmental management focused on the ecological aspects (e.g. de Moor & Day, 2013; Mitchell, 2013; Dallas et al., 2014; Farrag et al., 2019). Some studies were made in analyzing gender issues in the fisheries value chains in Africa (Girei et al., 2019; Odone et al., 2020). However, gender aspects have not received adequate attention in the field. In fact, research and development in aquatic biodiversity conservation rarely attempted to understand women's opportunities, challenges and experiences in the initiatives and in implementing gender-responsive activities (Armitage et al., 2020). It has emerged that initiatives which do not take the gender norms, women's agency, and local structures which define access to and control over resources into consideration may end up exacerbating the existing gender inequalities (Witinok-Huber et al., 2021).

Thus, understanding opportunities and constraints for women's successful engagement in aquatic biodiversity conservation and management is critical for designing and implementing sound policies and practices supporting blue economy. A continental strategy that promotes gender mainstreaming in aquatic biodiversity conservation

and environmental management programmes and initiatives in Africa is essential for attaining the inclusive, transformational development denoted by the blue economy.

## Vision of the Strategy

Equal and equitable gender participation in conservation and management of aquatic biodiversity and environment for a sustainable blue economy that significantly contributes to Africa's transformation and growth.

## Purpose

The Strategy is developed to guide the development of an inclusive policy which will enhance effective gender mainstreaming in aquatic biodiversity conservation and environmental management efforts in Africa. It is aimed at supporting and providing guidance to African Union member states and regional institutions for coherent formulation of their national and regional gender mainstreaming strategies that would promote transformation and growth through conservation of aquatic biodiversity and environmental management.

## Outline of the Strategy

The Gender Mainstreaming Strategy outlines: Priority issues and challenges for women inclusion in aquatic biodiversity conservation and environmental management; Opportunities for women inclusion in aquatic biodiversity conservation and environmental management; and priority areas and actions necessary for strengthening the role of women in conservation of aquatic biodiversity and environmental management in Africa.

## The Process of Formulation

The process for formulation of this Strategy involved literature review and virtual surveys to gather data on the extent of gender mainstreaming in aquatic biodiversity conservation and environmental management in Africa, which was complimented by an expert consultative workshop. The literature review was conducted based on published literature on how different initiatives attempted to enhance women inclusivity for increased impact of the initiatives in improving the ecological and socio-cultural contexts. The desk review was supplemented with virtual surveys which adopted the purposive sampling technique to identify participants with first-hand experience on the aquatic biodiversity conservation and environmental conservation projects in different regions of Africa. Subsequently, an expert stakeholder consultative workshop was held to deliberate on the findings of the literature review and summarize key issues and actions for enhancing the role of women in aquatic biodiversity and environmental management in Africa. The workshop convened 28 participants, representing various African Union member states, Regional Seas Conventions, Regional Economic Communities, Non-state actors, Academic institutions, independent consultants and technical partners.

Following consolidation of the findings from both activities, a virtual continental stakeholders' consultation workshop was organized to validate the priority areas and issues identified, as well as the strategic actions and mechanisms proposed for development of a continental strategy for gender inclusivity in aquatic biodiversity and environmental management.

## Issues and Challenges for Women Inclusion in Aquatic Biodiversity Conservation and Environmental Management

### 1. **Constraints related to gender division of labor**

– Gender norms often impose restrictions on women’s mobilities, limiting their access to aquatic resources and related livelihood activities. Norms that assign women productive and reproductive roles to reproductive work and household duties have contributed to low savings of women to engage in business and entrepreneurship.

### 2. **Inequalities in accessing resources and benefits**

– Access to aquatic resources has been gendered, and women have lower access to aquatic and environmental resources compared to men in Africa and elsewhere. Minimal efforts have been made in understanding the gender-specific constraints faced by women, and gearing support towards enhancing their efficiency of operations. As well, the rights, access, and control over resources have been ignored.

### 3. **Participation in decision making processes**

– Gender equality and women’s empowerment have been central to building resilience due to the relevance of women’s traditional and local ecological knowledge in management strategies (UNEP, 2020). Women’s understanding of the environment and their role as custodians of traditional knowledge could have relevance in co-creation of resilience and adaptation strategies in aquatic biodiversity conservation and environmental management (FAO & ARC, 2021). Women engage in inshore fishing

whereas men engage in coastal and offshore fishing, indicating the relevance of incorporating women’s knowledge in conservation initiatives (James et al., 2021). Women interact with the environment more than men, implying the importance of consideration of women’s knowledge and their perspectives in the valuing of resources in conservation initiatives. In addition, gender norms often define what men and women should do, and contribute to underrepresentation of women in decision making processes (Baker-Médard, 2017).

### 4. **Women’s vulnerability to shocks and gender-based violence**

– Women have been disproportionately vulnerable to environmental risks and disasters and gender-based violence amid degradation of aquatic and environmental resources (IFRC & UNICEF, 2021; UN Women, 2021a). The decline in aquatic resources increase women’s vulnerability to engaging in sexual exploitation for accessing fish or other aquatic resources. For instance, women and girls have increased vulnerability to gender-based violence in the fisheries sector attributed to structural constraints and harmful social norms (Siles et al., 2019). The need for women inclusion in building resilience has been recognized among aquatic resource management stakeholders (UN Women, 2021a, b). The decline in aquatic resources increase women’s vulnerability to engaging in sexual exploitation for accessing fish or other aquatic resources. Further, infrastructure development in aquatic ecosystems in Africa revealed little gender consideration. This may aggravate gender inequality and threaten the livelihoods of women.

## Opportunities for Women Inclusion in Aquatic Biodiversity Conservation and Environmental Management

- 1. Transforming gender norms and sustaining women's livelihoods** – Understanding gender norms which act as a barrier to women at different levels could be a stepping stone for stimulating collective actions towards sustainable blue economy in Africa. Inclusive decision-making processes, and active participation of women and marginalized groups in decision-making processes coupled with capacity development at all levels has relevance for transforming gender norms in aquatic biodiversity conservation and environmental management.
- 2. Increasing women's access to aquatic and environmental resources** – Promotion of inclusive and human-rights approaches that put gender equality at the center of programmes and initiatives would help in sustaining the outcomes of aquatic conservation and environmental management.
- 3. Women inclusion in building resilience in aquatic biodiversity conservation and environmental management** – Opportunities exist in learning the experiences of women in aquatic biodiversity conservation, and in promoting inclusiveness in resilience building. Women's stewardship practices have relevance in aquatic biodiversity conservation and environmental management. For instance, women's engagement in less destructive economic activities such as seaweed farming and in reduction of post-harvest losses have relevance in the sustainable conservation of aquatic resources and environmental management. Women's role in processing of fish and fish products has relevance in ensuring safety and the quality of the standards of the produce (UN Women, 2021a, b). Yet again, gender-specific knowledge could be associated with one's frequent interactions with the resources and engagement in socio-cultural activities (Pearson et al., 2019; Nyangoko et al., 2020). The depth of men's or women's knowledge about aquatic biodiversity conservation could also depend on the accessibility and the livelihood activities of individuals or communities (Mensah et al., 2017). However, women's knowledge and their critical role in knowledge transfer has been undervalued and got little recognition in policies and practices. This situation indicates the need for adoption of intersectional approaches in policies and practices at local level for building on relevant gender-specific knowledge.
- 4. Building women's technical, managerial, and leadership capacities** – Engaging women in collective action such as group formation and mobilizing social capital towards common goals in aquatic conservation and environmental management will help for increasing women's inclusivity. Engagement in group activities helps women share information and exchange knowledge, and also increases their access to credits, trainings, and in strengthening their overall capacities. These could help women to make their voices heard and enhance their negotiating power and motivate women towards entrepreneurship and networking (Setini et al., 2020). Critical actions in assigning women leadership, trainer, and mentorship roles in women groups and networks has relevance for women's empowerment (Siles et al., 2019). Opportunities exist in empowering women with active engagement in decision-making and leadership roles in aquatic biodiversity conservation and environmental management. Efforts geared towards building women's leadership and financial management capacities could also play central role in enhancing women's engagement in aquatic biodiversity conservation and environmental management. Such efforts coupled with promoting women's economic opportunities and asset ownership could support women's empowerment. Opportunities for building women's technical,

managerial, and leadership capacities in aquatic biodiversity conservation should go beyond skills development. Experiences from development interventions across Africa revealed that transforming gender norms that limit women's access to capacity development can be more effective with male engagement approaches and working with local formal and informal structures (Hill and Scarborough, 2018). Increased attention to reducing the constraining gender norms, gendered roles and relations that limit women's access technical, managerial, and leadership capacities helps in increasing women's inclusivity.

## Priority Areas And Action Points For Women Inclusion In Aquatic Biodiversity Conservation And Environmental Management

### Priority Area 1: Capacity development and empowerment



**Objective:** To strengthen the equal and equitable rights of women in aquatic biodiversity conservation and environmental management and to promote the use of rights-based approaches in strengthening the capacity of women in undertaking their responsibilities and rights over aquatic and environmental resources.

#### Expected outcomes:

- Women equipped with the required skills, knowledge, information and rights over resources, and taking leadership roles in aquatic biodiversity conservation and environmental management.

- Women have the rightful management positions and power in legislation and policy making processes in aquatic biodiversity conservation and environmental management.

#### Strategic actions:

- Human capacity development** – Increase investment in strengthening women's knowledge and skills in aquatic biodiversity conservation and environmental management such as technical, managerial, financial, leadership, conflict management and resolution, strategic planning, and innovation and technology for supporting women's inclusion in conservation of aquatic biodiversity and environmental management.
- Promoting women's equal participation** – Increase women's participation in electoral processes so that women have positions such as chairperson and have the power to influence decisions on access to resources – access to finance, group formation, collective action, changing constraining gender norms and access to inputs for narrowing the gender inequalities in accessing opportunities, resources and benefits in aquatic value chains.
- Supporting the realization of rights-based approaches** – Support programs that consider women's rights as human rights, enable women's equal participation, and recognize women as key actors in aquatic biodiversity conservation and environmental management, and ensuring processes and outcomes have women's ownership.
- Capacity building in gender mainstreaming among institutions** – Strengthen the knowledge and skills in gender mainstreaming in aquatic biodiversity conservation and environmental management among: 1) government institutions, 2) academia and research institutions, 3) private sector, community and social group levels for building capacities to implement gender mainstreaming strategies. Building the capacities of institutions on how to implement the strategies effectively helps for increased women inclusivity in the interventions.

## Priority Area 2: Communication and stakeholder engagement



**Objective:** To build engagement on gender equality and women's empowerment in aquatic biodiversity conservation and environmental management.

### Expected outcomes:

- Increased awareness on gender-responsive and rights-based approaches among stakeholders;
- Increased use of gender-responsive communication; and
- Enhanced recognition of women's knowledge and skills in aquatic biodiversity conservation and environmental management.

### Strategic actions:

Interventions can target women inclusivity through gender-responsive communication and stakeholder engagement approaches focusing on:

- a. Promotion of gender-responsive communication strategies – Employing the use of mass media to engage different members of the society including men, women, school children and youth on aquatic conservation and environmental management related issues taking into consideration cultural settings. Identifying community champions/ influencers to facilitate the engagement of the public has proven effective in community engagement approaches.
- b. Establishing a gender working group on aquatic biodiversity conservation and environmental management to enhance: creation of databases and platform for data sharing; monitoring and evaluation of gender mainstreaming; informing

- a. Developing policies at different levels.
- c. Developing instruments for involvement of private sector in supporting gender inclusivity in aquatic biodiversity conservation and environmental management.
- d. Establishing mechanisms for stakeholder and consultative engagements for increased implementation and ownership of policy measures – Knowledge sharing/Experience sharing).

## Priority Area 3: Policy reform



**Objective:** To ensure policies and programs take gender equality and women's empowerment issues into consideration.

### Expected outcome:

- Gender analysis and budgeting conducted and gender issues emphasized in the design, formulation, implementation, and monitoring of policies relevant for aquatic biodiversity conservation and environmental management.

### Strategic actions:

Putting in place gender-responsive policies and programs coupled with adequate institutional and financial support helps to narrow the gender inequalities in aquatic biodiversity conservation and environmental management. A starting point for policy reform could focus on:

- a. Examine the policy context at national level and synthesize the policy context at regional level considering the specific contexts of each region.

- b. Establish Specific, Measurable, Achievable, Relevant and Time-Bound (SMART) indicators and domesticate gender-responsive international protocols/policies in national laws – alignment with national-level policies and legal frameworks; harmonization of relevant policies across different levels.
- c. Develop a monitoring and evaluation program for following up policy implementation at the national level.
- d. Strengthening of institutions and allocation of resources for policy adaptation and implementation.

#### **Priority Area 4: Research and innovation**



**Objective:** *To strengthen the active participation of women in research and innovation systems in aquatic biodiversity conservation and environmental management.*

#### **Expected outcomes:**

- Enhanced participation of women in research and innovation teams
- Increased inclusion of women’s knowledge and experiences in research and innovation
- Gender-responsiveness of research and innovation in aquatic biodiversity conservation and environmental management stimulated.

#### **Strategic actions:**

- a. Gender-responsive research and innovation approaches – Support timely and efficient data collection of the number of women and their local traditional knowledge and

practices in aquatic biodiversity conservation and environmental management to strengthen their roles, values and opportunities; Support the external communication and publicity of the women’s activities and values for improved visibility and inclusion; Support women’s participation in technical research and innovation by advocating to be part of all-inclusive research and innovation processes in aquatic biodiversity conservation and environmental management.

- b. Involve women in research and innovation and support their engagement in a holistic approach; Incentivise women’s activities by providing specialized funding opportunities on gender research, and providing entrepreneurship opportunities for women. Women inclusion in research and innovation regarding aquatic resources helps to develop gender-responsive products and services as well as it helps to integrate women’s gender-specific knowledge in the research and innovation process; Advocate for women knowledge and experiences sharing through organizing workshops, exhibitions, talks shows, trade fairs, various country visits, websites.
- c. Enhance the development of value additional innovative technologies to reduce post-harvest losses and improve / provide more income for women; Promote other environmental conservation programs including “Waste for wealth” as an alternative source of livelihood for the women in the fishing communities.
- d. Organisation and support – Social capital development which include provision of child care facilities to support working women with children; Identify ways of creating decent jobs that help women excel in careers related to aquatic biodiversity conservation and environmental management; Support women in the area of finance by improving their access to credits and loans and their participation in mobile or agent banking; Advocate for improved employment conditions for women, such as child care centers at work and other mother benefits at work; Support capacity development and mentorship programs to

enable women in breaking the barriers to career development.

## *Guidelines for Women Inclusivity in Aquatic Biodiversity Conservation and Environmental Management*

Key strategies for gender-responsive strategies in aquatic biodiversity conservation and environmental management are as follows:

### **Policy and institutional framework**

- a. Invest in inclusive policy making by applying gender lens and tools for assessing how gender issues are framed in policy documents, and how women have been affected by the policies and programs in aquatic biodiversity conservation and environmental management. In this regard, the policies and programs developed for biodiversity conservation and environmental management need to be assessed for the extent of using sex disaggregated data (e.g. gender gap in terms of productivity, time use, infrastructure, access to resources and services) to support gender-responsiveness in impact assessments, policy analyses, and advocacy.
- b. Promote women friendly infrastructures for enhancing women inclusivity in aquatic biodiversity conservation and environmental management. This includes strengthening the role of women in value addition and competitiveness. Reduce women's barriers to excel in their activities through organisation and support (social capital development, child care facilities).
- c. Dedicate budget for gender-related work. Commitment and priority in gender-responsive budgeting is critical for mainstreaming gender in aquatic biodiversity conservation and environmental management. Government's commitment in mobilizing resources and allocating gender-related activities across relevant ministries and departments helps in designing and implementing activities which enhance women's inclusivity in aquatic biodiversity conservation and environmental management.

### **Communication and information sharing**

- a. Develop awareness and gender-related skills. This includes building women's technical, managerial and leadership capacities, investing in gender awareness among key actors in aquatic biodiversity conservation and environmental management, and promoting gender-specific knowledge for building climate resilience in aquatic ecosystems. Establish partnerships with private sector in capacity development initiatives.
- b. Promoting women leadership in aquatic biodiversity conservation and environmental management. Leadership roles in the subsector revealed male dominance at the different levels. Bringing women to leadership roles in leading research and innovation activities helps in mainstreaming gender in the development of product and services. Improve the flexibility of working conditions for encouraging women taking up leadership roles in ministries relevant for aquatic biodiversity conservation and environmental management.

### **Data and capacity development**

- a. Adopt intersectional approaches that capture key gender dimensions across initiatives. This can be achieved by paying attention to gender division of labor for targeting women effectively; promoting women's increased access to resources and benefits; empowering women in decision-making and controlling of resources, income and assets; and critically examining the local structures (formal and informal) for supporting gender equality in aquatic biodiversity conservation and environmental management.
- b. Promote transformative approaches for addressing gender norms constraining women's access to resources and achieve gender transformation in the long term. Invest time and resources to understand and critically examine the underlying causes of gender inequality. Promote male engagement and community engagement approaches for identifying and addressing the underlying causes of gender inequality.

### **Issues in Monitoring and Evaluation**

- a. Monitoring gender issues across the initiatives. Gender issues have dynamic and complex nature due to their embeddedness in the socio-cultural contexts. Monitoring of gender issues helps in capturing the lessons and making required changes in the initiatives. Information gathered during monitoring can be used in reprioritization of the gender issues and allocation of resources.

### **Mechanisms For Piloting The Guidelines**

- a. Identify those member states that have potential for improvement in gender mainstreaming in aquatic biodiversity conservation and environmental management to support the process of piloting gender mainstreaming in the continent.
- b. Setup partnership with the relevant ministries and engage in formal and informal discussions with key actors for gender mainstreaming.
- c. Support policy dialogue at national and sub-national levels for identification of

- d. specific priority issues and action areas for mainstreaming gender in aquatic biodiversity conservation and environmental management specific to the identified countries.
- d. Support development of gender mainstreaming strategies with clear objectives, roles and responsibilities of stakeholders, and workplan development in the identified countries.
- e. Strengthen the gender expertise in the relevant ministries. Gender experts play critical role in awareness creation on gender and the gender mainstreaming strategy.
- f. Monitor the piloting process. Gender indicators have to be developed, measured, and analyzed.
- g. Identify NGOs with good track record in aquatic biodiversity conservation but with little consideration on gender equality. Support NGOs to build their capacity in developing a gender strategy and action plan, and development of tools for enhancing women's inclusivity, with focus on women-led NGOs working at grassroots level for increased impact.





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