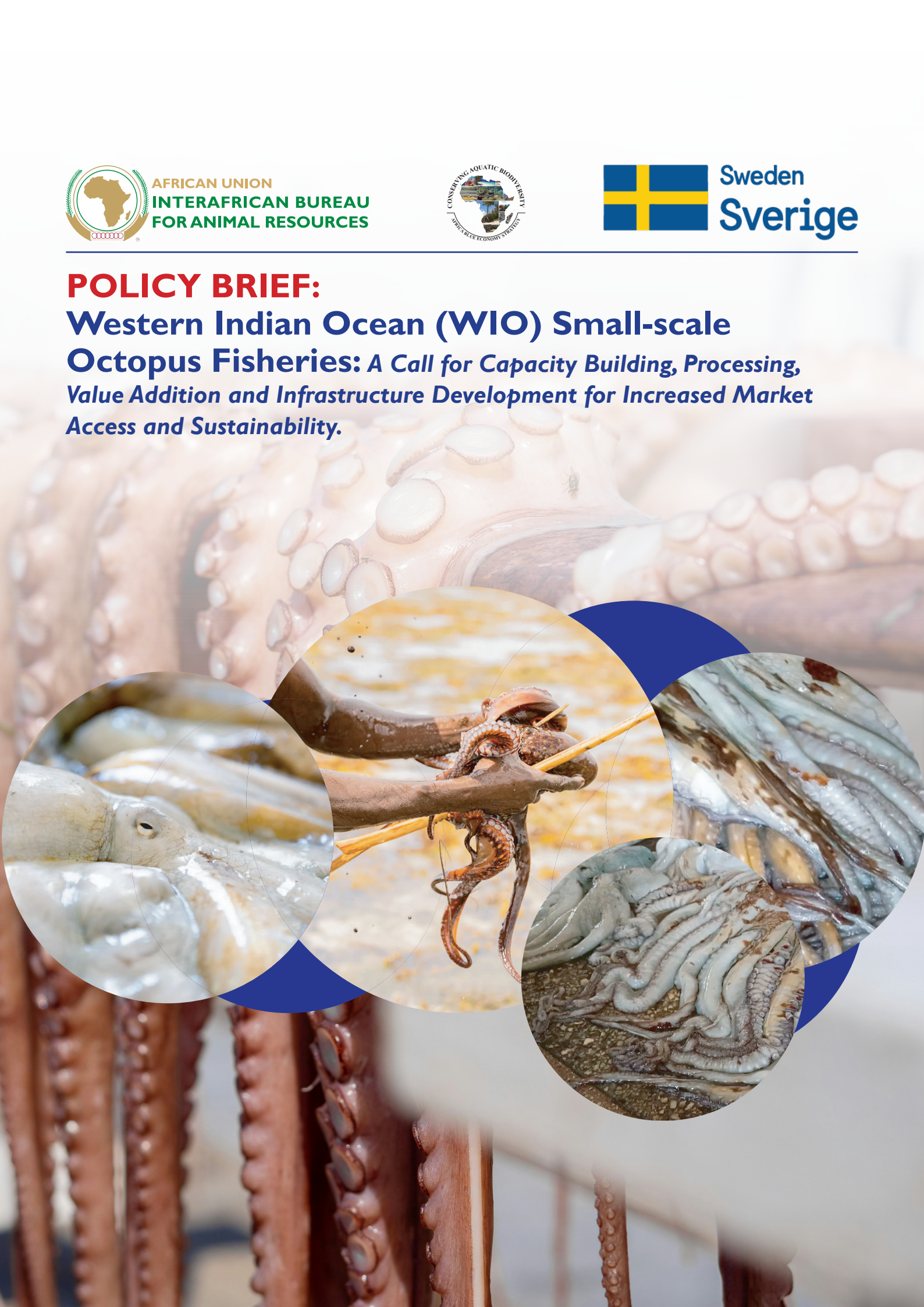
AFRICAN UNION
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POLICY BRIEF:
Western Indian Ocean (WIO) Small-scale Octopus Fisheries: *A Call for Capacity Building, Processing, Value Addition and Infrastructure Development for Increased Market Access and Sustainability.*



Prepared by: Amil Affane Nounou and Prof. Bernerd M. Fulanda Ph.D.

Edited by: Dr. Mohamed Seisay and Ms. Stephanie Achieng

Disclaimer: The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the African Union InterAfrican Bureau for Animal Resources.

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The Director
African Union – InterAfrican Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park, Museum Hill, Westlands Road
P.O. Box 30786-00100, Nairobi, KENYA
or by e-mail to: ibar.offce@au-ibar.org

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This Advocacy paper is a synthesis of the outcomes of the Regional Workshop on "Western Indian Ocean (WIO) Regional Training Workshop on Handling, Processing and Preservation of Octopus for Increased Market Access towards Aquatic Biodiversity Conservation and Environmental Management, Union of the Comoros, 24–26 March 2026". The work was conducted under the project 'Conserving Aquatic Biodiversity in African Blue Economy 2021-2027', funded by the Swedish International Development Cooperation Agency (SIDA) to whom we are grateful for the financial support.

Executive Summary

Small-scale octopus fisheries in the Western Indian Ocean (WIO) play a critical role in food security, employment, household incomes, and the socio-economic empowerment of coastal communities, particularly women and youth. Countries including Comoros, Kenya, Madagascar, Seychelles, and Tanzania depend significantly on artisanal octopus fisheries as part of their blue economy strategies and coastal livelihoods. However, despite increasing domestic and international demand for octopus products, the sector continues to face major constraints related to inadequate post-harvest handling, weak cold-chain infrastructure, poor hygiene standards, limited processing technologies, climate vulnerability, and restricted market access.

Recognizing these challenges, the African Union-InterAfrican Bureau for Animal Resources, with support from the Swedish International Development Cooperation Agency (SIDA), convened a regional training workshop on octopus handling, processing, and conservation in Moroni, Comoros, in March 2026. The workshop brought together stakeholders from Comoros, Madagascar, Seychelles, Kenya, and Tanzania to strengthen technical capacities, promote sustainability, and identify strategic interventions for improving the octopus value chain in the WIO region.

This Policy Brief highlights the major findings emerging from the workshop and calls for urgent investments in capacity building, infrastructure development, governance reforms, market systems, and regional cooperation. The brief advocates for integrated interventions that strengthen value addition, improve sanitary and quality standards, enhance women and youth participation, and promote sustainable fisheries management practices to secure livelihoods and marine biodiversity in the WIO region.

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1. Background and Context

The Western Indian Ocean hosts some of the most productive artisanal octopus fisheries globally, supporting thousands of small-scale fishers, traders, processors, and exporters. In many coastal communities, octopus fisheries represent one of the few accessible income-generating opportunities, especially for women engaged in gleaning, processing, drying, and trading activities.

The increasing global demand for octopus products presents an important economic opportunity for WIO countries. However, the region continues to underperform in high-value export markets due to limited compliance with international sanitary and phytosanitary standards, weak processing infrastructure, inconsistent product quality, and fragmented market systems.

Climate change further threatens the sustainability of octopus fisheries through rising sea temperatures, habitat degradation, coastal pollution, coral reef decline, and ecosystem instability. These challenges are compounded by weak fisheries governance systems, inadequate enforcement of fisheries regulations, and limited scientific data for adaptive management.

To address these gaps, AU-IBAR, under the project "Conserving Aquatic Biodiversity in the African Blue Economy (2021–2027)", supported a regional initiative aimed at strengthening the resilience, sustainability, and market competitiveness of small-scale octopus fisheries in the WIO region.

2. Key Challenges Facing Small-Scale Octopus Fisheries in the WIO

2.1 Inadequate Post-Harvest Infrastructure and Technologies

Inadequate post-harvest infrastructure remains a major constraint limiting the competitiveness, profitability, and sustainability of small-scale octopus fisheries in the Western Indian Ocean. Many landing sites operate under poor conditions characterized by inadequate sanitation facilities, unreliable access to clean water, limited ice availability, weak cold-chain systems, and poor processing and transport infrastructure, resulting in high post-harvest losses, reduced product quality, food safety risks, and limited access to premium export markets. Women and youth, who dominate post-harvest handling and processing activities, are disproportionately affected by these challenges. The situation is further worsened by inadequate energy infrastructure and rising temperatures linked to climate change, which accelerate spoilage and undermine investments in refrigeration and storage systems. Priority interventions should include:

- Development of hygienic landing sites and processing centres;
- Investment in ice plants, cold storage, and solar-powered refrigeration systems;
- Improvement of insulated transport and packaging technologies;
- Expansion of modern drying, processing, and value addition facilities;

- Capacity building on hygienic handling, quality assurance, and post-harvest management practices.

Strategic investments in post-harvest infrastructure and technologies would reduce losses, improve product quality and safety, increase incomes, strengthen market access, and enhance the long-term resilience and sustainability of the octopus fisheries sector in the WIO region.

2.2 Weak Quality Assurance and Sanitary Standards

Weak quality assurance systems and inadequate sanitary standards continue to undermine the competitiveness and marketability of octopus products from small-scale fisheries in the Western Indian Ocean. Poor hygienic conditions at landing sites and processing centres, including inadequate sanitation facilities, limited clean water supply, poor waste management, and weak food handling practices, contribute to contamination, spoilage, reduced product quality, and limited compliance with international food safety standards. Inadequate traceability, inspection, and certification systems further constrain access to premium regional and export markets. Priority interventions should include:

- Strengthening sanitary and phytosanitary (SPS) compliance systems;
- Investment in hygienic landing sites and processing facilities;
- Establishment of quality control laboratories and certification mechanisms;
- Training on food safety, quality assurance, and best handling practices;
- Strengthening traceability, inspection, and regulatory enforcement systems.

Improved quality assurance and sanitary standards would reduce post-harvest losses, increase product value, improve consumer confidence, and enhance the competitiveness of the WIO octopus sector in regional and global seafood markets.

2.3 Limited Value Addition and Market Diversification

The octopus fisheries sector in the Western Indian Ocean continues to generate limited economic returns due to low levels of value addition, weak market diversification, and inadequate access to modern processing and marketing systems. Most small-scale fishers and processors sell raw or minimally processed octopus products, resulting in low profit margins and limited competitiveness in premium domestic and export markets. Weak regional trade coordination, poor market information systems, and limited product standardization further constrain market access and economic growth. Priority interventions should include:

- Investment in modern processing, cold-chain, and packaging infrastructure;
- Promotion of product diversification, branding, and value addition;
- Strengthening traceability, certification, and quality assurance systems;
- Improving regional trade coordination and market information systems;
- Supporting women- and youth-led enterprises and cooperatives;
- Expanding regional trade opportunities under frameworks such as the African Continental Free Trade Area (AfCFTA).

These interventions would increase incomes, reduce post-harvest losses, strengthen market competitiveness, and support sustainable blue economy development across the Western Indian Ocean region.

2.4 Climate Change and Resource Sustainability

Climate change is increasingly threatening the sustainability and productivity of octopus fisheries in the Western Indian Ocean through rising sea temperatures, ocean acidification, habitat degradation, coastal erosion, and extreme weather events that affect octopus populations and critical marine ecosystems such as coral reefs, mangroves, seagrass beds, and rocky coastal habitats. These pressures are further compounded by unsustainable harvesting practices, illegal fishing, weak enforcement of fisheries regulations, and inadequate scientific monitoring, which undermine long-term resource sustainability and threaten the livelihoods of coastal communities dependent on octopus fisheries. Priority actions should include:

- Strengthening climate-resilient and ecosystem-based fisheries management;
- Enforcing seasonal closures, biological rest periods, and minimum catch sizes;
- Protecting critical marine habitats and biodiversity;
- Enhancing scientific research, monitoring, and data collection systems;
- Promoting community-based co-management and traditional ecological knowledge;
- Strengthening regional collaboration on marine conservation and climate adaptation.

These measures are essential for safeguarding octopus resources, improving ecosystem resilience, and ensuring sustainable livelihoods and food security for coastal communities across the Western Indian Ocean.

2.5 Gender and Youth Exclusion

Women and youth play a central role in the small-scale octopus fisheries value chain in the Western Indian Ocean, particularly in harvesting, processing, trading, transportation, and retail activities. However, despite their significant contribution to household incomes, food security, and local economies, they continue to face social, economic, and institutional barriers that limit their participation, recognition, and access to benefits within the sector. Many women and youth have limited access to modern technologies, training, finance, market information, infrastructure, and decision-making platforms, reducing their ability to fully participate in value addition and market opportunities. Priority interventions should include:

- Strengthening women- and youth-led cooperatives and enterprises;
- Improving access to finance, technologies, and productive infrastructure;
- Supporting vocational training, entrepreneurship, and leadership development;
- Enhancing participation in fisheries governance and decision-making structures;
- Integrating gender-responsive and youth-sensitive policies into fisheries management and blue economy programs.

Empowering women and youth will strengthen social inclusion, improve livelihoods, increase economic resilience, and support the long-term sustainability and competitiveness of the octopus fisheries sector in the Western Indian Ocean.

3. Strategic Opportunities for Transforming the Octopus Sector

The small-scale octopus fisheries sector in the WIO presents significant opportunities for advancing sustainable blue economy development, improving coastal livelihoods, strengthening food security, and expanding regional trade. Growing global demand for octopus products, coupled with the socio-economic importance of artisanal fisheries, creates strong potential for transforming the sector into a competitive and environmentally sustainable marine industry. Strategic investments and policy reforms can enhance productivity, value addition, market access, and long-term resource sustainability. Priority opportunities include:

- Investment in post-harvest infrastructure and cold-chain systems;
- Expansion of processing, packaging, and value addition technologies;
- Strengthening quality assurance and export certification systems;
- Promotion of climate-resilient and community-based fisheries management;
- Empowerment of women and youth through entrepreneurship and skills development;
- Strengthening scientific research, monitoring, and regional knowledge exchange;
- Enhancing regional trade integration through harmonized standards and trade facilitation frameworks.

These interventions would improve incomes, reduce post-harvest losses, strengthen ecosystem resilience, support biodiversity conservation, and position the WIO octopus sector competitively within regional and global seafood markets.

3.1 Strengthening Capacity Building and Skills Development

Strengthening capacity building and skills development is critical for transforming small-scale octopus fisheries into a competitive, sustainable, and inclusive blue economy subsector in the Western Indian Ocean. Many fishers, processors, traders, and community organizations continue to face significant technical gaps in sustainable harvesting, hygienic handling, quality assurance, value addition, cold-chain management, entrepreneurship, and market compliance, contributing to post-harvest losses, low product quality, and weak market competitiveness. Priority interventions should include:

- Training on sustainable fishing and post-harvest handling practices;
- Capacity building on sanitary and phytosanitary (SPS) standards;
- Skills development in processing, packaging, and value addition;
- Entrepreneurship, cooperative management, and digital marketing training;
- Climate-smart fisheries and resource management education.

Regional collaboration among governments, universities, research institutions, fisheries bodies, and development partners is also needed to establish continuous learning platforms, technical exchange programs, and regional centres of excellence. Special focus should be placed on empowering women and youth through mentorship, vocational training, leadership development, and access to innovation and digital technologies to strengthen livelihoods, fisheries governance, and long-term sustainability of the octopus value chain.

3.2 *Investing in Fisheries Infrastructure*

Investing in modern fisheries infrastructure is essential for improving product quality, food safety, value addition, and market competitiveness in the small-scale octopus fisheries sector of the Western Indian Ocean. Many artisanal landing sites continue to operate with inadequate facilities, including poor landing platforms, limited clean water supply, insufficient ice production, weak cold-chain systems, and inadequate processing and transport infrastructure, leading to high post-harvest losses and restricted access to premium markets. Priority investments should include:

- Hygienic landing sites and processing centres;
- Cold storage and ice production facilities;
- Solar-powered refrigeration and renewable energy systems;
- Insulated transport and packaging infrastructure;
- Modern drying and value addition technologies.

Infrastructure development should also integrate climate resilience, environmental sustainability, and social inclusion by supporting community-based systems accessible to women, youth, and small-scale fisheries enterprises. Improved infrastructure would strengthen traceability, certification, regional trade integration, private sector investment, and employment creation while enhancing the sustainability and competitiveness of the octopus value chain across the region.

3.3 *Promoting Value Addition and Market Access*

Promoting value addition and improving market access are critical for unlocking the economic potential of small-scale octopus fisheries in the Western Indian Ocean. Despite growing international demand, most fisheries actors continue to market raw or minimally processed octopus products with limited profitability due to inadequate processing technologies, weak packaging systems, poor product standardization, and limited compliance with sanitary and phytosanitary standards. Strengthening value addition through improved processing, grading, branding, traceability, and certification would enhance product quality, increase shelf life, and improve access to premium regional and export markets. In addition, stronger integration into domestic, regional, and international trade systems is needed to address weak market linkages, inadequate transport and logistics systems, fragmented value chains, and limited market information. Priority interventions should include:

- Investment in modern processing and packaging technologies;
- Strengthening producer cooperatives and market networks;
- Promotion of digital marketing and trade platforms;
- Harmonization of regional quality standards and certification systems;
- Expansion of trade opportunities under frameworks such as the African Continental Free Trade Area (AfCFTA).

These interventions would significantly increase incomes, create employment opportunities for women and youth, reduce post-harvest losses, and strengthen sustainable blue economy development in the region.

3.4 Enhancing Sustainable Fisheries Governance

Enhancing sustainable fisheries governance is essential for ensuring the long-term sustainability, resilience, and equitable management of octopus fisheries in the Western Indian Ocean. Weak enforcement of fisheries regulations, inadequate monitoring systems, illegal and unreported fishing, and limited implementation of science-based management measures continue to threaten octopus stocks and associated marine ecosystems. Strengthening governance frameworks requires integrated, ecosystem-based, and participatory approaches that balance resource conservation with livelihood needs of coastal communities. Effective governance should promote accountability, compliance, regional cooperation, and community participation while integrating climate adaptation and biodiversity conservation into fisheries management systems. Priority actions should include:

- Updating and implementing science-based octopus fisheries management plans;
- Strengthening monitoring, control, and surveillance (MCS) systems;
- Enforcing minimum catch sizes, seasonal closures, and biological rest periods;
- Promoting community-based co-management and participatory governance approaches;
- Protecting critical marine habitats such as coral reefs, mangroves, and seagrass ecosystems;
- Strengthening scientific research, fisheries data collection, and stock assessments;
- Enhancing regional collaboration on fisheries governance, trade standards, and marine conservation;
- Integrating traditional ecological knowledge and climate adaptation measures into fisheries management policies.

Strengthened governance systems will improve resource sustainability, enhance ecosystem resilience, reduce illegal fishing practices, and support long-term livelihoods, food security, and sustainable blue economy development across the region.

3.5 Supporting Women and Youth Empowerment

Supporting women and youth empowerment is critical for building an inclusive, resilient, and economically sustainable octopus fisheries sector in the Western Indian Ocean. Women and youth play central roles across the octopus value chain, particularly in harvesting, processing, trading, transportation, and retail activities, yet they continue to face significant barriers related to limited access to finance, technologies, infrastructure, training, market opportunities, and participation in decision-making processes. Strengthening their inclusion and economic participation is essential for reducing poverty, improving household incomes, enhancing food security, and promoting equitable blue economy development. Priority interventions should include:

- Expanding access to finance, credit facilities, and business development services;
- Supporting women- and youth-led cooperatives and enterprises;
- Providing vocational training, entrepreneurship development, and leadership programs;
- Improving access to modern processing technologies, infrastructure, and market information;
- Enhancing participation in fisheries governance and decision-making structures;
- Promoting gender-responsive and youth-sensitive fisheries policies and programs;
- Supporting digital innovation, value addition, and market access initiatives targeting women and youth.

Empowering women and youth will strengthen livelihoods, stimulate enterprise development, increase social inclusion, and enhance the long-term sustainability and competitiveness of the octopus fisheries sector in the region.

4. Policy Recommendations

Strengthening the sustainability, competitiveness, and inclusiveness of small-scale octopus fisheries in the Western Indian Ocean requires coordinated policy, institutional, and investment interventions at national and regional levels. Governments, regional organizations, development partners, research institutions, and private sector actors must work collaboratively to address infrastructure gaps, strengthen fisheries governance, improve market access, and enhance the participation of women and youth across the octopus value chain. Priority policy recommendations include:

- Invest in modern fisheries infrastructure, including hygienic landing sites, cold-chain systems, processing centres, and renewable energy solutions;
- Strengthen sanitary and phytosanitary (SPS) standards, quality assurance systems, traceability, and certification mechanisms;
- Promote value addition, product diversification, branding, and market access for small-scale fisheries products;
- Strengthen sustainable fisheries governance through science-based management, community co-management, and effective monitoring and enforcement systems;
- Enhance climate resilience and marine ecosystem conservation through ecosystem-based fisheries management approaches;
- Support women and youth empowerment through targeted financing, skills development, entrepreneurship, and leadership programs;
- Strengthen regional collaboration, knowledge exchange, trade facilitation, and harmonization of fisheries standards within the WIO region;
- Increase investment in research, data collection, innovation, and capacity building to support evidence-based fisheries management and blue economy development.

At the institutional level, this Policy Brief recommends the following actions:

a) National Governments

- Develop and update national octopus fisheries management plans;
- Invest in fisheries infrastructure and cold-chain systems;
- Strengthen fisheries inspection, traceability, and certification systems;
- Promote climate-smart fisheries policies and adaptation strategies;
- Support women and youth inclusion in fisheries development programs.

b) Regional Bodies and Fisheries Institutions

- Harmonize fisheries standards and quality assurance systems across the WIO region;
- Facilitate regional trade and market integration;

- Strengthen regional fisheries data collection and research;
- Promote knowledge exchange and joint training initiatives.

c) Development Partners and Financial Institutions

- Increase investment in small-scale fisheries infrastructure and value chains;
- Support climate resilience and ecosystem conservation programs;
- Expand technical assistance for value addition and market certification;
- Promote inclusive financing for women and youth enterprises.

d) Research and Academic Institutions

- Strengthen research on octopus ecology, climate impacts, and fisheries sustainability;
- Develop innovations in post-harvest technologies and processing systems;
- Support evidence-based policy development and fisheries monitoring.

Implementation of these recommendations will enhance livelihoods, strengthen food security, improve market competitiveness, and promote the long-term sustainability and resilience of the octopus fisheries sector in the Western Indian Ocean.

5. Conclusion

The small-scale octopus fisheries sector in the Western Indian Ocean represents a strategic opportunity for advancing sustainable blue economy development, food security, employment creation, and biodiversity conservation.

However, unlocking the full economic and social potential of the sector requires urgent investments in capacity building, infrastructure development, value addition, governance reforms, and inclusive market systems. The regional workshop organized by AU-IBAR and partners demonstrated strong commitment among WIO countries to transform the octopus value chain into a resilient, inclusive, and sustainable fisheries subsector.

A coordinated regional approach involving governments, regional organizations, research institutions, development partners, private sector actors, and fishing communities is essential to strengthen market access, improve livelihoods, protect marine ecosystems, and ensure the long-term sustainability of octopus fisheries in the Western Indian Ocean.

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TRANSFORMING OCTOPUS FISHERIES IN THE WESTERN INDIAN OCEAN

Small-scale octopus fisheries are a vital source of livelihoods, food security and economic opportunity for coastal communities in the Western Indian Ocean. With the right investments in people, infrastructure, innovation and governance, we can build a sustainable, inclusive and competitive octopus value chain that benefits communities today and safeguards our oceans for tomorrow.



CAPACITY BUILDING

Strengthening skills and knowledge for better handling, processing and business management.

INFRASTRUCTURE DEVELOPMENT

Investing in landing sites, cold chain, processing facilities and logistics for quality and efficiency.

VALUE ADDITION

Promoting innovative processing, product diversification and local enterprise development.

SUSTAINABILITY

Supporting responsible fishing, climate resilience and conservation of marine ecosystems.

MARKET ACCESS

Improving quality standards, certification and market linkages for regional and global markets.

WOMEN & YOUTH EMPOWERMENT

Creating opportunities, promoting equity and ensuring inclusive participation across the value chain.







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FOR ANIMAL RESOURCES

African Union – Interafrican Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park Museum Hill, Westlands Road | PO Box 30786-00100 Nairobi, Kenya
Tel: +254 (20) 3674 000 | Email: *ibar.office@au-ibar.org* | Website: *www.au-ibar.org*