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A photograph of a fisherman on a boat at sunset. The sun is low on the horizon, casting a golden glow over the water and the sky. The fisherman is silhouetted against the bright light. The boat is a traditional wooden boat with a long mast and a red cover. The water is calm with gentle ripples.

Report on the Status of Collaborative and Community-Based Fisheries Management in the COMESA Region

Authors:
Fiona Nunan and Queenette Nwariaku

September 2024

Authors:

Fiona Nunan, Professor of Environment and Development, International Development Department, University of Birmingham, Birmingham, UK, email: f.s.nunan@bham.ac.uk

Queenette Nwariaku, Postgraduate Researcher, International Development Department, University of Birmingham, Birmingham, UK, email: qcn199@student.bham.ac.uk

Disclaimer:

This report is the result of an unpaid study undertaken by Professor Fiona Nunan and Queenette Nwariaku to provide a baseline overview on the policies and legislation, practice and challenges of fisheries co-management and community-based fisheries management in Member States of the Common Market for East and Southern Africa (COMESA). As such, the report has been informed by available policy, legislation, reports and academic journal articles, and recommendations are made based on that available evidence. Member States were consulted on their policies and legislation through email contact, and the Industry and Agriculture Division of COMESA Secretariat guided and supported the study, as well as provided feedback on draft versions of the report. The authors thank government officials in their cooperation in providing relevant policy, legislation and other documents. The report was also presented at an online validation meeting, to which all Member States were invited. 72 representatives from 17 Member States attended and provided feedback, which informed this revised version of the report. Any misinterpretation of the evidence is unintended, and the report may not reflect the views of the COMESA Secretariat and Member States.

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List of Abbreviations

AWFishNet	Africa-wide African Women Fisher Processors and Traders Network
BE	Blue Economy
BMU	Beach Management Unit
BV	Blue Ventures
BVC	Beach Village Committee
CBFM	Community-Based Fisheries Management
CBNRM	Community-Based Natural Resource Management
CCA	Community Conservation Area
CFA	Community Forest Association
COMESA	Common Market for Eastern and Southern Africa
DFR	Directorate of Fisheries Resources, Uganda
EAF	Ecosystem Approach to Fisheries
EBFM	Ecosystem-based Fisheries Management
FAO	Food and Agriculture Organization
FFI	Fauna and Flora International
FiTI	Fisheries Transparency Initiative
FMC	Fisheries Management Committee
FMP	Fisheries Management Plan
FVMC	Fishing Village Management Committee
FWLP	Fisherwomen Leadership Program
GAFRD	General Authority for Fish Resources Development
IOC	Indian Ocean Commission
LEAFAO	Lake Edward and Albert Fisheries and Aquaculture Organization
LMMA	Locally Managed Marine Area
LTA	Lake Tanganyika Authority
LVFO	Lake Victoria Fisheries Organization
MIHARI	Mitantana Harena Andranomasina avy eny Ifotony
MPA	Marine Protected Area
NGO	Non-Governmental Organisation
PFM	Participatory Fisheries Management
RFO	Regional Fisheries Organisation
SAP	Structural Adjustment Program
WWF	World Wide Fund for Nature

Executive Summary

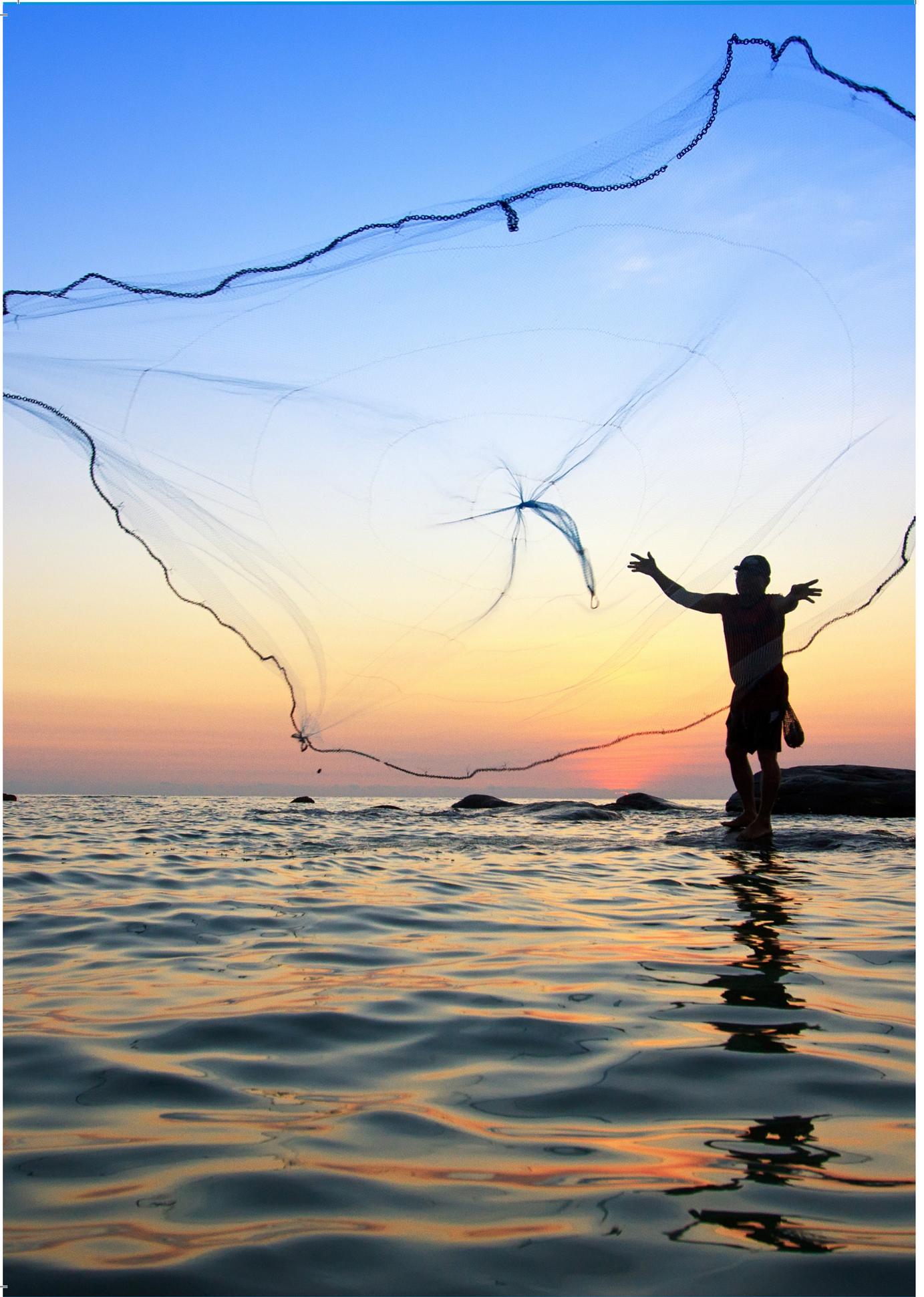
COMESA's 2024 Blue Economy Strategy includes targets to see collaborative management of fisheries resources adopted across its Member States. Collaborative management, or co-management, is an approach to governing natural resources that involves sharing of power and responsibilities between government, resource user communities, usually place-based communities, and other stakeholder groups. This report provides an overview of the status of policy, legislation, and practice in relation to fisheries co-management across the Member States of COMESA. The purpose of the report is to provide a baseline on which COMESA support to Member States can build and make recommendations in measures that COMESA and its Member States could take to adopt and strengthen fisheries co-management.

The report is informed by a desk-based study that drew on policies, legislation, reports, and academic journal articles found via an internet search and on policies and legislation provided by Member States, following communication with focal points of the COMESA Industry and Agriculture Division. The desk-based study was conducted between May and July 2024. The report also drew on feedback from Member States' representatives at the validation meeting held on 19 August 2024, and subsequently via email.

Findings from the study are provided under sections on definitions of co-management and community-based fisheries management, membership, responsibilities, resourcing, and effectiveness and challenges. The findings inform conclusions that:

1. Only a few countries have strong evidence of implementing and supporting fisheries co-management.
2. Several other countries have embarked on co-management, but the approach has not been adopted nationwide or has not been implemented effectively, often lacking supporting financial and technical resources.
3. Policy and legislation are not always adequate in terms of commitment to, and enabling of, co-management and community-based fisheries management. Even where policy and legislation are fairly strong, practice and performance has been fairly weak.
4. Effectiveness and sustainability of co-management and community-based fisheries management are particularly affected by insufficient ongoing support, the role of government in co-management not always being adequately articulated, and continuing pressure on fisheries resources, resulting from few viable alternative employment and income-generating opportunities.

Recommendations are provided to guide support to the uptake and strengthening of fisheries co-management for actions and measures that can be taken at regional and national levels. These include regional organisations facilitating the exchange of best practices and resources, and conduct of exchange visits, and, at national level, the development of plans to sustain co-management over time. Such plans should work to ensure inclusivity of women and youth, and integration of measures to respond to climate change and the need to protect and restore biodiversity through ecosystem-based approaches and adaptive governance.



1. Purpose of the Study

Co-management is considered to be the most fair, effective and appropriate approach to resource governance, bringing together fisher communities, other user groups and governments to jointly manage fisheries resources in a systematic way (Smallhorn-West *et al.*, 2023). The responsibility of resource management is shared between user groups and the government, and they are both involved in decision making, implementation and enforcement processes. Community-based fisheries management (CBFM) is a similar approach, but where communities initiate, or are supported in initiating, local management of fisheries. However, even community-based approaches involve cooperation with other stakeholder groups, particularly government.

COMESA's fisheries and aquaculture program spans a vast domain with 21 Member States comprising 9 coastal countries, 8 landlocked countries and 4 Ocean States. This underscores the significance of the region's endowment with vast fisheries and aquaculture resources. The COMESA Mid Term Strategic Plan (2021 to 2025) describes fisheries and aquaculture as one of the renewable natural resources that can sustainably be used for food, nutritional wellbeing, and wealth creation for its Member States citizens. However, to achieve this, sustainable management of the fisheries resources is requisite. This was hence captured under the COMESA Blue Economy (BE) Strategy 2024, with results of the Strategic Objective 'to catalyse an inclusive sustainable transformation of the blue fisheries and aquaculture' including 'enhanced fisheries management and governance' and 'small-scale fisheries supported'. The targets and indicators for these results include:

- By 2027, at least 30% of co-management regimes are operational
- By 2027, the co-management regime mainstreamed

The indicator 'number of co-managements in place' is associated with both targets, with COMESA playing a role in supporting Member States 'to promote co-management by promoting fishers' associations, community-based management organizations, cooperatives and social enterprises.'

Wider commentary on global BE initiatives have expressed concern regarding whether the interests and voices of small-scale fisheries are fairly represented in policymaking and implementation within the broad area of BE (Bennett *et al.*, 2021; Cohen *et al.*, 2019). Fears have been expressed that small-scale fisheries will be adversely affected by some BE initiatives, due to access to the coast, for example, or affected by pollution (Ayilu *et al.*, 2022). Improving the organisation, inclusivity and performance of co-management and CBFM offers a way to strengthen the capacity and potential for effective representation and participation of small-scale fisheries in BE decision-making and governance.

The University of Birmingham under the International Development Department is technically supporting COMESA to undertake a "Collation and analysis of policy and practice on collaborative and community-based fisheries management in the COMESA region". This report is the result of the support, providing a baseline status of collaborative and CBFM in the Member States of COMESA, to inform planned strategic interventions that support inclusive fisheries governance

and sustainable implementation of the COMESA BE Strategy.

2. Co-Management and Community-Based Fisheries Management

Co-management and community-based approaches to fisheries management have been introduced and encouraged since at least the 1990s, taken up across the world to bring communities into fisheries governance (d'Armengol *et al.*, 2018). In Africa, the adoption of such approaches particularly followed Structural Adjustment Program (SAP) requirements for governments to freeze staff recruitment and reduce costs, and the trend more generally across international development towards participatory approaches and decentralisation (Hara and Raakjær Nielsen, 2003; Nunan, 2020).

Co-management has been defined as 'an arrangement where responsibility for resource management is shared between the government and user groups' (Sen and Raakjær Nielsen, 1996, p.406), whereas community-based approaches should be more community-led. In practice, community-based approaches are often initiated by government, projects, or non-governmental organisations (NGOs). Evidence on the performance of co-management and community-based approaches across the world is mixed, with factors that enable more effective approaches including the existence of enabling policy, adequate funding, and ongoing government support (d'Armengol *et al.*, 2018). However, reviews have noted that there is, in general, insufficient evidence available on which to draw informed conclusions about the performance and impact of fisheries co-management (Evans *et al.*, 2011; d'Armengol *et al.*, 2018).

Where co-management and community-based management is implemented, these approaches often involve the formation of new structures (Nunan *et al.*, 2015). Examples of these structures include community-based Beach Management Units (BMUs) in Kenya and Beach Village Committees (BVCs) in Malawi. Such community-based structures enable more organised fishing communities to engage with fisheries management at local and higher levels. However, the form and practice of these structures is likely to change over time and between locations. This is because the introduction of new governance approaches does not take place in an institutional vacuum – many structures, institutions and practices existed before and still exist. Newly introduced or formed structures, systems and rules interact with existing institutions and therefore shape, and are shaped by, those institutions (Nunan *et al.*, 2015). In forestry settings, it has been found that new governance institutions may even be rejected (de Koning, 2014). Therefore, it is expected that the structures, practices, and performance of co-management systems will differ between locations and over time. This is inevitable and can be viewed as a sustainable approach as institutions are adapted and change over time to better reflect local conditions, preferences and needs (Nunan *et al.*, 2021).

This observation that structures and systems change over time and vary in composition, practice, and performance between locations, is confirmed by Pomeroy *et al.* (2022) in their guidelines for evaluating the effectiveness of fisheries co-management, noting that 'fisheries co-management is a process of fisheries governance; maturing, adjusting and adapting to changing conditions over time' (2022: 11). Co-management is not, therefore, a management

approach, but a governance approach, concerned with decision-making rather than the activities of managing, such as licensing, enforcing and monitoring. Governance in relation to natural resources has been defined as:

the norms, institutions, and processes that determine how power and responsibilities over natural resources are exercised, how decisions are taken and how citizens – including women, men, youth, indigenous peoples and local communities – secure access to, participate in, and are impacted by the management of natural resources (Campese, 2016, p.7).

Co-management, and similarly CBFM, provide the decision-making spaces to guide management and is therefore influenced by existing power dynamics, local norms and the political and economic context (Nunan, 2020).

One final important point to note about co-management is that the approach involves power-sharing between government and resource users. In practice, power-sharing is far from equal, with more power held by government (Béné *et al.*, 2009). This raises questions as to whether sufficient power and responsibilities are shared, and whether communities have the time and capacity to take on certain levels and types of responsibilities.

3. Methods

This study drew on secondary sources rather than involved collection of new data. Secondary sources refer to sources that already exist and which were generated for purposes other than this study. Using secondary sources has the advantage of enabling a quick and low-cost review. However, there will inevitably be gaps in the evidence available and the evidence that is available may have been generated using different methods and at different points in time, making comparison challenging. However, a desk-review can provide an important and useful baseline for future work, including highlighting gaps in evidence and knowledge.

Secondary sources included in this study were: legislation, policy documents, government, donor and consultancy reports, and academic journal articles. Two approaches were taken to collate documents:

- 1.** An initial web search for policies, legislation, reports, and journal articles.
- 2.** Subsequently, emails were sent to focal point persons from all 21 Member States (including directors and officers of fisheries departments and ministries, with their embassies/High Commissions and relevant partner ministries in copy), and the four regional bodies (LVFO, LTA, IOC, and LEFAO). These emails were sent to request for copies of policies, legislation, strategies, and plans. In some cases, these enabled us to check the versions found through the internet search and, in other cases, documents were provided that were not found through an internet search.

Of the 21 Member States contacted via email, documents were received from 16 (Burundi, Comoros, Djibouti, Egypt, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius,

Rwanda, Seychelles, Uganda, Zambia, Zimbabwe). No documents were received from DR Congo, Eritrea, Somalia, and Sudan, although internet sources were relied on for Eritrea. For Tunisia, the process of obtaining relevant documents was still ongoing at the time of this report. Additional information were also provided on the status of CBFM and co-management by government representatives at a report validation meeting held online on 19th August 2024 and subsequently via email. Details of the participants and Member States' representatives present at this validation meeting are attached as Appendix 2 of this Report. Furthermore, of the 4 regional bodies, documents were received from the Lake Victoria Fisheries Organization (LVFO), and a response from Lake Edward and Albert Fisheries and Aquaculture Organization (LEAFAO). However, no documents were received from the Indian Ocean Commission (IOC) and Lake Tanganyika Authority (LTA)

4. Findings

In Appendix 1 of this report, the table indicates which policies and legislation were reviewed for each country, how co-management or CBFM is defined, whether information is provided on membership of co-management and CBFM systems and structures, and whether information is provided on functions of those structures and systems. 14 of the 21 Member States were found to have some form of co-management and/or community-based fisheries management, according to available and accessible policy and legislation, and additional information received during and after the validation meeting from government representatives of Member States. These Member States were largely in Eastern and Southern Africa. For the Northern African COMESA Member States, however, the situation was found to be different. For example, in Libya, the predominant fisheries legislation is the General Secretariat of Marine Wealth Law, No.14, 1989, and its Implementation Rules, which contains no provisions on co-management. However, the Libyan government is working to update the law to consider and/or include sections on blue economy particularly with regards to inclusion of local stakeholders like women and youth in Libya's fisheries governance. Similarly, in Egypt, the provided document indicated that much is being done in terms of aquaculture, with lesser attention on inland and coastal fisheries. However, fishermen in Egypt are required to be members of a fisheries or aquaculture cooperative, with these cooperatives providing insurance for fishermen and assisting during closed seasons. The Co-operative Union represents fishermen in parliament and is a member of the administrative board of the General Authority for Fish Resources Development (GAFRD), which is responsible for fisheries management in Egypt (FAO, 2024). In terms of regional bodies, LEAFAO reported not having independent laws and policies on fisheries management. Table 1 provides a summary of the information provided in the Appendix, giving an overview of reference to co-management and CBFM in policy and legislation in COMESA Member States where documents were available and/or accessible.

Table 1: Overview of Co-Management/CBFM in Member States and Regional Bodies

	Countries	Document Received	Co-Management	Membership	Functions
	Burundi	Yes	?	?	?
	Comoros	Yes	Yes	?	?
	DR Congo	No	-	-	-
	Djibouti	Yes	Yes	?	?
	Egypt	Yes	No	No	No
	Eritrea	No (Internet sources)	Yes	Yes	No
	Eswatini	Yes	Yes	No	No
	Ethiopia	Yes	No	No	No
	Kenya	Yes	Yes	Yes	Yes
	Libya	Yes	No	No	No
	Madagascar	Yes	Yes	Yes	Yes
	Malawi	Yes	Yes	Yes	Yes
	Mauritius	Yes	Yes	No	No
	Rwanda	Yes	Yes	Yes	Yes
	Seychelles	Yes	Yes	No	No
	Somalia	No	-	-	-
	Sudan	No	Yes	Yes	-
	Tunisia	No	-	-	-
	Uganda	Yes	Yes	Yes	Yes
	Zambia	Yes	Yes	Yes	Yes
	Zimbabwe	Yes	Yes	No	No
Regional Bodies					
	LVFO	Yes	Yes	Yes	Yes
	LEAFAO	No	-	-	-
	IOC	No	-	-	-
	LTA	No	-	-	-

Where co-management exists, it has largely been introduced with the support of donor-funded projects, with some projects dating back to the 1990s, for example in Malawi and East Africa (Nunan *et al.*, 2015), generally as part of broader projects, rather than being solely dedicated to establishing co-management. Given the time it takes to design, develop, and implement co-management, particularly in a collaborative way, several projects were found to have only just completed the formation of co-management structures, such as beach level committees, at the end of project support, leaving little time for capacity building and ongoing technical

support and mentoring. This was the case on Lake Victoria through the Implementation of a Fisheries Management Plan (FMP) (Nunan, 2020) and in Comoros (World Bank, 2023). In some countries, multiple projects have provided some support to building co-management over time, though with breaks in time and not all water bodies included. As discussed in the section on resources below, there is a consistent picture of insufficient financial and technical support over time and across Member States.

In coastal and island states, the introduction or operationalisation of co-management or CBFM is often associated with the formation of Marine Protected Areas (MPAs), or Locally Managed Marine Areas (LMMAs), and so go beyond the remit of fisheries alone, to include protection and restoration of coastal and marine ecosystems. Many such initiatives are led or supported by international NGOs, such as World Wide Fund for Nature (WWF), Fauna and Flora International (FFI), and Blue Ventures (BV) (Gardner *et al.*, 2020; Kawaka *et al.*, 2017). Inland CBFM and co-management tend to be more focused on fisheries and led by departments/ministries of fisheries.

Whilst policies and legislation do not explain why co-management or community-based fisheries management approaches were developed, or who initiated the formation of structures, other evidence suggests that such approaches are often pursued because of decreased capacity of government to manage fisheries or the desire to address a perceived crisis, for example in overfishing or illegal fishing. However, in some cases, some form of community organisation and collaboration with government pre-existed or exists without project or government initiative, for example through customary rules and the leadership of Traditional Authorities. In Kenya, policy and legislation on fisheries co-management is guided by the 2010 Constitution, in which Article 69 requires that the public is encouraged to participate in the management, protection and conservation of the environment. The evidence presented in this report starts with policy and legislation, and so mainly focuses on state acknowledged or led approaches but does include reference to customary rules and Traditional Authorities where relevant.

4.1 Defining Co-Management and Community-Based Fisheries Management

In this section, definitions of co-management and community-based fisheries management are reviewed, to reflect on how the approaches are understood and what we can learn from this.

In Eswatini and Madagascar, existing policies provide for community-based management, referring to it as the participation of communities in decision-making. In Eswatini, capacity for fisheries management is very limited. However, the government has begun to train communities to be involved in managing and reporting on illegalities, demonstrating recognition of the potential for co-management to address the lack of government capacity in fisheries management. In Madagascar, community-based management takes place through LMMAs. These have been encouraged since the early 2000s as a way of engaging organised communities in coastal and marine conservation. Parker *et al.* (2024) report that there are around 178 LMMAs throughout Madagascar, supported by the Madagascar LMMA Network (MIHARI – Mitantana Harena Andranomasina avy eny Ifotony). The formation of LMMAs has been largely supported by non-

governmental organisations (NGOs), themselves reliant on donor funding to support projects that enable the formation of LMMAs. In some cases, communities and NGOs have worked in a co-management type arrangement, responding to a lack of state capacity to manage coastal and marine ecosystems (Long *et al.*, 2021; Parker *et al.*, 2024).

In Malawi, co-management has been introduced in different ways across different water bodies and at different times, though starting in the early 1990s, sometimes initiated by government and supported by donor funded projects and, in some cases, initiated by fishing communities (Njaya, 2007). In 2000, the Fisheries Conservation and Management (Local Community Participation) Rules were approved, which require BVCs to be formed, consisting of everyone working in fisheries at a beach. The Rules also provides that BVCs may form fishermen's associations, and each BVC should have a sub-committee of elected members, with 11 office bearers, each becoming an honorary fisheries officer, with the appointment of sub-committee members as honorary fisheries officers permitted under the Fisheries Conservation and Management Act, 1997, which states in Section 4(3) that:

Honorary fisheries officers shall exercise such of the powers of fisheries protection officers as shall be prescribed in the instrument of appointment.

Co-management is generally referred to as Participatory Fisheries Management (PFM) in Malawi and is defined in the National Fisheries and Aquaculture Policy, 2016, as:

a shared fisheries management arrangement involving Government, fishing communities and other stakeholders.

However, in Section 3.4 of the same policy, PFM is also alternatively referred to as co-management.

In Kenya and Uganda, slightly different approaches to co-management previously existed in each of the three countries. However, in the early 2000s, a shared approach to co-management evolved through the countries' common concern with the regionally important fisheries of Lake Victoria. This was particularly enabled through the European Union funded project named, 'Implementation of a Fisheries Management Plan'. This saw the enactment of regional, harmonised, guidelines that provided a unified definition of a BMU. For example, the Regional Guidelines for Fisheries Co-Management on Lake Victoria, 2021, defines a BMU as:

an organisation of fisher folk at the beach (boat crew/baria, boat owners, managers, charterers, fish processors, fish mongers, local gear makers or repairers and fishing equipment dealers) within a fishing community.

The Kenya Beach Management Unit Guidelines, 2006, adopted the above definition. However, Rule 2 of the Fisheries (Beach Management Unit) Regulations, 2007 revised in 2012, defines a BMU slightly differently as:

an organisation of fishers, fish traders, boat owners, fish processors and other beach stakeholders who traditionally depend on fisheries activities for their livelihoods.

This definition is also used in the Fisheries Management and Development Act No. 35 of 2016.

In Uganda, Rule 2 of the Fish (Beach Management) Rules, No. 35, 2003, defined a BMU as:

an organisation of fishers (boat crew or barias), boat owners, owners, managers, chatterers, fish processors, fish mongers, boat makers, local gear makers or repairers and fishing equipment dealers.

In both cases, the types of occupations that should be included in the structure are defined. No definition was provided in policy and legislation of co-management, with reference mainly to community based BMUs rather than to collaboration and the role of government (Nunan, 2020).

More recently, definitions of co-management have been included in policy and legislation in Kenya. The draft Kenya Fisheries Policy, 2023, defines co-management as:

a process of management in which government shares power with resource users, with each given access and responsibilities relating to information and decision making.

Also, in the Kenya Fisheries (Beach Management Unit) Regulation, 2024, co-management is defined as:

a partnership arrangement that shares responsibilities between the government, beach management units and other stakeholders in the management of fisheries resources.

This new regulation also allows for the formation of BMU networks, defined as:

an organisation of beach management units at ward, sub-county, county, water body and national levels formed under regulation 53.

Such networks have existed in some form, under regional co-management guidelines for Lake Victoria since 2007 (LVFO, 2007), though the new regulation refer more explicitly to them than previous regulations. The draft Kenya Fisheries Policy, 2023, also offers a slightly different definition of a BMU, bringing in a requirement that such a structure should be at a 'designated fish landing site':

means an organisation of fishers, fish traders, boat owners, fish processors and other beach stakeholders at designated fish landing site who depend on fisheries activities for their livelihoods.

In the case of Uganda, it should be noted that BMUs across the country were suspended in late 2015 by President Museveni, in response to concerns regarding corruption and persistent illegalities (MAAIF, 2015). They were replaced by Fish Landing Site Committees to be formed by local government, rather than the Directorate of Fisheries Resources (DFR), which had previously led in the formation of BMUs. This was supposed to be an interim measure but lasted many years. However, the Fisheries and Aquaculture Act, 2022, included provision for fisheries co-management committees to be formed from the landing site level to national level and this is now in the process of being taken forward.

In some countries, there is minimal reference to how resource users can be involved in fisheries

management. For example, in Mauritius, Section 5(k) of the Fisheries Act, 2023, states that ‘the interests of small-scale or artisanal fishers shall be considered, including their participation in management of their respective fisheries.’ However, no further detail is provided on how these interests will be considered, or participation enabled. Similarly, In Seychelles, Section 5 of the Fisheries Act, No. 20, 2014, refers to consulting stakeholders in developing fisheries management plans and for these plans to consider the role of stakeholders in decision-making. The Act also notes that government may form a ‘co-management arrangement’ but no further information is provided in the legislation on these arrangements. The draft Fisheries and Aquaculture Bill, 2023, replicates the same provisions on stakeholders and co-management arrangements, though it also contains a clause the promotion of ‘broad and accountable participation of stakeholders in the conservation, management, development, and sustainable use of fisheries resources ... to the extent practicable’ (Section 5(l), (n)). No further information was found on what form(s) this participation may take. The development of co-management arrangements is also being encouraged in Seychelles through the formation of LMMAs, supported by the 2022 Nature Reserves and Conservancy Act.

The Zambia Fisheries Act, 2011, provides that the Director ‘shall promote a community-based natural resource management approach in respect of fisheries management.’ Whilst this is not elaborated on, the Act does go on to refer to the formation of Fisheries Management Committee (FMCs), involving representatives of fishing communities and local authorities. Whilst FMCs have been formed in some fisheries, such as Village FMCs in the Mweru-Luapula fishery, they have been found to have had little positive impact, associated with limited capacity especially at the close of donor-funded projects, and lack of government support (Kaluma and Umar, 2021). The inefficiency of FMCs has been attributed to poor structures like infrequent elections, and lack of motivation for membership. As a result, the Act is currently under review to, amongst other things, reform the governance structures for more positive outcomes. This will include forming lower structures called Fishing Village Management Committees (FVMCs), to follow FMCs.

In Zimbabwe, some of the fisheries management plans of fisheries/water bodies refer to co-management, such as the Lake Kariba Inshore Fisheries Management Plan 2023 - 2032, which refers to a co-management approach being established and strengthened in Paragraph 6:

co-management approach to fisheries management where cooperative arrangements that bring together other lake users and stakeholders (including kapenta fishers and tourist operators) should be established and strengthened for integrated management of the community fishing area.

Co-management was reported to have been initiated in Rwanda, through partnership between the Union of Fishing Cooperatives that organises and represents the fishing community, and the Fishing Guards, selected from within these communities for overseeing and enforcing sustainability practices. Security organs such as the police and marine arm of the army provide additional checks, and local authorities help to ensure that management efforts meet specific needs and challenges within an area. It is intended that task forces will be created to further embark on a co-management approach, with the aim of improving compliance and

communication.

Finally, in Sudan, responsibility for fisheries management is devolved to the state level, where fishermen's unions and associations for women have been formed and through which training is provided. These structures could be built on in the development of co-management.

This brief review shows that countries differ in terms of whether a nationwide approach is taken to the adoption of co-management or CBFM or whether a more piecemeal approach is undertaken, focusing at times on specific areas of coastline or water bodies. Reasons for different approaches include whether initiatives are led by government or local communities, and whether they are supported by a project or NGO with a focus on a particular location.

4.2 Membership of Co-Management and Community-Based Fisheries Management Structures

Information on membership was reviewed in terms of how prescriptive membership is, which stakeholder groups, if any, are specified, how inclusive approaches are, particularly in relation to women, and whether a role for Traditional Authorities is specified.

Policy and legislation were found to not always specify who should be involved or represented in fisheries co-management or community-based fisheries management. Table 1 shows that information on membership was only found in 8 of the 21 countries. Often though, information provided was quite limited. For example, Eritrea refers generally to the participation of 'fishermen' and 'fishermen associations' as participants in co-management.

In contrast, Kenya and Uganda included quite detailed requirements on membership in their BMU guidelines, referring to the formation of an elected committee, of between 9 to 15 members, with 30% boat owners, 30% boat crew, 30% from other stakeholder groups from within fisheries and 10% fishmongers. These requirements were then supplemented with a requirement that at least 3, or in some guidelines 30%, of committee members should be women. The intention of this prescriptive approach was to bring in other stakeholder groups to decision-making, particularly boat crew and fish processors and traders, as decision-making had been dominated by boat owners. Debate has persisted in Uganda over this approach, as boat owners have argued that their investment in fisheries should imply greater say over how the fisheries are managed than other stakeholder groups. Membership requirements may change in Uganda because of the drafting of new guidance for Landing Site Management Committees, following the passing of the Fisheries and Aquaculture Act of 2023.

Some countries specifically include representation of Traditional Authorities in fisheries management whilst others refer to customary rules. Zambia, for example, specifically includes a representative of the chief in a fisheries management committee in Section 29(c) of its Fisheries Act, 2011. Whereas in Malawi, although policy and legislation does not refer to Traditional Authorities, in practice, they have been involved in some co-management systems, even dominating BVCs at times (Njaya, 2007). Traditional Authorities have been found to both provide legitimacy and support but have also led to unaccountable and undemocratic BVCs

(Njaya, 2007), while power struggles between Traditional Authorities and fisheries leaders have been reported (Njaya, 2007; Kosamu *et al.*, 2017). In Madagascar, it is the customary system of law-making, *Dina*, that has informed LMMAs, with both positive and negative consequences, including the requirement for *Dina* to be 'codified', i.e., formally agreed, and recognised, thereby reducing scope for flexibility and change (Cinner *et al.*, 2009).

In many of the countries, research has found that women are less likely than men to be involved in fisheries governance structures. As observed above, Kenya and Uganda included a requirement for at least 3 members (Kenya BMU Regulations of 2007 and Guidelines of 2006) and 30% (Uganda BMU Guidelines of 2003) of BMU Committee members to be women. The latest BMU Regulations in Kenya (2024) states that BMU Executive Committee should meet 'the gender requirement such that not more than two thirds of the members shall be of the same gender.' Despite this quota requirement, Nunan and Cepi..(2020) found on Lake Victoria that although involvement of women in BMU committees was widely accepted, women faced multiple constraints on their involvement, ranging from lack of time due to many domestic as well as income-generating responsibilities and cultural norms discouraging them from speaking in public spaces, and discouraging men from taking women's voices seriously. This had the effect of activities women were involved in, namely processing, and trading fish, not receiving as much attention as they could do in BMU discussions and activities. In Madagascar, the situation in LMMAs has been the same, with few women involved in decision-making. Baker-Médard *et al.* (2023) report on an initiative under the broader marine conservation network MIHARI to bring attention to the limited participation of women, with the launch of the Fisherwomen Leadership Program (FWLP) in October 2020, which has led to greater involvement of women in governance structures.

The lack of involvement of women in fisheries co-management in COMESA Member States reflects the situation found more generally (see Alonso-Población and Siar, 2018; Chambon *et al.*, 2024; Galappaththi *et al.*, 2022). From a systematic review of literature, Chambon *et al.* (2024) found that in more than 80% of 124 case studies women had no or limited participation. Further, they found that the exclusion of women was associated with negative consequences for women's livelihoods, potentially reflecting the lack of attention given to concerns associated with the activities of women in fisheries. Where women are involved in co-management, they commonly occupy limited roles, mostly communication and administrative positions, which reflect traditional gender roles (James *et al.*, 2021). Women are consistently underrepresented in leadership positions, which can limit the topics they are involved in and their power to change policy and practice (Gustavsson *et al.*, 2021).

4.3 Responsibilities and Functions of Co-Management and Community-Based Fisheries Management Structures

Some of the policy documents and legislation reviewed set out the functions and roles of structures formed under a co-management arrangement, particularly in relation to the roles of community-level structures. For instance, in Kenya, the Fisheries (Beach Management Unit) Regulation of 2007, and 2024, set out an extensive list of responsibilities, including keeping the

beach area clean, resolving conflict, and collecting data as required. The 2024 regulations are clearer than the 2007 regulations in terms of the need to promote compliance with regulations. The Fish (Beach Management) Rules, No. 35, 2003, in Uganda, included conducting patrols, as well as maintaining a register, participating in licensing, and coordinating with neighbouring BMUs. Over time, however, due to the suspension of BMUs and introduction of the Fisheries Protection Unit of the Uganda Peoples Defence Force in enforcing compliance, fishing communities have been less involved in enforcement than implied by the 2003 legislation. The roles of other actors are set out in the regulations in relation to how they support and work with BMUs. However, the Fisheries Co-management Guidelines for Lake Victoria, 2007 revised in 2021, set out in more detail the role of other actors in co-management. Such roles include the role of government in supporting the formation and operation of BMUs, providing budget allocation to support BMUs, leading in policy formulation and in monitoring, control, and surveillance of fisheries (Section 6.4.1).

In Malawi, roles and functions are set out in the 2000 rules, including that BVCs should scrutinise applications for registration of fishing vessels and licences, maintain records and enforce regulations. In practice, roles and functions vary across BVCs, associated with how well the BVCs are working and how they were initiated (Njaya, 2007). For Zambia, Section 30 of the Fisheries Act, 2011, mandates the Fish Management Committee, comprising of government and local actors like chiefs, to, amongst other functions, negotiate co-management agreements with industrial fishing companies operating in the fisheries management area under its jurisdiction. However, evidence from literature suggests conflicts between the government and stakeholders like Traditional Authorities in the implementation of these functions in some fisheries. For example, a study by Imbwae *et al.* (2023) found that tensions and disagreements have often arisen between the central government and the Traditional Authorities over leadership roles in the governance of the Zambesi River fishery. According to the literature, the Traditional Authorities are responsible for granting access rights, which contrary to the government's stipulations, are granted to migrant fishers to settle in seasonal camps during the fish ban period. The contention of the traditional rulers is that a fish ban results in limited livelihood options, whereas the government refuses to recognise any access rights granted during this season.

4.4 Resourcing Co-Management and Community-Based Fisheries Management

Some of the guidelines and regulations set out how local level co-management structures can raise revenue to support activities. Funding may be needed to support travel of officers, buy assets needed to clean and maintain landing sites, participate in enforcement and other activities. In the LVFO supported Harmonised BMU Guidelines of 2005, possible mechanisms for raising funds included instituting a membership fee, competing to operate revenue collection tenders from local government at landing sites, bringing in landing site user fees and levying fines for infringements of by-laws. The national guidelines of Kenya and Uganda have similar lists, with Uganda also including 25% of the Fish Movement Permit fee to be returned to BMUs. In practice, it has been challenging for BMUs to raise sufficient revenue and, before suspension,

BMUs in Uganda were not receiving the full 25% of revenue from the Fish Movement Permit. More generally, it has been challenging to raise sufficient funding for fisheries management in the two countries, not helped by insufficient funding by government for officers at national and sub-national levels to carry out their work (Nunan, 2014, 2020). In addition, discussions have been ongoing in Kenya and Uganda on the establishment of a Fish Levy Trust Fund since the 1980s and such a fund has yet to be operationalised, at least in part due to the reluctance of Ministries of Finance to see funds raised within the sector remain within the sector (Nunan, 2014).

Insufficient funding has also been identified as a challenge in sustaining LMMAs in Madagascar, with insufficient funding coming from government and NGOs who have supported LMMAs facing challenges in sustaining funding (Gardner *et al.*, 2020; Parker *et al.*, 2024). Long-term reliance on donor funding brings challenges of gaps in funding due to short-term projects and too much influence of donor priorities on what is undertaken during projects. However, some LMMAs and Community Conservation Areas (CCAs) in coastal areas and island states have begun to, or have plans to, tap into carbon markets through conservation and restoration of mangrove forests and other coastal ecosystems (Gardner *et al.*, 2020; Moraes, 2019). In a document explaining 'blue forests,' Blue Ventures (2015) explain the importance of integrating fisheries management into conservation of mangrove forests and other ecosystems, however this is not always the case, with Mikoko Pamoja in Gazi Bay, Kenya, for example, falling within the remit of a Community Forest Association, under Kenya Forest Service, separate from the local BMU (Huxham *et al.*, 2023).

Reliance on external funding to develop and maintain has also been the experience in much of the fisheries co-management in Malawi. Njaya *et al.* (2018) identify three potential sources of funding that could help sustain BVCs: the establishment of a fisheries fund, introducing district user fees and agreeing charges on the use of landing facilities. These recommendations suggest that there is some way to go in operationalising financial sustainability of co-management in Malawi.

Broadly, then, insufficient resources within co-management are experienced in several ways:

1. Lack of funding for fisheries management in general, including to support and nurture co-management
2. Lack of technical support for co-management, associated with insufficient government officers, their lack of training in co-management and so their inability to sufficiently support co-management
3. Lack of equipment in fishing communities to carry out some functions associated with co-management, such as enforcement.

4.5 Effectiveness and Challenges

Assessment of and observations on the performance of fisheries co-management have tended to focus more on community-level structures rather than government and the system as a whole. Nunan *et al.* (2015) reported, for example, that the performance of BMUs in East Africa and

BVCs in Malawi has been mixed, in terms of there being varied experience of BMUs and BVCs remaining active over time and contributing positively to sustainable fisheries management, for example by addressing illegal fisheries activities. However, co-management has often not been that effective, often linked to insufficient resources, as discussed in 4.4, but also because in some cases, community-level structures have been taken over by fishers and others involved in illegal activities, with no intention of stopping or acting on illegal fisheries activities.

Whether and to what extent co-management is effective is often challenging to determine as there is in general a lack of ongoing data collection. Soudjay (2022) noted the lack of monitoring and evaluation as a weakness of the co-management system in Comoros and both Soudjay (2022) and the World Bank (2023) observe in the case of Comoros that co-management structures and stakeholder groups, including fisheries associations, unions, and cooperatives, have the potential to contribute more to fisheries management.

In Malawi, the 2016 Policy notes several challenges facing PFM, as 'unclear benefits and roles of the communities, limited capacity of key stakeholders participating in the fisheries and aquaculture development, financial constraints, transboundary issues, and weak cooperation among the stakeholders' (p.10). A further underlying challenge is that of the open access of the fisheries, i.e., that in many cases there is no limit to the number of licenses that can be issued and therefore no cap on the number of vessels or how much fish can be extracted. To address these challenges, the policy proposes that 'rights-based approaches' are needed, which establish rights to a certain number or a community of fishers, who can then exclude others from entering. This is yet to be operationalised. The policy further notes that:

The rights-based approaches, co-management approaches, and capacity reduction strategies by supporting initiatives on diversified livelihood are central to achieve sustainable fisheries management. It is also imperative that mechanisms be put in place to ensure a sustained mobilisation of financial resources (p.10).

In Kenya, Obiero *et al.* (2015) reported on an evaluation of BMU performance on Lake Victoria and found that whilst BMUs had been successful in strengthening the welfare and fisheries management awareness of fishers, non-compliance remained high. They attribute this to the limited powers devolved to BMUs, with responsibility for enforcement largely remaining with government.

In Madagascar, research has shown that it is challenging to keep members of the wider coastal communities engaged in LMMAs over time, particularly where benefits and incentives were insufficient (Parker *et al.*, 2024). Limited participation of the wider community was reported as one factor limiting effectiveness and impact. A need for greater state support to community based LMMAs was reported as being particularly important for improving on effectiveness and sustainability. Gardner *et al.* (2020) reported that where improved social services had been provided, mainly in the form of health services and education, and alternative livelihoods supported by an NGO, commitment to the LMMA had increased and performance improved as a result. However, such an approach is also challenging to sustain, as NGOs are also reliant on external funding and yet donors often fund projects for a short period of time. The creation

of a trust fund, where donors can contribute to a programme of activity, to support LMMAs was recommended (Gardner *et al.*, 2020).

A lack of wider community engagement with co-management was also reported from research in the Mweru-Luapula fishery in Zambia, with insufficient support available from the Department of Fisheries and lack of accountability contributing to the weak performance of Village FMCs (Kaluma and Umar, 2021). Lack of government enforcement and implementation of other responsibilities has also been identified as explaining the lack of community engagement in, and weak performance of, co-management in Zambia (Kaluma and Umar, 2021; Kapembwa *et al.*, 2020).

A further initiative to note is that Seychelles is the host, and first reporting country, to the Fisheries Transparency Initiative (FiTI). The FiTI encourages signatory countries to make information on fisheries, such as licenses and fish catch data, available. The initiative includes reporting on governance and the formation of a National Multi-Stakeholder Group, providing opportunity to consider and report on the implementation and performance of fisheries co-management and CBFM.

5. Conclusions and Recommendations

From the review of policy and legislation, and, in some cases, review of evidence on practice from academic research and project/NGO reports, it can be concluded that only a few countries have strongly implemented and supported fisheries co-management. Several other countries have embarked on co-management, but the approach has not been adopted on a nationwide basis and/or has not been implemented effectively, often lacking supporting financial and technical resources. Policy and legislation are not always adequate in terms of commitment to, and enabling of, co-management and community-based fisheries management. Even where policy and legislation are fairly strong, practice and performance has been fairly weak. Effectiveness and sustainability of co-management and community-based fisheries management are particularly affected by:

1. Insufficient ongoing support, particularly of community-based structures, by government and insufficient financial support within government. Fisheries departments generally do not have funding available to regularly engage with, mentor and collaborate with fishing communities.
2. The role of government in co-management not always being adequately articulated, particularly compared to how the roles of community-based structures are described in policy and legislation.
3. Continuing pressure on fisheries resources, resulting from few viable alternative employment and income-generating opportunities.

Given these factors affecting the performance and long-term sustainability of co-management and community-based fisheries management, several areas require consideration, at regional and national levels.

In considering the way ahead, however, it is important to learn from experience and research more widely, i.e., beyond this study. There are two key messages from research into community-based natural resource management (CBNRM) and co-management that regional and national stakeholders are advised to consider:

1. The first key message is to look back. There is much to learn from experiences of CBNRM and co-management to date. For example, it is well-established that it is generally hard to maintain structures and systems over time, particularly after donor-funded support has concluded. More sustainable solutions are needed that are not too complex and costly in terms of supporting, mentoring, training and monitoring. Many of the recommendations made below address this point, for example, reviewing how powers and responsibilities are shared, and how funds are raised, and learning from best practice. Each Member State, and, in some cases, different regions and water bodies within the Member State, is starting from a different point, and past experience should be learnt from and built on.
2. The second key message is to look ahead. In the era of climate change and concern over biodiversity loss, fisheries management, co-management and CBFM should take an Ecosystem Approach to Fisheries (EAF) (or Ecosystem-based Fisheries Management (EBFM)) which also builds climate resilience (Heenan et al., 2015). Taking such an approach may be referred to as 'adaptive governance' or 'adaptive co-management', where capacity to generate and respond to new information is built into the governance system, enabling governance to be more responsive and effective. To date, there is little experience of adaptive governance in fisheries, suggesting scope to develop cutting-edge practices.

Regional Level

Regional organisations such as COMESA and regional fisheries organisations can play a significant role in facilitating the development and operationalisation of co-management and CBFM. Activities that could be undertaken include:

1. Collate, review, and learn from guidelines, manuals and training materials developed within Member States and by Regional Fisheries Organisations (RFOs) to support the design and implementation of fisheries co-management and CBFM.
2. Design a programme for building capacity within Member States to establish sustainable, effective and inclusive fisheries co-management and CBFM, noting that the status, experience and capacity for co-management and CBFM will differ within and between Member States.
3. Facilitate the sharing of best practice on policy, legislation, training and practice through a regional workshop or conference, with the aim of securing commitment to, and action plans for, the establishment or reinvigoration of fisheries co-management or CBFM. Training for fisheries officers and community members is often not available after projects have finished and finding ways to sustain training in co-management and CBFM is essential.

4. Facilitate exchange visits between officials and community members of one country with another. Such exchange visits would enable those involved to directly observe and experience how co-management and CBFM are being practiced. Mentoring between countries and/or between communities could also be facilitated.
5. Facilitate transboundary co-management and CBFM to enable coordinated and effective participatory fisheries management.
6. Commission a study into sustainable financing of co-management and CBFM, building on lessons learnt from raising revenue within the fisheries sector. Opportunities for fisheries management to be incorporated into coastal blue carbon projects, such as those concerned with conserving mangrove forests and seagrass, could be investigated.
7. Work with regional and national networks of women in fisheries, including the Africa-wide African Women Fisher Processors and Traders Network (AWFishNet), on how the role of women in governance can be strengthened.
8. Undertake a study into alternative employment and income-generating activities in coastal and inland fisheries areas, including in relation to added-value activities in fisheries and within the tourism sector, with particular attention to opportunities for women and youth.

National Level

Recommendations are made to government and other actors at the national level. However, it is acknowledged that the status of CBFM and co-management, and the local context (including policies and legislation, nature of fishing communities and involvement of women in the sector), differs between countries meaning that countries should reflect on the relevance of recommendations to them:

1. Develop plans and mechanisms to sustain co-management and community-based fisheries management over time, whilst ensuring systems are effective and inclusive. The development of such plans may include consultation on the role of local government and traditional authorities, how governance is supported financially and whether more flexible and locally appropriate approaches can be taken. Training of community members involved in governance is also important.
2. Consider how the commitment and role of government in co-management could be strengthened. This could include clear commitments in policy and legislation, training of fisheries officers in co-management and establishment of mechanisms to bring community members and government together. Access by fisheries officers to training in co-management is often lacking or piecemeal, suggesting that existing training programmes should incorporate material on co-management and that more dedicated training opportunities are needed. Greater focus on the role of government in co-management could be a way of significantly strengthening co-management without costly development of community structures. Studies could be commissioned into how fisheries officers already work with members of fishing

- communities in managing resources to build from that.
3. Review the nature and practice of power-sharing and sharing of responsibilities and functions between government and resource users.
 4. Review policy and legislation to ensure that co-management is defined and committed to, whilst allowing flexibility in structures and systems between locations and over time. If possible, different approaches could be piloted and learnt from.
 5. Consider inclusion of broader aims and role of co-management and community-based fisheries management, which could include advocacy for greater social investment, e.g. in health and education, and investment in infrastructure, to reduce poverty and improve living conditions within fishing communities.
 6. Review which sources of knowledge and information are recognised, generated and used within co-management, and how communities are involved in knowledge production and use. Are local and traditional sources of knowledge recognised and incorporated into fisheries management, including research and monitoring? Could co-management and CBFM provide opportunities for greater recognition, use and promotion of local and tradition knowledge?
 7. Enhance opportunities and mechanisms to improve the meaningful participation of women in fisheries co-management and community-based fisheries management, which may include investigating whether and how the vast number of groups formed by women in fisheries, predominantly for savings and credits and for selling fish, could enable more meaningful involvement of women in fisheries governance.
 8. Review co-management structures and systems to identify opportunities for simplification and cost saving, as well as for greater inclusivity and participation. This could include, for example, fisheries departments working with existing groups in fisheries, such as cooperatives, producer groups and savings and credit groups.
 9. Supporting the formation and operationalisation of networks of community-based and co-management structures, through which collaboration, support and exchange could strengthen and empower fisheries governance.

Gaps in Knowledge

It should be acknowledged that there are major areas where evidence is lacking. These include two areas in particular:

1. Firstly, noting the points made earlier about the need to establish sustainable finance mechanisms, there is little evidence available on how sustainable financing can be achieved within fisheries and where revenue raising is working well.
2. Secondly, there is little evidence available on how local government facilitates or constrains fisheries co-management and CBFM. There is some evidence in literature regarding local government and decentralisation but little dedicated evidence on, for example, how different approaches to decentralisation have implications for co-management and the factors that enable decentralised government to collaborate more effectively with communities in fisheries management.

Resources on Co-Management

Many of the projects that have supported the initiation and implementation of fisheries co-management and CBFM in COMESA Member States will have produced guidelines and training materials that could be shared, used and drawn on in developing new guidance and training material. In addition, several generic guidance documents exist, such as:

1. 'The Fisheries Co-Management Guidebook', produced by the Wildlife Conservation Society and WorldFish in 2023, draws on research evidence on co-management to provide guidance on co-management definitions, equity, rights and law, and social structures, as well as on fisheries management more broadly (see Smallhorn-West et al., 2023).
2. 'Fishery Co-management: A Practical Handbook', published in 2006, provides a comprehensive guide to the process involved in designing and implementing fisheries co-management (see Pomeroy and Rivera-Guieb, 2006).
3. 'Guidebook for Evaluating Fisheries Co-Management Effectiveness', published in 2022 by the Food and Agriculture Organization (FAO), provides a framework and guidance on evaluating the effectiveness of fisheries co-management (see Pomeroy et al., 2022). The framework encourages collection of data on the context of co-management, attributes of institutions and organisations, market conditions and on the biological and technical conditions.
4. 'A Practical Guide on Community-Based Co-Management of Inland Fisheries' was produced by The Nature Conservancy in 2023. It sets out a six-phase approach to nurturing community-based co-management, from engaging communities and stakeholders to learning and adapting.

These guides and handbooks provide many useful insights and lessons, but approaches are needed that are locally relevant, appropriate, and supported, with scope for flexibility in structures and systems between locations and over time.

In conclusion, whilst co-management and CBFM experience many challenges in practice, and have not always been perceived as successful, including in delivering on greater compliance with regulations and improved stock status, it is widely agreed that: 1) no real alternative exists, as actors within the sector must find ways of working together; and 2) that very often, co-management and CBFM have been under-resourced and undermined by a series of challenges. For co-management and CBFM to be effective, inclusive and sustainable, all parties involved must be committed to its success and supported by political leaders, with approaches taken that learn from experience and research across the world. In seeking to develop and deliver on fair and effective BE strategies and programmes, inclusive and functioning collaborative and community-based fisheries management approaches can assist protecting the interests of, and bringing long-term benefits to, small-scale fisheries.

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Appendix

Appendix 1 Collaborative and Community-Based Fisheries Management		Policy Overview
Country & Key Document(s)	Definition of Community-Based or Fisheries Co-Management	Fisheries Membership
Comoros Revision Code de la Peche 2020	Section 11(g) evokes a participatory approach to fisheries management.	Section 7 covers the sustainable management of water resources and points out co-management tasks. Section 8(c) gives an idea of Management mechanisms that involve Fishers' participation.
Djibouti Code 2002 des Peches	Sections 3 – 6 provides for the formation, representation, and composition of the management structure.	

<p>Eritrea</p> <p>Fisheries lamation 176/2014</p> <p>Proc- No</p>	<p>The Fisheries Advisory Council is authorised to invite other persons to participate in its meetings and to, whenever it considers matters particularly affecting an area of Eritrea or a government department, invite one or more persons engaged in fisheries in that area, or a representative from that department respectively, to participate in its meetings (Article 6(3)). This suggests co-management, as it gives communities an opportunity to be involved in governance affairs that concern them.</p> <p>Similarly, the Minister of Fisheries is mandated to develop a plan of management, which should include details about fish characteristics, fish stock, plan objectives, evaluation procedure, licensing, and permits. Also, when preparing or reviewing a plan, the competent authority responsible for its preparation or review shall consult with all those who may be directly affected including local authorities, fishermen or leaders of fishermen's associations, beneficiaries, or any government authority with a direct interest in the management of the fishery (Article 7(2) – (4)). This further suggests co-management.</p>	<ul style="list-style-type: none"> - Fishermen - Leaders of fishermen associations - beneficiaries or any government authority with a direct interest in the management of the fishery (Article 7(2) – (4)). 	<p>No information</p>
<p>Eswatini</p> <p>Fresh Water Fisheries and Aquaculture Policy in Swaziland, 2011</p>	<p>Community-based management: The participation of communities in decision-making processes pertaining to fisheries and aquaculture management. Strategy 1.3.1</p>	<p>No information</p>	<p>No information</p>

<p>Kenya Fisheries (Beach Management Unit) Regulation, 2024</p>	<p>Co-management: A partnership arrangement that shares responsibilities between the government, beach management units, and other stakeholders in the management of fisheries resources (Definition section).</p>	<p>BMU, consisting of any person who:</p> <ul style="list-style-type: none"> - directly or indirectly depends, for their income or livelihoods, on fisheries activities done at the beach within the jurisdiction of a beach management unit. - would be directly adversely affected by the temporary or permanent closure of fisheries activities in that beach. - boat owners, crew members, fish traders, foot fishers, and others as may be specified under the by-laws. - is above the age of eighteen years. <p>(Regulations 25 and 26)</p>	<p>According to Regulation 5 of the Regulations, the functions of the BMU include:</p> <ul style="list-style-type: none"> (a) Ensuring the orderly, safe, and effective use, management, and operation of the fish landing station over which it has jurisdiction. (b) Support collection, collation and submission of fishing and fisheries related data to the County Executive Committee Member and the Director-General. (c) Ensure that the fish landing station and any structures on it is kept in a clean, tidy and hygienic condition. (d) Ensure adequate security at the fish landing station and any fishing vessels, nets or other equipment or structures within its boundaries. (e) Ensure compliance with applicable hygiene standards in connection with the landing storage and safety of fish and fishery products. (f) Work with other relevant agencies to maintain safety and order at the fish landing station. (g) Maintain any building or structure on the fish landing station.
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			<p>(h) Promote the marketing of fish including the construction and techniques, marketing and processing of fish, financial management and other areas relevant to fisheries.</p> <p>(i) Ensure the safety of its members by monitoring the seaworthiness of fishing vessels, taking measures to ensure the members comply with applicable safety regulations, organizing rescue vessels or services with other relevant stakeholders, promoting compliance with national fisheries legislation on small-scale fishing activities in its area of jurisdiction, and promoting and improving the welfare and wellbeing of its members by supporting the activities of fisher cooperative societies and fishers' self-help groups within its jurisdiction.</p>
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<p>Madagascar</p> <p>Order No.24388/2017: Implementing the Concerted Fisheries Development Plan for the Fokontany of Antsatrana, Commune of Beramanja, District of Ambilobe</p>	<p>Community-based management: Community governance of fishery resources and aquatic ecosystems, and the management of small-scale fishing, including community surveillance</p>	<ul style="list-style-type: none"> - Fishermen's cooperatives - Mayor of Beramanja - Fokontany Chiefs - President of the Union of Fishermen's Cooperatives of the Municipality of Beramanja - Presidents of fishermen's cooperatives - Local Community of Antsatrana base 	<p>Article 12 provides for the functions and responsibilities transferred to fishermen's cooperatives to include:</p> <ul style="list-style-type: none"> ▪ Overall organisation of the exploitation of fishery resources in the area concerned by a Fisheries Management Plan, except for industrial fishing. ▪ Proposal for modification or adaptation of the regulations in relation to the local context of exploitation of fishery resources. ▪ Practical management of the allocation of access rights to the resource, by providing an opinion on the allocation, on the temporary suspension of use and on the definitive withdrawal of fishermen's cards. ▪ Granting and recognition of the status of professional fisherman to a member of the village community, by accepting their membership and maintenance in one of the legally created Antsatrana cooperatives. ▪ Demarcation of zones prohibited from exploitation, apart from those established as such by regulation. ▪ Demarcation and organisation of the exploitation of areas with strictly limited use. ▪ Collection of data on catches and fishing effort, for small-scale fishing and artisanal fishing, with appropriate supervision.
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		<ul style="list-style-type: none"> ▪ Setting and collection of landing stage usage fees. <p>Also, by virtue of Article 13, the local actors (Mayor of Beramanja, Fokontany Chiefs, President of the Union of Fishermen's Cooperatives of the Municipality of Beramanja, Presidents of fishermen's cooperatives, Local Community of Antsatrana base) are responsible for:</p> <ul style="list-style-type: none"> ▪ Concluding a <i>dina</i> (collective agreement) with each of the other Fokontany and/or fishermen's cooperatives outside Antsatrana whose members exploit the area concerned by the Plan, to ensure compliance with the provisions of the Plan ▪ Resolving conflicts between the Fokontany and fishermen's cooperatives arising from the application of the Plan ▪ Applying the necessary provisions to allow fishermen residing outside the Fokontany of Antsatrana to obtain authorisation to access the area concerned by the Plan and its fishery resources. ▪ Organising community monitoring of fisheries. <p>Article 14 provides the functions and responsibilities to be assumed jointly by the Ministry in charge of fisheries, the Municipality of Beramanja, the Fokontany of Antsatrana, the fishermen's cooperatives, fishmongers and collectors operating in the Fokontany of Antsatrana, and NGOs to include:</p> <ul style="list-style-type: none"> ▪ Setting and prioritisation of fisheries management objectives and measures for the Fokontany of Antsatrana. ▪ Decision-making on the levels of fishing effort to be applied by small-scale fishing, in the area concerned by the Plan, on the different fishery resources found there.
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			<ul style="list-style-type: none"> ▪ Decision-making on the maximum number of daily fishing trips, times when fishing is prohibited, fishing gear and techniques to be prohibited in the area concerned by the Plan, particularly for shrimp, crab, chub and “varilava”, opening and closing periods of various fishing activities carried out in the area concerned by the Plan, outside the closing periods adopted at the national level. ▪ Determination of social actions, to be carried out within the Fokontany, to be required of crab farming promoters within the area concerned by the Plan. ▪ Consultation on the number of fish merchant cards and collection permits that can be used in the Fokontany of Antsatrana, for shrimp, crab, chub and “varilava”. ▪ Update of the fisheries management plan for the Fokontany of Antsatrana. ▪ Capacity building of stakeholders involved in the implementation of the Plan. ▪ Search for financing for the implementation of the Plan.
<p>Malawi</p> <p>National Fisheries and Aquaculture Policy 2001; 2016</p>	<p>Participatory fisheries management: establishing effective local fishing community institutions that will work jointly with Government in fish resource management. This arrangement is intended to share rationally the responsibility and authority in managing the fish resources. This sharing of responsibility cuts across the entire community and will include the full participation of men and women with their capabilities as dictated by the local fisheries by-laws. Section 3.3.1</p>	<ul style="list-style-type: none"> - Local fishing communities - Fish farmers - Beach Village Committees (persons who are engaged in any aspect of fishing industry associated with a fishing beach) 	<p>No information</p>

<p>Fisheries Conservation and Management (Local Community Participation) Rules (GN 26/2000)</p>	<p>No information</p>	<p>No information</p>	<p>Section 6 of the Rules provides that the Beach Village Committee will have the following duties:</p> <ul style="list-style-type: none"> (a) conservation and management of fisheries resources within its area of jurisdiction. (b) scrutinise applications in respect of registration of fishing vessels of small-scale commercial fishermen and subsistence fishermen. (c) scrutinise applications for fishing licences by small-scale commercial fishermen and subsistence fishermen. (d) keep records of vessels registered and licences issued in respect of its area of jurisdiction. (e) enforce fishing regulations pertaining to fish species, size, close season, sanctuaries, gear size, type and stowage, and methods of fishing. (f) enforce conditions specified in licences; and (g) seize fishing vessels and fishing gears which are reasonably believed to have been used in contravention of the Fisheries Conservation and Management Act: <p>Provided that the seized item shall be surrendered to a fisheries protection officer within 48 hours after the seizure.</p>
<p>Mauritius Fisheries Act, 2023</p>	<p>No Information</p>	<p>No Information</p>	<p>The Act provides that the interests of small-scale or artisanal fishers shall be considered, including their participation in management of their respective fisheries. Section 5(k). This suggests co-management</p>

<p>Seychelles</p> <p>Fisheries Act, No. 20/2014</p>	<p>The Act provides that the Fisheries Authority shall prepare a plan for the management of a fishery, and the plan may set out the role of stakeholders in decision making relating to the management plan. In the preparation or review of the plan for the management of a fishery, the Authority shall consult the fisheries industry, local fishermen and such other persons engaged in fishing and fishing related activities as appear to the Authority to be appropriate. Also, in the management of a fishery, the Authority, if it considers necessary, may enter a co-management arrangement with any person. Section 5</p>	<p>No information</p>	<p>No information</p>
<p>Fisheries and Aquaculture Bill, 2023</p>	<p>This legislation, which will replace the 2014 Act when implemented, provides that the interests of fishers using small-scale Class 1 vessels shall be considered, including their participation in management of their respective fisheries. Section 5(l)</p> <p>The Bill also provides that an understanding of and broad and accountable participation by stakeholders in the conservation, management, development, and sustainable use of fisheries resources shall be promoted to the extent practicable, including the principles of visibility, transparency, participation, and inclusivity in the decision-making process as well as relevant environmental awareness and capacity-building. Section 5(n)</p>	<p>No information</p>	<p>No information</p>

<p>Uganda Fish (Beach Management) Rules 2003 No. 35</p>	<p>The BMU is charged with the responsibility of fisheries resource management in partnership with Local government and Central government Department or Institution responsible for Fisheries Regulations and Control. Section 4</p>	<p>BMU, consisting of boat crew or <i>barias</i>, boat owners, managers, charterers, fish processors, fishmongers, boat makers, local gear makers or repairers, fishing equipment dealers (Definition section)</p>	<p>The BMU, through its committee, performs the following functions:</p> <ul style="list-style-type: none"> (a) collaborate with the central government or local government to maintain and keep a register of all boat owners and their equipment, and BMU members operating from the beach. (b) participate in selection of boat owners for licensing and vetting of the fishers in collaboration with the local authorities. (c) ensure licenses for fishers and vessels operating from the beach are granted for those registered with the BMU in cooperation with authorised licensing officers. (d) collaborate with central government or local government to enforce safety guidelines for fishing operations. (e) collaborate with central government or local government to enforce Fish Quality Assurance and Sanitary Guidelines. (f) authorize fishers operating from the beach to fish in particular areas, for species of fish using recommended and legal fishing gears and methods, through byelaws. (g) record, inspect and grant permission to visiting boats with their crew and equipment to land at the beach. (h) in consultation with central government and local government establish, where necessary, prohibited fishing zones in specified areas for specified periods for purposes of fisheries management. (i) decide on local markings for identification of fishing gears and onboard engines by licensed fishers. (j) make and enforce fisheries byelaws. (k) conduct patrols in the beach and neighbourhood fishing grounds in collaboration with fisheries staff and other government agencies. (l) co-ordinate with neighbourhood BMUs to determine areas of jurisdiction for fisheries management.
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<p>(m) ensure fish is landed and generally transacted exclusively by registered fishers, owners, managers, and chatters.</p> <p>(n) develop local fisheries management and beach development plans in consultation with the BMU assembly and advocate for their integration in other local development plans.</p> <p>(o) link with National Agricultural Advisory Services and other service providers for capacity building and fisheries advisory services.</p>	<p>(p) generate funds through fisheries resource user fee or income generating projects for operation of the BMU activities.</p> <p>(q) arbitrate in fisheries disputes among BMU members.</p> <p>(r) keep written record in an indelible manner and provide government agencies with information on fish catch data by number, weight and value for each species, fish marketing data as derived from the fish movement permits, minutes of BMU meetings, financial statements of the BMU, and record of assets and liabilities of the BMU. Section 10</p>

<p>Zambia Fisheries Act, 2011</p>	<p>There is no specific definition of co-management in the legislation. However, from the wordings of the Act, fisheries management structures to be created are to include local communities and chiefs, suggesting co-management.</p>	<p>Fisheries Management Committee, comprised of amongst other persons:</p> <ul style="list-style-type: none"> (a) six representatives from the local riparian fishing community who shall be elected by the local community. (b) a representative of the local authority in the fisheries management area. (c) one representative of the chief. <p>Provided that where a fisheries management area covers two or more chiefdoms, each chief shall nominate a representative to the committee. Section 29(2)</p>	<p>The Committee will be responsible for promoting and developing an integrated approach to the management and sustainable utilisation of natural and fisheries resources in a fisheries management area under its jurisdiction, implementing the fisheries management plan, and to:</p> <ul style="list-style-type: none"> (a) negotiate, in conjunction with the Director, co-management agreements with industrial fishing companies operating in the fisheries management area under its jurisdiction. (b) manage the fisheries resources under its jurisdiction, within fishing quotas specified by the fisheries management plan. (c) in consultation with the Director, develop and implement management plans which reconcile the various uses of water in the fisheries management area under its jurisdiction. (d) cooperate with the Department in the management of the fisheries management area under its jurisdiction. (e) facilitate the involvement of non-governmental organisations providing support to fisheries management and conservation efforts in the fisheries management area under its jurisdiction. (f) recommend to the Director the measures, plans and programmes required for fisheries development in the fisheries management area under its jurisdiction. (g) monitor the development of aquaculture in the fisheries management area under its jurisdiction. (h) submit to the Director, on a regular basis, reports on the status of the fisheries management area under its jurisdiction; and (i) perform such other functions as the Minister may direct. <p>Section 30</p>
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<p>Zimbabwe Lake Kariba In-shore Fishery Management Plan (2023 – 2032)</p>	<p>Paragraph 6 provides that an ecosystem and co-management approach to fisheries management where cooperative arrangements that bring together other lake users and stakeholders (including kapenta fishers and tourist operators) should be established and strengthened for integrated management of the community fishing area. The Plan also provides that stakeholders should be reoriented and trained on principles, practices, and benefits of fisheries co-management (Table 2, p.21; Table 12, p.42)</p>	<p>No Information</p>	<p>No information</p>
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<p>LVFO</p> <p>Regional Guidelines for Fisheries Co-Management on Lake Victoria, 2021</p>	<p>The guideline, in Section 3.1, defines co-management as a fisheries management approach where responsibility is shared between the government, fishing communities and other stakeholders. It begins with the establishment of BMUs/LFMCs around the lake, in accordance with the regional and national BMU/LFMC guidelines. Members of the elected BMU/LFMC Committees come together at higher levels to form Sub-County/Ward/District/Sub-County, County/Region, National and Regional BMU/LFMC Networks (Section 6)</p>	<p>The stakeholders for the implementation of co-management in Lake Victoria, are provided in Section 5 as:</p> <p>1) BMUs/LFMCs: BMU/LFMC Committee and Assembly, which should include all members of fishing communities at the beaches (Boat owners, boat crew, fish traders and others (artisanal fish processors, boat makers, gear assemblers/repairers, fish factory agents, fishing gear and accessories dealers, cage farmers).</p> <p>2) Central Government Fisheries Departments</p> <p>3) National Research Institutes</p> <p>4) LVFO</p> <p>5) Local/County Government Fisheries Departments</p>	<p>Section 6.3.1 provides for the functions of BMUs/LFMCs in Fisheries Co-management as follows:</p> <p>(a) Ensure that the BMU/LFMC is not “reduced to the Chairman, Treasurer and Secretary” by undertaking the necessary institution building.</p> <p>(b) Put in place internal rules to guard against corruption, neglect of responsibilities and diversion from its core functions.</p> <p>(c) Participate in national and local fisheries policymaking, policy review, drafting of legislation and planning.</p> <p>(d) In collaboration with central government or local government, maintain and keep a register of all boat owners and their fishing equipment; fishers and BMU//LFMC members operating from the beach.</p> <p>(e) Decide on local markings for identification of fishing gears and onboard engines by licensed fishers.</p> <p>(f) Participate in vetting of boat owners and fishers for licensing and, in collaboration with government officials, ensure licenses are granted to those registered with the BMU/LFMC.</p> <p>(g) Propose by-laws for endorsement by the District Authorities and enforce them.</p> <p>(h) Identify fish breeding areas based on indigenous knowledge and identify and clearly demarcate prohibited fishing zones.</p> <p>(i) Undertake measures to promote compliance at the beach level, including raising awareness and working with relevant authorities for Monitoring, Control and Surveillance.</p> <p>(j) Participate in the design and collection of data for Frame Surveys, catch monitoring and socioeconomic investigations, using agreed formats.</p>
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	<p>6) Local Administration, at the different levels, from village to district/ Counties/ Provinces</p> <p>7) Other government ministries, departments, and agencies, including trade, weights and measures, community development, land, water, environment, and agriculture</p> <p>8) Industrial fish processors</p> <p>9) Fish traders away from the beaches</p> <p>10) Suppliers of fishing gears away from landing sites</p> <p>11) Civil Society Organisations</p> <p>12) Security services</p> <p>Membership of BMU/LFMC networks includes:</p> <ul style="list-style-type: none"> - Village (Tz): 2 representatives from each BMU/LFMC - Parish (Ug): Only where there are so many BMUs/LFMCs in a Sub-County is a Parish BMU/LFMC needed. 2 representatives from each BMU/LFMC. 	<p>(k) Inspect and record visiting boats and give permission to land where appropriate.</p> <p>(l) Improve sanitation and hygiene at landing sites.</p> <p>(m) Participate in the removal of invasive water weeds.</p> <p>(n) Network with other BMUs/LFMCs to ensure marketing and fair pricing of fish and fish products.</p> <p>(o) Prepare annual workplans and budgets for approval by the BMU/LFMC Assembly.</p> <p>(p) Mobilise the BMU/LFMC Assembly to participate in fisheries management and development. including taking action to address HIV/AIDS.</p> <p>(q) Formulate funding proposals, make financial reports, and present them to the BMU/LFMC Assembly for approval.</p> <p>(r) Prevent and resolve conflict between fisherfolk at the beaches and between beaches.</p> <p>(s) Issue transfer letters for migrating fisherfolk to introduce them to other BMUs/LFMCs, confirming their compliance with fisheries regulations.</p> <p>(t) Keep records of the movement of fishers, incidences of theft and of accidents and deaths on the lake.</p> <p>(u) Collaborate with government in the identification of pirates and those who cause insecurity on the lake.</p> <p>(v) Submit monthly reports to the DFO through the local fisheries staff with a copy to the local authority.</p>
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	<ul style="list-style-type: none"> - Sub-county/ Ward: 2 representatives from each BMU/LFMC/Parish. - District/Sub-County: 2 representatives from each ward/location/sub-county BMU/LFMC Network - Provincial (Tz): 2 elected representatives from each district - National (Lake Victoria): All District BMU/LFMC Network Chairpersons - Regional: 2 elected representatives from each Partner State (National Chair and one other). Regional BMU/LFMC Chair to be rotational after every three (3) years 	
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		<p>(l) Design fisheries information collection systems with participation of stakeholders for implementation by relevant Local Authorities/Government Departments and BMUs/LFMCs.</p> <p>(m) Share and review fisheries information with BMUs/LFMCs, BMU/LFMC Networks and private industry.</p> <p>(n) Issue registration certificates to BMUs/LFMCs and monitor their performance.</p> <p>(o) Mobilise donor and government support for fisheries management and development through participation in national policy and planning processes.</p> <p>(p) Build the capacity of stakeholders in fisheries co-management.</p> <p>(q) Coordinate monitoring and evaluation of the performance of the BMUs/LFMCs and other co-management structures and partners in accordance with regionally agreed performance criteria.</p> <p>(r) Collaborate with Research Institutes on fisheries resource monitoring.</p>
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<p>Section 6.4.8 mandates civil society organisation to perform the following functions in fisheries co-management:</p>	<ul style="list-style-type: none"> (a) Participate in policymaking, policy review and development of legislation and plans at local and national level. (b) Participate in the training of BMUs/LFMCs and local government, based on training needs assessment. (c) Participate in Co-management Networks at all levels. (d) Disseminate information on co-management and fisheries technologies. (e) Provide credit support on appropriate gears, fishing methods, boat designs, propulsion, and processing technologies. (f) Assist fishing communities in developing their savings capacity. (g) Assist with the development of alternative income generating activities within fishing communities. (h) Provide some rural development services e.g. schools, dispensaries, etc. (i) Share information on activities with fisheries departments and co-management structures. (j) Advocate for fisheries stakeholders' rights and positively influence national policies and laws. (k) Promote alternative livelihoods for small scale traders, particularly women, who depend on trade in immature fish to supply the many immature fish consumers. (l) Advocate for support to address HIV/AIDS and other health-related issues within fishing communities. (m) Advocate against child labour in fisheries.
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			<p>Likewise, Police and other security agents are expected to :</p> <ul style="list-style-type: none"> (a) Operate patrols in accordance with regionally agreed operating procedures and principles. (b) Work with BMUs/LFMCs, BMU/LFMC Networks and Co-management Networks to promote compliance and security, including addressing piracy and gear theft. (c) Recognise the roles and responsibilities of BMU/LFMC Networks in carrying out their duties. (d) Transport suspects to gazetted places of detention, charge and prosecute them in accordance with the law. (e) Curb corruption among the Police in handling fisheries related offences. (f) Report to the Fisheries Department on fisheries activities. <p>Section 6.4.9</p>
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Appendix 2

Details of Participants at the Virtual Report Validation Meeting of 19 August 2024

SN	Names	Position	Organisation
Comoros			
	Moustarchide Ben Soud-jay	Chef de Départements de Recherche Halieutiques et Aquaculture	Direction Générale des Ressources Halieutiques
Djibouti			
	Adan Arbahim Hassan	Responsable des Statistiques de la Pêche Également de la Réglementation	Direction de la Pêche
DR Congo			
	Omar Darara	Commerce Extérieur	Ministere du Commerce
	Casimir Koffi Mulumba	Directeur Des Peches	Ministere de la Peche et de Lelevage
Egypt			
	Abdelrazek Mohamed Badr	Fisheries Specialist	Lakes and Fish Resources Protection and Development Agency (LFRPDA)
	Fatma Elzahraa Badr	International Agreement Specialist	LFRPDA
	Nehal el Gendi	Interpreter	
	Atef Salah	General Director of Fisheries	LFRPDA
	Atif Salah	General Director of Fisheries	LFRPDA
	Youmna Guindy	Arabic/ English Interpreter	
	Nehal el Gendi	Interpreter	COMESA
	Walid Aly	Associate Professor of Fisheries Biology	National Institute of Oceanography and Fisheries
	Rana Adel	Agreement Specialist	Lakes and Fisheries Resources Production Development
	El Zahraa Atef	COMESA Trade Officer	Ministry of Trade and Industry
Eswatini			
	Phumzile Mhlanga	Senior Agricultural Officer responsible for Fisheries and Aquaculture	Ministry of Agriculture
	Muntu Almeida	Deputy Director	Ministry of Commerce Industry and Trade
	Boy Mavuso	Aquaculture Officer	Ministry of Agriculture
Kenya			
	Dr. Jacob Ochiewo	Director, Socioeconomics Research	Kenya Marine and Fisheries Research Institute
	Tom Guda	Regional Chairman/National Chairman	Regional BMU Network - EAC/Kenya National BMU Network

	Jared Agano Makori	Deputy Director of Fisheries	Kenya Fisheries Service
	Kenneth Mwakundia	Interpreter	
	Rodrck Kundu	Secretary, Fisheries & Blue Economy	State Department for Blue Economy and Fisheries
	Joseph Mahongah	Ag. Director Fisheries and Blue Economy	State Department for Blue Economy and Fisheries
Libya			
	Elhadi Etorjmani	Director of International Cooperation Department	Ministry of Marine Resources
	Al Ghanai Ahmed	Chief of International Cooperation Department	International Cooperation Department
Madagascar			
	Chrysostophe Razafimandimby	Directeur Général de la Pêche et de l'Aquaculture	Ministère de la Pêche et de l'Économie Bleue
	Andriantsilavo Jean Michel	Directeur de la Promotion de l'Économie Bleue	Ministère de la Pêche et de l'Économie Bleue
	Tantely Madagascar	Chef de Service	Ministère de la Pêche
Malawi			
	Maxon Ngochera	Senior Deputy Director	Fisheries Department
	Hastings Zidana	Director of Fisheries	Department of Fisheries
Mauritius			
	Ramanujam Sooria-moorthy	Conference Interpreter	COMESA
	Luvna Caussy	Scientific Officer	Ministry of Blue Economy, Marine Resources, Fisheries and Shipping
Rwanda			
	Mukaniyonzima Dative	Commodity Value Chain Trade Specialist	Ministry of Trade and Industry
	Alshima Mohamed	Technical Assistant	Ministry of Agriculture
	Cecile Uwizeyimana	Ag. Aquaculture and Fisheries Program Coordinator Senior Research Fellow	Rwanda Agriculture and Animal Resources Development (RAB)
	Mathilde Mukasekuru	Animal Products Supply Chain and Market Analyst	Ministry of Agriculture and Animal Resources
	Placide Nkundimana	Fish Products Inspector	RICA
Seychelles			
	Daniel Bristol	Fisheries Resource Management Officer	Seychelles Fishing Authority
	Vincent Lucas	HOD	Seychelles Fisheries Authority
Sudan			
	Fadl-el-mula Abdel-Wahab	Director of Fish Department (Retired) River Nile state	Ministry of Animal Resources and Fisheries

	Gamal Hamid	Aquacultures	Federal Aquaculture Department
	Mai Ahmed	Head of Fish Farms Section	Ministry of Animal Resources/Directorate General of Fisheries
	Ishag Ahmed	Ass. COMESA Coordinating Unit	Ministry of Trade
	Gamal Hamid	Aquaclutrest	Federal Fishers General Directorate
Tunisia			
	Tunisia-Noura Benmohamed Guesmi	Deputy-Director of Cooperation with African Countries; COMESA Focal Point	Ministry of Trade and Export Development
	Khniss Moncef	Directeur Général	Groupement Interprofessionnel des Produits de la Pêche (GIPP)
	Habib Methlouthi	Directeur des Études et de Gestion de l'information	GIPP
	Majdi el Manouchi	Directeur Organisation de Filière et Amélioration de la Qualité	GIPP
	Fethi Naloufi	Ingénieur Général Halieute	GIPP
	Ali Ben Atitallah	Représentant Régional à Sfax	GIPP
	Asma Bnina	Ingénieur en Chef/Chef Service du Marketing, Transformation et de l'Export	Direction Générale de la Pêche et de l'Aquaculture-Ministère d'Agriculture, des Ressources Hydrauliques et de la Pêche (DGPA)
	Asma Ben Abdallah	Engineer	DGPA
	Asma Ben Abda	Engineer	Ministry of Agriculture Water Resources and Fishing
Uganda			
	Patrick Byamukama	Ag. Principal Fisheries Officer	Ministry of Agriculture, Animal Industry and Fisheries
	Simon Jonan Imongit	Senior Fisheries Inspector	Ministry of Agriculture, Animal Industry and Fisheries
Zambia			
	Cletie Lukusa	RFBS Delivery Analyst	COMESA
	Harriet Nambule	Administrative Assistant	COMESA
	Yoseph Shiferaw Mamo	Senior Fisheries and Livestock Officer	COMESA
	Stella Mbabazi	Blue Economy Expert	COMESA
	Banele Jele	Investment Promotion Authority	COMESA
	Providence Mavubi	Director, Industry and Agriculture	COMESA
	Mathews Mkandawire	Economist	Ministry of Commerce, Trade, and industry

	Castern Nseluka	Bilateral and Regional Officer	Ministry of Commerce, Trade, and Industry
	Dorothy Mulenga mcti	Intern under department of Foreign Trade	Ministry of Commerce, Trade, and Industry
	Eric Sichembe	Senior Economist	Ministry of Commerce, Trade, and Industry
	Mulenga Mwansa	Research Officer	Zambia Chamber of Commerce and Industry (ZACCI)
	Emmanuel Mumba	Research and Information Officer	ZACCI
	Elvin Nasilele	Chief Executive Officer	ZACCI
	Kagoli Muyangali	Chief Fisheries Officer	Department of Fisheries
	Ricky Chazya	Senior Veterinary Epidemiologist	Ministry of Fisheries and Livestock
Zimbabwe			
	Admire Mbundure	Deputy Director Fisheries	Department of Fisheries and Aquaculture Resources Production
	Lilian Nyashanu	Deputy Director	Government
United Kingdom			
	Fiona Nunan	Professor of Environment and Development	University of Birmingham
	Queenette Nwariaku	Postgraduate Researcher	University of Birmingham



COMESA SECRETARIAT
COMESA Center
Ben Bella Road
P.O. Box 30051
Lusaka Zambia



+260 211 229 725



www.comesa.int



info@comesa.int



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