COMMUNITIES FOR FISHERIES

CO-MANAGEMENT: A TOOL FOR DELIVERING LEGAL, INCLUSIVE, AND SUSTAINABLE FISHERIES IN LIBERIA

Co-management Policy Briefing

Introduction

Small-scale fisheries in Liberia play a critical role in food security and the national economy. They offer an affordable source of protein for the population, including the poor and vulnerable living in communities along the country's 570 km coastline[1]. According to the Food and Agriculture Organization of the United Nations (UN FAO), around 20% of animal protein consumed in Liberia comes from fish[2]. Over 33,000 people in Liberia, including 11,000 fishers[3], are employed directly in small-scale fisheries. Small-scale fisheries provide a renewable opportunity to build income resilience in coastal communities and protect households that are currently faced with food insecurity. The sustainable management of Liberia's small-scale fisheries is essential to ensuring that marine fisheries continue to provide food security opportunities and contribute to local and national economies.

In Liberia, fisheries management is the sole responsibility of the government. In recent years, it has become clear that the government's finite resources are unable to address all fisheries challenges in the country. New approaches are required to enhance community participation in the management process and complement interventions at the central government level[4]. The concept of collaborative management or co-management has been proven in various contexts to be cost-effective while guaranteeing community involvement in the management process[5]. It has gained acceptance among fisheries managers, development practitioners and government agencies as an effective alternative to the top-down approach to fisheries management.

Small-scale fishers in Robertsport pulling their net.

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Key successes in Liberia's fisheries management

Post-war Liberia has made some remarkable progress towards achieving sustainable fisheries management despite the large-scale destruction of its fisheries during the civil war[6]. Key developments include:

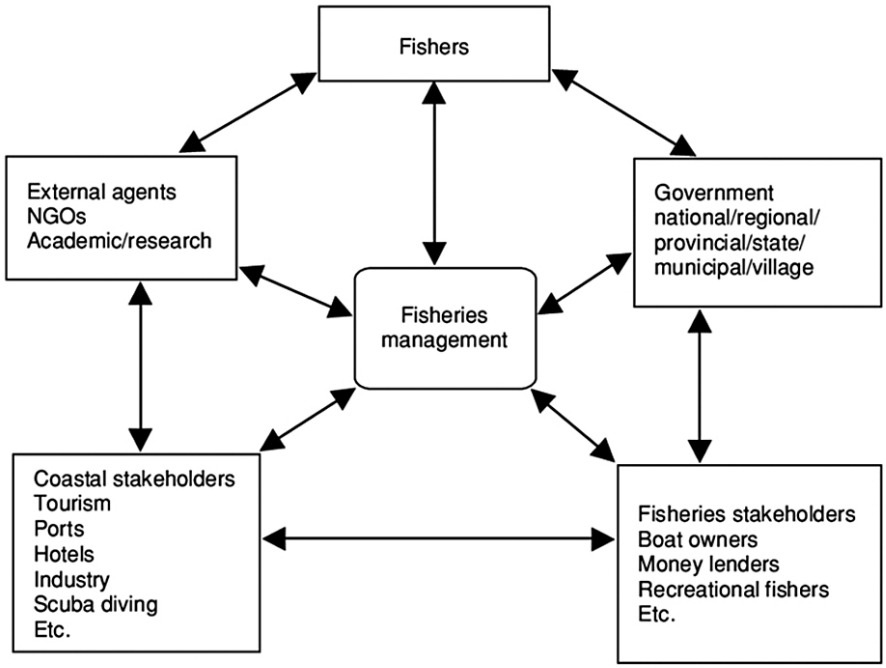
- Establishment of the National Fisheries and Aquaculture Authority (NaFAA) as the line agency responsible for the management of fisheries resources in Liberia[7]. Prior to this, the Ministry of Agriculture, through the Bureau of National Fisheries, managed the fisheries[8].
- Amendment and development of fisheries management laws, regulations and policies and strategies to manage the fisheries including the Fisheries and Aquaculture Management and Development Law of 2019[9,10,11].
- Establishment of two Collaborative Management Associations (CMA) in Robertsport and in Bomi and Montserrado. Liberia recently refused to license six super-trawlers as part of efforts to deliver legal and sustainable fisheries[12].
- Establishment of a Fisheries Monitoring Centre (FMC) to combat illegal, unreported and unregulated (IUU) fishing. Through the monitoring centre and collaboration with the Liberian Coast Guard, NaFAA has arrested and fined trawlers fishing illegally in Liberia[13].

Robertsport Collaborative Management Association at a meeting.

What is co-management and why co-management in small-scale fisheries?

Collaborative management or co-management can be defined as an arrangement between resource users (fishers) and resource managers (generally government agencies) to share fisheries management responsibilities and authority[14,15]. Co-management is built on the notion that resource users are most affected by management regulations and should therefore be involved in resource management[16]. This increases state legitimacy in fisheries governance through building inclusivity and a more transparent approach to fisheries management[17].

Globally, rising populations and demand for fish exert increasing pressure on marine fisheries resources. IUU fishing adds to these challenges, depleting fish populations and further impoverishing marginalised coastal communities. In many countries, the classic top-down approach to fisheries management has proven inadequate to effectively address these issues, particularly in the context of remote coastal communities. Co-management has emerged as a response to these challenges, attracting global recognition as the most appropriate approach to managing the complexities of small-scale fisheries. The concept is enshrined in the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (**SSF Guidelines**) developed by UN FAO,[18] aligning with and providing an opportunity to implement the core ideals of participation, representation, collaboration and coordination.



Source: Premory and Berkes (1991) Two to Tango: the role of government in fisheries co-management

Figure 1: Key players in fisheries co-management[19]

Benefits and limitations of co-management[20]

When co-management is well-implemented, the potential benefits include:

- Promoting sustainable use of fisheries resources by improving stewardship of aquatic and coastal resources among fishing communities. When fishers are given a sense of ownership over the resource, it serves as a strong incentive for them to view the resource as a long-term asset rather than to discount future returns.
- Reducing conflict and improving social cohesion through increased communication and promotion of understanding among stakeholders interacting with the resource.
- Encouraging a democratic and participatory fisheries management system. Different interests and stakeholders are brought together to provide a more comprehensive understanding of the resource.
- Fostering transparency, accountability and an autonomous fisheries management system. Through involving fishers in management, they can take responsibility for a number of managerial functions.
- Promoting the use of local ecological knowledge and expertise to complement scientific information for management.
- Providing a more efficient management system that requires less to be spent on management administration and enforcement, in the long run, compared to centralised systems.
- Promoting the development of localised solutions to local fisheries problems. Fishing communities can develop and administer management plans and regulatory measures that are more appropriate to local conditions.
- Addressing the issue of legitimacy and low compliance with fisheries management laws and regulations. Because the communities are involved in the preparation and implementation of co-management measures, a higher degree of legitimacy, compliance and acceptance of plans and regulations is often the outcome. Community members have more effective means (through local norms and taboos) to enforce behavioural standards than is possible with a top-down bureaucratic approach.

Co-management, like every system, is not perfect. There are limitations associated with its implementation that are worth considering:

- Political leaders may hijack the co-management process to achieve political ambition.
- Co-management is cost-intensive in the short run. At the start, it requires allocation of financial, time and human resources to ensure successful implementation. It may take between three and five years for a co-management system to be put in place.
- It may not be suitable for all forms of fisheries and fishing communities. The local institutions and leadership, such as fishers' groups, may not be available in some communities to initiate the establishment of co-management structures.
- The risk and cost for individuals to participate in co-management and to change from one fisheries management system to another may be viewed as too high by some communities or may outweigh the projected benefit.
- The needed political will (enabling environment and willingness of political leaders and government officials to devolve power) may not be available to support the implementation of co-management.
- Consensus-building by various actors in co-management may prolong the decision-making process and lead to compromised and weaker outcomes.
- Resource dynamics such as fish and fisher migration patterns may be challenging to manage and limit the implementation of co-management.
- Changes in power dynamics (economic, political, and social) that accompany co-management may not be in the interest of key local actors thereby leading them to stall or sabotage the process.

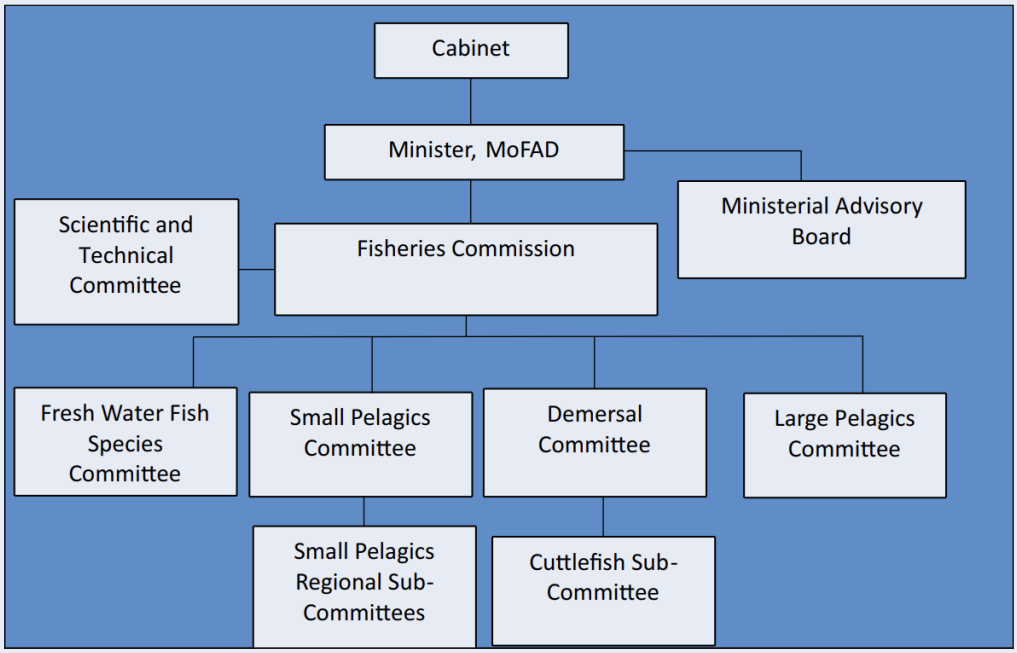
CASE STUDIES:

Box 1: Ghana's multi-level co-management design

Ghana has a long-standing fishing history among its West African neighbours. 10% of Ghana's population is estimated to depend directly or indirectly on its fisheries sector for their livelihoods[21]. The small-scale fisheries sector, with over 13,000 registered fishing canoes, makes up a major section of this teeming fisher population[22]. The small pelagic fishes like the sardinella, chub mackerel and the anchovy form the mainstay of the small-scale fishing industry[23].

However, in the last two decades, Ghana's vibrant fisheries have shown signs of overexploitation and potential collapse[24]. The expansion of Ghana's industrial fishing industry, the open access fishing regime in the small-scale fisheries, the proliferation of illegal fishing activities, and the top-down, centralised approach to fisheries management have led to a decline in fish landings and incomes of small-scale fishers[25].

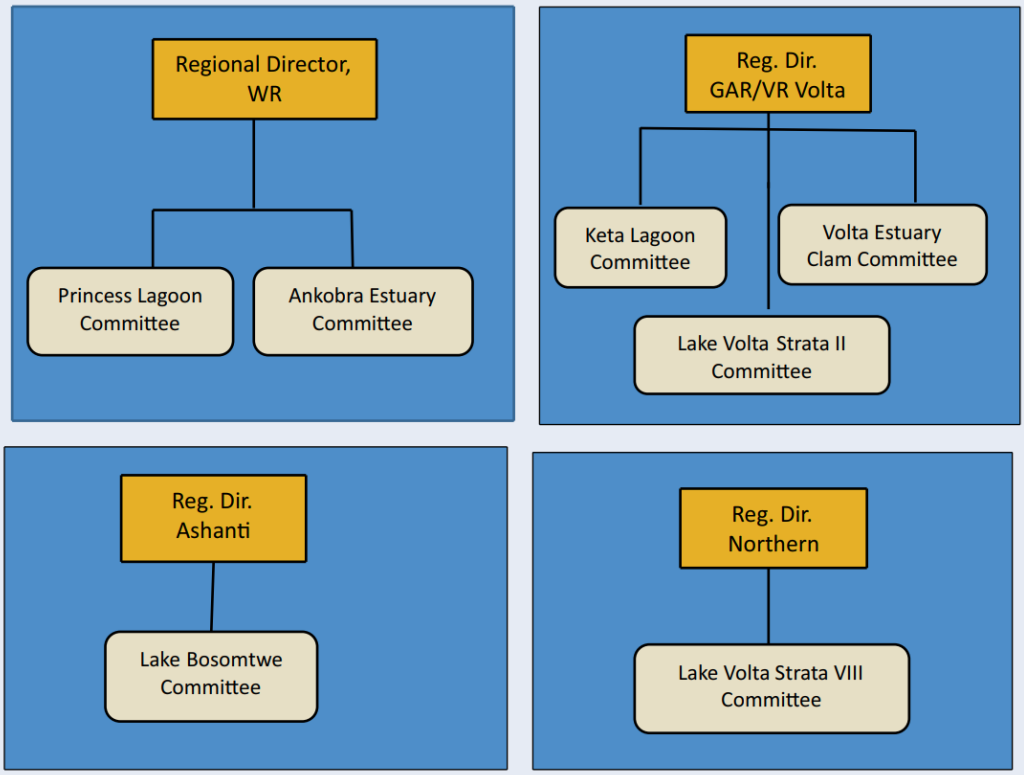
In 2020, a new co-management policy was adopted to address the fisheries management crisis and initiate a shift away from the centralised fisheries management system[26]. Ghana has tried different formal and informal fisheries co-management approaches in the past, including the government-supported Community-Based Fisheries Management Committees (CBFMC) in the 1990s[27]. The CBFMC was modelled on the traditional fisheries management system in part of Ghana's Central Region headed by the Chief Fishermen[28]. This was replicated across over 300 landing sites but failed to achieve the management objective. The lessons from the CBFMC experience and pilot community-based fisheries management units established between 2017 and 2019 in the Western[29,30] and Greater Accra[31] Regions guided the development of the new co-management policy.



Source: Ministry of Fisheries and Aquaculture Development (2002) Co-Management Policy for the Fisheries Sector

Figure 2: Large-scale co-management committee model[32]

Ghana's co-management policy recognises the need to represent the various major fishery types through its different co-management levels, i.e., the Freshwater Fish Species Committee, the Small Pelagics Fish Committee, the Demersal Committee, the Small Pelagics Sub-Regional Committees, and the Small-Scale Community-Based Fishery Co-Management Units[33], etc. The idea is for these committees to evolve with developments in the various fisheries, ensuring management measures are adaptive to emerging issues. The policy also provides room for the formation of a Scientific Technical Working Group to provide science-based recommendations to the management apex body, the Fisheries Commission. It also outlines multiple funding streams for the formation and maintenance of the co-management units.



Source: Ministry of Fisheries and Aquaculture Development (2002) Co-Management Policy for the Fisheries Sector

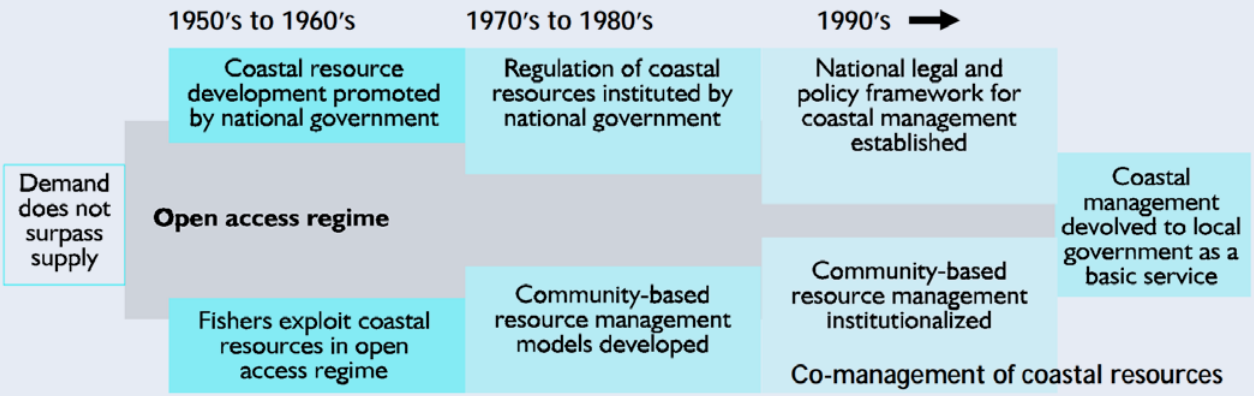
Figure 3: Small-scale Community-Based Fisheries Co-management units[34]

The policy provides a roadmap to transition from a centralised fisheries governance framework to a mixed approach that provides space for multiple stakeholders in the management of the fisheries resources.

Box 2: The Philippine Community-Based Coastal Resource Management (CB-CRM) programme

The Philippines, with a population of more than 93 million, is ranked as one of the world's major fishing nations[35]. The main fishing industry is categorised into the marine capture fishery, inland capture fishery, and aquaculture. The marine capture fishery is further divided into the municipal or small-scale fisheries and commercial fisheries[36]. In 2020 the municipal fisheries or small-scale fisheries, which comprises of both marine and inland fisheries, accounted for 25% of the country's fish production, which equates to over one million metric tonnes of fish[37]. The sector employs around two million fishers, representing 85% of the country's fishing population and provides the main source of cheap animal protein for low-income groups in the Philippines[38,39].

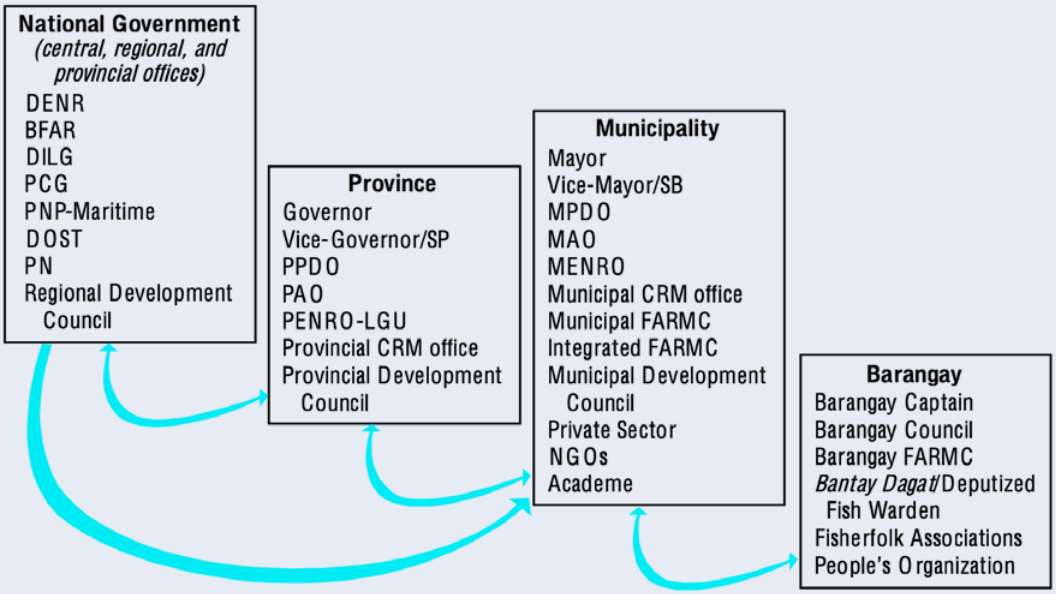
The country's demersal fisheries reached their maximum economic yield as early as the late 1960s, with later studies of the small pelagic fisheries also indicating overfishing[40]. A major policy shift began in the 1990s with the devolution of authority within existing national fisheries legislation, and the development of policies to embrace a decentralised and co-managed fishery[41,42]. The introduction of the Philippine Fisheries Code in 1998 consolidated all laws in the sector and made modifications or repealed existing statutes inconsistent with the code[43]. This set the stage for long-term sustainability, food security and implementation of co-management of the country's fisheries.



Source: Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government (2001) Philippine Coastal Management Guidebook No.1: Coastal Management Orientation and Overview

Figure 4: Evolution of coastal management systems in the Philippines[44]

The role of fishers and other resource users in the planning and formulation of policies and programmes for the management, conservation, protection and sustainable development of fisheries and aquatic resources, was institutionalised in 2000 through a Fisheries Administrative Order[45]. This allowed the formation of Fisheries and Aquatic Resources Management Councils (FARMCs) at the national, provincial, and municipal levels. It also signalled the government's legal commitment to inclusive fisheries management.



BFAR - Bureau of Fisheries and Aquatic Resources
CRM - coastal resource management
DENR - Department of Environment and Natural Resources
DILG - Department of the Interior and Local Government
DOST - Department of Science and Technology
FARMC - Fisheries and Aquatic Resources Management Council
LGU - Local government unit
MAO - Municipal Agriculture Office
MENRO - Municipal Environment and Natural Resources Office
MPDO - Municipal Planning and Development Office

NGO - nongovernment organization
PAO - Provincial Agriculture Office
PCG - Philippine Coast Guard
PENRO - Provincial Environment and Natural Resources Office
PN - Philippine Navy
PNP - Philippine National Police
PPDO - Provincial Planning and Development Office
SB - *Sangguniang Bayan*
SP - *Sangguniang Panlalawigan*

Source: Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government (2001) Philippine Coastal Management Guidebook No.1: Coastal Management Orientation and Overview

Figure 5: Key players in fisheries co-management in the Philippines[46]

Key measures put in place for fisheries management included[47]:

- Limited entry and effort reduction through registration and licensing.
- Gear restrictions, area closures and temporal restrictions.
- Enhancement of awareness and participation of stakeholders.
- Activities to reduce environmental impact.

Through these key measures put in place under the Community-Based Coastal Resource Management (CB-CRM), the Siete Picados Marine Park was established 2005 as one of the first community-managed marine protection areas (MPAs)[48]. In 2008, 2010 and 2015 to 2017 evidence from fishers and research showed increased fish stick biomass in the park and elimination of illegal fishing such as cyanide and dynamite fishing[49]. Fishers have also been able to shift to part-time and full-time jobs in tourism associated with the MPA[50]. The co-management of the Danajon Bank MPA established in 1997 also showed an increase in fish biomass between 2004 and 2007, and after 2013, improvements in people's livelihoods through additional income from co-management initiatives[51].

These significant policy shifts by the Government of the Philippines have made the Community-Based Coastal Resource Management (CB-CRM) system a success and a model for devolution of authority for coastal resource management through the LGC[52].

Fisheries co-management efforts in Liberia

NaFAA was created in 2017 to respond to emerging challenges in Liberia's fisheries sector and the need for more effective fisheries management. NaFAA is responsible for managing fisheries and aquaculture activities in the country, promoting the conservation, management, and sustainable use of the fisheries, and developing and implementing plans, policies, and strategies within the fisheries sector.

Creating a co-management system that can respond to emerging fisheries management challenges and be responsive to community-specific needs requires the creation of an enabling environment through the appropriate policy instruments. Indeed, the government of Liberia, through NaFAA, has recognised the need for co-management in its fisheries policies and provided an initial legal basis for its implementation, for example:

- The 2014 Fisheries and Aquaculture Policy and Strategy[53] proposed the use of *"co-management institutions for allocation and management of fishing rights, including adaptable participatory monitoring and enforcement mechanisms for management of the inshore fisheries"*[54] and provides *"the legal framework to support the existence and operations of the locally based participatory management institutions, the declaration of co-management areas (TURFs), co-management agreements, and allocation and utilization of proceeds of fishing rights"*[55] as an intervention to address the challenges associated with top-down centralised fisheries management.

- The Fisheries and Aquaculture Management and Development Law of 2019 states that "*Co-Management Fisheries Associations ("Associations") may be established in accordance with this Act for [the] purpose of exercising rights and responsibilities within a designated area relating to information and decision-making for fisheries conservation, management and sustainable use*"[56].

NaFAA has also taken steps to begin the implementation of fisheries co-management in the country, with the formation of Collaborative Management Associations (CMA) in selected communities. With the support of the World Bank and the Environmental Justice Foundation (EJF), respectively, NaFAA established the Robertsport CMA in 2012 and the Montserrado and Bomi CMA in 2019. The CMA is an association whereby fishing communities work in partnership with the government through a democratic, participatory and grassroots management structure to manage the fisheries resources sustainably.

The establishment of CMAs has set the stage for more transparent and participatory governance of fisheries resources in Liberia and the wider implementation of fisheries co-management. The associations have been shown to encourage community-level effort in the fight against all forms of IUU fishing activities and to yield equitable economic gains for both women and men involved in small-scale fisheries. They have been able to reduce conflicts among fisherfolks and the practice of dynamite fishing in Robertsport. John Adam, the secretary of the Robertsport CMA, says:

> ***"My greatest achievement has been uniting communities (Kru and Fanti Town communities) that were at loggerheads/in conflict for a long period of time. With the help of the CMA, we now have these two communities working as a single unit."***

Canoes berth in Robertsport.

Current challenges facing fisheries management and CMAs

Despite the strides made towards achieving sustainable fisheries management in Liberia through the enactment of laws and regulations and the establishment of CMAs, there are some challenges that still need to be addressed. NaFAA and the CMAs are confronted with issues that mitigate against the realisation of sustainable fisheries management objectives, including:

- Non-compliance with the fisheries laws by fishers and low capacity of government to enforce the laws.
- Inadequate resources at both the national and local level to properly monitor and ensure accountability and grassroots participation in the fisheries sector.
- Low level of awareness of the fisheries laws and the role of CMAs among fishers.
- Issues of the legitimacy of CMAs in their respective communities.
- Inadequate funding for CMA operations.
- Low levels of CMA membership in communities.
- Limited authority/autonomy of CMAs to operate independently of NaFAA at the community level.
- Inadequate management and administrative capacity of CMAs to effectively operate.
- Under representation of women in fisheries management decision making processes and within the CMA leadership.

Fishmonger in Buchanan.

CONCLUSION AND RECOMMENDATIONS:

making co-management a cape-to-cape agenda

Co-management is a participatory management approach that provides a structure for equitable fisheries management through empowerment, rulemaking, conflict management, power-sharing, social learning, dialogue and communication, and development among fisheries stakeholders[57]. Co-management presents an opportunity to consolidate efforts and gains made by NaFAA towards sustainable and inclusive fisheries management and the eradication of IUU fishing. It provides an avenue for effective implementation of the SSF Guidelines which recognises small-scale fisheries as critical to food security in developing coastal countries and calls for the inclusion of fishers in the fisheries decision-making process.

Implementation of a successful co-management regime in Liberia requires an enabling environment in the form of policy support and political will, and the allocation of adequate financial, time and human resources. However, there is no one-size fits all approach to co-management. To achieve sustainability and reduction of IUU fishing through co-management, we recommend the following:

- Development and implementation of a national co-management policy to guide the formation of co-management institutions such as CMAs in coastal communities and inland fisheries in Liberia.
- Development of a funding mechanism to sustain the operations and implementation of co-management processes and associations.
- Increased education and awareness-raising programmes to promote co-management activities, fisheries laws, and regulations among fisheries stakeholders.
- Recognition of existing community leadership structures and building the foundation of co-management associations on these structures to ensure legitimacy.
- Placing capacity building of co-management actors at the fore of the co-management process. Co-management is a continuous process designed to be adaptive and responsive to the dynamic and complex nature of small-scale fisheries. Stakeholders involved in the process would need their capacity to be built to respond to emerging issues.
- Regular monitoring and evaluation of co-management processes to ensure they are delivering on their management objectives and adaptions made where needed.
- Codification of local community norms and taboos that address resource management. Community norms and taboos can be used to effectively safeguard natural resources and can be layered into co-management regulations through their codification into district and national laws.

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1 Ministry of Agriculture (2014). *Fisheries and Aquaculture Policy and Strategy*, accessed 13.7.2021, https://ekmsliberia.info/wp-content/uploads/2019/11/fisheries_policy_doc.pdf
2 Food and Agriculture Organization of the United Nations (FAO) (2019), 'Fisheries and Aquaculture Country Profiles – the Republic of Liberia', accessed 16.7.2021, http://www.fao.org/fishery/facp/LBR/en
3 Fisher is used here to refer to both fishermen and fish processors/traders
4 Ministry of Agriculture (2014). *Fisheries and Aquaculture Policy and Strategy*, accessed 13.7.2021, https://ekmsliberia.info/wp-content/uploads/2019/11/fisheries_policy_doc.pdf
5 Pomeroy, R. S., & Rivera-Guieb, R. (2005). *Fishery co-management: a practical handbook*. CABI.
6 Food and Agriculture Organization of the United Nations (FAO) (2019), 'Fisheries and Aquaculture Country Profiles – the Republic of Liberia', accessed 16.7.2021, http://www.fao.org/fishery/facp/LBR/en
7 National Fisheries and Aquaculture Act of 2017
8 Ministry of Agriculture (2014). *Fisheries and Aquaculture Policy and Strategy*, accessed 13.7.2021, https://ekmsliberia.info/wp-content/uploads/2019/11/fisheries_policy_doc.pdf
9 National Fisheries and Aquaculture Act of 2017
10 Fisheries Regulations of 2010
11 Fisheries and Aquaculture Management and Development Law of 2019
12 Environmental Justice Foundation (EJF) (10.12.2020), 'Liberia protects small-scale fishers from Chinese super-trawler threat', accessed 16.7.2021, https://ejfoundation.org/news-media/the-liberian-government-has-refused-to-issue-fishing-licenses-to-a-fleet-of-six-chinese-flagged-supertrawlers-safeguarding-local-livelihoods-and-food-security
13 Anon, (14.11.18), 'Liberia: NaFAA fines Chinese fishing vessels for illegal fishing on Liberian waters', *Front Page Africa,* accessed 16.7.21, https://frontpageafricaonline.com/uncategorized/nafaa-fines-chinese-fishing-vessel-for-illegal-fishing-on-liberian-waters/
14 Evans, L., Cherrett, N., and Pemsl, D. (2011), Assessing the impact of fisheries co-management interventions in developing countries: a meta-analysis, *J. Environ. Manage*. 92, 1938–1949.
15 Food and Agriculture Organization of the United Nations (FAO) (2019), 'Fisheries and Aquaculture Country Profiles – the Republic of Liberia', accessed 16.7.2021, http://www.fao.org/fishery/facp/LBR/en
16 Berkes, F. (2009), Evolution of co-management: role of knowledge generation, bridging organizations and social learning, *J. Environ. Manage.* 90, 1692–1702
17 Evans, L., Cherrett, N., and Pemsl, D. (2011), Assessing the impact of fisheries co-management interventions in developing countries: a meta-analysis, *J. Environ. Manage*. 92, 1938–1949.
18 Food and Agricultural Organization of the United Nations (FAO) (2018) 'Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication', accessed 16.7.2021, http://www.fao.org/3/i8347en/I8347EN.pdf
19 Pomeroy, R. & Berkes, F. (1997), Two to Tango: the role of government in fisheries co-management. *Marine Policy*. Vol. 21(5), 465-480.
20 Pomeroy, R. S., & Rivera-Guieb, R. (2005). *Fishery co-management: a practical handbook*. CABI.
21 Dovlo, E., Amador, K., Nkrumah, B. *et al.* (2016). *Report on the 2016 Ghana Marine Canoe Frame Survey.* Fisheries Scientific Survey Division of the Fisheries Commission, Ministry of Fisheries and Aquaculture Development. August 2016.
22 *ibid*
23 *ibid*
24 Lazar, N., Yankson K., Blay, J., Ofori-Danson, P., Markwei, P., Agbogah, K., Bannerman, P., Sotor, M., Yamoah, K. K., Bilisini, W. B. (2020). *Status of the small pelagic stocks in Ghana in 2019*. Scientific and Technical Working Group. USAID/Ghana Sustainable Fisheries Management Project (SFMP). Narragansett, RI: Coastal Resources Centre, Graduate School of Oceanography, University of Rhode Island. GH2014_SCI083_CRC. 17pp., https://www.crc.uri.edu/download/GH2014_SCI083_CRC_FIN508.pdf
25 *ibid*
26 (Anon), 30.9.2020, 'Cabinet approves Fisheries Co-Management Policy', Graphic Online, accessed 17.8.2021 https://www.graphic.com.gh/news/general-news/cabinet-approves-fisheries-co-management-policy.html
27 World Bank (2003), Implementation Completion Report (Ida-27130) on a Credit in the amount of US$9.0 million (SDR 6.2 million) to the Republic of Ghana for a Fisheries Sub-Sector Capacity Building Project. June 27, 2003, accessed 17.8.2021 https://documents1.worldbank.org/curated/pt/498231468771629817/pdf/261660GH0.pdf
28 Chief Fisherman is the traditional leader of the fishermen in Ghana.
29 Ghana Ministry of Fisheries and Aquaculture Development and Fisheries Commission. (2020), Ankobra Estuary Community-Based Fisheries Management Plan, Western Region, Ghana. Accra: Ministry of Fisheries and Aquaculture Development, Fisheries Commission. 70pp. https://www.crc.uri.edu/download/GH2014_ACT084_MOFAD_FC_FIN508.pdf
30 Ghana Ministry of Fisheries and Aquaculture Development and Fisheries Commission. (2020), Pra Estuary Community-Based Fisheries Management Plan, Western Region, Ghana. Accra: Ministry of Fisheries and Aquaculture Development and the Fisheries Commission. 47pp. https://fonghana.org/wp-content/uploads/2021/04/Pra-Estuary-Community-Based-Fisheries-Management-Plan-Western-Region-Ghana.pdf
31 Ghana Ministry of Fisheries and Aquaculture Development and Fisheries Commission. (2020), Densu Delta Community-Based Fisheries Management Plan, Greater Accra Region, Ghana. Accra: Ministry of Fisheries and Aquaculture Development, Fisheries Commission. 59pp. https://www.crc.uri.edu/download/GH2014_ACT139_MOFAD_FC_FIN508.pdf
32 Ministry of Fisheries and Aquaculture Development (2020) Co-Management Policy for the Fisheries Sector, Government of Ghana 41pp https://www.crc.uri.edu/download/GH2014_POL112_MOFAD_FIN508.pdf
33 *ibid*
34 Ministry of Fisheries and Aquaculture Development (2020). *Co-Management Policy for the Fisheries Sector.* Government of Ghana. pp 41 https://www.crc.uri.edu/download/GH2014_POL112_MOFAD_FIN508.pdf
35 Food and Agriculture Organization of the United Nations (FAO) (2014), 'Fisheries and Aquaculture Country Profiles – the Republic of Philippines', accessed 17.8.2021, http://www.fao.org/fishery/facp/PHL/en
36 *ibid*
37 Philippine Statistics Authority (PSA) (2020). *The Fisheries Situation Report,* 27pp https://psa.gov.ph/sites/default/files/Fisheries%20Situation%20Report%2C%20January%20to%20December%202020.pdf
38 Gloria C. Diaz and Arsenio S. Bañares (2008). *Co-Management in Philippine Fisheries: The Fisheries and Aquatic Resources Management Council (FARMC).* Southeast Fisheries Development Center, http://repository.seafdec.org/bitstream/handle/20.500.12066/768/sp6-3%20co-management%20in%20philippine%20fisheries.pdf?sequence=1&isAllowed=y
39 Philippine Statistics Authority (PSA) (2020). *The Fisheries Situation Report,* 27pp https://psa.gov.ph/sites/default/files/Fisheries%20Situation%20Report%2C%20January%20to%20December%202020.pdf
40 Food and Agriculture Organization of the United Nations (FAO) (2014), 'Fisheries and Aquaculture Country Profiles – the Republic of Philippines', accessed 17.8.2021, http://www.fao.org/fishery/facp/PHL/en
41 Ingles, J.A. (2004). 'Status of the blue crab fisheries in the Philippines'. pp. 47–52. In DA- BFAR (Department of Agriculture-Bureau of Fisheries and Aquatic Resources). *In turbulent seas: The status of Philippine marine fisheries.* Coastal Resource Management Project, Cebu City, Philippines. 378pp
42 Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government. (2001). *Philippine Coastal Management Guidebook No. 2: Legal and Jurisdictional Framework for Coastal Management.* Coastal Resource Management Project of the Department of Environment and Natural Resources. Cebu City, Philippines, 170pp. http://oneocean.org/download/db_files/crmguidebook2.pdf
43 The Philippine Fisheries Code of 1998. https://www.officialgazette.gov.ph/1998/02/25/republic-act-no-8550/
44 Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government. (2001). *Philippine Coastal Management Guidebook No. 1: Coastal Management Orientation and Overview.* Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines, 58pp. https://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/crmguidebook1.pdf
45 Fisheries Administrative Order No 198. http://spsissuances.da.gov.ph/attachments/article/644/fao198.pdf
46 Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources of the Department of Agriculture, and Department of the Interior and Local Government. (2001). *Philippine Coastal Management Guidebook No. 3: Coastal Resource Management Planning.* Coastal Resource Management Project of the Department of Environment and Natural Resources, Cebu City, Philippines, 94pp.http://docshare02.docshare.tips/files/3436/34367801.pdf
47 Food and Agriculture Organization of the United Nations (FAO) (2014), 'Fisheries and Aquaculture Country Profiles – the Republic of Philippines', accessed 17.8.2021, http://www.fao.org/fishery/facp/PHL/en
48 Cohen, P.J., Roscher, M., Wathsala Fernando, A., Freed, S., Garces, L., Jayakody, S., Khan, F., Mam, K., Nahiduzzaman, M., Ramirez, P., Ullah, M.H., van Brakel, M., Patrick Smallhorn-West, P. and DeYoung, C. (2021). 'Characteristics and performance of fisheries co-management in Asia - Synthesis of knowledge and case studies: Bangladesh, Cambodia, Philippines and Sri Lanka.' Bangkok. FAO. 120pp. https://doi.org/10.4060/cb3840en
49 *ibid*
50 *ibid*
51 *ibid*
52 Food and Agriculture Organization of the United Nations (FAO) (2014), 'Fisheries and Aquaculture Country Profiles – the Republic of Philippines', accessed 17.8.2021, http://www.fao.org/fishery/facp/PHL/en
53 Government of Liberia (2014). *Fisheries and Aquaculture Policy and Strategy*, accessed 13.7.2021, https://ekmsliberia.info/wp-content/uploads/2019/11/fisheries_policy_doc.pdf
54 Chapter 3: intervention one; strategy 3. 2.3: Encouraging community and stakeholder participation in fisheries management of Fisheries and Aquaculture Policy and Strategy.
55 Chapter 3: intervention two; strategy 3. 2.3: Encouraging community and stakeholder participation in fisheries management of Fisheries and Aquaculture Policy and Strategy.
56 Section 3.2(1) of the Fisheries and Aquaculture Management and Development Law of 2019
57 Pomeroy, R. S., & Rivera-Guieb, R. (2005). *Fishery co-management: a practical handbook*. CABI.

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