



Caribbean Natural Resources Institute

INSTITUTIONAL ANALYSIS OF ENABLING CONDITIONS FOR ECOSYSTEM STEWARDSHIP IN THE FISHERIES SECTOR OF JAMAICA

August 2020



Cover photograph: Pirogue at Bull Bay (centre), boats at New Forum Fishing Village (left) and aquaculture pond in Hill Run, Spanish Town (right). 2020. ©CANARI

CARIBBEAN NATURAL RESOURCES INSTITUTE

**INSTITUTIONAL ANALYSIS AND ORGANISATIONAL ASSESSMENT OF FISHERIES-
RELATED STATE AGENCIES FOR ENABLING ECOSYSTEM STEWARDSHIP IN THE
FISHERIES SECTOR OF JAMAICA**

August, 2020

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Disclaimer:

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List of acronyms and abbreviations

ARIA	WRI's Adaptation: Rapid Institutional Analysis
BBFFS	Bluefields Bay Fishermen's Friendly Society
CANARI	Caribbean Natural Resources Institute
CBO	Community-based organisation
CCAM	Caribbean Coastal Area Management Foundation
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CEPF	Critical Ecosystem Partnership Fund
CLME + SAP	Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems
CMU	Caribbean Maritime University
CNFO	Caribbean Network Fisherfolk Organisation
COPESCAALC	Commission for Inland Fisheries and Aquaculture of Latin America and the Caribbean (COPESCAALC)
CPR	Cardiopulmonary resuscitation
CRFM	Caribbean Regional Fisheries Mechanism
CRP	Community Renewal Programme
CSO	Civil society organisation
DCFS	Department of Co-operatives and Friendly Societies
EAF	Ecosystem Approach to Fisheries
EBM	Ecosystem-based management
EHF	Environmental Health Foundation
FAC	Fisheries Advisory Council
FAD	Fish aggregating devices
FAO	Food and Agricultural Organisation
FFO	Fisherfolk organisations
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic information system
GPS	Global positioning system
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICT	Information and Communication Technology
IDB	International Development Bank
IUU	Illegal, unreported and unregulated fishing
JCA	Jamaica Customs Agency
JCFU	Jamaica Fishermen Cooperative Union
JET	Jamaica Environmental Trust
JMD	Jamaica dollars
JNSBL	Jamaica National Small Business Loan
JRC	Jamaica Red Cross
MEGJC	Ministry of Economic Growth and Job Creation
MFAFT	Ministry of Foreign Affairs and Foreign Trade
MFPS	Ministry of Finance and Public Service
MICAF	Ministry of Industry, Commerce, Agriculture and Fisheries
MOU	Memorandum of understanding
MPA	Marine protected areas

MTF	Medium Term Socio-Economic Policy Frameworks
NBSAP	National Biodiversity Strategic Action Plan
NCOCZM	National Council on Ocean and Coastal Zone Management
NEPA	National Environmental Planning Agency
NFA	National Fisheries Authority
NFAC	National Fisheries Advisory Council
NFO	National Fisherfolk Organisation
NGO	Non-governmental organisations
NIC	National Intersectoral Committee/Coordinating Mechanism
NRCA	Natural Resources Conservation Authority
OGC	Ocean Governance Committees
OSPESCA	Organization of Central American Fisheries and Aquaculture Sector
PIOJ	Planning Institute of Jamaica
PPCR	Pilot Project for Climate Resilience
RADA	Rural Agricultural Development Authority
RFB	Regional fisheries bodies
SDC	Social Development Commission
SDG	Sustainable Development Goals
SFCA	Special Fishery Conservation Areas
SFCAN	Special Fishery Conservation Areas Network
SGP	Small Grants Programme
TNC	The Nature Conservancy
UCC	University of the Commonwealth Caribbean
UNEP-CEP	United Nations Environment Programme- Caribbean Environment Programme
UWI	University of the West Indies
UWI- CERMES	Centre for Resource Management and Environmental Studies of the University of the West Indies
UWI-CIRP	Caribbean ICT Research Programme of the University of the West Indies
WECAFC	FAO Western Central Atlantic Fisheries Commission
WRI	World Resources Institute

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Executive Summary

The Developing Organisational Capacity for Ecosystem Stewardship and Livelihoods in the Caribbean Small-Scale Fisheries (StewardFish) project is aimed at implementing the 10-year Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+SAP) within seven Caribbean Regional Fisheries Mechanism (CRFM) member states (Antigua and Barbuda, Barbados, Belize, Guyana, Jamaica, Saint Lucia, St. Vincent and the Grenadines). The project aims to deliver enhanced stewardship of fisheries resources and livelihood benefits.

CANARI conducted an Institutional Analysis and Organisational Assessment in Jamaica to contribute to Outcome 1.2 *“Fisheries-related state agencies have capacity to support fishing industry stewardship”* and Output 1.2.1 *“State agency implementation gaps are assessed regarding support for fisherfolk organisations and their role in stewardship”* of the project. The aim of the analysis was to identify current strengths, as well as opportunities for improvement in Jamaica’s fisheries-related state agencies, in order to improve their capacity to support ecosystem stewardship by fisherfolk and their organisations as it related to the following areas:

- i. policies, laws and plans;
- ii. advisory and/or decision-making mechanism;
- iii. fisheries related organisations; and
- iv. processes and practices.

The methods utilised included desk study, interviews with key stakeholders and a validation workshop.

Jamaica is one of the largest islands in the Caribbean and one of the largest participating project countries. The island has rich coastal and marine biodiversity and has, over the years developed innovate and sustainable solutions to ensure that these resources are protected and responsibly utilised. Fisheries in Jamaica is mainly divided into harvest and post-harvest sectors; and marine capture fisheries and aquaculture. The industry has been undergoing transition over recent years, due to the passing of a new Fisheries Act (2018), which established the National Fisheries Authority (NFA) (formerly Fisheries Division) and mandated the formation of a new multisectoral committee for fisheries management, the National Fisheries Advisory Council (NFAC). This institutional analysis and organisational assessment examined the fisheries institution of Jamaica given this context and delved deeper into the institution’s ability to support and enable fisherfolk to be stewards for coastal and marine ecosystems and for sustainable fisheries. Key findings of the report include:

- There was a wide array of stakeholders identified for the fisheries institution of Jamaica, some more directly related than others. Through a power triangle exercise, stakeholders identified agencies and organisations with greater perceived power than others. Generally, it was thought that ministers, ministries and their aligned national intersectoral coordinating mechanisms (NICs) had the greatest decision-making power in the institution. Local government and planning institutions had medium level decision-making power and civil society, including fisherfolk, had the lowest. The role of fisheries institution influencers was also discussed and included tourism and private stakeholders, large inter-governmental organisations, international non-profit organisations, and academia.
- The legislative and policy frameworks which guide the fisheries institution of Jamaica strongly reflects key tenets of the ecosystem approach to fisheries (EAF). These include ecosystem well-being, socio-economic well-being and good governance - specifically, collaborative management/co-management. Laws, policies and plans were found to be especially effective at addressing ecological well-being, with the Fisheries Act (2018) identifying the need for a more ecosystem-based approach to management of the industry. However, less attention was given to socio-economic well-being and good governance.

- With the establishment of the NFAC and other existing NICs it was evident that there is potential for fisherfolk to influence decision-making processes and be key stakeholders in a participative governance structure. However, this comes with some caveats, as individual fishers are usually included in NICs, and not representatives of fisherfolk organisations .
- There are many initiatives and projects which benefit fisherfolk in Jamaica, including access to materials, equipment, training and capacity building and technical expertise through the NFA. Safety at sea, alternative livelihood training and sea turtle monitoring are a few of the more common training opportunities offered to fisherfolk. This directly influences their ability to be better stewards. There are, however, some important areas where resources are lacking. , is the issue of limited access to direct financing for fisherfolk; and the lack of emphasis on capacity building in technology, including information and communication technology (ICT) are among them.
- Communication needs to be improved within the fisheries institution. Neither the NFA, the core agency responsible for communicating with fisherfolk, nor, the Jamaican Fishermen Cooperative Union (JFCU), a national fisherfolk organisation, has an adequate communication plan. The methods engaged by the NFA for communicating are face-to-face interaction and social media platforms. These are the only methods used to share information with its stakeholders including fisherfolk.
- There are strong partnerships identified in the fisheries institution, particularly between the NFA and the JFCU; and among civil society organisations (CSOs). These partnerships can benefit from the establishment of more formal agreements, and from the support of government ministries. Partnership and collaboration among government agencies should be addressed through the creation of inter-agency committees to coordinate activities and avoid duplication of efforts. There is also very little indication of collaboration among fisherfolk organisations, outside of the JFCU's membership, an issue that can be addressed by expanding the membership of the said organisation and the creation of new opportunities and events for fisherfolk to partner on.
- The ability of the NFA, the key fisheries management organisation, to promote and support ecosystem stewardship is fairly strong. The Ministry of Industry, Commerce, Agriculture and Fisheries (MICAF) itself recognises stewardship as a core value to guide its work. Despite its limited access to resources, the NFA still has the capacity to support fisherfolk and their organisations with undertaking stewardship activity by providing technical guidance, fund raising support and access to resources through other organisations and projects. There is a need, however, to ensure that NFA staff are able to provide support to fisherfolk associations in organisational capacity building , by helping them to access assistance from other agencies such as the Cooperatives and Friendly Societies Division; and through the provision of required resources. The NFA should also seek to ensure that its staff has a diverse range of technical expertise to ensure that fisheries management interventions are holistic, taking into consideration all aspects of EAF .

Jamaica is moving in the right direction by supporting ecosystem stewardship. The legislative framework and mechanisms for participative governance highlight the importance of embracing an ecosystem approach to fisheries and the role that fisherfolk can play in such an approach. This can only be successful if fisherfolk organisations are perceived to be represented nationally and have a collective voice to advocate for their needs and their resources while being supported with the appropriate tools and knowledge to do so. The analysis identifies key recommendations from the legislative and policy to implementation level, to create a fisheries institution that enables stronger ecosystem stewardship and sustainable mobilisation of resources by fisherfolk.

1 Introduction

In 2013, countries bordering and/or located within the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ region) adopted a 10-year Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ SAP)¹. The 10-year CLME+ SAP aims to contribute to the achievement of the regionally adopted long-term vision of “a healthy marine environment in the CLME+ that provides benefits and livelihoods for the well-being of the people of the region.” The CLME+ SAP consists of 6 Strategies and 4 Sub-strategies. SAP strategies 1-3, with a focus on governance, are cross-cutting, while strategies 4-6 tackle the three main marine ecosystems (reef, pelagic and continental shelf) in the CLME+ region. One of the key strategies of the CLME+ SAP is to achieve sustainable fisheries, including of small-scale fisheries which are important economic drivers for the sustainability of coastal communities and rural livelihoods and a vital source of employment, food and income for Caribbean people. Five barriers to achieving sustainable fisheries in the small-scale fisheries have been identified through the CLME+ SAP which are:

- “Limited capacity of regional, national and local fisherfolk organizations to participate effectively in fisheries governance,
- Fisherfolk have insufficient capacity and knowledge of ecosystem stewardship practices for fisheries sustainability,
- Inadequate public awareness of ecosystem approaches to support best practices and ensure compliance,
- Poor documentation of successful experiences and practices for sustainable fisheries livelihood strategies,
- Inadequate management and collaboration mechanisms to support fisherfolk leaders in monitoring and evaluating projects.” (FAO/Global Environment Facility, 2016)

The *Developing Organisational Capacity for Ecosystem Stewardship and Livelihoods in the Caribbean Small-Scale Fisheries (StewardFish)* project is therefore aimed at implementing the CLME+ SAP within seven Caribbean Regional Fisheries Mechanism (CRFM) member states (Antigua and Barbuda, Barbados, Belize, Guyana, Jamaica, Saint Lucia, St. Vincent and the Grenadines) that have politically endorsed the CLME+ SAP by empowering small-scale fisherfolk throughout fisheries value-chains to engage in resource management, decision-making processes and sustainable livelihoods, with strengthened institutional support at all levels.² The project aims to deliver enhanced stewardship of fisheries resources and livelihood benefits through implementation of the four core project components (See Figure 1.1).

StewardFish recognises that there are several challenges, like those stated above, that hinder the engagement of fisherfolk and their organisations in the sustainable use and management of fisheries in the region including fisheries-related state agencies not having adequate capacity to support fisherfolk and their organisations with ecosystem stewardship initiatives. This results in fisherfolk having a decreased ability to participate in and/or lead in the ecosystem stewardship activities and adopt sustainable fishing practices, as identified in the five barriers. Because state agencies, including fisheries authorities, vary widely in their support of fisherfolk organisations for

¹ CLME+ Strategic Action Programme <https://www.clmeproject.org/sap-overview/>

² CANARI. 2019. StewardFish – Developing Organisational Capacity for Ecosystem Stewardship and Livelihoods in Caribbean Small-Scale Fisheries (StewardFish) project. [March 2020]

different reasons, some within their control and others beyond, a situation specific analysis is required.

In support of this, CANARI conducted an Institutional Analysis and Organisational Assessment in each of the project countries to contribute to Outcome 1.2 “Fisheries-related state agencies have capacity to support fishing industry stewardship” and Output 1.2.1 “State agency implementation gaps are assessed regarding support for fisherfolk organisations and their role in stewardship” of the project.

The aim of the analysis was to identify current strengths, as well as opportunities for improvement in each project country’s fisheries-related state agencies, in order to improve their capacity to support ecosystem stewardship by fisherfolk and their organisations.

The analysis included:

- Designing an institutional analysis tool adapted from the Adaptation: Rapid Institutional Assessment (ARIA) methodology, including an organisational assessment survey targeted at the fisheries authorities
- Conducting desk studies, surveys, virtual and in-country interviews and focus groups with fisherfolk, fisheries authorities and other key state agencies in the project countries
- Facilitating national workshops³ to present, validate, refine and receive input on the preliminary findings and identify priorities for improvement, in each project country
- Producing country reports of findings, including recommended priorities for improvement

This report provides the findings and recommendations from the institutional analysis and organisational assessment conducted for Jamaica, between December 2019 to June 2020.

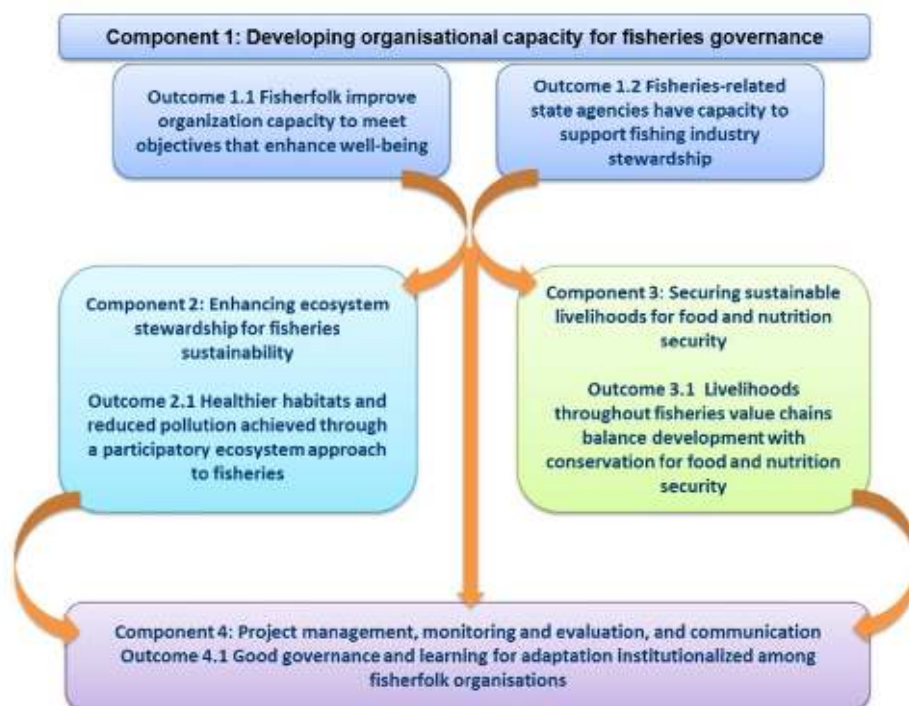


Figure 1.1: StewardFish Project Framework. Credit: FAO

³ National workshops were initially carded to be conducted in-country for all project countries, however, due to the COVID-19 pandemic as declared by the World Health Organisation on March 11, 2020, and subsequent restrictions on air travel, all workshops following the declaration date were conducted virtually through webinars.

1.1 *How strong institutions can support ecosystem stewardship by fisherfolk*
 Stewardship is a term which relates to rights and responsibilities in governance processes. Its application in natural resource management has expanded the understanding of stewardship to convey that “stewards” are stakeholders with responsibility for proper resource use, who will “take care” of a resource under communal or public property rights.⁴ The term importantly encompasses responsibility not only for proper use of resources but also right to life of other species and for future generations.⁵ The concept of ecosystem stewardship, particularly in the fisheries sector; includes reducing the vulnerability of the sector by promoting resilience and making use of opportunities to transform undesirable paths.



Figure 1.2: Members of the Caribbean Network of Fisherfolk Organisations (CNFO), a regional fisherfolk organisation, at the StewardFish project Regional Fisherfolk Mentors training workshop Oct 28-Nov 1, 2019. (Credit: CANARI 2019)

A fundamental concern of stewardship is capacity, i.e., whether individuals or groups can steward their resources. Capacity, which is determined, in part by broader governance, including:

- systems of institutions (i.e., laws and policies,
- formal and informal organisations, and decision-making processes and
- structural processes related to power and politics (i.e., economic inequality, discrimination, exclusion from decision-making)

“Local environmental stewardship refers to the actions taken by individuals, groups or networks of actors, with various motivations and levels of capacity, to protect, care for or responsibly use the environment in pursuit of environmental and/or social outcomes in diverse social-ecological contexts.”

(Bennet et al. 2018)

can either empower or constrain the sense of agency, available options and capacity of would-be stewards⁶. The paper “*Environmental Stewardship: A Conceptual Review and Analytical Framework*” Bennet et. al notes that for the small-scale fisheries sector, that stewardship efforts can be supported by national laws or policy frameworks that protect the rights and tenure of local fishers ; formalise the stewardship responsibilities of local fishers ; or provide resources to support local community efforts to steward their own resources. Conversely, the paper notes that even when local small-scale fishers want to act, the broader policy landscape may undermine their efforts by creating bureaucratic challenges.

Ensuring that the fisheries institution adequately enables ecosystem stewardship by fisherfolk, and their organisations will not only contribute to sustainable fisheries but will help to ease the burden on already under-resourced fisheries state agencies to monitor and enforce fisheries regulations.

⁴ Medeiros, R. P., Serafini, T. Z., McConney, P. 2014. Enhancing Ecosystem Stewardship in Small-Scale Fisheries: Prospects for Latin America and the Caribbean. *Desenvolv. Meio Ambiente*, n. 32, 181-191.

⁵ Medeiros, R. P., Serafini, T. Z., McConney, P. 2014. Enhancing Ecosystem Stewardship in Small-Scale Fisheries: Prospects for Latin America and the Caribbean. *Desenvolv. Meio Ambiente*, n. 32, 181-191.

⁶ Bennett, N.J., Whitty, T.S, Finkbeiner, E., et. al. 2018. *Environmental Stewardship: A Conceptual Review and Analytical Framework*.

2 Institutional Analysis Framework

An institution can be described as the set of arrangements used for making decisions about the development, management, and use of a natural resource. This includes the stakeholders, as well as the laws, formal and informal policies, plans and structures that guide how these stakeholders interact with each other and with the resources.

To conduct the rapid analysis CANARI developed and piloted an institutional analysis tool which was adapted from the World Resources Institute's (WRI) Adaptation: Rapid Institutional Assessment (ARIA)⁷ methodology, including an organisational assessment survey targeted at national fisheries authorities. The tool analyses the institutional and organisational capacity of fisheries-related state agencies to support stewardship in the small-scale fisheries sector. The tool was used to conduct a baseline assessment and can subsequently be used for monitoring and evaluation as part of an institutional strengthening process.

The tool examines four conceptual components- fisheries-related policies; laws and plans; advisory and/or decision-making mechanisms; fisheries-related organisations and processes and practises, to determine the capacity of the fisheries institution to support the role of fisherfolk and their organisations in ecosystem stewardship. Refer to Table 2.1 for a description of each conceptual component. Appendix 1 includes more detailed definitions of conceptual components.

Table 2.1: The four conceptual components assessed in the rapid institutional analysis

Conceptual component	Description of component
Policies, laws and plans	Examined fisheries and fisheries-related policies, plans and legislation (including rules and regulations) to determine how they may be empowering or constraining the ability to integrate ecosystem stewardship practices within the country's small-scale fisheries sector.
Advisory and/or decision-making mechanisms	Examined the presence, composition and functioning of existing multi-stakeholder mechanisms (e.g., Fisheries Advisory Committee) established for advising or making decisions for fisheries management.
Fisheries-related organisations	Examined the roles and responsibilities of fisheries-related state agencies, as well as other fisheries-related organisations [e.g., FFOs, civil society organisation (CSOs), private sector organisations and academia] which play a key role in the fisheries-related institutional arrangements of the project country. Additionally, an organisational capacity assessment was carried out to examine the national fisheries authority's current ability to support ecosystem stewardship by small-scale fisherfolk and included an examination of the authority's: <ul style="list-style-type: none"> ○ Vision, mandate, culture ○ Knowledge and skills ○ Resources ○ Partnerships
Processes and practices	Examined the various processes and practices in the country's fisheries institution related to: <ul style="list-style-type: none"> ○ Good governance- assessed the application of good governance practices, particularly inclusion of fisherfolk in decision-making processes in the fisheries sector. ○ Collaborative management- assessed the extent to which collaborative management exists in practice between fisheries-related state agencies

⁷ WRI's Rapid Institutional Analysis for Adaptation Tool. <https://accessinitiative.org/resources/adaptation-rapid-institutional-analysis-phase-1-workbook>

	<p>and small-scale fisherfolk and their organisations. The degree of stakeholder collaboration in management practices was also assessed.</p> <ul style="list-style-type: none"> ○ Effective communication- assessed the extent to which providers of fisheries information in the project country were using defined communication strategies, tools and channels to communicate with fisherfolk, as well as their capacity to use the tools and channels effectively, including the structures and systems in place for clear communication.
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The tool was implemented using a variety of data collection methods (See Section 3 on Methodology) in order to capture a broad range of stakeholder perceptions and input, as well as to gather perspectives on the realised benefit of existing laws, rules, regulations, processes, practices and procedures of the fisheries institutions.

Based on the information collected, the institutional analysis and organisational assessment report will discuss the following key aspects regarding the capacity of the fisheries institution to support the role of fisherfolk and their organisations in ecosystem stewardship:

- Policy, legal and planning context for ecosystem stewardship
- Mechanisms for fisherfolk participation in decision-making
- Support and resources available to fisherfolk and their organisations for ecosystem stewardship
- Partnerships and networks for ecosystem stewardship
- Communication of information on sustainable practices for fisheries resources use
- Organisational capacity of the fisheries authority to support fisherfolk and their organisations with ecosystem stewardship

3 Methodology

A rapid analysis of the institutional and organisational capacity of fisheries-related state agencies to enable stewardship in the fisheries sector was conducted for Jamaica during the period December 2019 – June 2020. The analysis piloted an institutional and organisational capacity assessment tool developed by CANARI (Refer to Section 2). The rapid analysis included the following key research methods:

- **Desk study:** CANARI collected and reviewed information readily available (e.g., through online sources) on the project country’s small-scale fisheries sector and its institutional environment, particularly as it relates to capacities to support ecosystem stewardship by small scale fisherfolk and their organisations. This was carried out at an early stage of the analysis to inform and guide the subsequent events.
- **Validation workshop:** Following the initial desk study, a validation workshop was held in-country on January 28th and 29th, 2020 at the Farmers Training Centre, Twickenham Park, Spanish Town, St. Catherine. This included participants from government [e.g., National Fisheries Authority (NFA)], civil society [e.g., Caribbean Coastal Area Management Foundation (CCAM)] and representatives from fisherfolk organisations [e.g., Jamaica Fishermen Co-operative Union (JFCU)]. The full participants list is attached at Appendix 2.



Figure 3.1: Participants engaging in small group work at the validation workshop held in Jamaica, January 28th-29th 2020. Credit: CANARI 2020

This validation workshop provided an opportunity to corroborate information collated during the desk study phase and supplement information from in-country sources.

- **Focus group session:** this event involved a focus on stakeholders from fisherfolk organisations to discuss their priorities to effectively engage and action ecosystem stewardship. This was held on January 30, 2020, with fisherfolk at the New Forum Fishing Village to discuss how they currently engage ecosystem stewardship, and the issues they face. A list of organisations participating in the focus group is included in Appendix 3.
- **Interviews:** in-country and virtual key informant interviews were conducted in January and included key stakeholders in organisations involved in the fisheries institution of Jamaica. A full list of interviewees' associated organisations is attached at Appendix 3.
- **Survey:** an organisational capacity assessment survey was carried out to examine the NFA's current ability to support ecosystem stewardship by small-scale fisherfolk.

4 Background

4.1 Overview of fisheries sector

In Jamaica, the small-scale fisheries sector makes a significant contribution to food security, providing an important source of food and livelihoods to coastal communities. Around 40,000 persons make up the small-scale fisheries sector of Jamaica and participate in fishing-related activities. Jamaica also has a small number of persons engaged in aquaculture, who form part of the small-scale fisheries sector of the island (FAO, 2019). Reef fisheries are of substantial value to coastal communities in Jamaica, both socially and economically, as it supports the bulk of artisanal fishers, and directly employs around 20,000 fishers. Jamaica's reef fishery is largely considered a critical "safety net" for rural and coastal communities during difficult social times. The sector contributes to the direct and indirect livelihoods of around 100,000 persons (around five percent of the population) (FAO, 2019), but makes a minor contribution to the island GDP (0.3 percent in 2012).⁸ This strong dependence on fishery resources, and particularly reef fisheries, increases the vulnerability of the island to climate change and climate variability and their associated events, with the food security and livelihoods in coastal communities under direct threat.

According to the FAO, the fisheries sector plays a significant role in the Jamaican economy, as the amount of fish consumed per capita is one of the highest in the Western Hemisphere (25.8 kg per year in 2017). A large part of this demand for fish, around 80 percent, is met by import.⁹ The fisheries industry in Jamaica is mainly artisanal and like most others, is divided into the harvest (production) and post-harvest (processing) sectors. Each sector involves both capture and culture fisheries of finfish and shellfish.



Figure 4.1: Fisher mending net at New Forum Fishing Village. Credit CANARI 2020.

⁸ FAO/Global Environment Facility (2016). Project document: Developing organizational capacity for ecosystem stewardship and livelihoods in Caribbean small-scale fisheries (StewardFish) project. GEF.

⁹ Fishery and Aquaculture Country Profiles. Jamaica (2018). Country Profile Fact Sheets. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 08 11 2018. [Cited 24 July 2020]. <http://www.fao.org/fishery/>

¹⁰ Marine capture fisheries take place both inshore (shelf) and offshore, with five main categories: artisanal, industrial, sport/tourism-based and recreational fisheries, with artisanal being the largest subsector. All fisheries, with the exception of industrial fishing, which targets the Caribbean spiny lobster (*Panulirus argus*) and the Caribbean queen conch (*Strombus gigas*) specifically, are open access. ¹¹ Other targeted marine species include shallow shelf fish ¹² (including reef fish and coastal pelagics) and offshore pelagics. ¹³ The species targeted are also determined by the gear type used. Fishers operate from 148 landing beaches around the island, with the main ones located on the south coast, including Old Harbour Bay, Port Royal, Rocky Point and Whitehouse. Of those, 21 have satellite offices of the National Fisheries Authority, where extension officers are based and where there is access to fuel. ¹⁴ Artisanal fishing fleets consist primarily of wooden canoes around seven metres long and fibreglass boats with outboard engines which are larger than the wooden boats. Gear types used include pots/traps, hook and line (e.g. longlines, handlines, troll lines), nets (e.g. beach seine, trawls, lobster nets, trammel nets) and diving (e.g. SCUBA and freediving) (CFRAMP, 2000).

For the post-harvest sector, fish is usually bought from fishers and prices are usually high for fresh fish. All locally caught fish are sold at local fish markets.



Figure 4.1: Worker feeding Tilapia at aquaculture farm in Hill Run, Spanish Town. (Credit CANARI 2020).

As mentioned previously, the inland fisheries sector is considered a part of the small-scale fisheries sector. This subsector is further categorised into food fish and ornamental fish. Some typically bred food fish species are tilapia, marine and freshwater shrimp and oyster. This subsector flourished around the year 2006 when 1,100 hectares were utilised by 189 aquaculture farmers to produce 8,019 tonnes of fish. Over the years, there has been a decrease in production, due, in part, to the heavy cost of operations (energy), unavailability of

appropriate feed and limited research and development of the sector. ¹⁵

Jamaica is signatory to a number of fisheries-related conventions and multilateral agreements which address the high seas, territorial waters, protection of the marine environment, and straddling

¹⁰ CFRAMP (2000). Jamaica National Marine Fisheries Atlas. CARICOM Fishery Report No. 4:53 p. <http://www.crfm.net/~uwohxjxf/images/documents/administrative/Jamaica%20National%20Marine%20Fisheries%20Atlas.pdf>

¹¹ Kong, G.A. (2000). The Jamaica fishing industry: brief notes on its' structure, socio-economic importance and some critical management issues. Fisheries Division Ministry of Agriculture.

¹² FAO/Global Environment Facility (2016). Project document: Developing organizational capacity for ecosystem stewardship and livelihoods in Caribbean small-scale fisheries (StewardFish) project. GEF.

^{13, 19, 20} CFRAMP (2000). Jamaica National Marine Fisheries Atlas. CARICOM Fishery Report No. 4:53 p. <http://www.crfm.net/~uwohxjxf/images/documents/administrative/Jamaica%20National%20Marine%20Fisheries%20Atlas.pdf>

^{14, 21} Fishery and Aquaculture Country Profiles. Jamaica (2018). Country Profile Fact Sheets. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 08 11 2018. [Cited 24 July 2020].

migratory fish stocks, biodiversity, marine pollution, trade, endangered species and wetlands. The country is also a member of several regional fisheries bodies, including :

- Caribbean Regional Fisheries Mechanism (CRFM)
- Western Central Atlantic Fishery Commission (WECAFC)
- Commission for Inland Fisheries and Aquaculture of Latin America and the Caribbean (COPESCAALC)¹⁶

How the national fisheries governance structure and mechanisms facilitate ecosystem stewardship will be explored in Section 5.1. However, a key piece of legislation to note is the Fisheries Act (2018) which mandated the restructuring of the Fisheries Division to create the current National Fisheries Authority and to establish the National Fisheries Council, a multi-stakeholder advisory committee to which representatives from the fishing community are elected.

Jamaica's fishing industry has many challenges, similar to other Caribbean islands. These include overexploitation of fisheries resources, loss of biodiversity and habitat, increasing operational costs, reduced supply and increased demand for fish products and illegal fishing practices. However, the new Fisheries Act as well as the draft Fisheries Policy were developed to address these issues and safeguard the marine resources of Jamaica, while allowing sustainable resource mobilisation to address larger issues such as economic growth, unemployment and food and nutritional security.¹⁷ Other stakeholders such as civil society organisations and academic institutions are working steadily to promote sustainable management of marine resources through projects and through the establishment of marine protected areas and fish sanctuaries, as well as education and awareness communication.¹⁸

4.2 Stakeholder identification and analysis

Jamaica's fisheries institution includes a range of stakeholders including government, civil society organisations, academia, private sector and intergovernmental organisations, each having specific roles, mandates and responsibilities that influence the development and management of the fishing industry. As part of the institutional analysis, key stakeholders in Jamaica's fisheries institution were identified and analysed in the table presented at Appendix 4. The analysis examines the roles and interests of various stakeholders and how they can potentially benefit from improved ecosystem stewardship by fisherfolk and their organisations. The list, while not exhaustive,



Figure 4.2 CANARI facilitator discussing results of pyramid of decision-making power in Jamaica's fisheries institution activity with validation workshop participants. (Credit: CANARI 2020)

¹⁶ CFRAMP (2000). Jamaica National Marine Fisheries Atlas. CARICOM Fishery Report No. 4:53 p. <http://www.crfm.net/~uwohxjxf/images/documents/administrative/Jamaica%20National%20Marine%20Fisheries%20Atlas.pdf>

¹⁷ MICAF (2008). Draft Fisheries Policy. Ministry of Agriculture and Lands Fisheries Division. <https://www.micaf.gov.jm/sites/default/files/Draft%20fisheries%20policy%202008.pdf>

¹⁸ FAO/Global Environment Facility (2016). Project document: Developing organizational capacity for ecosystem stewardship and livelihoods in Caribbean small-scale fisheries (StewardFish) project. GEF

gives an understanding of the range of actors involved in the fisheries institution.

The stakeholder identification and analysis were informed by the desk study, information provided by the NFA and the stakeholders who participated in the validation workshop. During the workshop, a stakeholder mapping and analysis exercise, using a decision-making pyramid, was conducted to understand stakeholders' perceptions of decision-making power and relationships among the various stakeholders in the fisheries institution.

Workshop participants were introduced to the decision-making pyramid for the fisheries institution of Jamaica, where the top of the pyramid indicated the most decision-making power and the base, the least. Participants placed key stakeholders identified at different positions on the power pyramid based on their perceived decision-making power. Some stakeholders not previously on the list were also added to the pyramid and some were even placed outside of the pyramid, as they were thought not to be an optimal fit for the core institution, but could be better positioned to influence its management and development.

One of the key perceptions emerging from the exercise was that participants, including representatives of these organisations themselves, saw civil society, such as fisherfolk organisations and conservation-based non-governmental organisations, as having the least influence and minimal authority to make decisions. However, it was later determined that one non-governmental organisation, in fact did have greater decision-making power than initially thought. Representatives from this organisation sit on multi-stakeholder committees, including the National Fisheries Council, and often function in an advisory capacity for activities or projects. This non-governmental organisation, like others in Jamaica, is a leader in marine and coastal resource conservation, and works with fisherfolk as well as manages marine protected areas (MPAs). This led to further reassessment of where stakeholders were placed, but the consensus was that fisherfolk groups, like the JFCU, generally have less decision-making power.

The power pyramid exercise highlighted two main clusters of stakeholders, a larger more government-populated cluster at the top of the triangle and a smaller cluster at the base of the triangle with a mix of government agencies and civil society organisations. At the apex of the triangle were ministers and other politicians who were perceived as having the autonomy to create policy and initiate interventions for the fisheries institution. The Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA) and the NFA were placed high on the triangle, along with the National Fisheries Council. The National Fisheries Council was seen as having significant decision-making power, based on its composition of individuals or representatives of organisations appointed by the Minister. Other notable government ministries and agencies perceived to have high decision making power included the National Environmental Protection Agency, the Ministry of Foreign Affairs and Foreign Trade, the Ministry of Finance and Public Service and the Ministry of Economic Growth and Job Creation, which all have various mandates that intersect with the fisheries industry and along the fishery value chain. The National Council on Ocean and Coastal Zone Management, a national intersectoral coordinating mechanism, was also placed high on the pyramid along with government agencies, particularly enforcement and regulatory agencies, such as the Jamaican Constabulary Force Marine Police, Jamaican Defence Force Coast Guard, Port Authority, Maritime Authority, Veterinary Services Unit and Jamaica Customs Agency.

At the bottom of the pyramid there were, as mentioned previously, the civil society organisations, such as the Caribbean Coastal Area Management Foundation (C-CAM) and fisherfolk organisations, both primary (i.e. fisherfolk organisations that operate at the local or community level) and national. Participants believed that the primary fisherfolk organisations in Jamaica had more decision-making

power than the JFCU, which is considered a national umbrella organisation, for fisherfolk cooperatives. The reasoning for this is that individuals, who may belong to a primary fisherfolk organisation, are usually elected to multi-sectoral advisory or decision-making committees in their individual capacities and not as a representative of the group. Although, in such instances, though appointed as an individual, the fisher could represent the needs of their organisation and/or the fishing community to which they belong. Other government agencies with very discrete roles in the fisheries institution, were also placed at the lower level since they were believed to have low decision-making power. These included, for example, the Social Development Commission and the Department of Cooperatives and Friendly Societies.

A few other government agencies were placed in the middle of the triangle, namely the parish council, which represents local government, the Ministry of Health and the Planning Institute of Jamaica. Outside of the triangle, influencers were placed, at various levels near the top. The most influential entities being the private sector, including processors and industrial exporters and the Ministry of Tourism. The media was also identified as having a significant role in influencing decision-making in the Jamaican fisheries sector.

Interestingly, intergovernmental organisations and international non-governmental organisations were also placed here. These included the Caribbean Regional Fisheries Mechanism (CRFM), United Nations Environment Programme- Caribbean Environment Programme (UNEP-CEP), FAO, the International Development Bank (IDB), Green Climate Fund (GCF), Global Environment Facility (GEF) and The Nature Conservancy (TNC). Academic institutions like the University of the West Indies were also listed as important influencers. As suggested previously, these agencies guide and influence the shaping of the fisheries industry and the interventions for development, through the implementation of projects and programmes, and the funding of initiatives.

There were several interactions mapped in the exercise among stakeholders, with many overlaps and connections drawn. One of the more significant trends identified was the interaction between some government agencies and organisations at the base of the pyramid with several organisations and agencies above them, even though they were perceived to have very limited decision-making power. MICAFA appeared to have the most interaction with other stakeholders. Civil society organisations, such as C-CAM and Food for the Poor, were noted to have had the most interaction with stakeholders in the fisheries institution increasingly exerting influence and making greater interventions. Overall, the power pyramid reiterated the need for strengthened relationships among stakeholders in civil society and the private and public sectors. It also highlighted the need for stronger relationships between civil society organisations and donor agencies and greater involvement of the private sector. Potentially, this could drive change through corporate social responsibility. It was noted that strengthening relationships with donors can be facilitated by identifying focal points in government. The JFCU has a good working relationship with the NFA, however, it may be necessary to strengthen partnerships between both entities and with primary fisherfolk organisations, particularly those who are not members of the JFCU. Greater linkages



Figure 4.3: perceived arrangement of stakeholders in power triangle

should also be made among ministries, even though some positive working relationships already exist between agencies such as NEPA and NFA.

5 Policy and legal context for ecosystem stewardship

National policies, laws or plans can either encourage ecosystem stewardship by fisherfolk or undermine it.¹⁹ To determine whether existing fisheries and coastal and marine related policies, laws and plans in Jamaica were supporting or constraining ecosystem stewardship, selected priority policies, laws and plans were assessed to determine whether they were adequately in line with the principles of the ecosystem-approach to fisheries (EAF), namely whether they considered:

- human well-being: a condition in which all members of society can determine and meet their needs and have a wide range of choices to achieve their potential;
- ecosystem well-being: a condition in which the ecosystem maintains its diversity and quality, and thus its capacity to support people and other forms of life; and its potential to adapt to change and provide a viable range of choices and opportunities for the future; and
- good governance: governance arrangements that enable broad stakeholder participation are similarly expected to confer support for management and foster stewardship among fisherfolk and other resource users.²⁰

EAF recognises the need to maintain the productivity of ecosystems for present and future generations, conserving critical habitats, reducing pollution and degradation, minimising waste and protecting endangered species. It also recognises that this will not be achieved without the cooperation of people, i.e., unless the ecosystem contributes to human well-being, providing sustainable goods and services and sources of livelihood.²¹ Consideration of the latter is likely to encourage fisherfolk and other resource users to sustainably use, protect and conserve the resources they depend on for livelihoods. A holistic governance framework which considers importance of not only the ecological well-being of fisheries resources, but equally considers the socio-economic well-being of fishery resource users and collaborative management mechanisms in the approach to fisheries resource management, will increase the likelihood of ecosystem stewardship from fisherfolk in the small-scale fisheries industry.

5.1 Findings for policy, legal and planning context for ecosystem stewardship in Jamaica

Table 5.1 identifies some of the national fisheries and coastal and marine related policies, laws and plans within the fisheries institution in Jamaica. Policies, plans and laws identified are either directly related to the fisheries sector, for example the Fisheries Act, which regulates the fisheries industry in Jamaica; or indirectly related to the fisheries sector, for example the Food and Nutrition Security Policy, 2013, which was developed as a framework with strategies and actions to address issues of food and nutritional security in Jamaica.

Table 5.1: List of policies, laws and plans relevant to the fisheries sector in Jamaica²²

Policies
<ul style="list-style-type: none"> • Draft Fisheries Policy (2008) • National Policy on Ocean and Coastal Zone Management (2000) • Dolphin Conservation Policy (Draft 2003) • Food and Nutrition Security Policy (2013) • National Food Safety Policy (2013) • National System of Protected Areas Policy (1997)

¹⁹ Bennett, N.J. et al. 2018. Environmental stewardship: a conceptual review and analytical framework. *Environmental Management*, 61(4), pp.597-614.

²⁰ Turner, R. et al. 2019. Viability and Sustainability of Small-Scale Fisheries in Latin America and The Caribbean. *MARE Publication Series* 19. p475

²¹ FAO. 2002. The ecosystem approach to fisheries. <http://www.fao.org/3/a-y4773e.pdf>

²² Policies, Laws and Plans list was developed through the desk study and validation workshop.

<ul style="list-style-type: none"> • Beach Policy (2000) • Draft Cays Management Policy • Draft Wildlife Trade Policy • National Energy Policy 2009-2030 (2009) • National Policy on Poverty- National Poverty Reduction Programme (2017)
Laws
<ul style="list-style-type: none"> • Fisheries Act (2018) • Morant and Pedro Cays Act (1907) • National Environmental Policy Act (1969) • Natural Resources Conservation Authority Act (1991) • Wildlife Protection Act (Amended 1991) • Beach Control Act (1956) • Maritime Areas Act (1996) • Endangered Species (Protection, Conservation and Regulation of Trade) Act (2000) • Animal (Diseases and Importation) Act (Amended 1969) • Aquaculture, Inland and Marine Products and By-Products (Inspection, Licensing and Export) Act (1999) and Regulations (2000) • Exclusive Economic Zone Act (1991) • The Conch (Export Levy) Act (2009) • Fishing Industry (Special Fishery Conservation Area) Regulations (2012) • Fishing Industry Regulations (1976) • Natural Resources (Marine Parks) Regulations (1992) • Cooperative Societies Act (Amended 1992) • Friendly Societies Act (Amended 1976) • Agricultural Loans Societies and Organisations Act (2017) • Industrial and Provident Societies Act (Amended 2010)
Plans
<ul style="list-style-type: none"> • Climate Change Policy Framework and Action Plan (2013) • Vision 2030 Jamaica-Urban Planning and Regional Development Plan (2009-2030) • Vision 2030- Jamaica-National Development Plan • Queen Conch Management Plan (2006) • Medium Term Socio-Economic Policy Framework (2018-2021) • National Strategy and Action Plan on Biological Diversity in Jamaica (2016-2021) • Protected Area Systems Master Plan (Amended 2015)

Key national policies, laws and/or plans were selected from the above list for deeper analysis. Instruments were selected based on their direct relevance to the fisheries sector (i.e., Fisheries policy, law or plan) as well as through a prioritisation process facilitated during the national validation workshop where participants selected the national policies, laws and/or plans that they felt were most relevant to the sustainable development of the fisheries sector in Jamaica. Participants were informed that the policies, laws and/or plans identified and selected did not have to be directly related to the fisheries sector but could be broad and cross cutting. The following instruments were identified and analysed against the principles of EAF in Table 5.2.

- Fisheries Act (2018)
- National Policy on Ocean and Coastal Zone Management (2000)
- National Strategy and Action Plan on Biological Diversity in Jamaica 2016-2021
- Vision 2030-Jamaica-National Development Plan
- Beach Control Act (1956)

- Food and Nutrition Security Policy (2013)
- National System of Protected Areas Policy (1997)

Jamaica has a long list of related laws, policies and plans which manage the fisheries industry. As highlighted above, seven of these were selected for further analysis as they represent some of the most recent and/or relevant instruments and plans identified from the desk study, and through the validation workshop. From the analysis presented in Table 5.1, it can be said that the most recent fisheries legislation, the Fisheries Act (2018) addresses the three EAF principles: ecosystem well-being, socio-economic well-being and good governance as evidenced by co-management and decision-making mechanisms, of which fishers are a part. The Act is fairly comprehensive in addressing these, but, as with most of the laws, policies and plans reviewed, did not explicitly state the involvement of fisherfolk in local ownership, collaborative management or sitting on councils.

For most of the reviewed frameworks, ecosystem well-being is well addressed and there is an overall understanding of the need to conserve and sustainably mobilise natural resources. Socio-economic well-being and collaborative management, though addressed to some degree, are less explicit. For socio-economic well-being, and this is more so for fisheries or conservation type laws, policies, and plans, , though there is participation by stakeholders, and involvement in management and/or decision-making , there is no clear indication of fisherfolk having any position of co-management. Local co-management by stakeholders was only mentioned in the National System of Protected Areas Policy, but with no reference to fisherfolk being involved. There is some recognition of fisherfolk in non-fisheries related policy like the Food and Nutrition Security Policy (2013) and the Vision 2030 National Development Plan. This is particularly so for the socio-economic well-being of fisherfolk and fishing communities.

Looking at the legal framework of the entire fisheries institution , these EAF principles are partly addressed , through fisheries-related laws and through national plans. However, more direct reference to fisherfolk may help to ensure they are involved in decision-making and co-management and ensure that they have more active roles in natural resource conservation. It would also improve the likelihood that their socio-economic needs are addressed, and are enabled to be better stewards.. It is important to create communication friendly documents which are audience-specific to ensure the information is accessible and useable by fisherfolk, and to seek their input in decision-making processes.

Table 5.2: Analysis of key fisheries related policies, laws and plans

Name of policy, law, plan	Description	The policy/law/plan considers the ecological well-being of fisheries resources	The policy/law/plan considers socio-economic well-being of resource users including fisherfolk	The policy/law/plan considers collaborative management and inclusion of stakeholders in decision-making
Fisheries Act (2018)	The Fisheries Act (2018) repeals the Fishing Industry Act and provides for efficient, effective and sustainable fisheries management, including aquaculture and other related activities.	<p>There is consideration for ecological well-being throughout the Act. For example:</p> <ul style="list-style-type: none"> • Objects of Act. 3 (b) <i>“an ecosystem approach which addresses the multiple needs and desires of society without jeopardising the options for future generations to benefit from the full range of goods and services provided by aquatic ecosystems.”</i> • Guiding principles for management 4(b)(ii) <i>“to ensure the protection of fishery and aquaculture resources and human health”</i>, and 4(c) the precautionary approach shall be applied. • Declaration of special fishery research area. 14- <i>“The Minister may, after consultation with the Authority, by order, declare any area in Jamaica or in the</i> 	<p>Aspects of socio-economic well-being are incorporated into the Act. Examples of this are:</p> <ul style="list-style-type: none"> • Guiding principles for management 4(d) <i>“...the utilisation of fishery and aquaculture resources to achieve economic growth, human resources development, employment creation and a sound ecological balance, consistent with Jamaica’s national development objectives.”</i> 	<p>There were few references to stakeholder inclusion, but provisions were not explicitly collaborative management. Examples include:</p> <ul style="list-style-type: none"> • Guiding principles for management 4(g) <i>“to the extent practicable, stakeholder participation in the management of fishery and aquaculture resources shall be promoted.”</i> • Fisheries Management Plans- (5) <i>“In the preparation or review of a fishery management plan, the Authority shall consult with persons engaged in fishing, aquaculture and such related activities as appear to the Authority to be necessary.”</i> • Appointment of Council- (2) <i>“The Council shall comprise of such members who shall be appointed by the Minister, in such manner as he considers necessary, by instrument in writing from persons who</i>

		<i>fisheries waters to be a special fishery area.”</i>		<i>have expertise in fisheries, aquaculture and other related fields.”</i>
National Policy on Ocean and Coastal Zone Management (2000) (Natural Resources Conservation Authority, 2000)	The policy was developed to improve the role of economic sectors in integrated coastal zone management through building the awareness of associated agencies and resource users.	The Policy incorporates ecological well-being. For example: <ul style="list-style-type: none"> • <i>“Guiding Principles for sustainable management of coastal resources: 3.1 Precautionary Principle and 3.2 Polluter Pays Principle.</i> • <i>Goal 2: Conservation of ocean and coastal resources and ecosystems. This Goal specifically looks at the protection and enhancement of ocean and coastal resources, including natural communities and ecosystems.</i> • <i>Strategy 4.2.4 – 4.2.7: Conservation of living and non-living coastal resources, protected areas and ecosystem management.”</i> 	There are aspects of the policy which address socio-economic well-being, such as: <ul style="list-style-type: none"> • <i>“Guiding Principles for sustainable management of coastal resources: 3.3 Inter-generational equity</i> • <i>Guiding Principles for operational principles for the implementation of the policy: 3.8 Equitable distribution of environmental resources, and 3.9 Recognition of traditional rights and uses.</i> • <i>Goal 3: Baseline data collection and research, Strategy 4.3.1: Consolidating baseline data for Jamaica’s coastal resources as well as socio-economic issues that impact the coastal zone.”</i> 	The Policy highlights the need for participatory processes for achieving its objectives. For example: <ul style="list-style-type: none"> • <i>“3. Encourage community-based participatory approaches in coastal planning and management planning, and in conservation of critical habitats, and develop an integrated decision-making process including all sectors, to promote compatibility and a balance of uses.</i> • <i>15. Develop and provide tools to engender effective participation in planning and management by local communities and government, NGOs and the business sector.</i> • <i>Strategy 4.1.1: Development sustainable fisheries practices- Application of co-management principles to the sector. The desired outcome is to empower fishers to participate in co-management of the fishery.”</i>

<p>National Strategy and Action Plan on Biological Diversity in Jamaica 2016-2021 (NBSAP)</p>	<p>The NBSAP was developed to update the last strategy and action plan done in 2003. It was designed to guide implementation of plans and activities to meet targets set under the Convention on Biological Diversity Aichi Targets and now considers national development plans like Vision 2030 Jamaica and the SDGs.</p>	<p>The NBSAP has eight guiding principles, which addresses ecological well-being, such as:</p> <ul style="list-style-type: none"> • <i>“Principle IV- Protect habitats, ecosystems, species and genetic resources- Adopt comprehensive biodiversity strategies and plans as part of efforts to conserve Jamaica's habitats, ecosystems, species and genetic resources.</i> • <i>Principle VI- Precautionary approach situational analysis- Ensure that the precautionary approach (Principle 15, Rio Declaration 1992) is applied as widely as possible to avoid or minimise environmental degradation and the loss of biodiversity.”</i> 	<p>Guiding principles which speak to socio-economic well-being:</p> <ul style="list-style-type: none"> • <i>“Principle II- Acknowledge the need for behavioural change- Address the underlying causes of the loss and decline of biodiversity by promoting the necessary societal changes through policies, laws, public education and awareness.</i> • <i>Principle VII- Environmental economic tools and technology- Invest adequate financial capital in resource management tools, including biophysical inventories, monitoring, research, enforcement, environmental education and other activities to ensure the conservation of biodiversity and the sustainable use of biological resources.</i> • <i>Principle VIII- Sectoral integration- Ensure that economic, social and environmental objectives are integrated, and polices, strategies, plans and programmes are co-ordinated to effectively use scarce human and financial resources</i> 	<p>The NBSAP also makes provisions for stakeholders’ engagement to some degree. This is represented in the principles outlined below:</p> <ul style="list-style-type: none"> • <i>“Principle I – Transparency- Affirm their commitment to open and transparent decision-making processes and provide opportunities for the participation of all citizens in the development of strategies, plans and programmes aimed at addressing biodiversity issues.</i> • <i>Principle III - Local and traditional knowledge- Respect local and traditional knowledge when developing and implementing policies, programmes and plans related to biodiversity.</i> • <i>Principle V - Local management- Encourage non-governmental organisations and community groups to manage protected areas; operate rescue centres; captive breeding and other artificial propagation facilities; and to implement species management and recovery plans.”</i>
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			<i>to ensure their greatest positive impacts.”</i>	
Vision 2030- Jamaica- National Development Plan²³	<p>This national development plan is an inclusive framework addressing environmental, economic, social and governance issues and solutions. Strategies of the plan are prioritised, and implementation monitored through Medium Term Socio-Economic Policy Frameworks (MTFs). The MTFs are also used to update the plan on continuous basis. Plans of other government agencies and departments are included in the MTFs and the SDGs.</p> <p>The Vision 2030 Jamaica has four National Goals. Goal 4, “Jamaica has a healthy natural environment”, is directly linked to ecosystem</p>	<p>Under Goal 4- Jamaica has a healthy natural environment, there are National Outcomes, two of which promote ecosystem well-being:</p> <ul style="list-style-type: none"> • 13. Sustainable management and use of environmental and natural resources <ul style="list-style-type: none"> ○ 13.2 Develop and implement mechanisms for biodiversity conservation and ecosystems management. Sector strategies identified include: <ol style="list-style-type: none"> 1. <i>“Adopt an ecosystems management approach which considers: - access to biological resources for benefit sharing by our population at large; sustainable use of biological resources; safe transfer, handling and use of living modified organisms; implementation of forestry management initiatives; establishment</i> 	<p>This is captured in the Plan in different ways. Some examples that can be considered include:</p> <ul style="list-style-type: none"> • <i>“9.4 Expand and diversify maritime infrastructure and services</i> <ul style="list-style-type: none"> ○ <i>Facilitate the smooth development of strategic maritime infrastructure for cargo and passengers</i> <ul style="list-style-type: none"> ▪ <i>Conduct comprehensive port study including existing commercial ports, sufferance wharves, marinas and fishing facilities</i> • <i>National Outcome 3- Effective Social Protection.</i> <ul style="list-style-type: none"> ○ <i>3.2 Expand opportunities for the poor to engage in sustainable livelihoods</i> ○ <i>3.3 Create and sustain an effective, efficient, transparent and objective system for delivering social assistance services and programmes</i> ○ <i>3.4 Promote greater participation in, and viability</i> 	<p>The Plan highlights the need for participatory approaches throughout the document. Examples where decision-making is considered are:</p> <ul style="list-style-type: none"> • National Outcome 13: Sustainable Management and use of environmental and natural resources. <ul style="list-style-type: none"> ○ 13.1 Integrate environmental issues in economic and social decision-making policies and processes. <ul style="list-style-type: none"> ▪ Create frameworks that will enable the integrated management and sustainable use of Jamaica’s natural resources (e.g., guidelines for resource use, phased mining, etc.)- <i>Promulgate the Environmental Stewardship Policy</i> ○ 13.3 Develop efficient and effective governance structures for

²³ <https://www.pioj.gov.jm/wp-content/uploads/2019/08/Vision-2030-Jamaica-NDP-Full-No-Cover-web.pdf>

	<p>stewardship, but other goals and outcomes are indirectly linked to the fisheries institution as well.</p>	<p><i>of terrestrial and marine protected areas; research to enhance scientific understanding of ecosystems, including their economic contributions to national development</i></p> <p>2. <i>Develop a comprehensive framework to reverse loss of ecosystems and biological resources through restoration initiatives and protection from invasive species.”</i></p>	<p><i>of social insurance and pension schemes</i></p> <ul style="list-style-type: none"> ○ <i>3.5 Promote family responsibility and community participation for the protection of vulnerable groups</i> ● <i>National Outcome 12- Internationally competitive industry structures</i> <ul style="list-style-type: none"> ○ <i>Promote national food security</i> <ul style="list-style-type: none"> ▪ <i>Implement key food security projects including Fisheries Development Programme”</i> 	<p>environmental management.</p> <ul style="list-style-type: none"> ▪ <i>Establish institutional mechanisms to foster coordination and collaboration among resource management agencies of resource protection issues- Strengthen partnerships with the NGO community both locally and internationally, the private sector and key public sector entities</i>
<p>Beach Control Act (1956)²⁴</p>	<p>The Act specifically regulates activity and management of seafloor, water column, nearshore and beaches around Jamaica through the establishment of the Beach Control Authority.</p>	<p>The Act addresses ecological well-being insofar as addressing protected areas.</p> <p>Section 7 (a) of the act states that <i>“any part of the foreshore and floor of the sea defined in the order together with the water lying on such part of the floor of the sea to be a protected area for the purposes of this Act...”</i></p>	<p>The Beach Control Act does not speak specifically to the socio-economic well-being but does outline the rights of fisherfolk under the <i>“Rights in the Foreshore and Floor of the Sea.”</i></p> <p>It states that with the exception of section 7, there should be no disruption to fishers’ rights including <i>“(a) any rights enjoyed by fishermen engaged in fishing as a trade, where such rights existed immediately before 1st</i></p>	<p>There is no explicit mention of co-management, collaborative management or decision-making mechanisms in which fisherfolk are involved.</p>

²⁴ https://www.nepa.gov.jm/new/legal_matters/laws/Environmental_Laws/Beach_Control_Act_1956.pdf

		Subsection (20) speaks to ecosystem well-being stating, <i>“Any order made under this section may contain provisions for the constitution of the Board of the appointment of persons to undertake the conservation, protection or rehabilitation of the area defined in such order.”</i>	<i>June, 1956, in or over any beach or adjoining land; or (b) the enjoyment by such fishermen of the use of any part of the foreshore adjoining any beach or land in or over which any rights have been enjoyed by them up to the 1st June, 1956.”</i>	
Food and Nutrition Security Policy (2013) ²⁵	The goal of this policy is for Jamaica to attain sustainable food and nutrition security, eradicate malnutrition and ensure the right to healthy food for the populace.	Ecosystem well-being is presented in the policy as one of the guiding principles- Protection of Forest and Fishery Resources- <i>“Recognizing therefore that the forests, watersheds, wetlands and marine resources constitute a substantive resource for food and nutrition security to be safeguarded through the establishment of protected areas (for example national parks, forest reserves, marine parks, etc.) and implementation of climate change adaptation measures.”</i>	Socio-economic well-being is considered generally under Objective 2 of the Policy- Food Security: <i>“To improve the food and nutrition security resilience of the national community to natural and socio-economic shocks and climate change.</i> Under Objective 1- Food Availability, fisherfolk are addressed under 2 which looks at the increased availability of local nutritious food by improving the planning of production and ensuring access to competitive market prices. It also states that there will be promotion of production of select food and livestock and the creation of an enabling	The policy, though broadly considering collaboration among the various stakeholders, does not specifically address co-management or collaborative management, more so specific to fisherfolk. However, Object 3- Food Access, 8 (iii) states that <i>“Developing a structured national policy and plan of action for poverty reduction and revision of the national poverty eradication programmes, ensuring that participatory approaches to policy and decision-making for poverty reduction are followed.”</i>

²⁵ <https://extranet.who.int/nutrition/gina/sites/default/files/JAM%202013%20Food%20and%20nutrition%20security%20policy.pdf>

			environment to <i>“support and encourage sustainable fisheries Practices”</i> .	
National System of Protected Areas Policy (1997)²⁶	The policy was developed to protect natural resources and the ecosystems of Jamaica that are of national and international ecological significance.	<p>The policy does address ecological well-being generally. Examples of these are seen in Goal 2- Environmental Conservation which addresses the conservation of Jamaica’s biodiversity, natural and cultural heritage. It states specifically <i>“Preserve major representative stocks or areas of all of Jamaica’s biological resources, including populations of indigenous animal and plant species, natural communities and ecosystems.”</i></p> <p>This is also highlighted in Goal 3- Sustainable Resource Use which addresses the protection of ecosystems and the goods and services they provide. It goes on to say more specifically- <i>“Restore, protect and enhance watersheds, rivers, wetlands, coral reefs, and other important ecosystems so that essential resources, such as water, soil, trees, wildlife, fish and shellfish,</i></p>	<p>Goal 1- Economic Development of the policy directly addresses socioeconomic well-being.</p> <p>Here it states, <i>“Improve and sustain the livelihoods of individuals and local communities by increasing their earning capacity.”</i></p>	<p>Local co-management is highlighted in the policy for the system of protected areas.</p> <p>In the policy, Goal 5- Public Participation and Local Responsibility, directly addresses this. It states that <i>“Provide for the participation of all interested groups and individuals in all aspects of protected area planning and management”</i>, and <i>“Confer responsibility for planning and management of protected areas on qualified local groups through delegation of authority.”</i></p> <p>The policy also mentions the establishment of a Protected Areas Advisory Council, which will advise the National Resources Conservation Authority on the management of the protected areas and conservation of resources they contain. It should be noted however, fisherfolk or other resource users are not</p>

²⁶ https://www.nepa.gov.jm/new/legal_matters/policies_standards/docs/policy/protected_area/Protected-Areas-Policy-1997.pdf

		<i>are available for sustainable economic use”, and “Restore and protect ecosystems, such as coral reefs, beaches and dunes, wetlands and forested hillsides, that maintain life-support processes and reduce risks from natural disasters.”</i>		identified as being a part of the Council.
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6 Mechanisms for fisherfolk participation in decision-making

Taking action is a fundamental part of ecosystem stewardship. Stewardship actions include a range of approaches, activities, behaviours, and technologies that are applied to protect, restore or sustainably use the environment. In the case of small-scale fisheries, stewardship actions by fisherfolk and their organisations are influenced by formal and informal decision-making processes about the use of fisheries resources that may or may not involve fisherfolk. Participation and involvement of stakeholders in the fisheries management decision-making process is advantageous as it facilitates common understanding, establishes trust, manages conflict, increases stakeholder responsibility and accountability and enhances the legitimacy and acceptance of management policies and decisions. This contributes to more effective enforcement of rules and regulations and increases the likelihood of compliance. To determine the extent to which fisherfolk were being included in decision-making processes related to the management of fisheries and other coastal and marine resources, the institutional analysis examined the existence, composition and functioning of current National Intersectoral Coordinating Mechanisms (NICs).



Figure 6.1: Members of the New Forum Fishing Village chat with CANARI and CRFM staff on their plans for the development of the group. (Credit CANARI 2020.)

The CLME+ SAP identified interactive governance arrangements such as NICs essential to successfully implementing and achieving EBM and EAF in the CLME+ region. NICs can be broad or narrow based on the scope and ecosystem approach being used. Examples of NICs include Fisheries Advisory Committees or Councils, Ocean Governance Committees, sustainable development commissions, integrated coastal management institutions and climate change bodies.

NICs operate within the policy cycle and involve interactions across multiple scales, stakeholders, sectors and levels of governance (local, national, regional and international). A NIC can be considered as the operational arm of good and effective governance or policy processes.

Including fisherfolk and fisherfolk organisations within NICs will encourage and support ecosystem stewardship by increasing the stakeholder inclusion of these resource users in the governance aspect of fisheries management, contribute to building and establishing trust and provide an avenue for including their perspectives. .

6.1 Findings: Mechanisms for fisherfolk participation in decision-making in Jamaica

During the national validation workshop, participants were asked to validate current NICs identified during the desk study and identify others not presented, which may be related to the coastal and marine sector in Jamaica. Participants were also asked to share information on the composition of the NIC, and to specify whether fisherfolk were included or not. Where this information was unknown, participants were asked to identify where additional information could be sourced for further analysis. NICs identified through desk research and at the validation workshop include:

- National Fisheries Advisory Council (NFAC)
- National Council on Ocean and Coastal Zone Management (NCOCZM)
- Natural Resources Conservation Authority (Board)
- Local Scientific Authority for Jamaica

- Protected Areas Advisory Council
- Marine Park Advisory Committee
- Fisheries Management and Development Fund Board
- Jamaica Fish Sanctuary Network
- Portland Bight Fisheries Management Council
- Ramsar Committee
- Biodiversity and Game Birds Committee
- Third City Development Committee

Table 6.1 shows the NICs discussed at the validation workshop, that were identified as important to the fisheries industry and, by extension the fisheries institution, of Jamaica. These NICs were selected given their present and potential role in ecosystem stewardship of fisherfolk.

Table 6.1: National intersectoral coordinating mechanisms (NICs) relevant to the fisheries sector of Jamaica

NIC	Purpose	Composition	Are fisherfolk members of the NIC?	Functioning (Active/Inactive)
National Fisheries Advisory Council (NFC)	According to the Fisheries Act (2018) the NFAC shall advise on policies, fishery management plans and amendments to these, along with any other matters related to fisheries management.	The council will consist of persons appointed by the Minister with expertise in the fields of fisheries, aquaculture and related areas. Representatives from the NFA, civil society and individual fishers are included. ²⁷	Yes. Individual fishers are members, but fisherfolk organisations, their leaders/representatives are not.	Active The NFAC convened earlier this year.
National Council on Ocean and Coastal Zone Management (NCO CZM)	The NCO CZM is an inter-ministerial committee that was convened in 1998. It advises on ocean and coastal resource management, development of policies and public engagement and education on the significance of these resources and the marine sector to the sustainable development of Jamaica. It is a politically endorsed committee and is tasked with the responsibility of elevating the mandate and advising on the management and coordination of coastal zone and ocean matters. Since the Council is not involved in implementation, an implementing agency is required.	The NCO CZM is comprised of: <ul style="list-style-type: none"> • Ministry of Foreign Affairs and Foreign Trade (MFAFT) (Senator acts as chair) • Caribbean Maritime University (CMU) • Ministry of Industry, Commerce, Agriculture and Fisheries (MICAF) • National Fisheries Authority (NFA) • Maritime Authority • Mines and Geology Division • National Environmental Planning Agency (NEPA) • Water Commission • Planning Institute of Jamaica (PIOJ) • Shipping Association • Rural Agricultural Development Authority • Port Authority • Jamaica Environmental Trust • Scientific Committee²⁸ 	No.	Active
Natural Resources	The Advisory Board was established under the Natural Resources (Marine	According to the Act, the board should include: <ul style="list-style-type: none"> • manager of the marine park; 	Yes.	Active

²⁷ The list of member organisations would need to be requested, as the committee was established earlier this year.

²⁸ List of organisations obtained from participants of the national workshop in Jamaica.

<p>Marine Park Advisory Board</p>	<p>Parks) Regulations (1992)²⁹. Section 27 of this Act speaks to the establishment of the Board for a marine park.</p> <p>It is politically endorsed through the Act., and has a clear mandate outlined in Section 27 of the Act.</p> <p>The Board is responsible for advising the Natural Resources Conservation Authority (NRCA) on administrative matters, control and preservation of resources in the marine park, develop management plans, monitor strategies, create revenue generating activities for the park, advise on the appointment of park rangers, advise on the disposal or retention of specimens and other scientific material, co-ordinate community education programmes and provide advice on the zoning and boundaries of the marine park.</p>	<ul style="list-style-type: none"> • chairman of the Natural Resources Conservation Authority (NRCA) or his nominee; • a representative of the National Fisheries Authority (NFA); • director of the Discovery Bay Marine Laboratory; and • four additional persons, one of which should be qualified in marine biology. <p>These additional persons can include; representatives from National Environmental and Planning Authority (NEPA), the NFA, University of the West Indies, an expert in marine biology, the Ministry of Tourism, Maritime Authority, a fisherfolk organisation in the area, the Coast Guard, Marine Police and the Port Authority.</p>	<p>The Act does not specify that a fisherfolk representative should be included on the board, however, representatives from local fisherfolk organisations can be appointed as one of the four additional persons.</p>	<p>The board meets quarterly, and appointments last for two years.</p>
<p>Fisheries Management and Development Fund Board</p>	<p>The Fund was established under the Conch Levy Act () for the purpose of sustainably managing and developing the fisheries sector of Jamaica. The fund is maintained from the money attained through the conch levy, investments, and other funding from Parliament or otherwise that is accepted by the fund.</p>	<p>The board comprises of eight persons, as per the Conch Levy Act, these include:</p> <ul style="list-style-type: none"> • Permanent Secretary of Ministry of Industry, Commerce, Agriculture and Fisheries (MICAF) or his nominee; • Director of Fisheries; • Director of Veterinary Services or his nominee; 	<p>Yes.</p> <p>The Act does not require a fisherfolk representative to be on the Board, however, one can be appointed as one of the additional four persons. It was</p>	<p>Active</p> <p>This has been active since 2009 and has monthly/quarterly meetings, as necessary</p>

²⁹ [https://www.nepa.gov.jm/new/legal_matters/laws/Environmental_Laws/NR\(Marine_Parks\)Regulations_1992.pdf](https://www.nepa.gov.jm/new/legal_matters/laws/Environmental_Laws/NR(Marine_Parks)Regulations_1992.pdf)

	<p>It is a legally mandated Board through the Conch Levy Act (2009) with a clear mandate. The NFA is the lead agency on the board.</p>	<ul style="list-style-type: none"> • Chairman of the Fishery Advisory Board (now the NFAC); and • Four other persons as appointed by the Minister and approved by cabinet, such as representatives from academia like the University of the Commonwealth Caribbean and an industrial fisher/private fishing company 	<p>indicated at the workshop that an industrial fisher is included on the board.</p>	
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For the four NICs analysed, there is no overt requirement for fisherfolk inclusion on the council, committee or board, though there is scope for fisherfolk or a representative of a fisherfolk organisation to be involved. This was mainly through the provision for four additional persons, outside of the identified government representatives to sit on the board. As highlighted with the power pyramid (see Section 5.5), fisherfolk can be and are involved, but at the individual or primary fisherfolk organisation level. In no instance were national fisherfolk organisations, like the JFCU, mandated to sit on the committees analysed in Table 6.1, but there is greater opportunity for primary fisherfolk organisations to sit on the boards, particularly for the Natural Resources Marine Park Advisory Board, which manages specific marine protected areas. It was also mentioned that on national committees, where fishers are included, there are usually industrial fishers. Even so, the fisher may still represent the concerns and interests of the group, whether formal or informal (group) to which they belong.

The Fisheries Act (2018) does not list the organisations that should be included, like the Natural Resources (Marine Parks) Regulations (1992) and the Conch Levy Act (2009) but will include similar government agencies like the National Fisheries Authority (NFA) and National Environmental Planning Agency (NEPA), civil society organisations (such as C-CAM) and an individual fisher(s), likely an industrial fisher or a member of the JFCU.

The JFCU, though established as an umbrella organisation, with a board that can promote ecosystem stewardship action for and by fisherfolk, only represents about 10% of fisherfolk in Jamaica. As mentioned before there are currently nine member organisations of the cooperative. JFCU sits on a tribunal for resolution of conflicts and other matters involving damaged gear and the like. The issue of representation was raised at the workshop, where fisherfolk expressed the sentiment that they are under-represented and, in some cases, may be unaware of the JFCU and their work. Concern was also expressed about the underrepresentation of women.

Although, there is some limited inclusion of fisherfolk in advisory bodies, their influence or power in decision-making processes is still perceived as low. Fisherfolk, as it relates to the management of their local fisheries and/or fishery conservation areas and MPAs, may have greater decision-making power and “voice” at local, community levels, than at the national level. However, national fisherfolk organisations like the JFCU can be useful to raise issues from communities, for discussion at on national committees and other fora. This can be supported by the strong relationship between the JFCU and the NFA, which can also bring the issues of fisherfolk to the attention of policy makers.

7 Support and resources for ecosystem stewardship by fisherfolk and their organisations

To undertake ecosystem stewardship, would-be stewards must have the support and resources to do so. In this case “support and resources” refer specifically to the finance, technology equipment and education, skills and knowledge needed to effectively undertake ecosystem stewardship actions. In addition to directly supporting ecosystem stewardship actions, access to these resources may also ensure that aspects of fisherfolk’s human well-being (e.g., access to training to ensure safety at sea) are considered by support agencies and may provide motivation for stewardship actions.

To determine whether fisherfolk have adequate support and resources to undertake ecosystem stewardship actions the institutional analysis examined some of the programmes, projects and initiatives in Jamaica that have provided or are providing finances, technology and equipment for capacity building (e.g., education, skills and knowledge) for fisherfolk and their organisations.

7.1 Findings for support and resources for ecosystem stewardship by fisherfolk and their organisations

During the validation workshop and through interviews the resources made available to fisherfolk through programmes, projects and agency mandates were identified and discussed. Appendix 5 provides a list of programmes, projects and initiatives (PPIs) examined; and this section summarises what was found. The resources are divided into three main categories: (1) Materials, equipment and technology, (2) Finance, and (3) Skills and knowledge.

There are some key trends arising from the list of PPIs examined which can help identify areas where the fisheries institution is strong in providing support to fisherfolk for ecosystem stewardship and their overall development, and gaps where more work can be done. These trends are summarised in the sub-sections below.

Technology, equipment and materials

Civil society has played and is playing an important role in the provision and access of materials for fisherfolk and fisherfolk organisations. This can be seen particularly with Food for the Poor Jamaica, which has been actively working on the ground with several formal or informal fisherfolk groups to equip them with resources for them to operate more efficiently and sustainably. The JFCU has been increasing accessibility to equipment and materials for sale to its membership, even importing materials and equipment, which may not have been as accessible previously. The NFA also supplies significant inputs into the sector, particularly the Aquaculture Unit for aquaculture and mariculture farms.

Although equipment and materials are provided to fisherfolk through projects, programmes and initiatives carried out through the regular work programme of the NFA; and by civil society organisations, there is little mention of the provision of new technology or ICT tools. It is unclear how technology is provided to or accessed by fisherfolk for their everyday operations and for improving the sustainability of their livelihoods. Improved application and use of technology, like GPS tracking, can assist fisherfolk with issues of lost traps and fishers going adrift at sea. There are, however, indirect benefits to fisherfolk when government or regulatory agencies utilise similar technologies in carrying out their duties. For example, when the Coast Guard or Marine Police use GPS and other technology for monitoring and surveillance of inshore and offshore waters, this increases the safety of fishers and deters illegal activities at sea.

Finance

Financial resources are mostly made available through partnerships with international organisations like the IDB, World Bank, FAO and the like. These partnerships are often with the Government of Jamaica or through some of the more active civil society organisations like Caribbean Coastal Area Management Foundation (CCAM) and Jamaica Environmental Trust (JET). Fisherfolk are not usually the direct recipients of these types of funding, but through an intermediary or JFCU. Direct funding to fisherfolk organisations is available through small grant programmes, such as the Global Environment Facility Small Grants Programme (GEF SGP) or the Caribbean Catastrophe Risk Insurance Facility Small Grants Programme CCRIF SGP, but it would be necessary for applications and proposals to be submitted. That capacity may not reside in these groups. There are other types of financial benefits made available to fisherfolk, such as duty-free concessions on equipment and materials (e.g., concessions given to aquaculture farmers through the Rural Agricultural Development Authority (RADA)). The JFCU also provides credit to its membership and yearly dividends if there is a surplus.

From discussion with fisherfolk in-country, in most instances, the group is aware of what is needed, but lack the financial resources to get it done and do not know from where funding may be sourced. As an example, the New Forum Fisherfolk Fishing Village Friendly Society has plans to

further develop their premises, both for ecotourism and fishing. Some of the main issues they face include improper sanitation waste disposal, sewage management and sub-standard facilities for



Figure 7.1: Fishers' gear lockers at the New Forum Fishing Village, which they also use as living quarters when they are staying for longer periods. In this section a fire occurred, damaging the roof of the containers. (Credit CANARI 2020)

vendors. Fisherfolk themselves face the issue of lack of proper landing facilities, processing area, sleeping quarters for fishers who stay at the site, toilets and electricity. At present, the fishers operate from a makeshift jetty and live in containers where their gear is stored. These issues pose significant health and livelihood challenges as expressed by fishers. The leadership of the fisherfolk organisation has a very clear understanding of the issues and what needs to be done, as shared in the focus group, but there is limited access to funding to be able to address these concerns, and fisherfolk themselves are focussed on their livelihoods and day to day survival. Another issue highlighted by the fishers at Bull Bay, is

that groups may be informal and unregistered, and in order to access funding or other assistance, they will need to register as a cooperatives or friendly societies.

Skills and knowledge

Of the three categories, this is where most resources are available to fisherfolk, provided largely through projects or regular work programmes offered by government agencies and civil society. There have been several initiatives focusing on training and capacity building around safety at sea, boat handling, first aid, sea turtle monitoring, beach management and introduction to alternative livelihoods such as apiculture. There has also been substantial education and awareness on sustainable fisheries, conservation through fish sanctuaries, alternative fisheries (e.g., long line fishing for offshore pelagics) and alternative livelihoods (apiculture, ecotourism, aquaculture, craft). The main source of support for aquaculture has been the NFA Aquaculture Unit, which provides training and technical expertise. Research and development are also an important resource provided mainly by government agencies and projects. One unique initiative is a retreat/conference hosted by the JFCU for membership where they can discuss issues and collectively devise solutions. At this retreat, they also conduct education and awareness building sessions on sustainable fisheries.

Fisherfolk have been receptive to training in alternative livelihood and other areas. Fisherfolk who have received apiculture training have now adopted this as a source of additional income. Some fishers are also involved in aquaculture. Participants at the workshop offered other suggestions for alternative livelihoods for fisherfolk that promoted ecosystem stewardship. This included ecotourism, such as dolphin conservation and fishing tourism where chartered fishing trips can be arranged. There was also the suggestion that national fisherfolk organisations like the JFCU can play a greater role in supporting and promoting aquaculture as a viable alternative or supplemental income source. This can be encouraged by expanding their stores to also supply materials and equipment for aquaculture and mariculture activities.

As mentioned by stakeholders in the workshop, it is also important to provide support to fisherfolk, through funding, equipment acquisition, technology, and capacity building to promote fishing as a

business, and provide training in business management and entrepreneurship, as a key part of developing the industry.

Overall, there is a significant amount of input into the fisheries sector of Jamaica, but there is a gap in the awareness and knowledge about what is available to fisherfolk and how to access these resources. In speaking to some fishers on the ground, they are either vaguely aware; or not at all informed about the JFCU and the role they perform in representing and advocating for fisherfolk. Fisherfolk and fisherfolk organisations may also be disorganised, whether in formal or informal groups, there tends to be minimal engagement and support from membership. This impedes their ability to pursue and access available resources.

8 Partnerships and networks for ecosystem stewardship

Partnerships and networks connect institutions and organisations across levels and scales. For fisherfolk organisations seeking to engage in ecosystem stewardship, partnerships and networks are important, as these arrangements help to facilitate information flows, fill knowledge gaps, and strengthen expertise for ecosystem management, including stewardship. This section discusses a few current and past partnerships or networks in Jamaica that included fisherfolk organisations and how these have impacted ecosystem management.

8.1 Findings for partnerships and networks for ecosystem stewardship

Fisherfolk organisations in Jamaica collaborate with various stakeholders in government, civil society and private sector through projects as well as through the routine work of the organisation (as discussed in Section 9 above). Fisherfolk however, in most instances are involved as beneficiaries or participants in the activity or intervention and may not necessarily be considered a partner. Despite this, the Jamaica Fishermen Cooperative Union (JFCU) has partnered on several projects nationally and regionally, representing the interests of fisherfolk.

Partnerships with government agencies

The JFCU has a good working relationship and solid partnership with the NFA and is usually consulted and informed about any activity taking place in the fisheries sector. This is part of the Ministry's aligned priority programmes and core values, one which directly speaks to the issue of stewardship: "Stewardship - We interact and collaborate with all our stakeholders with an understanding of our integral role to ensure the sustainable development in the agriculture, fisheries, manufacturing and service sectors".³⁰ However, in a report prepared under the project "Strengthening Caribbean Fisherfolk to Participate in Governance", an analysis of the state of partnerships and networks in the sector at that time was done. It was determined that partnerships were formed among co-operatives through a five-year development plan. The national fisherfolk organisation also established other key formal partnerships with the NFA (then Fisheries Division) and the Caribbean Network Fisherfolk Organisation (CNFO) (JFCU, 2014). As part of its organisational mandate, the board of the JFCU has a responsibility to develop and maintain strategic partnerships.

Partnerships with other civil society organisations

From in-country discussions and through desk research, another notable trend is that some civil society organisations, namely, environmental non-governmental organisations are better positioned to foster partnerships and greater generate social capital among other civil society organisations. This point was addressed in another workshop report produced as part of a project to update the Critical Ecosystem Partnership Fund (CEPF) ecosystem profile for biodiversity hotspots in Jamaica.

³⁰ <https://www.micaf.gov.jm/content/priority-programmes>

The reason for this is their level of operation and implementation- they are usually on the ground working with stakeholders and natural resources (CEPF, 2017). According to the report, this level of partnership among civil society organisations is very important for capacity building and knowledge sharing among smaller groups, but these partnerships need to be strengthened. The report also noted that engagement at this level works better as coalitions/partnerships than as umbrella organisations (CEPF, 2017). Clear examples of instances where fisherfolk partner with other civil society organisations and/or private organisations can be seen with the management of MPAs and fish sanctuaries.

Partnerships through MOUs

There are MOUs between NEPA and various marine park management agencies and fisherfolk societies. Some examples include:

- Memorandum of Understanding between The National Environment and Planning Agency and Bluefields Bay Fishermen’s Friendly Society - To promote and enhance the development of Alternative Livelihoods Program through Grants.³¹
- Memorandum of Understanding between The National Environment and Planning Agency and the Caribbean Coastal Area Management Foundation - To promote and enhance the development of Alternative Livelihoods Program through Grants³²
- Memorandum of Understanding between The National Environment and Planning Agency and The Montego Bay Marine Park Trust - To promote and enhance the development of Alternative Livelihoods Program through Grants³³
- Memorandum of Understanding between The Natural Resources Conservation Authority and The Montego Bay Marine Park Trust³⁴

There are also MOUs between NEPA and academic institutions such as the University of Technology and UWI Mona; NEPA and private sector stakeholders like Sandals; and NEPA and other conservation-based NGOs and trusts.³⁵

Looking at the policy and legal framework in which the fisheries institution operates, there are also regional MOUs to which the Government of Jamaica is a signatory. . Although these agreements do not involve fisherfolk as signatories or partners, they still have implications on the industry at large and the operations and livelihoods of fisherfolk on the ground and at sea. One example of this is the MOU signed in Cartagena, Colombia in January 2016, by three regional fisheries bodies: the Caribbean Regional Fisheries Mechanism (CRFM) of which Jamaica is a member state, the Organization of Central American Fisheries and Aquaculture Sector (OSPESCA), and the Food and Agricultural Organization of the United Nations - Western Central Atlantic Fisheries Commission (FAO-WECAFC). This MOU was developed and signed to facilitate improved coordination of sustainable fisheries interventions among the three bodies, through the establishment of the Interim Coordination Mechanism under the UNDP/GEF-Catalysing Implementation of the Strategic Action Programme for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) Project.³⁶ In 2017 there was also the establishment of an MOU between the Governments of Jamaica and China which is aimed at improving the sanitary conditions and certification for the export of live lobster from Jamaica to China as part of the MICAF’s commitment to access new markets for Jamaican fisherfolk.³⁷

³¹ <https://www.nepa.gov.jm/MoU/Bluefields%20Bay-Fishermen-Friendly-Society/MoU.pdf>

³² <https://www.nepa.gov.jm/MoU/CCAM/Alternative-Livelihoods/MoU.pdf>

³³ <https://www.nepa.gov.jm/MoU/Montego%20Bay%20Marine%20Park%20Trust/climate-change-project/MoU.pdf>

³⁴ <https://www.nepa.gov.jm/MoU/Montego%20Bay%20Marine%20Park%20Trust/MoU.pdf>

³⁵ <https://www.nepa.gov.jm/MoU/>

³⁶ http://www.crfm.int/index.php?option=com_acymailing&ctrl=archive&task=view&listid=3-fisher-folk-net&mailid=51-MoU-signed-to-improve-coordination-for-sustainable-fisheries-in-the-western-central-atlantic

³⁷ <https://micaf.gov.jm/node/1359>

The private sector has also partnered with fisherfolk, though there are limited instances of such formal arrangements. One example is the MOU referenced previously between NEPA and Sandals, which also worked directly with fisherfolk in management of protected areas. Another example of a formal partnership was between the Jamaica National Small Business Loan (JNSBL) and Yamaha Engines Limited where an MOU was signed to provide 1.5 million JMD for loans accessible to fisherfolk and other persons in the marine sectors for obtaining parts and engines for boats.³⁸ Again, though the agreement is not directly with fisherfolk or fisherfolk organisations, they are the beneficiaries.

Networks

Networks in which fisherfolk are active include the Special Fisheries Conservation Areas Network (SFCAN), the JFCU, and the Caribbean Network of Fisherfolk Organisations (CNFO). There are currently 14 special fishery conservation areas which are managed by MICAFA and civil society organisations and formalised by a Memorandum of Agreement (MOA). Under this agreement, the Ministry provides resources for the management of the SFCA, and the daily operations are carried out by the civil society organisations. Fisherfolk organisations which are part of a network is the Bluefields Bay Fisherman's Friendly Society (BBFFS), Allover Fisherman's Cooperative and the Oracabessa Bay Foundation/Oracabessa Bay Fisherman's Group. CCAM also manages four fish sanctuaries and the other seven are managed by six other environmental non-governmental organisations and the Sandals Foundations (Sandals Boscobel Fish Sanctuary East and West)³⁹. It should be noted that even though the majority is managed by environmental/conservation-based non-governmental organisations, in most instances fisherfolk are involved.

To reiterate, the JFCU itself acts as a network for its members, organisations and others: as they are often the facilitator of knowledge exchange between the groups and represent the "voice" of fisherfolk on the national agenda. However, as previously mentioned, their ability to create engagement among fisherfolk organisations and truly represent fisherfolk nationally is limited because the organisation is only comprised of nine members. These nine members are local co-operatives. This means that other types of fisherfolk organisations – friendly societies and associations, are not well represented and are not able to



Figure 8.1: Chairman of the JFCU, Mr Glaston White with members of the New Forum Fishing Village, the NFA, CRFM and CANARI. (Credit CANARI 2020.)

access the benefits of being in the JFCU. The JFCU is also the representative fisherfolk organisation member for Jamaica in the Caribbean Network of Fisherfolk Organisations (CNFO), and though they have been involved in many projects through the CNFO, the benefits of networking, knowledge sharing, and capacity building will be limited to its membership.

More formal arrangements for partnerships and networks may assist in addressing some of the issues identified in this section. The JFCU may also consider expanding their current role and membership to include more cooperatives and other types of fisherfolk organisations. This, however, may only be possible through the registering of informal groups. There may also be a need to improve partnerships with the NFA and other government agencies like the Department of Co-

³⁸ <https://www.jnsbl.com/jnsbl-yamaha-sign-MoU-to-provide-support-for-fishing-industry/>

³⁹ https://www.micaf.gov.jm/sites/default/files/Special_Fisheries_Conservation_areas.pdf

operatives and Friendly Societies for the registering of informal fisherfolk organisations , and NEPA. Strengthened inter-agency partnership and coordination can improve the enabling environment for ecosystem stewardship of fisherfolk.

9 Communication of information on sustainable practices for fisheries resources use

Communication facilitates the sharing of information on best practices, lessons learnt, available support/resources, training, networking, and opportunities for participatory decision-making that can support effective ecosystem stewardship. The institutional analysis examined the extent to which providers of fisheries information in the project country were using defined communication strategies, tools and channels to communicate with fisherfolk, as well as their capacity to use the tools and channels effectively. This includes the structures and systems in place for clear communication.

Communication within the ministry, inclusive of the National Fisheries Authority (NFA), is guided by the Government of Jamaica Communication Policy⁴⁰. This policy sets out key goals and outcomes and focussed on accountability, transparency and proactiveness, and provides guidelines for leveraging social media. MICAF has a Communication and Public Relations Division, which is responsible for sharing information on the Ministry's work with stakeholders and with the general public. The Unit disseminates this information through various forms of media including television, radio, media tours, news conferences, press releases, advertisements and social media.⁴¹ This unit supports and shares information on behalf of all agencies and divisions within the ministry, including the NFA. The NFA, however, does not have a communications plan for engaging its stakeholders, especially fisherfolk.

The NFA is the main source of information for fisherfolk and fisherfolk organisations on fisheries-related projects and initiatives, and sustainable fisheries. As mentioned in the validation workshop, the JFCU has a strong partnership with the NFA, developments in the sector are communicated through them. This messaging occurs through different communication tools or practices, namely, visits to the head office or satellite offices around Jamaica; face-to-face meetings (including workshops, focus groups and visits from fisheries officers); phone calls; the Ministry's website; newspapers and other print media (flyers, brochures and posters) and social media pages. Information can also be requested from the NFA by email or letter. Depending on the type of assistance required, fisherfolk may also seek information from websites or offices of other agencies, such as Veterinary Services Division for permits, Ministry of Health for food handling training permits or the Department of Cooperatives and Friendly Societies for registering an organisation.

⁴⁰ <https://jis.gov.jm/media/FINAL-Nov.-11-2015-GoJ-Comm.-Policy-Final-doc.pdf>

⁴¹ <https://www.micaf.gov.jm/content/communication-public-relations-division>

One of the primary and most effective ways of engaging and sharing information about sustainable fisheries with fisherfolk is through social media. The WhatsApp, Facebook and even Instagram applications are useful for generating interest among fisherfolk and disseminating smaller amounts of information in a format that is easily accessible to fisherfolk and can therefore be shared among their communities. Information is often shared through Jamaica Fishermen Cooperative Union (JFCU) leadership and then shared with membership through WhatsApp groups. This is also an important and effective way for communicating among fisherfolk leaders in the CNFO, of which JFCU is a member, and such groups are often created for projects (e.g., a StewardFish WhatsApp group for fisherfolk leaders and project partners to share updates and other useful information). MICAF and the NFA have Facebook pages where they share recent news on projects and works undertaken, though the MICAF page is more active and has more engagement (it has just under 5000 followers). They both also have very active Instagram pages (MICAF has just over 1000 followers and the NFA has a little over 220 followers). Other key conservation-based non-governmental organisations, like CCAM, JET and Food for the Poor Jamaica, both have active social media presence and share useful information about initiatives impacting fisherfolk and their livelihoods. The JFCU does not have a Facebook or Instagram presence, but as indicated earlier primarily communicates via WhatsApp and phone, which has proven to be the most effective method. It should be noted that because of the COVID-19 pandemic and the ensuing restrictions, fisherfolk, including JFCU leadership, have been using ICT tools like virtual video conferencing platforms for participating in and hosting meetings, training and capacity building activities,⁴² examples of which are seen in the StewardFish project.



Figure 9.1: A recent post on the MICAF's Facebook page on the launch of the PPCR project.

In a 2014 report, the JFCU membership highlighted that there were inadequacies in their communication plan, particularly the lack of an organised system for sharing messages and feedback to the JFCU (JFCU, 2014). In order to address this issue and to increase the level of engagement and interest in information on ecosystem stewardship and sustainable fisheries, it is important for the JFCU to play a more active role and to improve imaging and messaging. In another report, it was recommended that environmental and conservation-based non-governmental organisations ensure that their image is relatable to fishing communities and fisherfolk organisations, and that they strengthen relationships with and capacity of stakeholders, since a substantial amount of information of ecosystem stewardship and sustainable livelihoods is generated by them (CEPF, 2017). As mentioned previously, there is need to increase the reach of the JFCU, so that fisherfolk or fisherfolk organisations which are not member organisations, can also benefit from improved communication and knowledge sharing.

10 Organisational assessment of the fisheries authority in Jamaica

While fisheries authorities have adopted EAF principles as an approach, evidenced by their inclusion in policies and plans (see Table 5.2), many have not yet adopted these principles within their

⁴² These include platforms such as Zoom, Skype, Go-to-Meeting etc.

administrative procedures and/or do not currently possess the capacity to facilitate effective collaborative management procedures.

As part of the institutional analysis, an organisational assessment of the of the state agency with direct responsibility for fisheries management was conducted in Jamaica to identify gaps and develop recommendations to better adopt the EAF approach and subsequently support fisherfolk and their organisations in actioning ecosystem stewardship. The assessment was conducted via survey to provide a rapid assessment of the state agency's internal capacity to support ecosystem stewardship by fisherfolk and their organisations. The questions in the survey examined the following four capacity areas to explore the organisational motivation and capacity for supporting ecosystem stewardship by fisherfolk:

1. Vision, mandate, culture: the organisation's vision and goals, its operational culture and its internal governance mechanisms and how they promote ecosystem stewardship.
2. Practices: the translation of the organisation's core beliefs into actions that support ecosystem stewardship by fisherfolk organisations as it relates to decision making, collaboration and information sharing.
3. Knowledge and skills: the organisation's capacity to provide fisherfolk and fisherfolk organisations with the relevant knowledge and skills support required for improved stewardship actions.
4. Resources: focuses on the finance, equipment, materials, tools and methods that the organisation can access for supporting fisherfolk in ecosystem stewardship activities and initiatives.

The assessment was conducted as an organisational self-assessment – where the selected agency completed the survey, either through a small focus group (including relevant and knowledgeable staff members) or via an elected representative.. It should be noted that while organisational self-assessments are often a great opportunity for organisations to critically consider and document their capacity in key areas, these types of assessments are largely subjective, and respondents may over or under evaluate their organisation's capacity. The findings nonetheless provide useful insights into how the organisation views itself and can be used to compare how external stakeholders view the capacity of the organisation. Such comparisons may result in agreement with or contradiction of the organisation's self-perspective.

In the case of Jamaica, the organisational assessment focused on the National Fisheries Authority and was completed, and peer reviewed by the StewardFish focal point and another senior staff member. Appendix 6 provides a synthesis of the organisational assessment survey findings which are summarised below.

1.1 *Findings from organisational assessment of the fisheries authority in Jamaica*

The Fisheries Division of Jamaica was recently replaced by the National Fisheries Authority (NFA) under the new Fisheries Act (2018). The NFA is the primary fisheries management authority in Jamaica with responsibility for the development of the fisheries and aquaculture sectors.

The roles of the organisation include, but are not limited to, conservation of fisheries resources; assessment of aquaculture and fisheries; data collection and analysis; ensuring viability of the aquatic ecosystems; management of rights, quotas and other fisheries management and control interventions; prevention and control of illegal, unreported and unregulated fishing (IUU fishing); development and review of fisheries management plans; management of licenses and permits; establishment and regulation of zones for fishing and aquaculture and public education of fisheries matters.

The NFA is governed by the mission and core values of MICAF. The mission of the Ministry is “to create an enabling environment which grows and sustains industries in agriculture, fisheries, manufacturing and service sectors; strengthen national quality infrastructure; and ensure food and nutrition security, food safety and consumer protection”⁴³. One of the core values is *Stewardship* where the ministry itself performs the role of a steward to and enabler of sustainable development in the agriculture, fisheries, manufacturing and service sectors, and the role of partnership and collaboration with stakeholders.

Vision, mandate and culture

The NFA’s vision statement highlights the promotion of sustainable and viable capture fisheries and aquaculture industries; and the work of the NFA is guided by the new Fisheries Act (2018). This new Act states that, to the extent practicable, stakeholder participation in the management of fishery and aquaculture resources shall be promoted. The Authority holds core values which see fisherfolk ecosystem stewardship as key to sustainable use of fisheries and marine resources, the inclusion of fisherfolk in decision-making in the industry and in which local and/or traditional knowledge held by fisherfolk as seen as important.

Principles of EAF, though mandated by the new Act may not be fully on stream, as the legislation is recent, and mechanisms, frameworks and programmes may still be in the design and development stage. In addition, actions are ongoing. These developments under the new legislative framework should be supported by regular training and capacity building of staff in EAF, ecosystem stewardship and other technical and non-technical areas.

Practices

There is a clear process for the inclusion of fisherfolk opinions, due to the establishment of a National Fisheries Advisory Council by the new Fisheries Act (2018), a council on which fisherfolk from both small-scale and industrial fisheries sit. The level of activity of the NFAC is uncertain as it was being re-established at the time of this research. It nonetheless provides a significant platform for the NFA to hear the opinions of fisherfolk, consult, discuss developments in policy and resource management, through which they can highlight issues of fisherfolk to policymakers. It should be noted however, as highlighted previously, individuals are usually appointed to the NFAC, but are not representatives of FFOs. This may be addressed by including FFO leaders/representatives or asking fishers appointed to the NFAC to advocate on behalf of FFOs and all fisherfolk issues. Other mechanisms for fisherfolk to share their opinions and input on issues in the sector are unclear but is facilitated to some extent through regular interactions between the NFA and FFOs, and through the collaborative relationship which exists between the NFA and JFCU. More efficient mechanisms for fisherfolk knowledge sharing and interaction with the NFA should be clearly defined.

Some examples of instances where the NFA has partnered with fisherfolk include Eco-Reef Planting, Special Fishery Conservation Areas (SFCAs), coral gardening and conch and lobster fisheries management. The NFA also partners with other agencies such as the Marine Police, the Coast Guard, Jamaica Environment Trust (JET) and some private sector entities.

From the research it was also noted that due to Jamaica’s size, and due to the number of landing sites, (formal and informal), it may be difficult for the NFA to establish communication with some fisherfolk or fishing communities, especially those in more rural or remote areas. Most of their collaboration is focused on FFOs based around fish sanctuaries or MPAs and the JFCU membership, but efforts and resources can be allocated to increasing extension services to these areas.

Knowledge and skills

⁴³ <https://www.micaf.gov.jm/content/ministry>

The NFA has staff with knowledge of EAF and ecosystems, ecosystem functions and changes, gained through postgraduate education in natural sciences. They have carried out projects designed to promote and integrate EAF. Staff is also equipped to carry out socio-economic assessments, aquaculture, mariculture, coral gardening, and have been promoting these as alternative livelihood options. Staff has also had training in data analysis, GIS mapping and ghost fishing issues, and as a result, has participated in related activities. Staff also have a working knowledge of how FFOs operate and the key issues which affect them and provide support to fisherfolk through the development and implementation of projects to address issues and facilitate participatory learning and action. It should be noted that the NFA has a trained social scientist on staff who has a core role in supporting fisherfolk organisations on governance issues and forming of groups.

Despite the strong technical background in the NFA, there is some areas which require more training and capacity building including, but not limited to, the functioning of fisherfolk organisations, their internal issues and organisational development, fundraising, participatory processes, socio-economic monitoring, and other areas which can improve their ability to support fisherfolk and carry out their mandate. The NFA is open to opportunities to constantly improve their skills and capacity.

Resources

The NFA usually provides funding assistance to local community organisations to monitor and manage fish sanctuaries through the SFCA programme. They also assist fisherfolk in networking with other organisations in order to access tools and information and other needed resources. It also helps fisherfolk to access funding opportunities and technical assistance for this process, as needed. The NFA itself, however, has limited resources and materials available to share directly with fisherfolk, especially for encouraging and promoting stewardship action. Further, the number of formal and informal fisherfolk organisations, around the island is quite large.

The NFA, as mentioned before, does not have a dedicated website to share information and resources on ecosystem stewardship. They however do have active social media platforms like Facebook and Instagram. The formation of WhatsApp groups is also a key medium for communicating with fisherfolk and FFOs. Overall, the NFA has been making significant progress in promoting sustainable use of fisheries and marine resources and are enabled to do so through the Fisheries Act (2018). As the initiatives of this Act continue, it is important to ensure that staff have the resources and training to continuously evolve to meet the needs of the growing fisherfolk sector.

11 Enabling and constraining factors and recommendations for strengthening fisheries institution to support ecosystem stewardship by fisherfolk

Table 11.1 sets out some of the key enabling and constraining factors based on the findings of the institutional analysis and organisational assessment. It also provides recommendations to strengthen the fisheries institution in Jamaica to better support fisheries ecosystem stewardship by fisherfolk and their organisations. Enabling and constraining factors and recommendations are presented below under the categories of:

- Policy, legal and planning context for ecosystem stewardship
- Mechanisms for fisherfolk participation in decision-making
- Support and resources available to fisherfolk and their organisations for ecosystem stewardship
- Partnerships and networks for ecosystem stewardship
- Communication of information on sustainable practices for fisheries resource use
- Organisational capacity of the fisheries authority to support fisherfolk and their organisations with ecosystem stewardship

Table 11.1: Summary of Enabling Factors, Gaps and Recommendations for strengthening the fisheries institution to support ecosystem stewardship by fisherfolk

Area	Enabling factors	Constraining factors	Recommendations
<p>Policy, legal and planning context for ecosystem stewardship</p>	<ul style="list-style-type: none"> • The new Fisheries Act (2018) is fairly comprehensive and includes aspects of ecosystem well-being, socio-economic well-being and good governance. • This legislation is also supported by other fisheries-related laws, plans and policies, which to some extent , address sustainable fisheries management and recognise the importance of inclusion of fisherfolk. • There is legislation that regulates the establishment of MPAs and fish sanctuaries, with scope for fisherfolk to assist in the management. 	<ul style="list-style-type: none"> • There was limited knowledge of the laws, plan and polices by stakeholders and how they overlap with mandates of other agencies. • Although, there are references to collaboration with fisherfolk, there is no explicit mention of fisherfolk, primary or national organisation, for co-management and inclusion in decision-making systems. • Ecosystem well-being is adequately addressed, but socio-economic well-being and local ownership has less focus. • The legislation is fairly new and directives within it are still being rolled out, but there is no clear indication of timelines or a framework for monitoring and evaluating the interventions being implemented. 	<ul style="list-style-type: none"> • Make provisions for fisherfolk to be represented on the National Fisheries Advisory Council (NFAC) and other advisory and decision-making mechanisms tasked with management of coastal and marine resources. • Improve communication of laws, policies and plans to staff at NFA, other key agencies and fisherfolk in appropriate formats for specific audiences. This can be done through the development of a communication strategy which can provide recommendations for targeted information packets for the various stakeholders. • Ensure that future laws, policies and plans have equal focus on ecosystem well-being, socio-economic well-being and good governance. This can be achieved through input from multi-disciplinary experts/teams, which may include persons with economic, health and humanities backgrounds. • Develop a monitoring and evaluation framework for

			continuous review of the implementation of policies and plans and associated outputs.
Mechanisms for fisherfolk participation in decision-making	<ul style="list-style-type: none"> • There are at least three mechanisms in which fisherfolk can potentially be members, to advise on fisheries management and development decision and to actively participate in resource co-management. Namely, the NFAC, NCOCZM and the Fisheries Management and Development Fund Board. These mechanisms are formalised through supporting legislation. • Umbrella organisations like the JFCU can function as a decision-making and advisory body. 	<ul style="list-style-type: none"> • Although there are references to collaboration with fisherfolk, there is no explicit mention of fisherfolk, primary or national organisation, for co-management and inclusion in decision-making systems. • The JFCU has a small number of member organisations and only represent co-operatives presently. As a result, they may not necessarily be able to articulate the concerns of all fisherfolk, even though they sit on boards, are members of networks like CNFO and represent Jamaica fisherfolk in projects and initiatives. • Fisherfolk are perceived as having low decision-making power in the greater fisheries institution. • There is no organisation to represent the interests of aquaculture or mariculture farmers, and no mention of their inclusion in decision-making mechanisms. 	<ul style="list-style-type: none"> • Make provisions for fisherfolk to be represented on the National Fisheries Advisory Council (NFAC) and other advisory and decision-making agencies tasked with management of coastal and marine resources. • Expand the scope and membership of the JFCU to include more co-operatives and other types of fisherfolk organisations such as friendly societies and associations. • Support organisational development and formalisation of fisherfolk groups (including those outside of the JFCUs membership). These groups should receive training and capacity-building development in advocacy, communication, networking and collaboration to enable them to collectively come together with a unified voice. • Form an organisation to represent the interests of the aquaculture sub-sector.
Support and resources available to fisherfolk and their	<ul style="list-style-type: none"> • Civil society plays a significant role in offering support and resources for fisherfolk. 	<ul style="list-style-type: none"> • There is little mention of technology use and access for fisherfolk. 	<ul style="list-style-type: none"> • Promote and facilitate the use of technology in the sector and further innovation, to increase

<p>organisations for ecosystem stewardship</p>	<ul style="list-style-type: none"> • The Aquaculture Unit provides substantial support for aquaculture and mariculture farmers. • Large pots of funding are made available to countries, through partnerships with international donors, but fisherfolk can also access direct funding through small grant programmes. • Fisherfolk, through the NFA, NEPA and other government agencies or civil society organisations received training and capacity development opportunities, including alternative livelihoods. 	<ul style="list-style-type: none"> • There was no mention of training and development of the post-harvest sector. • As many groups are not members of the JFCU or are informal, they may be unable to access funding, whether indirectly through projects and programmes or through small grants. They may also lack the capacity to develop proposals to pursue funding themselves and may lack internal organisation and systems which are sometimes required for accessing funds, like a board, banks accounts etc. • Fisherfolk groups may be facing challenges that require large investment and funding, which they cannot access, such as infrastructure, which limit their ability to advocate for their issues and needs, as their focus is on their livelihoods and survival. • FFOs need training in organisational development, administration and fundraising and ecosystem stewardship. • Fisherfolk who do not belong to formal groups, do not belong to a community with an MPA or fish sanctuary or belong to the membership of the NFA, may not 	<p>efficiency and quality and to encourage development of the industry.</p> <ul style="list-style-type: none"> • Improve training and development in the post-harvest sector for value added products. This can drive “buy local initiatives” which are particularly important given the high level of importation of seafood products in Jamaica and the current context of COVID-19. This can be linked to the value chain analysis work done on the spiny lobster fishery in Jamaica under the StewardFish project. • Support organisational development and formalisation of fisherfolk groups (including those outside of the JFCUs membership). These groups should receive training and capacity building development in advocacy, communication, networking and collaboration. • Conduct a situation analysis and needs assessment for the industry, to understand the context in which different groups (formal and informal) operate in and develop more informed interventions. • Develop an overarching strategy and action plan for the sustainable development of fisherfolk
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		have equal access to training and resources, as those who are.	<p>organisations (be they cooperatives, associations, friendly arrangements, etc.) in the fisheries sector, including capacity building for the support entities e.g., NFA, Dept. of Cooperatives and Friendly Societies, and others.</p> <ul style="list-style-type: none"> • Use SocMon⁴⁴ methodology to collect more socio-economic data on the industry, including actors in the fishery value chain.
Partnerships and networks for ecosystem stewardship	<ul style="list-style-type: none"> • There is a strong partnership between the JFCU and the NFA. • There is also a strong partnership between the NFA and NEPA. • Leading CSO, like environmental NGOs have strong partnerships and collaborate with other CSOs, particularly smaller community groups and fisherfolk groups. • Some partnerships between government agencies and CSOs are formalised through MoUs and MoAs. There are also MoUs with private sector contributors. • There are active national and regional networks in which fisherfolk are involved , usually represented by the JFCU or 	<ul style="list-style-type: none"> • Though partnerships between the NFA and FFOs and NEPA exist, there is no formal arrangement or MOUs for this partnership. • It is unclear the relationship between the NFA and other fisherfolk organisations, who are not members of JFCU. This is similar for JFCU and non-members. • There appears to be limited collaboration among fisherfolk organisations. • Again, the JFCU’s network and social capital does not extend or is not shared with all fisherfolk groups, because of limited membership. 	<ul style="list-style-type: none"> • Identify strategic partnerships within and outside of the government sector as part of the overarching strategy and action plan. • Evaluate, using a participatory approach, the NFA’s overall extension plan/programme in relation to its ‘new’ mandate, including supporting ecosystem stewardship at all levels. • Support training in improved organisational development, networking and fostering of partnerships for FFOs. • Expand the number of organisations involved in the fisherfolk retreat facilitated by the JCFU to cultivate more partnerships

⁴⁴ SocMon or socioeconomic monitoring is an initiative aimed at helping coastal managers better understand and incorporate the socioeconomic context into coastal management programs. <https://www.socmon.org/>

	<p>fisherfolk organisations which co-manage fish sanctuaries.</p>	<ul style="list-style-type: none"> • Due to the lack of organisation in FFOs or some groups being informal, they are unable to collaborate with other groups, build their networks with other fishing groups around Jamaica, and are unaware of how to leverage these relationships. This also included the private sector. • There is limited collaboration between fisherfolk and government agencies beyond marine protected area management, monitoring and enforcement, prevention and deterrence of IUU fishing and public education and awareness activities. • There is limited engagement of the private sector, though they were identified as some of the most powerful influencers of the fisheries institution. • There is limited collaboration between the NFA and other government agencies such as the Department of Cooperatives and Friendly Societies, the Ministry of Health and the Social Development Commission. 	<p>and widen network beyond membership.</p> <ul style="list-style-type: none"> • The JFCU, through the fisherfolk retreat, or otherwise, can also assist in facilitating building of relationships with aquaculture and mariculture fishers, and marine capture fisherfolk. • Support fisherfolk in playing a more active role in monitoring and enforcement, IUU fishing prevention and public education, which can be facilitated by the NFA through special programmes developed in collaboration with Marine Police, Coast Guard, NEPA and national civil society organisation involved in education and awareness campaigns. • Engage the private sector in sustainable use of natural resources, as part of their corporate social responsibility and through investment in the fisheries sector. • Improve collaboration among the Department of Cooperatives and Friendly Societies, the Ministry of Health and the Social Development Commission through projects, formal arrangements (e.g., MOUs) and inclusion in multi-sectoral committees or NICs addressing
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			fisheries management. This is similar for Marine Police and the Coast Guard. JFCU should also develop relationships with these government agencies.
Communication of information on sustainable practices for fisheries resources use	<ul style="list-style-type: none"> • The NFA communicates frequently with stakeholders and provides them with information through various media. • The NFA is guided by the government communication policy and has a communications unit for wider information sharing. • The NFA also communicates with fisherfolk through means that are most accessible to them, that is, via phone call or WhatsApp. • The NFA is usually the first organisation fisherfolk will go to if they require information about anything related to their livelihood, and the NFA will then direct them to other government agencies if needed. • The NFA and MICAF, as well as key CSOs have Facebook and Instagram pages, where information is shared on projects and initiatives involving fisheries, fisherfolk and ecosystem stewardship activities. 	<ul style="list-style-type: none"> • The NFA does not have dedicated website for information and data sharing. Developments are shared mainly through the Instagram page, an application which many fisherfolk may not have or use. • There is no formal communication strategy for the NFA. • Fisherfolk are often unaware of where to get information or to whom they should go. Some may have limited access to internet or lack the skills to use it to retrieve information online. • This low capacity to engage through social media platforms limits the ability of fisherfolk organisations to share about their livelihood, their stewardships activities and projects they may be undertaking and limits their ability to advocate. • The JFCU does not have a communication plan for engaging with their stakeholder and the wider public and this may be the case at the primary fisherfolk 	<ul style="list-style-type: none"> • Using a participatory approach, develop a communication strategy and action plan for the NFA, which could include development of a website for the NFA covering information on all aspects of the fishing industry: harvest and post-harvest sectors; marine capture and aquaculture fisheries; small-scale and industrial fisheries. • Build awareness among fisherfolk and fisherfolk organisations on how to access relevant fisheries information, including who they should go to and what documents are required to obtain permits, licences. This can be done through television and radio announcements, or posters posted at landing sites or shared electronically via WhatsApp and social media. Information packages can also be created for fisherfolk organisations, which they can share and discuss during meetings. Information packages can be developed for other topics and initiatives as well and can be

	<ul style="list-style-type: none"> The JFCU has a dedicated website. 	<p>organisation level. They also do not have any social media pages for engaging fisherfolk or the wider public.</p>	<p>distributed to leaders of fisherfolk organisation to share with their membership.</p> <ul style="list-style-type: none"> Build capacity of fisherfolk and FFOs in communication, research and use of ICT tools. Fisherfolk families can also be trained in the use of ICT and accessing information online, as children and/or spouses of fisherfolk may be more comfortable with the technology. . Develop a communications plan for the JFCU, which addresses the upgrading and development of social media pages for wider reach and sharing of information on projects.
<p>Organisational capacity of the fisheries authority to support fisherfolk and their organisations with ecosystem stewardship</p>	<ul style="list-style-type: none"> The NFA was re-established through the new Fisheries Act (2018) which recognises the important of inclusion of fisherfolk organisations in sustainable management of fisheries resources. The NFAC is a key platform for fisherfolk being able to share their opinions and input on decisions made within the industry. Staff have high technical ability and are also able to provide 	<ul style="list-style-type: none"> Activities under the new Act are still ongoing, so it is unclear what has been done and what is still ongoing, more so for in incorporation of EAF principles and promotion of ecosystem stewardship. There are no other clearly defined mechanisms for fisherfolk input in decision making. There is need for further training for staff particularly in areas of participatory processes and organisational development of fisherfolk and FFOs. 	<ul style="list-style-type: none"> Ensure continuous evaluation of the implementation of activities under the new Act to assess progress and gaps for improvement. This can be part of the previously mentioned monitoring and evaluation framework. Clearly define alternative ways (e.g., through set dates for field visits to landing sites by fisheries extension officers or other mechanisms) in which fisherfolk can share their ideas, opinions and

	<p>organisational development support to fisherfolk or FFOs.</p> <ul style="list-style-type: none"> • The NFA has a strong relationship with the JFCU, which can facilitate regular interaction and sharing of information between entities. • The NFA also has an active social media presence for sharing information on projects and activities. 	<ul style="list-style-type: none"> • There is no dedicated website for the NFA to share information which is useful and pertinent to the industry for fisherfolk. It is also unclear if a communications and engagement strategy exists. 	<p>interact with NFA and build awareness among fisherfolk.</p> <ul style="list-style-type: none"> • Continually develop staff capacity in technical and non-technical areas, with particular focus on developing skills in participatory processes and strengthening FFOs. • The NFA, as mentioned previously should develop a stakeholder engagement and communication strategy, through a participatory process.
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12 References

Bennett, N. W. T. F. E. P. J. B. H. G. S. A. E., 2018. Environmental stewardship: a conceptual review and analytical framework. *Environmental Management*, Volume 61, pp. 597-614.

Bryan, P., 2020. *Jamaica*. [Online]

Available at: <https://www.britannica.com/place/Jamaica>

[Accessed July 2020].

Central Intelligence Agency, 2020. *The World Factbook*. [Online]

Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/jm.html>

[Accessed 22 June 2020].

CEPF, 2017. *Updating the CEPF Ecosystem Profile for the Caribbean Islands Biodiversity Hotspot*, Kingston: CEPF.

CFRAMP, 2000. *Jamaica National Marine Fisheries Atlas. CARICOM Fishery Report No. 4:35p*, s.l.: CARICOM.

FAO/Global Environment Facility, 2016. *Project Document*, Barbados: FAO/Global Environment Facility.

FAO, 2019. *Fishery and Aquaculture Country Profiles: Jamaica*. [Online]

Available at: <http://www.fao.org/fishery/facp/JAM/en>

[Accessed 19 November 2019].

Jamaica Fishermen Co-operative Union, 2015. *Other co-operatives*. [Online]

Available at: <https://www.ja-fishermen.com/other-co-operatives>

[Accessed 22 September 2020].

JFCU, 2014. *National Fisherfolk Workshop Report- Jamaica*, Kingston: JFCU and Panos Caribbean.

Moen, J., 2020. *Jamaica Geography*. [Online]

Available at:

<https://www.worldatlas.com/webimage/countrys/namerica/caribb/jamaica/jmland.htm>

[Accessed July 2020].

Natural Resources Conservation Authority, 2000. *Towards Developing a National Policy on Ocean and Coastal Zone Management*, Kingston: Natural Resources Conservation Authority; Ministry of Foreign Affairs and Foreign Trade .

World Bank, 2020. *Jamaica*. [Online]

Available at: <https://data.worldbank.org/country/JM>

[Accessed 13 July 2020].

13 Appendices

Appendix 1: Definitions of conceptual components for the institutional analysis framework

Conceptual component	Worksheet
A. Policies, Laws and plans	<p>This component focuses on the existing legal framework within the target country to address and guide fisheries management and planning. It involves the formal governance of a nation’s fisheries management which can either empower or constrain the ability to integrate <i>ecosystem stewardship</i>⁴⁵ practises within small-scale fisheries. The assessment of this component also involves regulations, rules and management plans that resulted from the policies and legislation identified. This can be used as an indicator of the capacity of state agencies to support fisheries-related fishing industry stewardship. For example, to determine whether legislation is adequate as Stewardship is an evolving concept for management of natural resources such as fisheries. Policy and legislation need to be assessed in order to identify barriers at the institutional level that may hinder the promotion of ecosystem stewardship. This component is divided into:</p> <p>A.1 Fisheries Policy A.2 Fisheries Management Plan A.3 Fisheries Legislation</p>
B. Advisory and/or decision-making mechanisms	<p>Institutional arrangements - examine the institutional frameworks and mechanisms established for governing fisheries management and fostering ecosystem stewardship. This includes the establishment of multi-stakeholder committees or similar structures, which play an advisory or decision-making role in resource management. The relationship between these mechanisms and the agencies/stakeholders involved will also be analysed.</p>
C. Fisheries-related Organisations	<p>This conceptual component will map the fisheries-related state agencies as well as other fisheries-related organisations which play a key role in the fishery-related institutional arrangements of each country. This includes the core fisheries management organisations such as Fisheries Divisions/Departments/Authorities/Agencies and other associated departments, such as Environment, Coastal Management, Agriculture, Cooperatives, Markets and others. It will also include non-state organisations such as fisherfolk organisations (FFOs), civil society organisation (CSOs), private sector and academia, where relevant. Given that the level of involvement in the fisheries sector will differ within and among project countries. This section will investigate the roles of agencies and particularly their mandated role in fisheries management. Furthermore, an organisational capacity assessment will be carried out to examine the core fisheries state agencies’ current ability to support stewardship activity.</p> <p>Organisational Capacity Assessment:</p>

⁴⁵ *Ecosystem Stewardship* is understood as “a strategy to respond to and shape social-ecological systems under conditions of uncertainty and change to sustain the supply and opportunities for use of ecosystem services to support human well-being”.

	<p>Under this key conceptual component, core capacities¹ of fisheries-related state agencies capacity to support and enable ecosystem stewardship will be assessed. The capacities to be examined are:</p> <ol style="list-style-type: none"> I. Vision, mandate, culture- this section looks at the organisation’s visions and goals, its operational culture and its internal governance mechanisms and how they promote ecosystem stewardship. It is reflected in the everyday organisational culture, how they communicate with fisherfolk and their organisations and the relationships they build. II. Knowledge and skills- this focuses on assessing the capacity of the fisheries-related state agency to provide fisherfolk and fisherfolk organisations (FFOs) with the relevant knowledge and skills support required for improved stewardship actions. This section assesses the capacity in technical knowledge, skills and ability related to ecosystem stewardship. III. Resources- assesses the capacity, availability, and efficient access to resources related to organisations, the resource support made available to FFOs from the state agency, as well as resources provided for execution of any ecosystem stewardship actions and practices. IV. Partnerships - is an assessment of the organisation’s capacity to foster partnerships and link activities, plans, projects and initiatives which involve ecosystem stewardship. It will look at their ability to build networks, and assist in building the networks of fisherfolk organisations, as resource users and ecosystem stewards.
<p>D. Processes and practices</p>	<p>For this conceptual component, the operational procedures for fisheries-related state agencies will be examined more closely. The processes and practices will be assessed in three sub-components. These are:</p> <p>C.1 Promotion of good governance- This is determined by probing the inclusivity of the decision-making process in fisheries governance. The system of institution (i.e., the decision-making process applied) determines the relative success of the structural processes to a certain degree in institutional capacity for improved fisheries management that integrates ecosystem stewardship (i.e., levels of exclusion, discrimination). This also assesses organisation’s internal structures and systems and its ability to create an environment that encourages and facilitates stewardship. It includes the channels of communication for sharing or receiving information from fisherfolk, and transparent and accountable systems. This will also assess the structures and systems in places for clear communication, involvement and integration within and among fisheries-related state agencies.</p> <p>C.2 Collaborative management- This sub-component focuses on the extent of cooperative management that exists in practice between fisheries-related state agencies and small-scale fisheries groups such as FFOs, as well as fisherfolk individuals and the local communities. It also identifies the degree of stakeholder collaboration in management practices (government, private sector and civil society/local communities).</p>

	<p>C.3 Adaptive management This assesses the ability of the fisheries-related state agencies to budget, manage and implement activities, using internal structures and mechanisms which are flexible and adaptive to internal or external changes, changes in the resources, or changes in the resource users. This looks at the organisation’s ability to learn actively, develop practices and policies for promoting stewardship; and implement, monitor and evaluate plans, projects, programmes of work for actions or systems enabling stewardship.</p> <p>C.4 Communication This sub-component assesses the extent to which fisheries information providers in StewardFish project countries are using communication tools/channels to communicate with fisherfolk, as well as their capacity to use the tools/channels effectively. It includes the channels of communication for sharing or receiving information from fisherfolk, and transparent and accountable systems. This will also assess the structures and systems in places to for clear communication, involvement and integration within and among fisheries-related state agencies.</p>
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Appendix 2 - List of workshop participants

	Name	Post/Organisation	Contact
In-country participants			
1	Andrew Francis	Ministry of Foreign Affairs and Foreign Trade	Andrew.Francis@mfaft.gov.jm
2	Courtney Cole	Ministry of Industry, Commerce, Agriculture and Fisheries (MICAF)	cbcole@micaf.gov.jm
3	Deron White	Inspector, Marine Police, Jamaica Constabulary Force	deron.white@jcf.gov.jm
4	Farah Hansel	National Fisheries Authority	fkhansel@micaf.gov.jm
5	Francine White	Department of Co-operatives and Friendly Societies (DCFS)	Francine.White@dcfs.gov.jm
6	Glaston White	Jamaica Fishermen Co-operative Union	jfcu@ja-fishermen.com
7	Ingrid Parchment	Caribbean Coastal Area Management Foundation (C-CAM)	ccamfngo@gmail.com
8	Junior Squire	National Fisheries Authority	jcsqujre@micaf.gov.jm
9	Kerrone Fairclough	Aquaculture Branch, NFA	kkfaircloug@micaf.gov.jm
11	Sabrina Cain	Special Fishery Conservation Areas (SFCA's)	scaainprojects@gmail.com
12	Shawn Taylor	Jamaica Fishermen Co-operative Union	jfcu@ja-fishermen.com
13	Shellene Berry	National Fisheries Authority	ssberry@micaf.gov.jm
14	Sherron Baker	Food for the Poor JA	sherronb@foodforthepeopleja.org
15	Tru-Sha Dixon	National Environment and Planning Agency (NEPA)	Tru-Sha.Dixon@nepa.gov.jm
17	Yvette Strong	National Environment and Planning Agency (NEPA)	YStrong@nepa.gov.jm
Facilitators			
18	Melanie Andrews	Caribbean Natural Resources Institute	melanie@canari.org
19	Neema Ramlogan	Caribbean Natural Resources Institute	neema@canari.org
20	Maren Headley	Caribbean Regional Fisheries Mechanism (CRFM) Secretariat	maren.headley@crfm.int
21	June Masters	Caribbean Regional Fisheries Mechanism (CRFM) Secretariat	june.masters@crfm.net
FAO Representative			
22	Terrence Phillips	Food and Agricultural Organisation (FAO) Sub-regional Office	Terrence.Phillips@fao.org

Appendix 3 - List of key informant interviewees and focus group participants

Key informant interviews were carried out subsequent to the national workshop with individuals recommended by the country focal point and identified by the researcher for additional information.

Key informants interviewed in Jamaica include:

- *Shellene Berry, Fisheries Officer, National Fisheries Authority*
- *Aquaculture Farmer, Hill Run, Spanish Town*
- *Bull Bay fisherfolk and representative of Food for the Poor (group interview)*

Focus group activity was carried out with the *New Forum Fishing Village Friendly Society*.

Appendix 4- Analysis of key stakeholders in the fisheries institution in Jamaica

Stakeholder	Role/Interests	How will they be affected by improved ecosystem stewardship by fisherfolk/fisherfolk organisations?
Government		
National Fisheries Authority (NFA), MICAF	<ul style="list-style-type: none"> Responsible for managing the sustainable use and conservation of fishery resources in Jamaica to facilitate optimal social and economic benefits to Jamaica. Responsible for licensing, registration, research, monitoring and maintenance of environmental assets, data collection and management, enforcement, education, training and outreach, managing some landing sites and the Special Fishery Conservation Areas (SFCA's) programme. 	<p>Ecosystem stewardship develops inclusivity in resource management and in fisheries governance. Co-management of initiatives and participative implementation and monitoring improves partnership and collaboration between the NFA and resource users, deters unsustainable use of resources and allows the, sometimes limited, resources available to fisheries departments to be more effectively utilised by 'sharing the burden' of management.</p> <p>Stewardship action will also help the NFA to understand how resource users like fisherfolk and fishing communities respond to ecological change, their values and motivations for engaging in stewardship activity, and their decision-making systems. This allows a regulatory and management body like the NFA, and MICAF , to respond holistically with effective interventions to ensure sustainable use, ecosystem health and social and economic benefits to users.</p>
National Fisheries Advisory Council (NFAC)	<ul style="list-style-type: none"> Multi-stakeholder mechanism responsible for advising the Minister responsible for fisheries on policies involving all marine capture fisheries, aquaculture and any related issues/activities; changes to fisheries regulations or law; development and review of fisheries and aquaculture management plans; and any other instances obligated by the Act or the Minister. 	<p>The presence of fisherfolk or fisherfolk organisation members on the Council is an example of ecosystem stewardship. The NFAC can benefit from fisherfolk who engage in ecosystem stewardship by the providing access to local knowledge and fisherfolk priorities and decision-making mechanisms. This in turn improves the ability of the NFAC to advise the Minister on matters arising/affecting fisherfolk and promotes good governance.</p>

<p>National Environmental Planning Agency (NEPA), Ministry of Water, Land, Environment and Climate Change</p>	<ul style="list-style-type: none"> • NEPA is the overarching executive governmental organisation dealing with environmental matters in Jamaica. The agency manages ecosystems inclusive of the sea floor and the sea front and the management of moorings, fish aggregating devices (FADs), coral nurseries, etc. • Roles relevant to the fisheries management include conservation and protection of species and ecosystems; coastal and marine area management; pollution management (prevention, control, monitoring, assessment and reporting); spatial planning (marine), management of applications; advising on licenses and permits pertinent to beaches (administrators of the Beach Control Act), education and outreach and monitoring and enforcement. • 	<p>With fisherfolk and their organisations participating and leading in ecosystem stewardship, there should be greater understanding and buy-in to management measures implemented by NEPA. With fisherfolk and other resource users leading in stewardship action, there should be a better understanding and appreciation by NEPA of what issues are affecting them, how they problem solve and make decisions surrounding the issue, and what solutions work best. Fisherfolk will have a greater “voice” within the fisheries institution and marine and coastal resource management and can contribute to solutions, leading to more successful interventions, better informed policy, improved ecosystem health and sustainable livelihoods.</p> <p>This can support NEPA’s vision in the sustainable use of natural resources and contribute to an appreciation of the environment, planning and development issues, and their continued work with fisherfolk operating in the protected areas declared under the Natural Resources Conservation Act or exporters of CITES listed species.</p>
<p>Ministry of Foreign Affairs and Foreign Trade (MFAFT)</p>	<ul style="list-style-type: none"> • Responsible for ensuring compliance with requirements under bilateral, regional and international agreements and negotiates in foreign trade and investment. • Chairs the National Council on Ocean and Coastal Zone Management (NCOZM). 	<p>MFAFT should benefit from fisherfolk being more aware of the issues facing ocean management, with more support and input to solutions and interventions put forward. Fisherfolk will also be more committed to projects and activities, leading to greater success, improved resource management and sustainable use.</p>
<p>Port Authority, Ministry of Transport, Works and Housing</p>	<ul style="list-style-type: none"> • Main entity in control of regulating and developing the port and shipping industry. The Authority ensures the safety of vessels at ports of entry, management of tariffs and the goods entering , and leaving the ports. This includes larger industrial fishing vessels. • Role in upgrading and management of fishing facilities, like the Ocho Rios Fishing Village. ⁴⁶ 	<p>The Port Authority should have improved relations with fisherfolk stakeholders, improved and continued adherence to regulations, with greater representation from fisherfolk. This can improve policy formulation, development of measures and systems and efficient utilisation of resources.</p>

⁴⁶ Port Authority of Jamaica. 2019. Fishing for Tourists – Ocho Rios Fishing Village Upgrade Tracks Tourism Calendar. <http://poj.newmediastudios.net/category/news/>

Jamaica Defence Force Coast Guard	<ul style="list-style-type: none"> • Responsible for maritime law enforcement and safety • Role in enforcing and upholding regulations related to fisheries protection and management, national security and customs and immigration. • Role in ensuring safety-at-sea, conducting search and rescue for fishers lost at sea and monitoring, control and surveillance of activity particularly in the offshore waters and EEZ and closed seasons/areas. 	<p>The Coast Guard should benefit from improved relations with fisherfolk stakeholders, improved and continued adherence to regulations, with greater representation from fisherfolk. This can improve policy formulation, development of measures and systems and efficient utilisation of resources.</p>
Jamaica Constabulary Force Marine Division (Marine Police)	<ul style="list-style-type: none"> • Responsible for monitoring and controlling illicit activity along the coast and in the territorial waters of Jamaica. • Role in enforcing fisheries laws • As it relates directly to fisheries, they provide surveillance of uncontrolled ports, enforce fisheries legislation, search and rescue and environmental and wildlife protection 	<p>The Marine Police, like the Coast Guard, should benefit from improved relations and cooperation with fisherfolk stakeholders and fisherfolk organisations, improved and continued adherence to regulations, with greater representation from fisherfolk. This can improve policy formulation, development of measures and systems and efficient utilisation of resources. It will also encourage reporting of unsustainable and illegal fishing practices or other activities, as fisherfolk would now have a sense of ownership and responsibility for the resources.</p>
Maritime Authority	<ul style="list-style-type: none"> • Responsible for maritime safety, prevention of marine pollution and the well-being of Jamaican seafarers • Roles in vessel registration, certification for seamen, safety in vessel construction and navigation, policy administration, inspection of ships, development of training and safety standards and inquiries into incidences at sea. 	<p>The Authority can benefit from greater organisation of fisherfolk, better representation of fisherfolk issues, adherence to regulations and safety-at-sea.</p>
National Council on Ocean and Coastal Zone Management (NCOCZM)	<ul style="list-style-type: none"> • Inter-agency committee chaired by the MFAFT responsible for providing oversight on policies and activities in ocean and coastal marine resource management and public education on the sustainable development of the sector. 	<p>As suggested for MFAFT, the NCOCZM will benefit from fisherfolk being more aware of the issues facing ocean management, with more support and input to solutions and interventions put forward. Fisherfolk will also be more committed to projects and activities, leading to greater success, improved resource management and sustainable use.</p>

Veterinary Services Division, MICAF	<ul style="list-style-type: none"> • Responsible for issuing catch certificates for each landed boat and each shipment of fish and seafood. Involved in the import/export inspection of fishery products • Interest in national health and animal status and welfare 	<p>The Division can benefit from greater organisation of fisherfolk and other stakeholders within the fishery value chain, such as vendors, processors and other fish handlers. They should be more aware and receptive to the environmental health issues and quality control and quality assurance measures.</p>
Jamaica Customs Agency (JCA)	<ul style="list-style-type: none"> • Key role in facilitating trade, inclusive of import or export of fish and fish products, including the collection of duties and fees and the processing of cargo 	<p>The JCA can also benefit from greater organisation of fisherfolk, even at the industrial export and import level. There will be greater awareness and receptivity to the environmental health issues and quality control and quality assurance measures.</p>
Ministry of Health and Wellness	<ul style="list-style-type: none"> • Primary role in promoting food and nutritional security and the well-being of Jamaican nationals. The Food and Nutrition Security Policy was developed jointly by the Ministry of Health and MICAF ⁴⁷ • Responsible for issuing food handlers permits (which is a requirement, by law, for persons who handle any fishery products) and inspecting processing plants and fish markets on a regular basis to ensure compliance with public health standards 	<p>The Ministry can benefit from greater organisation of fisherfolk and other stakeholders within the fishery value chain, such as vendors, processors and other fish handlers. Improved ecosystem stewardship by fisherfolk can contribute to increased awareness and receptivity to environmental health issues and quality control and quality assurance measures.</p>

⁴⁷ Government of Jamaica. 2013. Jamaica National Food and Nutrition Security Policy. Kingston, Ministry of Agriculture and Fisheries and Ministry of Health. <https://extranet.who.int/nutrition/gina/sites/default/files/JAM%202013%20Food%20and%20nutrition%20security%20policy.pdf>

<p>Parish Councils, Ministry of Local Government and Community Development</p>	<ul style="list-style-type: none"> • Parish Councils⁴⁸ are local government authorities with many roles including development and management of infrastructure, sanitation, relief and public health, development planning and approval, coordination between organisations, support for national development and policies and leading initiatives for the sustainable development of the parish. • Roles that are of particular importance to the fisheries industry are the development, management and maintenance of fish markets and facilities and coordinating collaboration among non-governmental organisations, community-based organisations and government agencies. 	<p>Improved ecosystem stewardship by fisherfolk can lead to greater partnership between fisherfolk organisations and Parish Councils, particularly around maintenance and management of fish markets and landing facilities, communities' social events and environmental initiatives. Leadership and support from fisherfolk can assist local government entities to meet development goals within parishes near the coast and ensure more buy-in and collaboration in decision-making.</p>
<p>Planning Institute of Jamaica (PIOJ), Ministry of Finance and the Public Service</p>	<ul style="list-style-type: none"> • Primary organisation responsible for planning and coordinating advancement of policies, plans and programmes for sustainable development (Examples of specific programmes which fisherfolk may be beneficiaries include the Community Renewal Programme (CRP), the GOJ/Adaptation Fund Programme and National Poverty Reduction Programme⁴⁹.) • Specific plans and policies monitored by the PIOJ which are relevant to the fisheries industry and fisherfolk include the Vision 2030 Jamaica National Development Plan, the Sustainable Development Goals and National Policy on Poverty.⁵⁰ 	<p>Improved ecosystem stewardship can assist the PIOJ in designing and developing policies, plans and programmes by highlighting issues affecting fishers and assisting in the creation of comprehensive solutions. This can also lead to more holistic solutions that address targets under international agreements such as the Sustainable Development Goals (SDGs).⁵¹</p>
<p>Social Development Commission (SDC), Ministry of Local Government and Community Development</p>	<ul style="list-style-type: none"> • Responsible for supporting the social, cultural and economic development of all Jamaicans. • Interest in strengthening community governance and improving the production of data to support the creation of interventions and fostering partnerships for implementation of interventions 	<p>Improved ecosystem stewardship by fisherfolk can benefit the SDC through increased willingness of fisherfolk to formalise organisations, register and follow guidelines and regulations governing these organisations. There may also be improved participation in and support for initiatives of the SDC, by fisherfolk, their families and communities.</p>

⁴⁸ Local government authorities in Jamaica include 12 Parish Councils, the Kingston and St. Andrew Corporation and the Portmore Municipal Council.

<https://www.localgovjamaica.gov.jm/roles-and-functions/>

⁴⁹ Government of Jamaica. 2020. Programmes. Kingston, Planning Institute of Jamaica. <https://www.pioj.gov.jm/programmes/>

⁵⁰ Government of Jamaica. 2020. Policies and Plans. Kingston, Planning Institute of Jamaica. <https://www.pioj.gov.jm/policies-plans/>

⁵¹ United Nations. 2020. Sustainable Development Goals. Department of Economic and Social Affairs. <https://sdgs.un.org/goals>

Department of Cooperatives and Friendly Societies	<ul style="list-style-type: none"> • Responsible for assisting cooperatives and friendly societies to achieve their overarching goal of economic and social benefit to their members • Provides guidance and advice on the improvement of systems of operation; inspection of accounts, assets and records; assists with audit preparation; training; and development of governance structures and technical guidance to Boards and ensures Act and Regulations⁵² are followed. 	<p>Improved ecosystem stewardship by fisherfolk can benefit the Department through increased willingness of fisherfolk to formalise organisations, following guidelines and regulations, participate in training and improve record keeping and administrative functions. There may also be improved participation and support for initiatives by fisherfolk, their families and communities.</p>
Civil Society		
Caribbean Coastal Area Management Foundation (CCAM)	<ul style="list-style-type: none"> • Plays a significant role in the conservation and sustainable development of the Portland Bight Protected Area • Interest in co-management of the natural resources in the protected area through the establishment of councils • The organisation has a Fisheries Management Programme which is geared to the recovery of fisheries resources in the Portland Bight Area, through a Portland Bight Fisheries Management Council, Special Fisheries Management Areas, enforcement and education and awareness activities. 	<p>CCAM can benefit from partnership with fisherfolk and fishing communities. Fisherfolk as ecosystem stewards should bring about better understanding of the mission and work carried out by CCAM and create more buy-in and support. Fisherfolk should be more willing to learn about and participate in conservation activities, which should enable them to become more involved in and vocal about the needs of fisherfolk and fisheries resources in project design and development.</p> <p>CCAM can also benefit from fisherfolk with capacity and drive to co-manage resources and who can advocate for shared concerns at the local and national levels. Fisherfolk would be motivated to engage with CCAM on issues related to management of fisheries resources, leading to greater participation / collaboration in consultations and implementation of project activities.</p>

⁵² Co-operative Societies Act 1950 and Friendly Society Act 1966

<p>Primary fisherfolk organisations such as:</p> <ul style="list-style-type: none"> • Bluefields Bay Fishermen’s Friendly Society (BBFFS) • Half Moon Bay Fishermen Co-operative • Old Harbour Bay Fishermen Co-Operative • Montego Bay Fishermen Co-Operative • Treasure Beach Fishers-folks Co-Operative • Rocky Point Fishermen Co-Operative • Gillings Gully Fishermen Co-operative • Alloa Fishermen Co-operative • Negril Fishermen Co-operative (Jamaica Fishermen Co-operative Union, 2015). 	<ul style="list-style-type: none"> • Represent and advocate for the well-being and issues of members and local fishing communities. • Interest in ensuring economic development of the sector on-behalf of their members/shareholders, including ensuring access to markets and sale of products, access to cold storage and fuel. • Role in fostering engagement of fishers in stewardship type activities 	<p>Fisherfolk organisations that adopt and promote more sustainable fishing practices among their membership are likely to have more sustainable and viable business enterprises. A positive reputation in this regard can potentially create opportunities for these organisations to form new partnerships with other organisations, having similar values, willing to provide capacity building and other resources to support development of these cooperatives.</p> <p>Fisherfolk would be motivated to engage on issues related to management of fisheries resources leading to greater participation / collaboration at cooperatives meetings, and various consultations</p>
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<p>Jamaica Fishermen Cooperative Union (JFCU)</p>	<ul style="list-style-type: none"> • JFCU is an umbrella organisation with a current membership of nine primary co-operatives • Interest in improving the socio-economic wellbeing of its membership. Provides training, access to fishing equipment at affordable prices, and building of vessels • Interest in promoting sustainable fishing practices and environmental protection and conservation of fisheries resources 	<p>Fishing cooperatives that adopt and promote more sustainable fishing practices among their membership are likely to have more sustainable and viable business enterprises. A positive reputation in this regard can potentially create opportunities for these cooperatives to form new partnerships with other organisations, having similar values, willing to provide capacity building and other resources to support development of these cooperatives.</p> <p>Fisherfolk would be motivated to engage on issues related to management of fisheries resources leading to greater participation / collaboration at cooperatives meetings, and various consultations. As an umbrella organisation, JFCU is able to positively influence its members and non-members to learn and participate in ecosystem stewardship through the various activities and capacity building initiatives. For example, it can be done through the fisherfolk retreat held yearly by the JFCU.</p>
<p>Food for the Poor Jamaica (FFTP)</p>	<ul style="list-style-type: none"> • The organisation’s main goal is to ensure that all persons in Jamaica have improved health, economic, social and spiritual well-being through relief efforts and through the implementation of work programmes in food, medicine, water, sanitation, housing agriculture, education, outreach and development of micro-enterprise. They have a significant role in implementation of interventions to support fisherfolk through their fishing programme as part of their mandate. • Role in assisting fisherfolk with accessing on the ground resources for building of boat sheds, vessels and formalising groups through the Department of Cooperatives and Friendly Societies 	<p>Food for the Poor can benefit from partnerships with fisherfolk and fishing communities. Fisherfolk as ecosystem stewards will bring about better understanding of the mission and work carried out by the organisation and create more buy-in and support. Fisherfolk will be more willing to learn about and participate in alternative livelihood and organisational development activities and it will enable them to become more involved in and vocal about the needs of fisherfolk and fisheries resources.</p>

Jamaica Environmental Trust (JET)	<ul style="list-style-type: none"> • Interest in protecting and conserving the natural resources of Jamaica through advocacy and education 	<p>Jamaica Environmental Trust can benefit from partnership with fisherfolk and fishing communities. Fisherfolk as ecosystem stewards will bring about better understanding of the mission and work carried out by the Trust and create more buy-in and support.</p> <p>Fisherfolk will be more willing to learn about and participate in conservation activities, which will enable them to become more involved in and vocal about the needs of fisherfolk and fisheries resources in project design and development.</p> <p>Fisherfolk would be motivated to engage with the Trust on issues related to management of fisheries resources, leading to greater participation / collaboration in consultations and implementation of project activities.</p>
Private sector		
Industrial exporters and processors	Provide processing, storage and marketing facilities for fisherfolk and processing and marketing of fish and fish products	<p>Sustainable catch and reduced overexploitation of fishery resources by fisherfolk could contribute to reduced market gluts and the subsequent financial burden on the Corporation, which relies on public funds, to provide inputs such as ice and fish storage facilities.</p> <p>Increased collaboration with private sector entities as it relates to alternative livelihoods.</p> <p>Increased revenues from improved long-term sustainable supply to market.</p>
Tourism industry	<p>The wide range of stakeholders in the tourism industry, that is, hotels, restaurants, tour operators, sport/charter fishing operators, and others, are a part of the fishery value chain of Jamaica. They are buyers or consumers of fishery product generating demand and creating local markets for seafood.</p> <p>The role is important in revenue generation and sustainability of the sector.</p>	<p>The tourism industry can benefit from value addition to fisheries products, as fish and other seafood are harvested and sold sustainably. It can become part of the businesses brand, and can contribute through corporate social responsibility, to further propel sustainable development of the industry.</p>

Appendix 5- Programmes and initiatives providing support and resources to fisherfolk and fisherfolk organisations in country

Name of programme/initiative	Description of programme/initiative	Organisation delivering programme/initiative	Organisation type
Materials, equipment and technology			
Fishing programme	Through this programme fisherfolk are provided with: <ul style="list-style-type: none"> • Boats • Medical care and equipment • Fishing gear • Gear sheds • Fish processing facilities • Fish aggregating devices (FADs) 	Food for the Poor Jamaica	Civil society
Services provided	Through the JFCU, licensed fishers and member organisations can access fishing equipment including: <ul style="list-style-type: none"> • imported fishing tackles • mesh wire • netting • baits • fibre-glass material • lines • safety equipment • marine ply • fishing boats and materials to build and repair fishing boats • credit to it members through the primary cooperatives 	JFCU	Civil society – Fisherfolk organisation
Corporate social responsibility	This company supplies fishing equipment to operators at the Salem Fishing Beach	Vivier Pharma	Private sector
Promoting Community Based Climate Resilience in the Fisheries Sector ⁵³ - Pilot Project for Climate Change Resilience (PPCR)	The project supports the development of alternative livelihoods through: <ul style="list-style-type: none"> • the establishment of a fish farm cluster in selected communities with technical inputs such as fingerlings and forming partnership with existing aquaculture businesses to provide technical and material support • supporting coastal mariculture/polyculture • research and development of the artisanal long-line fishery for offshore pelagics 	Government of Jamaica, Inter-American Development Bank (IDB) And the World Bank	Government and Inter-governmental organisations

⁵³ <https://www.worldbank.org/en/news/loans-credits/2018/03/07/jamaica-promoting-community-based-climate-resilience-in-the-fisheries-sector-project>

	<ul style="list-style-type: none"> Financial resources are not given directly to fisherfolk, but funding is being provided through four components covering policy and regulatory framework strengthening; alternative livelihoods; aquaculture and sustainable livelihoods; capacity building and training; and monitoring and evaluation. 		
Regular work programme of the Aquaculture Unit of the NFA	<p>Farmers can benefit from:</p> <ul style="list-style-type: none"> Work with farmers to access concessions and funding through other agencies like the Rural Agricultural Development Authority Research and development in aquaculture and mariculture Extension services which include site evaluations and cost/return analysis Sale of ornamental and tilapia seedstock Rental of equipment such as nets, tanks and pumps 	Aquaculture Branch (NFA)	Government
Finance			
Fisheries Management and Development Fund	According to the Conch Levey Act (2009) "The resources of the fund shall be used to facilitate the sustainable management and development of the fisheries sector".	Fisheries Management and Development Fund Board	Government
Global Environment Facility (GEF) Small Grants Programme (SGP)	<p>The GEF SGP has funded several projects involving fishers and fisheries in Jamaica, covering areas such as capacity building, training, fish sanctuary and ecosystem protection, sustainable financing, protected area management. Two examples of projects include:</p> <ul style="list-style-type: none"> Enhancing the Conservation Mechanisms of the Marine Ecosystems in Jamaica through Fisher-Controlled Sanctuaries- The Oracabessa Marine Trust Biodiversity Restoration in the Portland Blight Protected Area through Community Engagement- C-CAM 	GEF	Inter-governmental arrangement/facility
Tourism Enhancement Fund	Fisherfolk may be beneficiaries of projects or funding developed through the Masterplan for Sustainable	Ministry of Tourism	Government

	Tourism Development, which the fund promotes. The Masterplan objectives target community-based development, local support and sustainability, inclusivity in the industry, and preservation of the natural resources.		
Fisheries Programme	Through donations given to the organisation, direct funding is available to fishers for boat repair, and materials to build gear sheds and processing facilities.	Food for the Poor Jamaica	Civil society
Benefits as part of the membership of the co-operative	Benefits members can receive through the JFCU include: <ul style="list-style-type: none"> • A patronage refund for members who purchase materials or boats from the JFCU • Dividend shares, if there is a surplus • Scholarships- two are available to children of members, and one is available to employees of JFCU • JFCU provides credit to its members through the primary cooperatives 	JFCU	Civil society- FFO
Regular work programme of the Natural Resources Conservation Authority (NRCA)	Memorandum of understanding MOU with fisherfolk organisations for sea turtle monitoring	Natural Resources Conservation Authority (NRCA)	Government
Regular work programme of the Environmental Health Foundation (EHF)	Provides direct grants and grant income on behalf of donors. The Foundation funds projects covering capacity building, training, technical assistance projects, institutional strengthening, research and education and awareness.	EHF	Civil society
Environment Programme, Sandals Foundation	The Sandals Foundation has funded environmental conservation and sustainable projects in Jamaica, including: <ul style="list-style-type: none"> • coral conservation in Boscobel, Bluefield's and Whitehouse for fish population recovery and supporting ecotourism livelihoods • Fish sanctuaries like the Whitehouse Fish Sanctuary and the Boscobel Marine Sanctuary 	Sandals Resorts International	Private sector

Caribbean Catastrophe Risk Insurance Facility (CCRIF) Small Grants Programme ⁵⁴	The Small Grants Programme funds projects on climate change adaptation, capacity building and training, and environmental management, which addresses vulnerability of communities.	CCRIF	Multi-country arrangement
Skills and knowledge			
Regular work programme of the Jamaica Defence Force Coast Guard	Safety at sea training	Coast Guard	Government
Fisheries Management Programme	CCAM has provided: <ul style="list-style-type: none"> • mentorship • training • boat handling • CPR and first aid • safety at sea • enforcement 	CCAM	Civil society
Regular work programme of NEPA	National Environmental and Planning Agency (NEPA) carries out training in several areas including: <ul style="list-style-type: none"> • game warden • lifeguard • coral gardening • beach erosion • first responders for marine and freshwater pollution 	NEPA	Government
Regular work programme of the JFCU	The JFCU organises and hosts retreats with all fisherfolk around Jamaica where they learn about and discuss issues surrounding the management of fisheries resources, licenses, promoting sustainable practices (such as complying with open season and not poaching)	JFCU	Civil society
Pilot Project for Climate Change Resilience (PPCR)	As part of component four of the project fisherfolk are/will be trained in fishing with artisanal long line for offshore pelagics. Component three also provides training, capacity building, education and awareness initiatives and organisational strengthening.	Government of Jamaica, IDB and World Bank	Government and Inter-governmental organisations
Regular work programme of the Aquaculture Unit	The Aquaculture Unit provides training in: <ul style="list-style-type: none"> • tilapia production • ornamental fish production • data collection 	Aquaculture Unit, NFA	Government

⁵⁴ <https://www.ccrif.org/en/ccrif-small-grants-programme>

	<ul style="list-style-type: none"> • water quality testing (safe water usage for the production of tilapia) 		
Conservation Projects as part of the regular work programme on Jamaica Environmental Trust (JET) ⁵⁵	<p>Support provided by the JET include:</p> <ul style="list-style-type: none"> • Sea turtle monitoring • Management, monitoring and education and awareness around the South West Cay Especial Fisheries Conservation Area • Better beach management 	JET	Civil society
Various projects of the Bluefields Bay Fishermen's Friendly Society (BBFFS)	<p>Under several projects fisherfolk have/had access to:</p> <ul style="list-style-type: none"> • Training in honey production, entrepreneurship, sea turtle monitoring and alternative livelihoods • Revitalisation of the Bluefields Marketplace • Through Food for the Poor, fibreglass boats, gear, freezers, office, office equipment • Housing and electricity 	BBFFS	Civil society
Regular work programme of the Jamaica Constabulary Force Marine Division	Disaster Preparedness	Marine Police	Government
Courses taught at the Caribbean Maritime University (CMU) ⁵⁶	<p>Some courses and programmes offered here which fisherfolk can access are:</p> <ul style="list-style-type: none"> • navigation • boat handling • safety training • first aid 	Caribbean Maritime University	Academia
Fishing programme	<p>The organisation provides training on:</p> <ul style="list-style-type: none"> • first aid • safety at sea • sustainable fisheries • fisheries as a business • fishing value chain • boat handling • deep line fishing • alternative livelihoods such craft, livestock and honey • data collection 	Food for the Poor Jamaica	Civil society
Regular work programme of the	The Department offers assistance and training in:	Department of	Government

⁵⁵ <https://www.jamentrust.org/pedro-bank/>



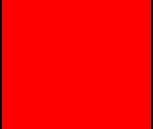
⁵⁶ <https://srs.cmu.edu.jm/page/homepage>

Department of Cooperatives and Friendly Societies	<ul style="list-style-type: none"> • Formation of groups • Training in record management • Secretarial/administrative tasks 	Cooperatives and Friendly Societies	
Regular work programme of the NFA	The Authority provides training in: <ul style="list-style-type: none"> • Formation of fishing groups • Training of fisheries wardens • Public education on Fisheries Act and Regulations 	NFA	Government
Regular work programme of the Ministry of Health (MoH)	The MoH is responsible for issuing food handling permits and provides food handling training	Ministry of Health	Government
Course offered by the Jamaica Red Cross (JRC) ⁵⁷	The JRC offers courses, which can be accessed by fisherfolk, in first aid with CPR.	Red Cross	Civil society
Regular work programme and small projects of the New Forum Fishing Village Friendly Society	This FFO is leads numerous social initiatives which fishers and their families can benefit from and be a part of including: <ul style="list-style-type: none"> • One-week summer camps • Health fairs • Football matches • Beach clean-ups • Education and awareness 	New Forum Fishing Village Friendly Society	Civil society-FFO

⁵⁷ <https://www.jamaicaredcross.org/about-us/who-we-are>

Appendix 6- Organisational assessment for the national fisheries authority of Jamaica

Each capacity area is also given an overall ranking based on the findings using a traffic light rating system, where:

	Indicates that the agency is effectively supporting ecosystem stewardship by fisherfolk and their organisations in the capacity area, with non-critical gaps to be addressed
	Indicates that the agency is adequately supporting ecosystem stewardship by fisherfolk and their organisations in the capacity area, but there are some critical gaps to be addressed
	Indicates that the agency factor is not adequately supporting ecosystem stewardship by fisherfolk and their organisations in the capacity area and there are critical gaps to be addressed

Section	Evaluation statement	Response provided by agency	Overall ranking for section based on responses	Gaps/Areas for strengthening
Vision, Mandate and Culture	Organisation has a vision statement that is supportive of /promotes ecosystem stewardship by fisherfolk	Yes		<ul style="list-style-type: none"> EAF may not be mainstreamed in the culture of the organisation given that the legislation is recent, and actions under this new legislation are still being implemented or ongoing. NFA staff should receive regular training and capacity building in EAF, ecosystem stewardship and other areas to support the advancement of sustainability in the sector.
	Organisation's mandate supports ecosystem stewardship by fisherfolk	Yes		
Explanatory Notes provided by agency: <ul style="list-style-type: none"> The organisation's vision statement indicates that it will promote sustainable and viable capture fisheries and aquaculture industries. The organisation is guided by the new Fisheries Act (2018), which includes as a guiding principle that, to the extent practicable, stakeholder participation in the management of fishery and aquaculture resources shall be promoted. Core values/beliefs that the organisation identifies as its culture are: <ul style="list-style-type: none"> ecosystem stewardship by fisherfolk is important for sustainable use of fisheries and marine resources fisherfolk can be effective ecosystem stewards fisherfolk should be included in decisions made about how fisheries and marine resources are managed values, local and/or traditional knowledge held by fisherfolk 				
Practices	Organisation has a clear process for including opinions of fisherfolk in decisions made about fisheries and marine resources	Yes		<ul style="list-style-type: none"> There is a clear process for inclusion of fisherfolk in decision-making through the National Fisheries Advisory Council (NFAC). They are usually appointed as an individual and may not necessarily represent all the needs of fisherfolk at large. This can be addressed by the selection of representatives of FFOs to sit on the NFAC or asking individuals
	Organisation regularly and systematically includes fisherfolk's input in decisions about how fisheries and marine resources are managed	Yes		
	Organisation regularly partners/collaborates with fisherfolk and their organisations for fisheries management initiatives	Yes		

	Organisation regularly facilitates collaboration/partnerships between fisherfolk and other fisheries and marine stakeholders	Yes		<p>appointed to advocate on behalf of issues faced by the sector and FFOs.</p> <ul style="list-style-type: none"> • Other mechanisms for fisherfolk to share their opinions on decisions and to regularly input in the decision-making needs can be through interaction with the NFA, but the process and regularity of this unclear, and should be defined. • The NFA does not have a dedicated website to share, store and access information, documents or data, though there is a webpage as part of the ministry's website. It is unclear if the NFA has a strategic communications strategy. • The agency does not explicitly highlight fisherfolk advocacy and ecosystem stewardship. • Due to Jamaica's size and the number of formal and informal landing sites,, it may be difficult for the NFA to collaborate with some fisherfolk or fishing communities. Most of their collaboration may be focused on FFOs based around fish sanctuaries or MPAs and the JFCU membership.
	<p>Explanatory notes provided by agency:</p> <ul style="list-style-type: none"> • The NFA has a clear process for inclusion of fisherfolk opinions through the establishment of a National Fisheries Advisory Council by the new Fisheries Act (2018), with sector stakeholders including representation from small-scale and industrial fishers. The Council is a mechanism whereby fishers and other stakeholders can consult, discuss and present their views on policy and resource management issues to policy makers. • Fisherfolk opinions are regularly and systematically included in decisions about how fisheries and marine resources are managed through the NFAC mentioned above. • Examples of activities where the NFA partnered and collaborated with fisherfolk, include Eco-Reef Planting, SFCA, coral gardening and conch and lobster fisheries management. • Examples of activities where partnership and collaboration were facilitated by the NFA between fisherfolk, and other stakeholders include: <ul style="list-style-type: none"> ○ Marine Police - conducting safety at sea training ○ Coast Guard – monitoring and enforcement of the lobster and conch close seasons ○ Jamaica Environment Trust (JET) - Better Beach Management Training ○ Yamaha Engines – conducting of engine maintenance training 			
Knowledge and Skills	Technical staff have knowledge of EAF	Yes		<ul style="list-style-type: none"> • The NFA has limited ability to assist/provide training in organisational development and planning of fisherfolk organisations and other associated skills.
	Technical staff have specialist knowledge on ecosystems, their functions and ecosystem changes	Yes		
	Technical staff understand socio-economic context of fisheries and marine resource use by fisherfolk and other stakeholders	Yes		

Technical staff has the skills to conduct socio-economic assessments	Yes		<ul style="list-style-type: none"> • There is also limited knowledge among staff on how fisherfolk organisations operate and the internal issues they face. A greater understanding of the context, socio-economic, cultural and ecological, in which they operate is needed. • Staff has limited training in fundraising and participatory processes to assist fisherfolk. • Staff should have equal opportunities for continually improving their skillsets.
Technical staff have knowledge of aquaculture and other alternative or complementary livelihood options for which fisherfolk may be well suited	Yes		
Technical staff have knowledge of how fisherfolk organisations function, including key challenges that they may face and how they can be supported to resolve them	Somewhat		
The organisation has the capacity to provide training for fisherfolk in different technical areas and organisational strengthening (these may include soft skills such as facilitation, development of training material, etc.)	No		
Technical staff has the skills to assist fisherfolk with mobilising funding for ecosystem stewardship activities and initiatives	Yes		
Technical staff has skills in participatory approaches (e.g., participatory monitoring and evaluation, participatory planning, participatory management etc.)	Yes		
Technical staff has communication skills needed to effectively communicate with a range of stakeholders including fisherfolk	Yes		
Organisation provides or accesses training and other kinds of capacity building for staff to regularly improve their technical knowledge and skills	Yes		
Explanatory notes provided by agency: <ul style="list-style-type: none"> • Staff has gained knowledge of EAF through postgraduate training and the implementation of projects and activities intended to encourage and integrate EAF. • Technical staff has special knowledge on ecosystems, their functions and ecosystem changes through training in natural sciences. • Technical staff is skilled in conducting socio-economic assessments, but more training is welcomed. 			

	<ul style="list-style-type: none"> • Technical staff has been promoting alternative livelihoods options to fisherfolk, such as coral reef gardening, aquaculture and mariculture (such as oyster culture) • Not all technical staff is aware of how fisherfolk organisations function, but most know of key challenges they may face and how they can be supported to resolve them. They work with fisherfolk to address some of these challenges through the development of projects and by encouraging participatory learning and action. • Although, staff has skills in mobilising funding for ecosystem stewardship activity, more training is needed for proposal writing and project development. • Staff has the skills to facilitate participatory processes and approaches, but the number of trained persons is inadequate. <p>Staff participates in various capacity building and training such as data analysis, GIS mapping and ghost fishing. The NFA staff is always trying to upgrade themselves in different areas of study.</p>		
Resources	The organisation provides funding assistance to fisherfolk to support ecosystem stewardship activities or initiatives	Yes	<ul style="list-style-type: none"> • The organisation lacks materials, equipment and technology that can be shared with fisherfolk to support ecosystem stewardship. • There is no dedicated website for fishers to access information, data and other necessary information. • The organisation facilitates access to tools, methods and good practices outside of the organisation. Staff at the NFA should have access to and knowledge of these. • The NFA, as mentioned before, does not have dedicated website to share information and resources on ecosystem stewardship. They do,
The organisation provides materials, equipment or technology to fisherfolk to support ecosystem stewardship activities or initiatives	No		
The organisation has access to tools, methods and good practices that can be used to support fisherfolk with ecosystem stewardship activities and initiatives	Yes		
The organisation provides access to or assists fisherfolk organisation with accessing networks or resources outside of itself (such as technical experts, funding, projects, etc.)	Yes		
The organisation has a dedicated website which can be used to share information and resources on ecosystem stewardship practices with fisherfolk	No		
Explanatory notes provided by agency:			

	<ul style="list-style-type: none"> • Funding assistance is provided to local community organisations to monitor and manage fish sanctuaries through specially developed fisheries management and development projects. • Tools, methods and good practices in supporting fisherfolk to undertake ecosystem stewardship through networking with other organisations to acquire the necessary resources. • The NFA assists fisherfolk in accessing networks and resources outside of itself by informing them of funding opportunities as they become available and providing technical assistance when needed. • The NFA does not have a dedicated website but has Facebook and Instagram pages, which are used to share information. They also share updates through WhatsApp groups. <p>The organisation has a trained social scientist on board dedicated to assisting fisherfolk in building their capacity in all areas of fisheries governance and successful group formation.</p>		<p>however, have active social media platforms like Facebook and Instagram.</p>
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