CONTRIBUTION 10.10

National Report on the Status of Fisheries and Aquaculture in JAMAICA

OVERVIEW

The National Fisheries Authority (NFA) of Jamaica, formerly the Fisheries Division is a transitioning agency within the Ministry of Agriculture, Fisheries and Mining. The NFA is responsible for the conservation and sustainable utilization of the Jamaican fisheries resources in a manner that ensures optimum social and economic benefits to the people of Jamaica.

- VISION: The NFA is a model of excellence in Capture Fisheries and Aquaculture Management and Development
- MISSION: To facilitate the sustainable development of the Jamaican fisheries sector, including aquaculture, through effective and efficient management, regulation, administration, and participatory governance for the benefit of all Jamaicans
- STRATEGIC OBJECTIVE: To improve, the economic, social, and ecological value of capture fisheries and aquaculture while increasing the value of fisheries contribution to GDP by 2026.

Jamaica has a land mass of 10,991 km^2, a coastline of 1,022 km and an exclusive economic zone (EEZ) of approximately 274,000 km^2 or 24.9 times its land mass (Figure 1). The fisheries sector is an important contributor to income generation, employment, foreign exchange earnings, food and nutrition security, social and economic stability, and alleviation of poverty. Many coastal communities depend on fishing as their primary source of income, which is passed down through many generations, not just as a livelihood but "a way of life". Locally, capture fisheries and aquaculture contribute to approximately 20% of the overall supply of fish and fish products, accounting for 0.52% of overall GDP in 2020. Fisheries also play an important role in the lives of women. Most are vendors and processors, but some are boat and gear owners.

CITATION: National Fisheries Authority, Jamaica, 2026. National Report on the Status of Fisheries and Aquaculture in Jamaica. Contribution 10.10, p 109-118 *IN* CRFM, 2026. Volume II: National Reports on the Status of Fisheries and Aquaculture. Presented at the CRFM 20th Anniversary Scientific Conference, 28-31 August 2023. CRFM Special Publication No. 37, CRFM Secretariat https://www.crfm.int/index.php?option=com_k2&view=item&id=964

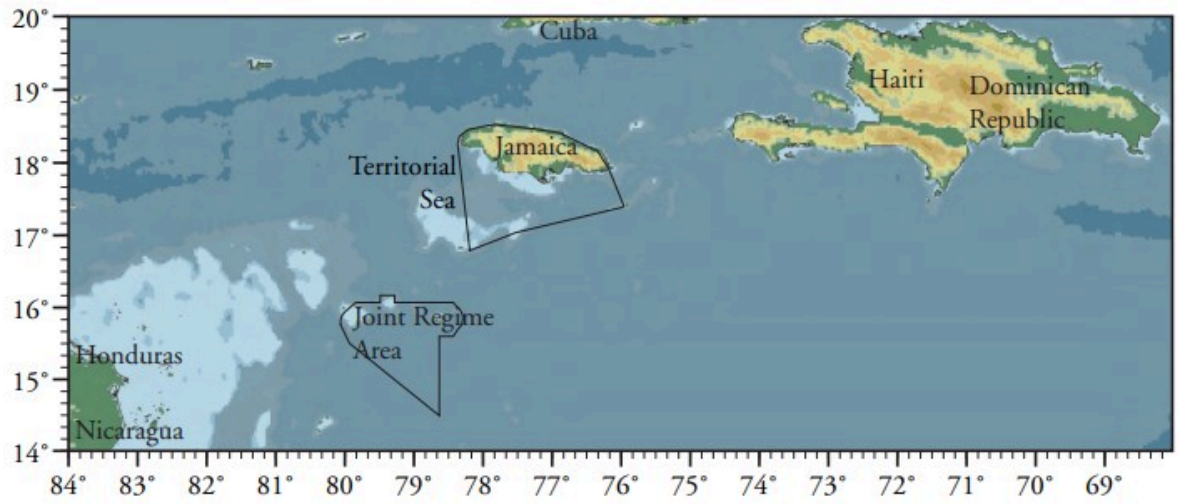

Figure 1. Regional position of Jamaica including delimited territorial waters and the Jamaica-Colombia Joint Regime Area.

1. FISHERIES SUB-SECTOR

The Jamaican Fisheries sector (Table 1) includes:

- Marine capture fisheries (inland fresh and brackish water, lagoons)
  - Industrial and Artisanal
- Aquaculture including the culture of finfish (predominantly Tilapia), shellfish and ornamental fish.
- Recreational (Sports Fishing includes tournaments)

Alongside the main sub-sectors of the fishing industry there is an industrial processing sector based on fresh products (marine or culture) mainly for export or sale to hotel chains and imported products (frozen and salted) along with a marketing structure for fresh and imported fish products. Suppliers and manufacturers of fishing vessels and engines, fishing gear, diving gear and other equipment and feed, for both capture fisheries and aquaculture also play an important role in the fisheries.

Marine capture fisheries occur inshore on the Island shelf and nine proximal banks, as well as on the offshore banks further south of Jamaica. Industrial fishing operations are excluded from the island-shelf. Historically, inshore areas supported the bulk of the fishery activities in terms of manpower and vessels. The major fishing gear used for reef fish is the Antillean-Z trap. Other common gear includes the gill nets, seine nets, hook-and-line, and spear guns. There is also some collection of crustaceans and molluscs by SCUBA, hoocha or skin divers.

Aquaculture operations in Jamaica can be classified into small, medium and large-scale commercial operations. The main fish farming activity is the semi-intensive production of hybrid

red tilapia in large earthen ponds filled with fresh water. The main production areas are on the south-central plains of Clarendon and St. Catherine with other areas including Hanover, Westmoreland, St. Elizabeth, Trelawny, St. Ann and the eastern parishes of St. Thomas, Portland, and St. Mary. Expansion in the aquaculture sector to include other species such as freshwater prawn (*Macrobrachium rosenbergii*), white shrimp (*Penaeus vannamei*) and various varieties and strains of tilapia is ongoing. With the increased demand for fish, there has been interest in diversifying the food fish component of aquaculture to include local production of *Pangasius* sp. (Basa). A wide variety of ornamental fish species are also cultured locally.

Table 1. The Jamaican fisheries sub-sector.

Fisheries	Sector	Gear
Capture	**Industrial** Conch Lobster Sea Cucumber	 Diving Traps Diving
	Artisanal Finfish Shrimp Conch Lobster Sea Moss Oyster	Diving (Free Lung, Hoocha, SCUBA) Traps (z-traps, lobster traps) Nets (China, trammel) Hook and Line (Palanka, longline)
Aquaculture	Tilapia	Culture
Recreational	Tournaments Sports Fishing	Long line Diving

2. PRODUCTION

Data and statistical information are collected by Data Collection and Extension Officers of the NFA. The objective of the data acquisition system is to collect basic fisheries data by sampling representative landing sites in Jamaica. The monitoring system provides accurate estimates on catches landed, fishing effort, catch by fishing ground, value of the catch and biological data.

Most fishermen in Jamaica are artisanal fishermen whose catch are landed on the various fishing beaches around the Island. The production for this sector is well documented and trends for the last ten years (Figure 2) indicate a gradual decrease in the latter years. Aquaculture production for the last decade is also represented with production figures for Tilapia showing only a slight increase.

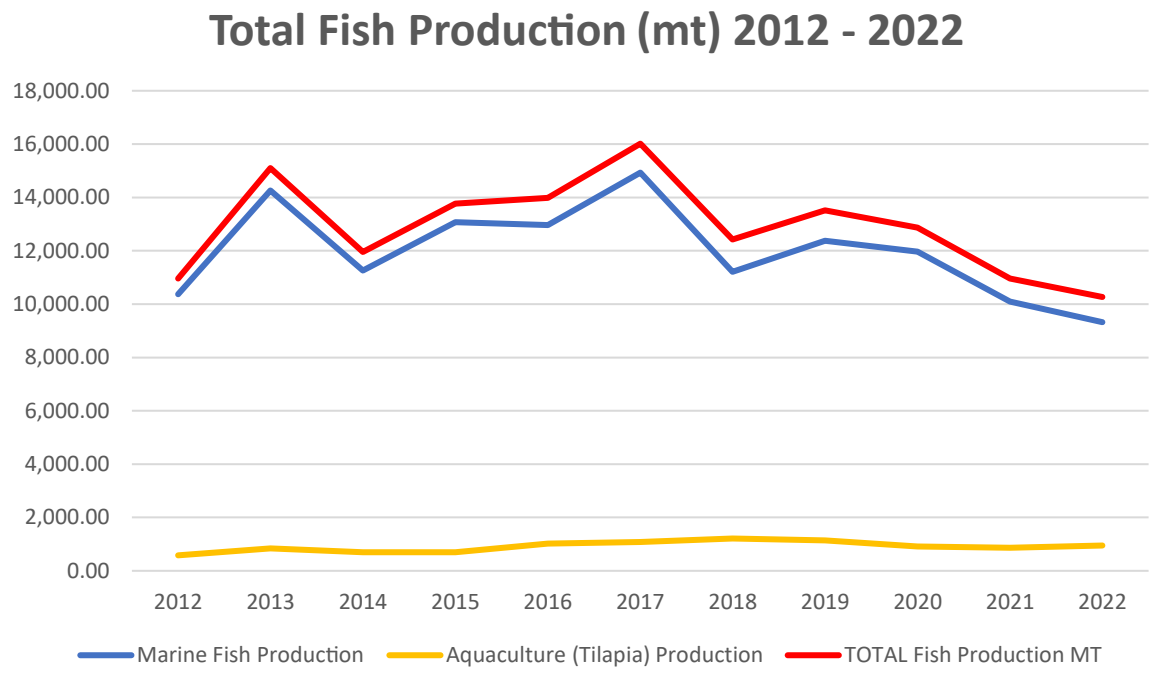

Figure 2. Fish production for the marine artisanal sector and aquaculture from 2012-2022

The artisanal fish production is diverse (Figure 3), and for the period January 2022 to March 2023, over 270 species were recorded by the Data Collectors at landing sites sampled. Reef fish accounted for 47% of the marine finfish landings and 10% of landings was mixed, consisting of shrimp, crabs, oysters, lobsters, and conch. In 2022, Jamaica produced 10,267.99 mt of fish, a small decrease from the 2021 production figure of 10, 962.92 mt. This included aquaculture production (Table 2), with an estimated value of ~17.5 billion Jamaican dollars.

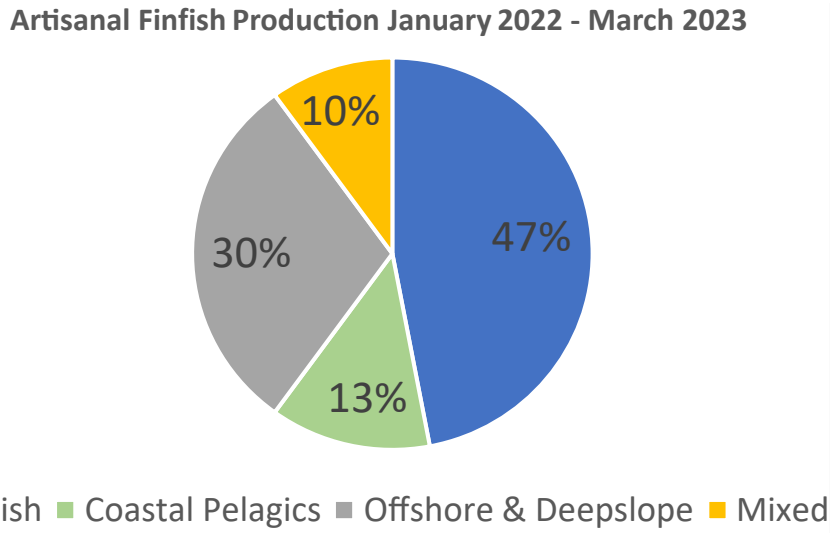

Figure 3. Artisanal finfish production by species group, January 2022 – March 2023

Table 2. Total finfish production for 2022

Fishery	Production (mt)	Estimated Value J$	Estimated Value US$
Marine	9,323.70	16,505,857,195.30	107,451,694.50
Aquaculture	944.29	999,265,488.00	6,505,211.17
TOTAL	**10,267.99**	**17,505,122,683.30**	**113,956,905.67**

The Industrial Fisheries are mainly export oriented, and as such the landings are reported by the Fishers as a condition of their licenses. The Queen conch and sea cucumber fisheries are quota based where a total allowable catch (TAC) is established based on scientific assessments of the status of the species population within the designated harvesting areas. The value in US dollars for total fish production for Jamaica between 2018 and 2020 (Table 3) inclusive of the Industrial fisheries, was on average 96.5 million US dollars.

Table 3. Value of domestic landings in US dollars at the 2001 fixed price

		2018	2019	2020	2021
Marine Fish Production Value	Artisanal (finfish)	76,286,927.31	88,225,984.02	85,526,578.36	68,809,897.45
	Conch (Industrial)	7,165,015.00	0.00	0.00	5,015,510.50
	Lobster (Industrial)	4,217,096.00	4,037,270.00	4,102,140.55	5,289,000.00
	Sea Cucumber (Industry)	80,000.00	342,160.00	0.00	49,826.27
	Total Marine Fish Production Value	**87,749,038.31**	**92,605,414.02**	**89,628,718.92**	**79,164,234.22**
Aquaculture Production Value	Aquaculture (Tilapia) Production value	7,218,148.55	6,824,213.82	5,427,168.17	5,173,890.40
TOTAL Fish Production Value		**94,967,186.86**	**99,429,627.84**	**95,055,887.08**	**84,338,124.63**

With most of the marine species in the Jamaican fishery sector being fully exploited there is an increased demand for fishery products which are affordable and of good nutritional value to supplement the diet of the lower socioeconomic groups. Between 2018 and 2020 the per capita consumption was 17.16 kg/capita. This demand for fishery products has therefore caused an imbalance in the sector as imports of fish and fishery products has far surpassed our exports (Table 4). The Statistical Institute of Jamaica (STATIN) has reported that 5,717,434 kg of saltfish was imported in 2019 costing Jamaica 2.9 billion dollars.

Table 4. Import and export of fish and fishery products (2019).

Value	Import	Export	Balance of Trade	Year
MT	37,257.47	993.51	**36,263.95**	2019
J$	16,548,633,715.11	2,020,465,146.37	**14,528,168,568.74**	2020
US$	116,577,817.06	14,196,301	**102,381,515.66**	2020

3. INDUSTRY OPERATIONS

From the mid-1990s to 2022, the NFA has issued over 26,000 individual licenses to Fishers and had 8,695 registered vessels operating from 87 fishing beaches Island wide and two cays located on Pedro Bank. However, in 2022, the NFA issued 5,687 individual fishing licenses, 20% of which were renewals, and 773 licenses were issued for vessels, representing renewals and new entrants. The fishing industry is dominated by artisanal fishers operating from open canoe-style boats made from wood or a mixture of wood and fiberglass propelled by outboard engines (25-75HP), or oars. These canoes range in size from 4 m – 9 m with an average size of 8.4 m. The Industrial Fishers utilize larger decked vessels made of steel hull with a total length over all of 25 m -30 m to target mainly queen conch and spiny lobsters.

The aquaculture sector saw a 7.7% increase in tilapia production area from 677.15 acres in 2021 to 729.56 acres of the possible 874.66 acres under production in 2022. A total of 117 farmers were registered in 2022 with 18 new entrants. The total aquaculture production for 2022 was 944.29 mt of tilapia, an 8.6% increase from 2021.

4. MANAGEMENT MEASURES

The Goals of the National Fisheries and Aquaculture policy are to:

- Ensure sustainable development and management of capture fisheries and aquaculture.
- Promote greater efficiency and improved competitiveness of national capture fisheries and aquaculture enterprises.
- Promote economic and social development of fishers, fish farmers and fishing communities (coastal and riparian).
- Forge partnerships with stakeholders in the development and management of capture fisheries and aquaculture, as well as ensuring transparency and accountability in the governance of capture and culture fisheries resources; and
- Improve the contribution of the fisheries and aquaculture sector to the socio-economic well-being of Jamaica.

The Capture Fisheries & Aquaculture Divisions guided by the Fisheries Act 2018 and policies, have implemented strategies to address the sustainable exploitation in the artisanal multispecies reef fisheries and other sub-sectors. In keeping with this objective, all single species fisheries are managed using limited entry measures, closed seasons, and minimum sizes. Catch Quota systems are also used for queen conch and sea cucumber fisheries.

The Compliance Branch within the Fisheries Compliance Licensing and Statistics Division (FCLS) is responsible for planning and implementing fisheries and aquaculture compliance, and enforcement programmes for the NFA. Joint enforcement inspections are also done in collaboration with the Jamaica Constabulary Force (JCF), Marine Division.

5. INSTITUTIONAL AND LEGAL FRAMEWORK

The Jamaican Fishing Industry is governed by several local and international laws and conventions along with various multilateral fisheries agreements, however the main piece of legislation that provides the framework for the sustainable management of fishing activities in Jamaica is the Fisheries Act 2018. In addition to the Fisheries Act, 2018, the fisheries sector and by extension the NFA, is guided by other critical legislation as set out in Table 5.

Table 5. Main national legislative instruments and responsible agencies

Legislation	Agency	Roles/ Responsibility
Fishing Industry Act, 2018	NFA	Strengthen fisheries management
Pedro and Morant Cays Act, 1907	NFA	Prohibition of unauthorized fishing
Exclusive Economic Zone Act, 1991	National Environment and Planning Agency (NEPA)	Exploration and exploitation of resources within the zone
Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000	NEPA	Protection, conservation and management of endangered species
Maritime Areas Act, 1996	Maritime Authority of Jamaica (MAJ)	Declaration of archipelagic state
Aquaculture Inland and Marine Products and By-Products (Inspection and Licensing) Act, 2013	Veterinary Services Division (VSD)	Monitoring, inspection and certification of marine products and by-products intended for export

6. RESEARCH, EDUCATION AND TRAINING

Several research and training initiatives are proposed in order to build capacity at the NFA as well as empower and strengthen Fishers. These include but are not limited to:

- Safety at sea training for Fishers in basic seamanship, coastal navigation and SCUBA diving
- Fisheries Marine VHF Communication System (radiotelephony)
- Resqunit (for location and retrieval of fishing gear)
- Introduction of climate smart technologies (Fish Aggregating Devices)

Research is usually done in collaboration with regional organisations such as UWI, CRFM, WECAFC and others to support the activities for the duration of the project. Capture Fisheries and Aquaculture are currently assessing the status of the fisheries as well as in the process of expansion, so a few research activities listed in (Table 6) are underway or near completion.

Table 6. Research Activities at NFA

Research	**Outcomes**
Queen Conch Survey	Determination of National Total Allowable Catch (NTAC)
Sea Cucumber Survey	Abundances / NTAC
Lobster Survey	Abundances / NTAC / Effort Control
Sea Moss	Spatial extent on locations for commercial species
Oysters	Development and support for local production
Feed Trials	Local waste/ rendered material to provide feed solutions
Basa Spawning	To establish local production

7. KEY DEVELOPMENT TRENDS OVER THE LAST 20 YEARS

Some key developments over the years (Table 7) have impacted the fishing industry and governance of the resources and users of the resources. The effect of overexploitation through open access to fisheries and the growing demand for fisheries products have created opportunities for expansion (aquaculture), co-management (sanctuaries), collaboration (research/ Universities) and other ways to conserve and sustainably manage the resources.

Table 7. Key Developmental Trends from 2003 to 2023

Transitioning of the NFA to a Statutory Body	Increased support for fisheries conservation and habitat restoration	Strengthening legislative framework	Development of New / Under-utilised Fisheries and Aquaculture (incl. Mariculture)
Promoting Climate Smart Technologies and alternate livelihoods in fisheries	Revision of the National Sampling plan	Promotion of good Corporate and Fisheries Governance	Marketing and Promotion of fishery products especially aquaculture products

8. PROJECTIONS FOR FUTURE ADVANCEMENT

The NFA has embarked on several activities to improve the fisheries sector. Some of these activities will be done in collaboration with other organisations or as projects, depending on source of funding and support. They are:

- Modernization of ICT infrastructure and operations to support efficient data collection, management and information dissemination, and licensing and registration services.
- Improvement of Fishing Beach Infrastructure to support proper post-harvest handling, and safety in the workplace for fishers and consumers.
- Support to Blue Economy Initiatives (Small scale longline/ FAD, Mariculture development) including partnering with and/or joining Regional and International Entities such as ICCAT.
- Promoting climate resilient fishing practices
- Fishery based eco-tourism (including Fish Sanctuary adventure diving / snorkeling, sport fishing charters and fishing tournaments)
- Aquaculture Infrastructure support to include irrigation systems and hatcheries.
- Facilitation of the availability of quality fish feeds
- Introduce and demonstrate Recirculating Aquaculture Hatchery systems for local adoption.
- Growth in Aquaculture and Capture Fisheries (Expansion of non-traditional species, e.g., Irish Moss, Ornamental Fish and Oyster culture)
- Further develop and advance marine and aquaculture research capacities through acquisition of appropriate research vessels and lab infrastructure

- Further build out the Caribbean Hub of the Blue Justice Initiative in Jamaica, while increasing collaborative efforts with regional partners to combat IUU fishing.
- Introduction of Real Time Vessel monitoring and VHF radio communication systems for commercial fishing vessels to improve compliance and safety among fishers.

As with most if not all Small Island Developing States (SIDS), several challenges exist, the main one being, lack of resources, whether human resources or financing to support projects and procure necessary equipment. To have a world class fishing sector we also need to have the necessary infrastructure inclusive of personnel and resources to engage our stakeholders in meaningful ways. Mention must also be made of the effects of climate change leading to beach erosion, flash floods, sargassum blooms and extreme drought which affects fish species.