



NATIONAL FISHERIES AUTHORITY

STRATEGIC BUSINESS PLAN

2023/2024 – 2026/2027

Table of Contents

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS	3
MESSAGE FROM THE CHIEF EXECUTIVE OFFICER	4
1.0 SECTION A: Introduction and Overview	5
1.1 PURPOSE AND BACKGROUND.....	5
1.2 STRUCTURE OF THE NATIONAL FISHERIES AUTHORITY	6
1.3 MANDATE AND GOALS	7
1.4 CONTRIBUTION TO GOJ MEDIUM-TERM STRATEGIC PRIORITIES.....	7
2.0 Section B: Strategic Framework.....	8
2.1 Mission, Vision and Core Values	8
2.2 STRATEGIC PRIORITIES, OUTCOMES, STRATEGIC OBJECTIVES AND STRATEGIES.....	9
2.3 PROGRAMMES AND SUB-PROGRAMMES OF THE NFA	13
2.4 Vision of Success	14
3.0 SECTION C: SITUATIONAL ANALYSIS	15
3.1 Overview	15
3.2 SWOT ANALYSIS	18
3.3 PESTLE ANALYSIS.....	20
3.4 RISK ANALYSIS (See Annex B for Risk Register).....	22
3.5 STAKEHOLDER MATRIX (See Annex A for Stakeholder Register).....	23
3.6 STRATEGIC ISSUES AND CHALLENGES.....	24
3.7 CONCLUSION FROM STRATEGIC ANALYSIS.....	26
4.0 STRATEGY IMPLEMENTATION.....	27
NFA Sub-Programme: EXECUTIVE DIRECTION AND ADMINISTRATION.....	28

NFA Sub-Programme: AQUACULTURE	35
NFA Sub-Programme: CAPTURE FISHERIES	40
NFA Sub-Programme: FISHERIES COMPLIANCE, LICENSING AND STATISTICS.....	46
5.0 MEDIUM TERM FINANCIAL RESOURCE PLAN (Based on Ceiling Budget).....	51
6.0 HUMAN CAPACITY PLAN	52
ANNEX	53
ANNEX A: STAKEHOLDER REGISTER	53
ANNEX B: RISK REGISTER	60
ANNEX C: LOGIC MODEL	66
ANNEX D: MONITORING PLAN	67
ANNEX E EVALUATION PLAN.....	70
ANNEX F: PROCUREMENT PLAN	74
ANNEX G: DATA DICTIONARY FOR STRATEGIC OBJECTIVES	78

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

The first meeting of the Board of the National Fisheries Authority (NFA) in June 2020, signalled the operationalisation of the new statutory body pursuant to Section 6 of **The Fisheries Act, 2018**. This was the starting point for the transition from a Division to an Authority.

The fisheries sector, including both capture fisheries and aquaculture, requires efficient and effective management and sustainable development. The legislation which established the NFA, mandates that such management and development is done in accordance with internationally recognised norms and best practices. The NFA through this 2023 – 2027 Strategic Business Plan, has so positioned itself to meet that mandate by becoming a world-class entity that will secure the fisheries sector and build resilience therein.

The Board of Directors is in full support of the Goals, Vision, Mission and Core Values that have been articulated in the Strategic Plan. It is also recognised that the strategic objectives stemming from five critical strategic priorities, are aligned to the overall mandate of the Authority and once executed, will lead to its success. It is important however, for all staff members of the NFA to be fully committed to meeting these objectives as we seek to transform the sector into one that is recognised for its excellence and lauded for its achievements. To that end, there will need to be maximum efficiency for best returns, and the Board anticipates and is excited to be a part of the journey towards that end.

All the best to the NFA team as we chart a new and exciting course for the 2023 – 2027 strategic cycle.



.....
Lieutenant Commander George Overton (Retired)

Chairman of the Board

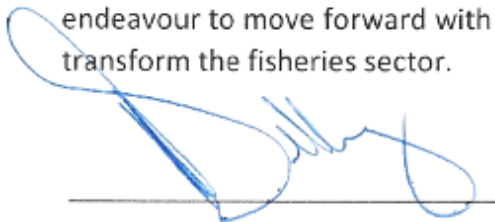


MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

The National Fisheries Authority, with its recent establishment as a statutory body, has its roots grounded in the work of the dedicated staff members of the Fisheries Division which operated under the Ministry of Agriculture and Fisheries. The passage of **The Fisheries Act, 2018** and subsequent operationalisation of the Authority in 2020, ushered in a new and exciting era for the fisheries sector in Jamaica. As the CEO of the Authority, I take great pride in being at the helm of a committed and passionate team, as we chart a more sustainably managed course for the fisheries sector.

This Strategic Business Plan for 2023 – 2027 represents the culmination of months of planning, discussions, debates, agreements, and disagreements by the senior management team, which has led to a sound strategic framework. In the face of much uncertainty regarding the ocean’s ability to sustainably provide food and jobs within the sector, it is critical that the Authority meets its mandate for managing and developing capture fisheries and aquaculture; this plan highlights the steps needed to get there.

Food and Nutritional Security; Sustainable Fisheries Management and Development; Good Corporate and Fisheries Governance; Climate Smart and Resilient Fisheries; and Economic and Social Viability of the Fisheries Sector, are the strategic priorities on which 10 strategic objectives are rooted. The plan highlights the outcomes and strategies associated with these priorities and clearly outlines these to increase the Authority’s accountability. I, therefore, invite our stakeholders – both internal and external, to examine these strategies and hold the NFA to account. The staff at the NFA is committed to what has been laid out in this plan and will endeavour to move forward with determination, excellence, and efficiency to meet our strategic objectives and transform the fisheries sector.



Dr Gavin Bellamy, JP.
Chief Executive Officer



1.0 SECTION A: Introduction and Overview

1.1 PURPOSE AND BACKGROUND

The National Fisheries Authority (NFA) was established as a body corporate, pursuant to Section 5(1) of the Fisheries Act, 2018, with the mandate being that the Authority will be responsible for the management and development of fisheries and aquaculture. The Authority is, therefore, the sole body with the responsibility of ensuring that there is conservation of Jamaica's fisheries, collection, compilation, and analysis of statistics for the sector, monitoring, control and enforcement of activities related to fisheries and aquaculture; as well as, granting of licences, authorisations and permits and allocation of fishing rights and quotas for all who intend to fish in Jamaica's waters. Prior to its establishment, the fisheries and aquaculture sectors were regulated by the Fisheries Division which was established in 1949 and as a government division, fell within the portfolio of the ministry with responsibility for Fisheries. Transitioning to a statutory body allows the NFA to regulate the fisheries and aquaculture sectors more independently within the structure of a strengthened legislative framework, enabled by the new Act.

At the highest level, the importance of strengthening the regulation of fisheries and aquaculture has long since been identified, with the National Development Plan: Vision 2030 (2009 – 2030) highlighting the threats facing the long-term development of Jamaica's marine fisheries such as over-fishing, habitat destruction and pollution. The sector is also faced with Illegal, Unreported and Unregulated (IUU) fishing within Jamaica's waters and these illegal activities are a direct threat to Jamaica's food and nutritional security.

This Strategic Business Plan for the NFA identifies the issues being experienced by the fisheries and aquaculture sectors and sets clear targets for addressing these, as well as meeting the needs of key stakeholders. As the Authority moves to fully transitioning to a statutory body, the plan highlights the timelines for key areas to be established. Some key areas of focus include compliance, enforcement and statistics, establishing fish sanctuaries, increasing seedstock for aquaculture and renovation of aquaculture ponds, as well as, drafting regulations for the Fisheries Act, 2018.

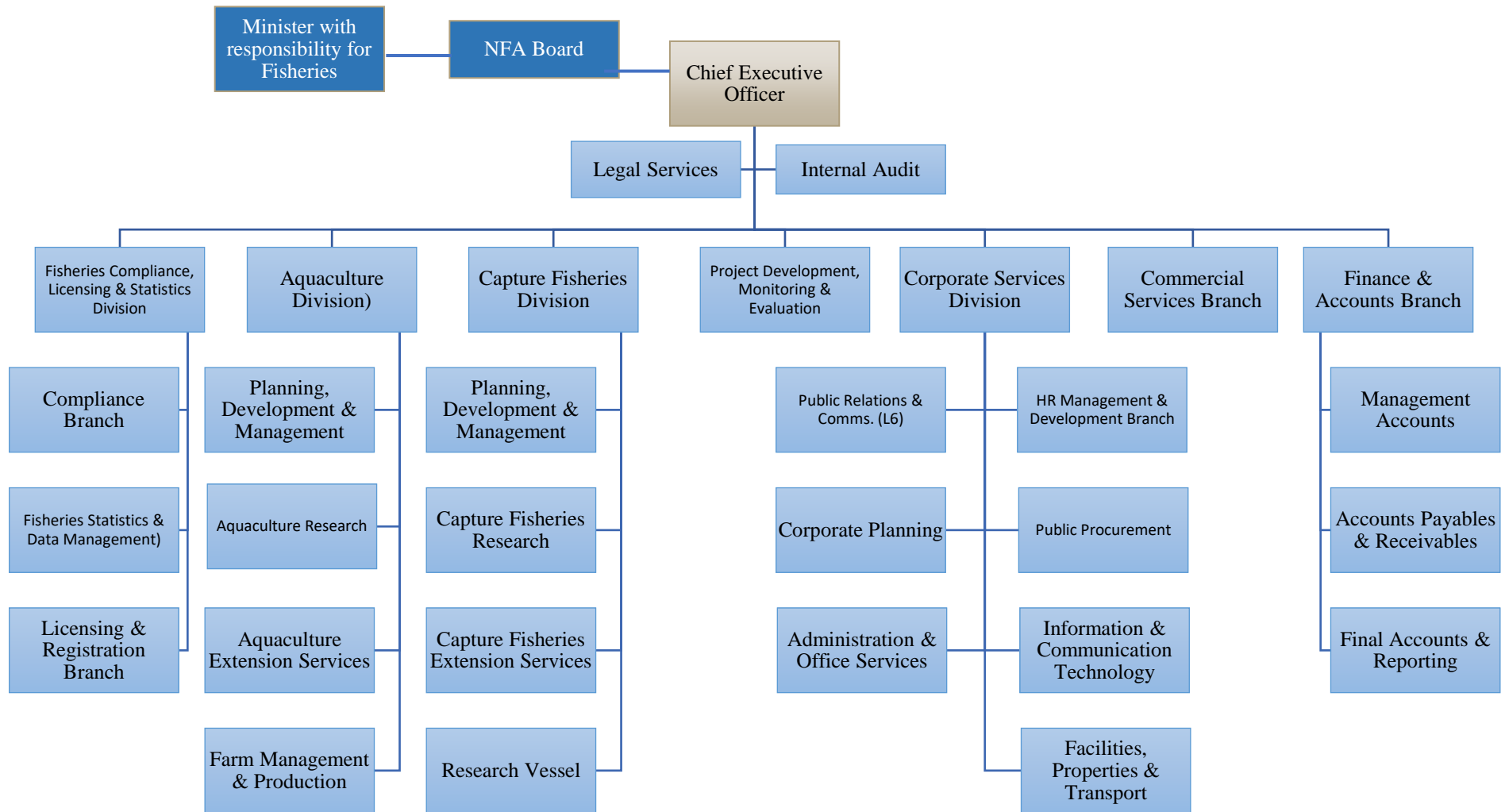
In addition to the Fisheries Act, 2018, the fisheries sector and by extension the NFA, is guided by other critical legislation such as the following:

- Pedro and Morant Cays Act, 1907
- Exclusive Economic Zone Act, 1991
- Maritime Areas Act, 1996
- Aquaculture Inland and Marine Products and By-Products (Inspection and Licensing) Act, 2013



1.2 STRUCTURE OF THE NATIONAL FISHERIES AUTHORITY

The NFA, with a staff complement of 290 persons, is governed by a Board which gives advice to the Minister with responsibility for fisheries, while the Chief Executive Officer is responsible for carrying out the functions and managing the operations of the Authority.



Organisational Structure is general and shows managers and middle managers.

1.3 MANDATE AND GOALS

MANDATE: To be responsible for the sustainable management and development of fisheries and aquaculture in accordance with the provisions of the Fisheries Act, 2018.

GOALS:

- To conserve and achieve optimal production of capture fisheries resources in Jamaica’s fisheries waters.
- To increase and diversify fish production through Aquaculture to increase food and nutritional security, and economic growth.
- To improve fish production and quality along our value chain to enable socio-economic benefits.
- The NFA will become a world-class, knowledge-driven and sustainable organisation.

1.4 CONTRIBUTION TO GOJ MEDIUM-TERM STRATEGIC PRIORITIES

The initiatives of the NFA are in keeping with the Government of Jamaica’s medium-term strategic priority – ***Inclusive Sustainable Economic Growth and Job Creation***. The programmes, initiatives and activities of the NFA also drill down from Goal 3 of the National Development Plan: Vision 2030, which is ‘Jamaica’s Economy is Prosperous’ with the relevant outcome being Outcome 12 – Internationally Competitive Industry Structure in Agriculture and Fisheries. The NFA initiatives are also in line with the Ministry of Agriculture and Fisheries’ vision which is ‘By 2030, MOAF has achieved innovative, sustainable and internationally competitive agriculture sector and more specifically, the strategic priority – ***Market Driven Agriculture and Fisheries Production System*** which supports the Fisheries Development sub-programme.

The Strategic Business Plan of 2023/2024 – 2026/2027 was crafted in a way to ensure that the mandate and goals of the NFA will be achieved by 2026/2027 and that all initiatives are in line with the GOJ’s overarching strategic priorities.



Sea Cucumbers (©S. Caine)

2.0 Section B: Strategic Framework

2.1 Mission, Vision and Core Values

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.

CORE VALUES:

Integrity

Accountability

Fairness

Respect

Transparency

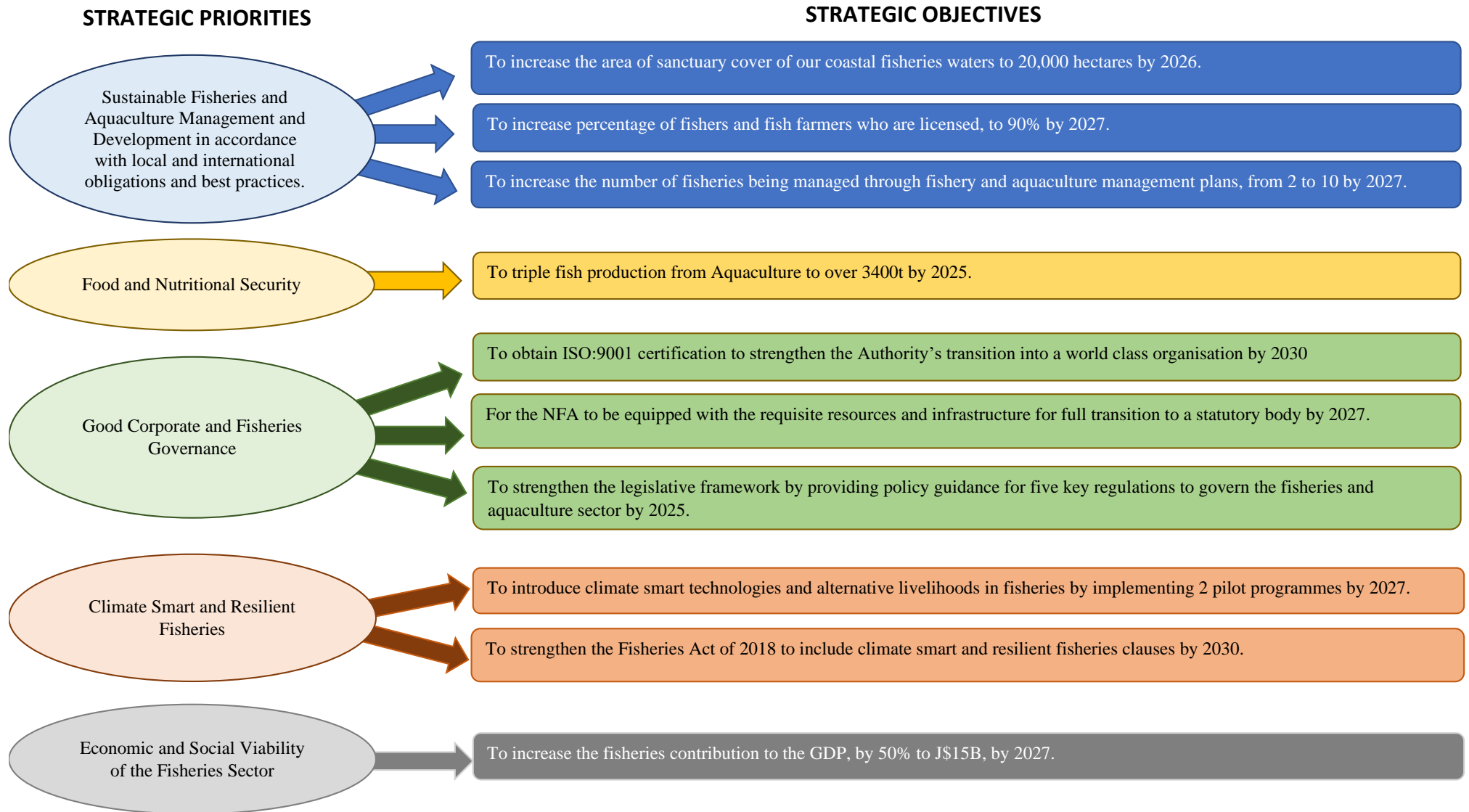
Goal Oriented

Professionalism

Teamwork



2.2 STRATEGIC PRIORITIES, OUTCOMES, STRATEGIC OBJECTIVES AND STRATEGIES



STRATEGIC PRIORITIES	OUTCOMES	STRATEGIC OBJECTIVES	STRATEGIES
Sustainable Fisheries and Aquaculture Management and Development in accordance with local and international obligations and best practices.	<ul style="list-style-type: none"> • Increased sanctuary cover. • Improved fishing practices for a sustainable sector • New and underutilised fisheries developed • Improved business management skills by fishers • Increased number of fishers and fish farmers benefitting from being licensed in the industry. • Greater stewardship of the fisheries resources through implementation of management plans. • Improved monitoring, control and surveillance for education and enforcement • Stakeholders trained in skills and technology solutions that will assist in safety and benefit the fisheries sector. • Improved working conditions for fishers and fish farmers. 	<ul style="list-style-type: none"> • To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2026 • To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027. • To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027. 	<ul style="list-style-type: none"> • Sign MOUs with interested parties who can fund, support or manage the sanctuaries. • Provide licences, authorizations and permits in accordance with The Fisheries Act, 2018. • Formal collaboration with other agencies to ensure enforcement and conservation efforts. • Consultation and Research Surveys to determine suitable sites and to monitor sanctuary performance, and inform development of management plans. • Prepare boundary descriptions for regulations. • Conduct vessel survey to determine number of active fishers • Surveys of fishers to ascertain status • Implement Online Licence and Registration Database by December 2023 • Conduct enforcement activities within and around our fisheries waters. • Develop management plans for tuna/offshore pelagics, sea moss, oyster, lobster and reef fish. • Develop aquaculture management plans for tilapia, freshwater prawn and ornamental fish. • Increased amount of data and statistics to improve reporting on the performance of the sector. • Increased data and statistics available to guide policy development and decision-making.
Food and Nutritional Security	<ul style="list-style-type: none"> • Increased aquaculture production that produces more freshwater fish • Improved aquaculture practices for a sustainable sector 	To triple fish production from Aquaculture to over 3400Mt by 2025.	<ul style="list-style-type: none"> • Improve and produce additional broodstock • Renovation of 2 acres production and brood ponds at the NFA's Aquaculture branch • Construction of new bio-secure hatchery at the NFA's Aquaculture branch

STRATEGIC PRIORITIES	OUTCOMES	STRATEGIC OBJECTIVES	STRATEGIES
	<ul style="list-style-type: none"> Improved business management skills by fish farmers Increased number of fish species cultured 		<ul style="list-style-type: none"> Construction of quarantine facility and wet lab. Rehabilitation of existing mariculture facility at Bowden to facilitate oyster and sea moss diversification, as well as boosting production of oyster farms in other areas such as Sav-La-Mar and Hanover. Capacity-Building training for fish farmers.
Good Corporate and Fisheries Governance	<ul style="list-style-type: none"> Increased knowledge and compliance with the Fisheries Act and regulations Enhanced organisation efficiency and effectiveness in service delivery Improved image and perception of the Authority Structured organisations and representation for fisheries stakeholders. 	<ul style="list-style-type: none"> To obtain ISO:9001 certification to strengthen the Authority's transition into a world class organisation by 2030. For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027. To strengthen the legislative framework by providing policy guidance for five key regulations to govern the fisheries and aquaculture sector by 2025. 	<ul style="list-style-type: none"> Implement a verified ISO:9001 quality management system. Assessment and situational analysis of the organisation Draft and submit five regulations for passing Continuous documentation and refinement of processes Fulfil financial obligations in accordance with the FAA, PBMA and Fisheries Acts and applicable circulars. Internal and external consultations Implement ICT and IT Management systems. Identify port facilities Identify suitable location with adequate space to house NFA staff. Hire competent staff in line with new organisational structure. Establish 5 regional NFA centres Acquire suitable type and number of vehicles to support enforcement. Refurbish substations and improve overall infrastructural capacity for the NFA. Draft policy and strategies for the NFA and implement Standard Operating Procedures
Climate Smart and Resilient Fisheries	<ul style="list-style-type: none"> Adoption of climate resilience practices that secures fish stock 	<ul style="list-style-type: none"> To introduce climate smart technologies and alternative livelihoods in fisheries by 	<ul style="list-style-type: none"> Implement Pilot project for introduction of offshore pelagic fishing

STRATEGIC PRIORITIES	OUTCOMES	STRATEGIC OBJECTIVES	STRATEGIES
	<ul style="list-style-type: none"> Increased knowledge of climate change and its impact, as well as mitigation and adaptation practices 	<ul style="list-style-type: none"> implementing 2 pilot programmes by 2027. To strengthen the Fisheries Act of 2018 to include climate smart and resilient fisheries clauses by 2030. 	<ul style="list-style-type: none"> Implement Pilot project to construct Recirculated Aquaculture System (RAS) to conserve water. Introduce solar power technologies to fish farms and fishing operations. Update the Fisheries and Aquaculture policy to reflect climate smart fisheries and aquaculture to inform updates to the Fisheries Act.
Economic and Social Viability of the Fisheries Sector	<ul style="list-style-type: none"> Improved quality of service and service delivery along the value chain Increased knowledge of best business practices by stakeholders in the fishery sector Improved profitability of fishers and fish farmers Increased amount of data and statistics relevant to the sector. 	<ul style="list-style-type: none"> To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027. 	<ul style="list-style-type: none"> Develop new and underutilised fisheries for sea cucumber, oyster, offshore pelagics, sea moss and sea urchin. Monitoring and measuring of fish production through robust statistical sampling programme. Socio-economic surveys of fishers and fish farmers Develop and modernise fishing infrastructure to benefit stakeholders Identification and development of new local and international markets. Institute development plans for new value-added products (e.g., smoked tilapia). Partnership with local and international training institutes and universities to provide training for stakeholders. Submit proposals to request funding from international entities for expansion of aquaculture production and management of capture fisheries Develop fisheries tourism (e.g. fishing tournaments, snorkelling in sanctuaries, recreational fishing). Host events that recognise and highlight Fisheries and Aquaculture to attract investments. Facilitate the establishment of fisher organisations.

2.3 PROGRAMMES AND SUB-PROGRAMMES OF THE NFA

The National Fisheries Authority's function fall under the Sub-Programme – Fisheries Development within the Ministry of Agriculture and Fisheries. As an agency, this is considered to be our main programme. All projects and initiatives to achieve the strategic objectives are controlled by four main sub-programmes of the Authority:

- **Executive Direction and Management (Budget Activity: 10005)**

Executive Direction and Management consists of the Office of the CEO, Corporate Services, Legal, and Accounts. Through the efficient operations of these key administrative functions, the NFA will be fully transitioned into an Authority that effectively governs the fisheries waters of Jamaica.

- **Capture Fisheries Development (Budget Activity: 10181)**

The Capture Fisheries Sub-Programme of the NFA is tasked with the management of all capture fisheries in Jamaica through research and development, and implementing sound management practices. The activities of the are geared towards ensuring that the fisheries sector of Jamaica is sustainably managed for the current and future generations.

- **Aquaculture Development (Budget Activity: 10182)**

The Aquaculture Sub-Programme is responsible for increasing food security by regulating and overseeing aquaculture farms in Jamaica. Through its fry production, the Branch is able to assist fish farmers with obtaining seedstock for their production and through its Extension Unit, expert advice is given to persons in the industry.

- **Fisheries Compliance Licensing and Statistics (Budget Activity: 12310)**

The newly established Sub-Programme, Fisheries Compliance, Licensing and Statistics, has been established to ensure that the industry is compliant with the provisions of the Fisheries Act, 2018. This will be accomplished by improving the licensing and registration regime for stakeholders, strengthening the enforcement arm of the National Fisheries Authority (NFA) and ensuring that data are collected to inform the management strategies being undertaken by the NFA.



Sea Coral (©S. Caine)

2.4 Vision of Success

Fisheries remains one of the major, internationally recognised sector that contributes to food security. As the world faces environmental issues that will lead to a decrease in food production, the fisheries sector is positioned to address these gaps, particularly through the Aquaculture sub-sector.

The National Fisheries Authority is mandated by the Fisheries Act, 2018 to ensure that Jamaica's fisheries and aquaculture sectors are sustainably managed for now and future generations. The NFA creates public value by ensuring sustainable development and management of a fisheries resource valued at over J\$10B annually which employs over 40,000 individuals directly and indirectly; and contributes to the livelihoods of over 200,000 Jamaicans. The NFA's philosophy is anchored in its core values, which include integrity, transparency, accountability, fairness, professionalism and respect.

The success of the NFA in effectively performing its functions is the catalyst that will, in addition to food and nutritional security, lead to a sustainably managed fisheries and aquaculture sector which will contribute towards socio-economic growth. Through an efficient licensing process that ensures all players in the industry have an equal opportunity to access the registration services of the NFA, these players can be identified and benefit from opportunities that are afforded to them. Additionally, fishery and aquaculture management plans, coupled with increased sanctuary cover will satisfy the mandate of the Authority to manage our fisheries resources in a way that ensures sufficient fish stock for current and future generations. This is the vision of the sector that the NFA will help to bring to fruition.



3.0 SECTION C: SITUATIONAL ANALYSIS

3.1 Overview

According to the Food and Agriculture Organisation (FAO), the fisheries and aquaculture sector contributes significantly to food security and nutrition while simultaneously supporting the livelihood of millions of people across the world (FAO, 2021). The FAO's Strategic Framework 2022-2023 seeks to develop a 'Blue Transformation' strategic programme which will secure and maximise the benefits of aquatic food systems for present and future generations. The island of Jamaica, with a coastline of 1,022 km, 224,000 square kilometres of fisheries waters, 10 fishing banks and 184 fishing beaches, likewise shares in the global objective posited by the FAO.

The structure of the fisheries sector of Jamaica is comprised of Capture Fisheries and Aquaculture. Capture Fisheries primarily consists of artisanal fishers operating from open type canoe boats over inshore and offshore areas; the inshore fishery takes place in the coastal waters of the Island Shelf with its nine proximal banks (CFRAMP, 2000). The fishers operate from the fishing beaches primarily on the wide South Shelf of the island, as well as, along the banks of the Pedro and Morant Cays. A smaller but economically significant sub-sector is comprised of industrial fishers who fish for lobster and conch, the latter being a highly significant part of the industry from the 1960s. Commercial sports fishery (e.g., fishing tournaments) and small recreational fishery are other sub-sectors which, although smaller in scope, are likewise important. The production from capture fisheries in 2021 was 10,094 tonnes (t) which represented a decline of 15.6% from the previous year (PIOJ, 2022). It is estimated that the true number of persons fishing in Jamaica is approximately 40,000 individuals fishing from over 10,000 vessels. The real situation, however, shows that the number of persons registered is less than what it should be. From the mid-nineties to 2021, 28,041 fishers were registered with the Authority, while 8,082 vessels have been registered within this period as well. However, year on year, the number of persons being licensed is less than 7,000 while the annual average rate of persons renewing their licence from the previous year, is 24%. The number of vessel licences issued each year has been below 900 up to 2021 and likewise, there is a lag with persons returning to renew in the following year.

Aquaculture is the branch of fisheries which deals with farming of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants (Lucas, 2019); and its importance globally has been further highlighted by the impact of climate change on the more traditional capture fisheries. Jamaica has a rich history in aquaculture from the introduction of the tilapia in the 1940s to the sector's peak in the 2000s when annual production was over 5,000 tonnes (mt). However, after the loss of a major producer in 2007, fish production from aquaculture has declined from in excess of 5,000mt annually to under 1,000mt in 2021 (PIOJ, 2022). The aquaculture industry in Jamaica, is served by 112 fish farmers who farm fish for the local market, as the export market is currently dormant.

The management of Jamaica's fisheries sector is the responsibility of the National Fisheries Authority (NFA) which was established as a statutory body by the Fisheries Act, 2018, to conserve, develop and manage the fisheries waters of the country. Prior to the Authority's establishment, the governance of the sector was the responsibility of the Fisheries Division (established in 1949) of the Ministry with responsibility for Fisheries. The legislation which preceded the 2018 Act, was the Fishing Industry Act of 1976 with its attendant regulations.

The passage of the Fisheries Act, 2018 has ensured that the NFA has the institutional framework to strengthen and modernise fisheries and aquaculture. There is a strong legislative framework in general for the sector, with several Acts and regulations to govern the activities in and around the fisheries waters; these include the Fishing Industry Regulations (1976), Morant and Pedro Cays Act (1907), Conch (Export Levy) Act (2009), Exclusive Economic Zone Act (1991) and supporting enactments to include; Aquaculture, Inland and Marine Products and By-Products (Inspection and Licensing) Act (2013).

The financial support available through the Fisheries Management and Development Fund (FMDF), which is funded by a levy on conch export (supported by the Conch (Export Levy) Act (2009)), as well as the NFA's affiliation with regional and international organisations, have assisted with managing and developing the fishing industry. Jamaica also has the enviable track record of being generally free of notifiable OIE (World Organisation for Animal Health) diseases in the Aquaculture Sector. This status is one which the NFA will seek to maintain through its programmes and initiatives.

The fisheries sector is also challenged by a lack of the following:

- dedicated low-cost financing for the sector,
- adequate infrastructure and facilities at International Standards for the sector,
- trust by key stakeholders (artisanal farmers),
- adequate Information Management and ICT systems, and
- adequate capacity of the NFA to address factors which negatively affect fishers.

However, the NFA continues to strengthen its capacity through opportunities presented for growth and development in aquaculture and capture fisheries. This will be accomplished through: developing new and under-utilised fisheries, expansion and diversification of aquaculture (including mariculture and ornamental fish farming), as well as seeking more opportunities for partnerships.

In addition, the fisheries sector is faced with the threat of habitat loss, beach erosion, rising sea levels and increased storm intensities as a result of climate change. Implementation of the 5 year project – Promoting Community Based Climate Resilience in the fisheries sector project (PCBCR), will continue in this financial year and through its focused activities, will implement adaptation strategies for climate change. There is also a need for the sector to be responsive to disasters, some of which are as a result of climate change, by ensuring that mitigation strategies are adequate. With Jamaica's fisheries waters also being

threatened by the prolific *Sargassum* blooms, there is need for increased research and intervention via a multi-stakeholder approach with other government entities. Through the PCBCR project and increasing the level of research within the Authority, the responsiveness of the sector to environmental issues will be increased.

The sector is also threatened by Illegal, Unreported and Unregulated (IUU) fishing, destructive practices, and use of drugs, noxious and explosive substances in the fishing waters. A key strategy of the NFA for this financial year is to increase enforcement by expanding the human capacity of the Compliance Branch within the Authority and increasing collaboration with the security forces.

International funding through projects, continues to be an opportunity leveraged by the NFA to improve its systems, and an example of this is the Online Licensing and Registration System being developed through funding from the Inter-American Development Bank. The online platform will be launched in December 2023 and through this portal, fishers will be able to apply, and administrators will be able to process, and manage data related to licences, authorisations and permits.

Although there are several challenges for the sector, there are also existing strengths and numerous opportunities. The NFA through its revised strategic objectives, will seek to ensure that the fisheries resources of Jamaica are adequately conserved and managed in accordance with the Fisheries Act and international agreements and arrangements, for the benefit of all members of society.



Starfish (©S. Caine)

3.2 SWOT ANALYSIS

Internal Environment:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Strong legislative and regulatory framework driven by the Fisheries Act, 2018 and other supporting legislation • Governance systems in place that allow for transparency and accountability • Clearly articulated processes to enhance and develop the fisheries sector through zoning of our resources to ensure viability and sustainability of the sector for stakeholders. • Technically competent staff. • Specialised skills in fisheries and aquaculture management. • Technical services provided to fish farmers and fishers through our extension services. • Research and data to support the fisheries sector. • International and regional agreements to enable maximum access by our stakeholders. • Management plans for high-income species, such as queen conch and sea cucumber. 	<ul style="list-style-type: none"> • Lack of human capacity resources to support all functions of the Authority, such as public relations. • Insufficient Information and Communications Technology (ICT) systems to automate manual processes and improve the operations of the Authority. • Inadequate communication with stakeholders • Inadequate marketing of the fisheries sector through public relations to our stakeholders and the general public. • Cultural resistance to change by staff members • Lack of other institutional capacity, such as infrastructure (e.g., office space, research area, pond spaces etc.) required to support the functions of the Authority. • Delayed implementation of projects, initiatives and programmes. • Staff discomfort due to low classification and poor working conditions. • Insufficient budgetary support. • Inadequate legislative and regulatory framework for the Aquaculture sector. • No dedicated landing site for industrial lobster fishers.

External Environment:

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Global increase in demand for fish and fish products due to dietary and health benefits of fish. • Growth in Aquaculture globally as an alternate strategy to satisfy an increased demand for fish and fish products. • Commercialisation of oysters and other food species for marketing in the tourism and recreational industry. • Ability to trademark products associated with the industry to increase earning potential for the sector. • Potential for growth for Aquaculture and Capture Fisheries through expansion of tilapia, mariculture and ornamental fish, as well as expansion of non-traditional species (e.g. tuna) • Fishery Tourism; ability to capitalise on the recreational activities associated with tourism to benefit the fishing industry (e.g., fishing tournaments, snorkelling in sanctuaries etc.). • Access to global markets due to our fish being relatively free of notifiable OIE (World Organisation for Animal Health) diseases. • Expansive fisheries waters for Jamaica, including the offshore banks, increase the opportunity for other markets to be explored. • Highest density of queen conch within the Caribbean region. • Revamping the fee structure for the Authority to increase financial viability. 	<ul style="list-style-type: none"> • Fisheries sector considered as low priority and as such, budgetary support from MOFPS is lacking to support initiatives. • Change in Ministerial initiatives impacting existing programmes of the Authority. • Lack of policy support from policy makers. • Competition for resources due to overlapping and unclearly defined mandates with other government bodies. • Displacement of fishers from fishing beaches due to development projects (e.g. Mamee Bay, Falmouth, Yallahs etc.). • Hazardous Waste Disposal site granted permission in the largest and most productive aquaculture production area. • Re-allocation of key infrastructure. Example, fisheries complex that was built to accommodate industrial vessels re-allocated for use as a car park. • Lack of jetty and related infrastructure on the Pedro Banks threatens development, enforcement, investment and overall governance of the area. • Climate Change causing loss of habitat, beach erosion, drought, excessive <i>Sargassum</i> blooms, rising sea levels, increased storm intensities etc. • Cultural resistance to non-traditional species of fish (e.g. Tilapia). • Illegal, Unreported and Unregulated (IUU) fishing in our fisheries waters and general lack of compliance with the fisheries laws by persons in industry. • Biological and ecological factors of fish species (e.g. genetic dilution and migration of target fish species) • Trade barriers due to increased restrictions (tariff and non-tariff) to enter certain markets, • Disruptions in trade as a result of global pandemics and war. • Resistance from stakeholders to changes in initiatives, programmes and processes from the Authority.

3.3 PESTLE ANALYSIS

<p>POLITICAL</p>	<ul style="list-style-type: none"> • Frequent change in Minister with responsibility for Agriculture and Fisheries (e.g., 3 ministers in the last year) leading to a change in Minister’s initiative. • Change in Board Members • Snap general election and local government election leading to change in administration • Vision 2030 – targets set by the political directorate (e.g., food security). • Strong support for agriculture and strengthening the Blue Economy • Potential for political interference • Obligations to International Treaties and Agreements • Overlapping of mandates by governmental bodies (e.g. Blue Economy initiatives spread across different GOJ entities). • Policy advice in relation to fisheries, aquaculture and related matters by the Fisheries Advisory Council.
<p>ECONOMICAL</p>	<ul style="list-style-type: none"> • Fluctuating inflation rate affecting inputs into the sector • Lack of dedicated low-cost financing for the sector • Financial implications of world events on the sector (e.g. pandemic, war) • Cost/Availability of operational inputs for fisheries and aquaculture (e.g. fuel, electricity, feed, nets, engine) • High capital cost for entry into the sector by fishers and fish farmers • Trade barriers or opportunities for trade • BOJ’s Monetary/Financial Policy • Ministry of Finance’s Macroeconomic Policy (e.g. change in concession guidelines) • Import Duty regime for fisheries related products • Production Incentive Regime (scepticism of the programme by some fishers and fish farmers) • Underdeveloped value chain for marketing of fish and fish products
<p>SOCIAL</p>	<ul style="list-style-type: none"> • Weak organisation for fishers and fish farmers • Insufficient training for fishers and fish farmers (e.g., unable to swim, unable to use gear, ignorant of pond and hatchery technology) • No access to critical knowledge and/or infrastructure due to social status • Lack of education or ignorance regarding opportunities • Unregistered fishers and fish farmers • Lack of, or inadequate social infrastructure at landing sites • Skewed demographic of the primary stakeholders in the formal sector • Formal documentation lacking (e.g., birth certificate, identification card, banking, insurance, wills etc.)

	<ul style="list-style-type: none"> • Cultural avoidance of technology use • Lack of trust in the Authority and GOJ by our stakeholders • Praedial larceny, poaching and piracy • Implications of implementing enforcement processes • Illegal, Unreported and Unregulated fishing • Coordination and collaboration among government entities, of actions and efforts to address environmental issues
TECHNOLOGY	<ul style="list-style-type: none"> • Slow pace of adoption by stakeholders to technological solutions that will benefit their operations in the sector • Lack of ICT and IT management systems at the Authority to carry out operational functions. • Negative impact of technology on our fisheries (e.g., destruction of corals and reefs and technology leading to overfishing) • Adoption of modern technology for security and safety of the fisheries and aquaculture sectors (e.g., enforcement, aquaculture production, safety, use of drones etc.)
LEGAL	<ul style="list-style-type: none"> • Offences: Praedial larceny, fraud, under and over-reporting, use of fisheries waters for trafficking and other illegal activities. • Coordination of enforcement activities based on the legislative framework to address Illegal, Unreported and Unregulated fishing • New Fisheries Act, 2018 providing adequate legal framework • Regulations for the sector are in place but they need to be updated or repealed; and new ones to be developed • To support aquaculture, a regulatory framework is to be developed and the legislative framework is to be strengthened. • Additional regulations to address issues of the fisheries sector. • Assessment of processes and policies for legal implications/impact
ENVIRONMENTAL	<ul style="list-style-type: none"> • Climate change leading to flash floods, extreme drought, <i>Sargassum</i> blooms etc., which affect fish species. • Overfishing by fishers or fishing undersized fish and berried lobsters • Drugs and Noxious substances being introduced in the fisheries waters; release of chemical waste into rivers, ponds and the sea. • Tourism presenting an opportunity for partnership and also a potential habitat loss from building tourism infrastructure • Pollution, including improper waste disposal within the fisheries waters and related environments. • Genetic dilution (particularly for farmed fish) • Invasive species displacing endemic species from their habitat • Loss of habitat for fish species; e.g., mangrove deforestation • Destructive practices by persons using the resources (e.g. use of dynamite) • Behavioural and biological changes of species due to external factors (smaller size, maturing earlier, migration etc.)

3.4 RISK ANALYSIS (See Annex B for Risk Register)

Risk Matrix	IMPACT					
		1	2	3	4	5
LIKELIHOOD	5				• Climate Change	
	4			<ul style="list-style-type: none"> • No interested parties to manage sanctuaries • Inadequate funds to pay for the increased staffing required 	<ul style="list-style-type: none"> • Inadequate budgetary support or funding for data collection and monitoring • Inadequate staffing to enable roll out of ICT systems • Inadequate commitment to the ISO process 	
	3		<ul style="list-style-type: none"> • Inefficiencies in adapting new fish farming technology 	<ul style="list-style-type: none"> • Unregulated access to sanctuaries through tourism • Inadequate HR skills available to implement requisite procedures • Required Policies are not in place to guide the process required to update the regulations • Unable to facilitate consultation to update regulations • Lack of support for policy move from parent Ministry 	<ul style="list-style-type: none"> • Lack of buy-in from fishers regarding the intent of the law • Failure to comply with the requirement to provide landing data 	<ul style="list-style-type: none"> • Insufficient funds for sanctuary operations • IUU fishing in sanctuaries • Inadequate funds to complete construction of RAS hatchery • Global trade disruptors • World Bank Fisheries PPCR fails to deliver expected outputs • Lobster fishery survey not implemented
	2				<ul style="list-style-type: none"> • Lack of support from security forces for enforcement 	
	1					

 Low

 Moderate

 High

 Severe

3.5 STAKEHOLDER MATRIX (See Annex A for Stakeholder Register)

STAKEHOLDER MATRIX		INTEREST OF STAKEHOLDER	
		LOW	HIGH
INFLUENCE OF STAKEHOLDER	HIGH	KEEP SATISFIED (Subjects) <ul style="list-style-type: none"> Wholesalers/ Retailers Ministry of Labour and Social Security 	MANAGE CLOSELY (Players) <ul style="list-style-type: none"> Artisanal Fishers Industrial fishers Freshwater Fish farmers Mariculture farmers Ornamental Fishers Aquatic Veterinarians NFA Staff Ministry of Agriculture and Fisheries Ministry of National Security and its agencies Ministry of Finance and the Public Service and its agencies Ministry of Health and its agencies International Agencies, e.g. European Union (EU) National Environmental and Planning Agency (NEPA) Urban Development Corporation
	LOW	MONITOR (Crowd) <ul style="list-style-type: none"> Recreational Sports Fishers Consumers/ General Public 	KEEP INFORMED (Context Setters) <ul style="list-style-type: none"> Fishing and Aquaculture Industry Workers (e.g. crew members, fish farm workers, fish scalers etc.) Fish Sanctuary Operators Live Fish Importers Suppliers of Fishing and Aquaculture Gears Providers of Support Services (e.g. mechanics, net makers/ repairers, makers of traps, boat repairs) Tertiary and other training institutes

3.6 STRATEGIC ISSUES AND CHALLENGES

Strategic Issues	Challenges
Insufficient human, technological and infrastructural capacity of the NFA to fulfil its mandate.	<ul style="list-style-type: none"> • Inadequate funding • Lack of trained fisheries and aquaculture students who can transition to the NFA due to no programme being available at the tertiary level or due to migration. • Low compensation for jobs in the Authority
Illegal unreported and unregulated (IUU) fishing	<ul style="list-style-type: none"> • Lack of public education and awareness of fisheries laws and regulations • Socio-economic conditions • Low barriers to entry into illegalities • Cost of enforcement for the expansive fisheries and coastal waters. • Foreign poachers
Impact of climate change on sustainability and profitability of fisheries and aquaculture	<ul style="list-style-type: none"> • Rising sea levels • Increase in storm intensity • Severe weather • Drought and flooding • Small Island Developing State more affected • Loss of fishing beaches and coastal fish farms • Behavioural and biological changes of species (e.g. migration) • Loss of habitat and spawning areas
Over-exploitation of fisheries resources	<ul style="list-style-type: none"> • IUU fishing • Inadequate ability to enforce • Reduction in available resources • Quality and lack of diversity of fish • Loss of livelihoods
Loss and degradation of fish habitat	<ul style="list-style-type: none"> • Climate change • Humans encroaching on fish habitats through development efforts • IUU fishing • Pollution, including improper waste disposal within the fisheries waters and related environments • Toxic and general waste run off into the fisheries waters. • Ineffective and inadequate enforcement of environmental laws.

Strategic Issues	Challenges
Inadequate management of fisheries and aquaculture resources	<ul style="list-style-type: none"> • Disorganisation within the sector (e.g., lack of effective co-operatives) • Open entry to the fisheries which can lead to overfishing and unsustainable fishing practices • Insufficient management plans due to lack of institutional capacity to conduct research and develop such plans • IUU fishing affecting management efforts • Access to water • User conflict/Competing for resources (e.g., reclassifying aquaculture lands to housing, waste plant built next to Aquaculture farm, fishing beaches being displaced by development activities) • Lack of technical ability to carry out the functions needed for managing the resources.
Lack of Research and Development (R&D) capacity and access to capital funding for aquaculture and fisheries.	<ul style="list-style-type: none"> • Low number of technical staff to carry out R&D functions • Simplistic approach to fisheries and aquaculture by investors who do not appreciate the importance of the sector. • Risk averse entrepreneurs • Lack of R&D infrastructure for capture fisheries and aquaculture.
Lack of policies and standard operating procedures for the NFA.	<ul style="list-style-type: none"> • Lack of institutional capacity • Inadequate reporting, accountability and monitoring • Inadequate audits of operations and performance. • Failure to implement recommendations and corrective actions. • Insufficient funding for the work associated with policy development (e.g. consultancies and research) • Inadequate R&D and data • Disorganised nature of the industry • Legislative development hampered by lack of policies

3.7 CONCLUSION FROM STRATEGIC ANALYSIS

The National Fisheries Authority plays a critical role in the management and development of fisheries and aquaculture in Jamaica, where the socio-economic benefits of the fisheries sector have been long recognised. The situational analysis highlighted however, a decrease in aquaculture production, non-compliance with licensing requirements by fishers and the unavoidable impacts of climate change. The prevailing strengths and weaknesses of the internal environment were highlighted to be, inter alia, a strong legislative process for the sector and the technical competence of the staff but there are issues with overall lack of institutional capacity, insufficient budgetary support and inadequate communication to stakeholders. Many opportunities present themselves in the external environment where there is an increasing demand for fish and fish products which can be supplied by aquaculture, as well as global opportunities for trade and fishery tourism. However, the threats facing the sector cannot be disregarded, where change in ministerial initiatives, low consideration of fisheries as a priority, Illegal, Unreported and Unregulated (IUU) fishing and climate change, are some of the matters that can negatively affect the sector in a significant way.

The strategic analysis identified a number of strategic issues and the challenges presented by them. All are equally important, and the challenges raised can negatively impact the work of the NFA, if these are not addressed. The institutional capacity of the new Authority is an issue linked to inadequate funding and lack of trained personnel to transition into the NFA, while the global issue of IUU brings numerous challenges to the sector. At the heart of the issues is the need for adequate management of our fisheries resources, increased R&D and improvement in the operating procedures of the NFA.



4.0 STRATEGY IMPLEMENTATION

Ministry of Agriculture and Fisheries Sub-Programme: Fisheries Development		
Sub-Programme Objective: To increase fisheries contribution, to the GDP, by 50% to J\$15B, through sustainable management and development of the fisheries and aquaculture sectors for the socio-economic benefit of all Jamaicans, by 2027.	Sub-Programme Description and Context: This sub-programme is responsible for the regulation, protection, management and enhancement of Jamaica’s fishery resources. It is mandated by The Fisheries Act, 2018. This programme encompasses the work of the National Fisheries Authority to support the livelihoods of fishers and fish farmers and their contribution to the Jamaican economy. Regulatory, Monitoring, Research, Development, Conservation and Extension services promote sustainability of Jamaica’s fisheries resources and the growth of aquaculture. This sub-programme will implement initiatives geared towards food and nutritional security (#GrowSmartEatSmart Strategy) such as Development of New and Underutilized fisheries and implementing an efficient licensing process to allow for easy access into the sector. Similarly, the sub-programme will implement Sustainable Fisheries and Aquaculture Management Plans that will incorporate Climate Smart and Resilient practices which will improve livelihoods. (#GrowSmartEatSmart Strategy).	
	Programme Budget: 1.099B	
GOJ MEDIUM-TERM STRATEGIC PRIORITY: Inclusive Sustainable Economic Growth and Job Creation	Contribution to GOJ Medium-Term Strategic Priority: The fisheries and aquaculture sector provides jobs for all persons along the value chain from artisanal fishers and fish farmers to wholesalers and retailers. The sustainable management and diversification of our fisheries to ensure there is sufficient stock and the growth of the aquaculture industry to meet the growing demand for fish, are key areas through which economic growth will be achieved.	
VISION 2030 NATIONAL GOAL: <i>GOAL 3: Jamaica’s Economy is Prosperous</i>	National Outcome #12 – Internationally Competitive Industry Structures - Agriculture Sector Outcome: Enabling environment for agriculture research and development	National Strategies: <ul style="list-style-type: none"> • Develop company sophistication and productivity • Develop economic linkages and clusters • Develop economies of scale and scope through collaboration among enterprises in the region • Enhance the framework for competition among enterprises • Promote eco-efficiency and the green economy

NFA Sub-Programme: EXECUTIVE DIRECTION AND ADMINISTRATION

Strategic Objectives:

- To obtain ISO:9001 certification to strengthen the Authority's transition into a world class organisation by 2030
- For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027
- To strengthen the legislative framework by passing five key regulations to govern the fisheries and aquaculture sector by 2025.
- To strengthen the Fisheries Act of 2018 to include climate smart and resilient fisheries clauses by 2030.

Description & Context:

Executive Direction and Administration consists of the Office of the CEO, Corporate Services, Legal, Internal Audit and Finance and Accounts. Through the efficient operations of these key administrative functions, the NFA will complete its transition to an Authority that effectively governs the fisheries waters of Jamaica.

Budget: 485.8M

NFA Strategic Priority:

- Good Corporate and Fisheries Governance

Short and Medium-Term Outcomes:

- Increased knowledge and compliance with the Fisheries Act and regulations
- Enhanced organisation efficiency and effectiveness in service delivery
- Improved image and perception of the Authority
- Structured organisations and representation for fisheries stakeholders

OUTCOMES:	<ul style="list-style-type: none"> • <i>Enhanced organisation efficiency and effectiveness in service delivery</i> • <i>Improved image and perception of the Authority</i>
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STRATEGIC OBJECTIVE: <i>To obtain ISO:9001 certification to strengthen the Authority's transition into a world class organisation by 2030</i>								
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
<ul style="list-style-type: none"> • Implement a verified ISO:9001 quality management system. • Assessment and situational analysis of the organisation 	ISO certified	Completion of ISO certification requirements	0	Documentation processes: Processes documented \$1,500	Completion of documentation processes: audited, approved and implemented \$1,980	ISO Certification completed \$300		Corporate Services

STRATEGIC OBJECTIVE: <i>For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027</i>								
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Fulfil financial obligations in accordance with the FAA, PBMA and Fisheries	Financial statements, reports and reconciliations completed in	Outcome: % compliance in submission of financial statements, reports and reconciliation	Not determined <100%	100% \$25,621	100% \$26,125	100% \$26,668	100% \$27,225	Finance and Accounts (F&A)

STRATEGIC OBJECTIVE: <i>For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027</i>								
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Acts and applicable circulars.	accordance with legislative requirements and procedures	in accordance with the FAA, PBMA and Fisheries Act and applicable circulars						
	Salaries and payables processed	Efficiency: % of salaries and payables processed accurately and paid within established timeframe.	Not determined	≥90% \$25,621	≥90% \$26,125	≥90% \$26,668	≥90% \$27,225	F&A
	Statutory payments made	Output: % completion of statutory payments	Not Determined	100% \$6,845	100% \$6,993	100% \$7,146	100% \$7,302	F&A
	Estimates of expenditure and cash flow submitted.	Output: % completion and submission of estimates of expenditure and cash flow.	Not Determined	100% \$13,017	100% \$13,278	100% \$13,545	100% \$13,819	F&A
Hire competent staff in line with new organisational structure.	New staff hired for the Authority	Output: # of new staff hired as per Engagement plan	0	42 \$300	-	-	-	Corp. Services HRM&D

STRATEGIC OBJECTIVE: <i>For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027</i>								
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Implement ICT and IT Management systems.	ICT and IT Management Systems in place	Output: # of agreed ICT systems in place	0	2 GIS ICT HelpDesk \$2,300	3 • NFA website • Inventory System • Procurement Tracking System \$5,000	TBD	TBD	ICT Unit
Continuous documentation and refinement of processes	Records Management System implemented	Output: % of completion of Records Management System	0	80% \$2,100	100% Records Management and System is in place \$200			Corporate Services
Refurbish substations and improve overall infrastructural capacity for the NFA.	NFA Substations refurbished	Output: # of substations refurbished	0	3 Great Bay, Rocky Point, Old Harbour \$12,000	3 \$12,500	3	3	Facilities Corp. Serv.
	Aquaculture Division's Offices renovated	Output: Renovation and upgrading of Aquaculture Division	0	Scoping of works Design Bill of Quantities completed \$2,000	Submitting proposal to PIAB Procurement processes	Commence construction \$50,000	Aquaculture Division renovated and upgraded \$50,000	Facilities Corp. Serv.

STRATEGIC OBJECTIVE:									
<i>For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027</i>									
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner	
				FY2023/24	FY2024/25	FY2025/26	FY2026/27		
Establish regional centres	5 NFA Regional substations established	Output: # of regional offices established for the NFA	0	- Finalise tenure-ship matters Architectural design and QS estimate for Corporate Headquarters \$10,000	- Technical drawings and Bill of Quantities completed \$40,000	- Tender and commence construction \$300,000	2 Montego Bay and Black River Regional Offices \$200,000	Facilities Corp. Serv.	

OUTCOMES:	<ul style="list-style-type: none"> • <i>Increased knowledge and compliance with the Fisheries Act and regulations</i> • <i>Increased knowledge of climate change and its impact, as well as mitigation and adaptation practices</i>
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STRATEGIC OBJECTIVE: <i>To strengthen the legislative framework by providing policy guidance for five key regulations to govern the fisheries and aquaculture sector by 2025</i>								
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Draft and submit five regulations for passing	Guidance provided for five regulations	Output: # of new regulations for which guidance is provided	0	2 Spiny Lobster Conch 11,800	1 General Regulations 11,800	1 Fish Size 11,800	-	Legal Services CFD
Draft policy and strategies for the NFA	Policies developed/reviewed	Output: # of policies developed/reviewed and submitted to parent ministry	0	3 National Fisheries and Aquaculture Policy Aquaculture Development Plan Fish Size Policy (internal policy) 11,800	2 Mariculture Development Plan 11,800	-	1 Inland Fishery Policy 11,800	LSU CFD Aquaculture FCLS
	National Fisheries and Aquaculture Extension strategy completed	% completion of the National Fisheries and Aquaculture Extension strategy		100%				Corp. Serv. Aquaculture CFD

STRATEGIC OBJECTIVE:		<i>To strengthen the legislative framework by providing policy guidance for five key regulations to govern the fisheries and aquaculture sector by 2025</i>						
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Internal and external consultations	Public education sessions held on the Fisheries Act and Regulations	# of sessions held	0	4 9,000	4 10,000	4 10,000	4 10,000	LSU

STRATEGIC OBJECTIVE:		<i>To strengthen the Fisheries Act of 2018 to include climate smart and resilient fisheries clauses by 2030.</i>						
Strategies	Key Outputs	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Update the Fisheries and Aquaculture policy to reflect climate smart fisheries and aquaculture to inform updates to the Fisheries Act.	The Fisheries Act, 2018 with climate resilient clauses	Output: % completion of the update to the Fisheries Act to include climate resilience	0	-	-	10% Review Existing legislation 11,800	40% Stakeholder consultation Commence of drafting of new clauses 11,800	LSU Capture Fisheries Aquaculture FCLS

NFA Sub-Programme: AQUACULTURE

Strategic Objectives:

- To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.
- To triple fish production from Aquaculture to over 3400Mt by 2025.
- To introduce climate smart technologies and alternative livelihoods in fisheries by implementing 2 pilot programmes by 2027.
- To increase the fisheries contribution to the GDP, by 50% to J\$15B by 2027.

Description & Context:

The Aquaculture Sub-Programme is responsible for increasing food security by regulating and overseeing aquaculture farms in Jamaica. Through its fry production, the Division is able to assist fish farmers with obtaining seedstock for their production and through its Extension Unit, expert advice is given to persons in the industry.

Budget: 184.6M

NFA Strategic Priorities:

- Sustainable Fisheries and Aquaculture Management and Development in accordance with local and international obligations and best practices.
- Food and Nutritional Security
- Climate Smart and Resilient Fisheries
- Economic and Social Viability of the Fisheries Sector

Short and Medium-Term Outcomes:

- Improved fish farming practices for a sustainable sector
- Improved working conditions for fish farmers.
- Increased aquaculture production that produces more freshwater fish
- Improved aquaculture practices for a sustainable sector
- Improved business management skills by fish farmers
- Increased number of fish species cultured
- Improved quality of service and service delivery along the value chain
- Increased knowledge of best business practices by stakeholders in the fishery sector
- Improved profitability of fish farmers

OUTCOME:

- Greater stewardship of the fisheries resources through implementation of management plans.

STRATEGIC OBJECTIVE:		<i>To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.</i>						
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY 2026/27	
Develop aquaculture management plans for tilapia, freshwater prawn and ornamental fish.	New Aquaculture Management Plans	# of Aquaculture Management plans developed	0	-	1 Tilapia Management Plan developed \$8,000.00	1 Freshwater Prawn Management Plan \$8,000.00	1 Ornamental Fish Management Plan developed \$10,000.00	Aquaculture

OUTCOMES:

- Increased aquaculture production that produces more freshwater fish
- Improved aquaculture practices for a sustainable sector
- Improved business management skills by fish farmers
- Increased number of fish species cultured

STRATEGIC OBJECTIVES:		<ul style="list-style-type: none">To triple fish production from Aquaculture to over 3400Mt by 2025.To increase the fisheries contribution to the economy to 15B by 2027.						
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY 2026/27	
Improve and produce additional broodstock	Fish produced from	Outcome: Amount (MT) of fish produced from aquaculture	911 (MT)	1100	1250	>1500	3400 Hatchery fully operational	Aquaculture

STRATEGIC OBJECTIVES:	<ul style="list-style-type: none"> To triple fish production from Aquaculture to over 3400Mt by 2025. To increase the fisheries contribution to the economy to 15B by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY 2026/27	
	Aquaculture nationally.							
	Tilapia seedstock produced by the NFA	Output: # of seedstock of tilapia produced (million)	1.5 million	1.7 13,355.00	2 \$10,000.00	3 \$15,000.00	5 \$20,000.00	Aquaculture
	Toll Gate Facility completed	Output: Toll Gate facility completed to facilitate broodstock development and production of fingerlings		Agreement signed for use of land at Toll Gate Proposal developed for Public Investment Approval Board (PIAB) approval \$15,000.00	Commence rehabilitation of the facility pending approval from PIAB \$250,000.00	Toll Gate facility completed \$50,000.00		Aquaculture
Renovation of 2 acres production and brood ponds at the NFA's Aquaculture branch	Increase in acres of aquaculture ponds.	Outcome: number of acres in aquaculture ponds facilitated by interventions.	550 acres	793 \$657.00	861 \$700.00	929 \$750.00	1000 \$800.00	Aquaculture
	Ponds renovated at the	Output: # of ponds renovated at Aquaculture Division to		4 \$23,000.00	4 \$27,000.00	4 \$28,000.00	4 \$28,000.00	Aquaculture

STRATEGIC OBJECTIVES:								
<ul style="list-style-type: none"> To triple fish production from Aquaculture to over 3400Mt by 2025. To increase the fisheries contribution to the economy to 15B by 2027. 								
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY 2026/27	
	Aquaculture Division	support hatchery and species diversification						
Rehabilitation of existing mariculture facility at Bowden to facilitate oyster and sea moss diversification, as well as boost production of oyster farms in other areas such as Sav-La-Mar and Hanover.	Mariculture farms developed	Level of completion of the expanded Bowden facility	1	Commence expansion of facility \$50,000.00	Expansion of Bowden facility \$70,000.00	Oyster hatchery operational \$10,000.00	-	Aquaculture Capture Fisheries
		# of mariculture producers supported	1	2 \$1,100.00	3 \$1,600.00	4 \$2,100.00	4 \$2,100.00	Aquaculture
Capacity-Building training for fish farmers.	Services offered to fish farmers	Output: # of on farm consultations	600	At least 720 \$4,300.00	At least 720 \$4,000.00	At least 720 \$4,000.00	At least 720 \$4,000.00	Aquaculture
		Output: % of farmers trained in aquaculture production techniques and good aquaculture practices utilising the Farmer Field School methodology and online training platforms.		33% 34 farmers trained \$60.00	33% 34 farmers trained \$70.00	33% 34 farmers trained \$70.00	45% 45 farmers trained \$80.00	Aquaculture
		Effectiveness: % of clients served	61%	At least 90%	At least 90%	At least 90%	At least 90%	Aquaculture

OUTCOME: • *Adoption of climate resilience practices that secures fish stock*

STRATEGIC OBJECTIVE: • <i>To introduce climate smart technologies and alternative livelihoods in fisheries by implementing 2 pilot programmes by 2027.</i>								
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY 2026/27	
Construction of new bio-secure hatchery at the NFA's Aquaculture branch	Recirculating Aquaculture System (RAS) hatchery constructed	Output: % completion of construction of RAS hatchery	0%	Procurement processes completed \$170,000.00	Commence construction \$200,000.00	100% RAS hatchery completed \$130,000.00	-	Aquaculture

NFA Sub-Programme: CAPTURE FISHERIES

Strategic Objectives:

- To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2027
- To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.
- To introduce climate smart technologies and alternative livelihoods in fisheries by implementing 2 pilot programmes by 2027.
- To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.

Description & Context: The Capture Fisheries Sub-Programme of the NFA is tasked with the management of capture fisheries in Jamaica through research and development, sound fishery management planning and extension services.

Budget: 239.59M

NFA Strategic Priorities:

- Sustainable Fisheries and Aquaculture Management and Development in accordance with local and international obligations and best practices.
- Climate Smart and Resilient Fisheries
- Economic and Social Viability of the Fisheries Sector

Short and Medium-Term Outcomes:

- Increased sanctuary cover.
- New and underutilised fisheries developed
- Improved fishing practices for a sustainable sector
- Greater stewardship of the fisheries resources through implementation of management plans
- Stakeholders trained in skills and technology solutions that will assist in safety and benefit the fisheries sector.
- Improved working conditions for fishers.
- Increased knowledge of climate change and its impact, as well as mitigation and adaptation practices
- Increased knowledge of best business practices by stakeholders in the fishery sector
- Improved profitability of fishers

OUTCOME:	<ul style="list-style-type: none"> <i>Increased sanctuary cover</i>
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STRATEGIC OBJECTIVE:		<ul style="list-style-type: none"> <i>To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2026</i> 						
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
<ul style="list-style-type: none"> Prepare boundary descriptions for regulations. Sign MOUs with interested parties who can fund, support or manage the sanctuaries. Consultation and Research Surveys to determine suitable sites and to monitor sanctuary performance. 	Increase in sanctuary cover	Output: # of hectares of coastal fishery water (down to 30 meters) protected as Fish Sanctuaries	10,000	11,600 (Folly, Little Bay, Alligator Pond) \$61,390	11,600 (2 Pedro Bank consultations held) \$63,000	20,000 (Pedro Bank) \$80,000	TBD	Capture Fisheries Division

OUTCOMES:	<ul style="list-style-type: none"> • <i>New and underutilised fisheries developed</i> • <i>Greater stewardship of the fisheries resources through implementation of management plans.</i>
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STRATEGIC OBJECTIVE:	• <i>To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.</i>							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Develop management plans for tuna/offshore pelagics, sea moss, oyster, lobster and reef fish. Consultation and Research Surveys to determine suitable sites and to monitor sanctuary performance, and inform development of management plans. Prepare boundary descriptions for regulations	Five Fishery Management Plans developed	Output: # of fishery management plans developed	2 Conch Sea Cucumber	1 Lobster Management Plan	1 Sea Moss Management Plan	1 Offshore Pelagics Management Plan	2 Oyster Reef Fish Management Plans	CFD
	Fishery management plans revises	Output: # of fishery management plans revised	1 Conch	1 Sea Cucumber	1 Conch Management Plan (particularly for industrial)	1 Lobster Management Plan	1 Sea Moss Management Plan	CFD
	Research surveys conducted	Output: # of research surveys conducted	2 Conch, Sea Cucumber	3 Sea Cucumber, Reef Fish, Sea Moss \$81,522	2 Conch Reef Fish (ongoing) \$83,000	1 Reef Fish Survey (completed) \$85,000	1 Lobster \$87,000	CFD
	Fishery management plans implemented	Output: # of fishery management plans being implemented	2	1 Revised Conch management plan	3 Revised plan for sea	4 Sea moss plan	5 Offshore pelagics	CFD

STRATEGIC OBJECTIVE:	<ul style="list-style-type: none"> To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
					cucumber and plan for lobster			

OUTCOME:	<ul style="list-style-type: none"> Adoption of climate resilience practices that secures fish stock
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STRATEGIC OBJECTIVE:	<ul style="list-style-type: none"> To introduce climate smart technologies and alternative livelihoods in fisheries by implementing 2 pilot programmes by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Implement Pilot Project to introduce Long line and Fishery Aggregating Device (FAD)	Sites using long line and FAD technology	# sites utilising long line and FAD technology	0	0 Training of fishers in long line and FAD technology \$12,000	2 Introduction of long line and FAD technology at 2 sites.	4 Introduction of long line and FAD technology at 2 sites.	6 Six sites utilising long line and FAD technology (primarily on the north coast)	CFD

OUTCOMES:	<ul style="list-style-type: none"> <i>Improved profitability of fishers and fish farmers</i>
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STRATEGIC OBJECTIVE:	To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Develop new and underutilised fisheries for sea cucumber, oyster, offshore pelagics, sea moss and sea urchin.	New and/or underutilised fisheries developed	Output: # of New and/or Underutilized Fisheries Developed	1 Live Lobster	2 Sea Cucumber Oyster	2 Offshore Pelagics Sea Moss	-	1 Sea Urchin	CFD
Identification and development of new local and international markets.	New Markets identified	# of new markets	0	1 new market for Lobster	1 new market for Sea Moss	New markets for offshore pelagics		CFD
Develop and modernise fishing infrastructure to benefit stakeholders	Fishing Beaches rehabilitated and modernised	# of fishing beaches developed	0	- Proposals developed for 3 fishing beaches \$60,000	- Funding approved, procurement commences \$60,000	- Commence works at fishing beaches \$180,000	3 fishing beaches developed (Pagee, Priory and Success beaches) \$180,000	CFD Corp. Serv.
	Fishing port facilities developed	% completion of industrial vessel port facility	0	- Technical drawings completed, Land acquisition	- Seek financing and partnerships (PPP),	- Commence development of facility	100% Industrial port vessel facility completed	CFD Corp. Serv.

STRATEGIC OBJECTIVE:	<ul style="list-style-type: none"> To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
				\$200,000	Submit proposal to PIAB.			
Partnership with local and international training institutes and universities to provide training for stakeholders.	Fishers trained in safety at sea using modern technology	# of fishers trained and certified	0	35 fishers \$8,000	35 fishers \$8,500	35 fishers \$9,000	35 fishers \$9,500	CFD
Host events that recognise and highlight Fisheries and Aquaculture to attract investments.	International events in recognition of Fisheries and Aquaculture hosted	# of events hosted	2	Two (2) local events hosted - International Fisherman's Day - World Fisheries Day	Three (3) international and 3 local events hosted	Three (3) international and 3 local events hosted	Three (3) international and 3 local events hosted	CFD
Facilitate the establishment of fisher organisations.	Fisher organizations operational at all major fishing beaches (52 beaches)	# of fisher organizations established and operational	20	9 new fisher organizations	10 new fisher organizations	9 new fisher organizations	4 new fisher organizations	CFD

NFA Sub-Programme: FISHERIES COMPLIANCE, LICENSING AND STATISTICS

Strategic Objectives:

- To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027.
- To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.

Description & Context: The Fisheries Compliance, Licensing and Statistics Division (FCLSD) has been established to ensure that the industry is compliant with the provisions of the Fisheries Act, 2018. This will be accomplished by improving the licensing and registration regime for stakeholders, strengthening the enforcement arm of the National Fisheries Authority (NFA) and ensuring that data are collected to inform the management strategies being undertaken by the NFA.

Budget: 189.21M

NFA Strategic Priorities:

- Sustainable Fisheries and Aquaculture Management and Development in accordance with local and international obligations and best practices.
- Economic and Social Viability of the Fisheries Sector

Short and Medium-Term Outcomes:

- Increased number of fishers and fish farmers benefitting from being licensed in the industry.
- Improved monitoring, control and surveillance for education and enforcement
- Increased amount of data and statistics to improve reporting on the performance of the sector.
- Increased data and statistics available to guide policy development and decision-making.

OUTCOME:

- *Increased number of fishers and fish farmers benefitting from being licensed in the industry.*

STRATEGIC OBJECTIVE:

- *To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027.*

Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Provide licences, authorizations and permits in	Licences, authorizations and permits issued to fishers and fish farmers in	Output: # of licences, authorizations and permits issued	5102	8600 \$13,800	9000 \$14,000	9400 \$14,400	9800 \$15,000	Licensing and Registration Unit (LRU) CFD

STRATEGIC OBJECTIVE: <ul style="list-style-type: none"> To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027. 								
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
accordance with The Fisheries Act, 2018.	accordance with the Fisheries Act, 2018							Aquaculture
Host onsite Licensing and education sessions	Outdoor sessions held	Output: # of outdoor licensing/public education activities hosted	0	24 \$6,500	24 \$6,800	24 \$7,000	24 \$7,300	LRU
Dispatch licences, authorizations and permits within 14 days.	Licences, authorizations and permits dispatched on time.	Efficiency: % of licences dispatched to fishers within 14 days of application	<30%	≥90%	≥90%	≥90%	≥90%	LRU CFD
		Efficiency: % of licences dispatched to fish farmers within 14 days of application	N/A	≥90%	≥90%	≥90%	≥90%	LRU Aquaculture
		Efficiency: % of vessel licences dispatched within 14 days of application	N/A	≥90%	≥90%	≥90%	≥90%	LRU CFD
		Effectiveness: Average number of days taken for licenses to be dispatched monthly	N/A	14	10	10	7	LRU

STRATEGIC OBJECTIVE:	<ul style="list-style-type: none"> To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Efficiently process walk-in customers at the Head Office	Service level met for processing customers at the Head Office	Efficiency: Time (mins) for applicants to be seen and processed at the Head Office	N/A	≤25mins	≤25mins	≤25mins	≤25mins	LRU
Implement Online Licence and Registration Database by December 2023	Online Licensing and Registration System in place	Output: % completion of online licensing and registration system	0	100% \$137,000	-	-	-	IDB Project
Conduct enforcement activities within and around our fisheries waters.	Persons are compliant with The Fisheries Act and related legislation and regulations.	Output: # of inspection/enforcement activities carried out	102	≥2000 76,900	≥2500 80,000	≥3000 100,000	≥4000 120,000	Compliance Branch
		Efficiency: % of enforcement requests responded to within 3 working days	N/A	≥95%	≥95%	≥95%	≥95%	Compliance Branch
		Outcome: % increase in number of renewals over the previous year for fishers	24% (1,188 fishers licensed in 2019 renewed in 2020)	50% 90,600	60% 95,000	80% 100,000	90% 105,000	Compliance Branch LRU

OUTCOME: • *Increased amount of data and statistics relevant to the sector.*

STRATEGIC OBJECTIVE: • <i>To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.</i>								
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
Monitoring and measuring of fish production through robust statistical sampling programme.	Fisheries data collected from sites – fishing beaches, production plants etc.	Output: # of sites from which data are obtained (e.g., catch and effort, biological data etc.)	250	≥324 \$8,500	≥324 \$9,000	≥324 \$9,500	≥324 \$10,500	Statistics and Data Management Unit (SDMU)
	Quarterly Statistical Reports produced and published	Output: # of statistical reports produced	1	4 \$6,600	4 \$6,800	4 \$7,000	4 \$7,200	SDMU
	National Sampling Plan revised annually	Output: % completion of revision of National Sampling Plan	100%	100% \$2,850	100% \$3,000	100% \$3,200	100% \$3,500	SDMU
	Fisheries data uploaded to database	Efficiency: % of data uploaded to database within 3-5 working days of collection.	80%	≥90%	≥90%	≥90%	≥90%	SDMU
	Catch certificates completed	Efficiency: % of catch certificates completed within 3 working days upon receipt of all	90%	≥90%	≥90%	≥90%	≥90%	SDMU

STRATEGIC OBJECTIVE:	<ul style="list-style-type: none"> To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027. 							
Strategies	Expected Output	Performance Measure/ Indicator	Baseline (2019/20)	Targets (Projections) & Costs ('000)				Owner
				FY2023/24	FY2024/25	FY2025/26	FY2026/27	
		requisite documents from applicants						
Conduct socio-economic surveys of fishers and fish farmers	Vessel survey completed	% completion of vessel survey/census	0	100%	-	-	100%	SDMU Compliance CFD
	Socio-economic survey completed	% completion of Socio-Economic survey of fishers and fish farmers	0	10,000	100%	-	12,000	SDMU Compliance CFD
					12,000		14,000	

5.0 MEDIUM TERM FINANCIAL RESOURCE PLAN (Based on Ceiling Budget)

Prog. #	Programme	Sub- Prog. #	Sub-Programme	2021/22	2022/23	2022/23	2023/24	2024/25	2025/26	2026/27
				Actual Outturn	Approved	Revised	Estimates	Forecast	Forecast	Forecast
				(J\$ 000)	(J\$ 000)	(J\$ 000)	(J\$ 000)	(J\$ 000)	(J\$ 000)	(J\$ 000)
181	Agricultural Production, Productivity and Food Security	23	Fisheries Development							
	Activity 10005 – Direction and Administration			127,140	187,620	187,620	172,682	178,081	183,133	189,018
	Activity 10181 – Management and Development of Capture Fisheries			163,606	205,065	205,065	194,084	200,529	206,522	213,557
	Activity 10182 - Management and Development of Aquaculture			84,094	115,145	115,145	106,203	109,226	112,103	115,374
	Activity 12310 – Regulatory Compliance			-	-	-	98,026	100,545	102,927	105,661
	Programme Summary		Total Funding	374,840	507,830	507,830	570,995	588,381	604,685	623,610

6.0 HUMAN CAPACITY PLAN

Division/Branch	Staff Complement	Planned 2022/23	Planned 2023/24	Planned 2024/25	Planned 2025/26	Financial Implications	Source of funding
Office of the CEO	3	2	3	3	3	3	GOJ
Internal Audit	3	2	3	3	3	3	GOJ
Corporate Services	45	22	34	40	45	45	GOJ
Legal Services	4	3	3	4	4	4	GOJ
Finance and Accounts	19	13	17	19	19	19	GOJ
Fisheries Compliance, Licensing and Statistics	62	32	49	62	62	62	GOJ
Capture Fisheries	56	24	45	56	56	56	GOJ
Aquaculture	59	24	45	59	59	59	GOJ
Commercial Services	34	23	32	34	34	34	GOJ
Project Development, M&E	3	-	1	3	3	3	GOJ

ANNEX

ANNEX A: STAKEHOLDER REGISTER

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
Artisanal Fishers		High	High	<ul style="list-style-type: none"> • Access to fisheries waters • Sustained and large fish stock • Efficient licensing processes and standards • Access to grants, funding and training opportunities • Transparent and fair distribution of fishing rights • Protection of their assets through enforcement activities • Access to concession and waivers on importation of inputs 	<ul style="list-style-type: none"> • Data and information • Compliance • Licensing fees • Fuel purchase 	<ul style="list-style-type: none"> • Refusal to comply • Negative advocacy • Refusal to provide information and data 	<ul style="list-style-type: none"> • Improving extension and licensing service delivery • Public Education and consultation
Industrial fishers		High	High	<ul style="list-style-type: none"> • Sustained and large fish stock • Efficient licensing process and services • Efficiency in landing vessels, collecting data and producing catch certificates • Transparent and fair distribution of fishing rights • Access to export market • Access to concession and waivers on importation of inputs 	<ul style="list-style-type: none"> • Sustainable fishing • Data, information and intelligence • Licensing and permit fees • Compliance • Levy on fishery products • Fuel purchase 	<ul style="list-style-type: none"> • Non-Compliance • Negative advocacy 	<ul style="list-style-type: none"> • Improving extension and licensing service delivery • Public Education and consultation
Freshwater Fish farmers		High	High	<ul style="list-style-type: none"> • Protection of their assets through increased enforcement • Efficient licensing process and standards. 	<ul style="list-style-type: none"> • Purchase fry from the Authority 	<ul style="list-style-type: none"> • Non-compliance 	<ul style="list-style-type: none"> • Training sessions • Public consultation and

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
				<ul style="list-style-type: none"> • Access to quality seedstock • Access to the retail/ wholesale market • Training on farm management, record-keeping and operation • Access to concession and waivers on importation of inputs 	<ul style="list-style-type: none"> • Provision of fish to the market • Licensing fees 	<ul style="list-style-type: none"> • Cancelling/ Scaling back fish farm operations • Release of effluent and/or invasive species into the environment 	<ul style="list-style-type: none"> • On-Site visits by extension services • Encourage the use of technology
Mariculture farmers		High	High	<ul style="list-style-type: none"> • Protection of their assets through increased enforcement • Efficient licensing process and standards. • Access to quality seedstock • Access to the retail/ wholesale market • Training on farm management, record-keeping and operation • Efficiency in mariculture operations Access to concession and waivers on importation of inputs • Intervention regarding obtaining beach licences 	<ul style="list-style-type: none"> • Purchase fry from the Authority • Provision of fish to the market • Licensing fees 	<ul style="list-style-type: none"> • Non-compliance • Cancelling/ Scaling back fish farm operations 	<ul style="list-style-type: none"> • Training sessions • Public consultation and On-Site visits by extension services • Encourage the use of technology
Fishing and Aquaculture Industry Workers (e.g. crew members, fish farm workers,		High	Low	<ul style="list-style-type: none"> • Fairness and equity in their working conditions • Good wages • Training • Safety at sea • Efficient licensing process • Protection from exploitation • Safe working environment 	<ul style="list-style-type: none"> • Compliance • Information, data and intelligence • Licensing Fees 	<ul style="list-style-type: none"> • Negative advocacy • Withdrawal of services 	<ul style="list-style-type: none"> • Public education and extension services • Training opportunities

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
fish scalers etc.)							
Wholesalers/ Retailers		Low	High	<ul style="list-style-type: none"> • Consistent supply of fish and fish products • Quality fish products 	<ul style="list-style-type: none"> • Purchase fish • Provide data and feedback from customers 	<ul style="list-style-type: none"> • Refusing to accept fish for sale • Increasing import of fish and fish products. 	Collaborate through meetings and consultation
Fish Sanctuary Operators		High	Low	<ul style="list-style-type: none"> • Regulations for Special Fishery Conservation Areas/Sanctuaries • Funding for operation of fish sanctuaries • Enforcement in and around sanctuaries 	<ul style="list-style-type: none"> • Protect the areas designated as sanctuaries • Provide data and information • Assistance with public awareness initiatives • Assisting with development and conservation of the sector 	Failing to carry out their duties to carry out monitoring, control and survey (MCS) operations at sanctuaries	<ul style="list-style-type: none"> • Ensure financial contributions to sanctuaries are paid on time and in full. • Enforcement training
Ornamental Fishers		High	High	<ul style="list-style-type: none"> • Protection of their assets through increased enforcement • Efficient licensing process and standards. • Access to quality seedstock • Access to the retail/ wholesale market • Training on farm management, record-keeping and operation • Access to concession and waivers on importation of inputs 	<ul style="list-style-type: none"> • Purchase fry from the Authority • Provision of fish to the market Licensing fees	<ul style="list-style-type: none"> • Non-compliance • Cancelling/ Scaling back fish farm operations Release of effluent and/or invasive species into the environment	<ul style="list-style-type: none"> • Training sessions • Public consultation and On-Site visits by extension services • Encourage the use of technology

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
Live Fish Importers		High	Low	<ul style="list-style-type: none"> • Efficient import permit system • Efficient landing and inspection services 	<ul style="list-style-type: none"> • Introduction of new genetic material • Permit fees • Data and information 	<ul style="list-style-type: none"> • Non-compliance with import regulations (e.g. importing disease fish) • Negative advocacy 	<ul style="list-style-type: none"> • Public education
Aquatic Veterinarians		High	High	<ul style="list-style-type: none"> • Proper regulations • Compliance • Growth of the Fishing industry 	<ul style="list-style-type: none"> • Food safety • Disease prevention • Disease surveillance • Education and Training 	<ul style="list-style-type: none"> • Withdrawal of services • Influence policies negatively 	<ul style="list-style-type: none"> • Consultation and collaboration
Recreational Sports Fishers		Low	Low	<ul style="list-style-type: none"> • High fish stock • Efficient licensing process 	Data and information Feedback on our processes Revenue	Negative advocacy	<ul style="list-style-type: none"> • Public education and consultation
Suppliers of Fishing and Aquaculture Gears		High	Low	<ul style="list-style-type: none"> • Sustainable industry • Access to concession and waivers 	Data and information on how resources are being used	Negative advocacy Refusal to supply fishers Increasing prices	<ul style="list-style-type: none"> • Proper service delivery • Provision of information on what is allowed etc. • Consultation
Providers of Support Services (e.g. mechanics,		High	Low	<ul style="list-style-type: none"> • Sustainable industry • Access to concession and waivers • Training opportunities • Industry standards 	Data and information on how resources are being used	Negative advocacy Refusal to supply fishers Increasing prices	<ul style="list-style-type: none"> • Proper service delivery • Provision of information on

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
net makers/repairers, makers of traps, boat repairs)							<ul style="list-style-type: none"> what is allowed etc. • Consultation
NFA Staff		High	High	<ul style="list-style-type: none"> • Good working conditions • Job security • Salary • Staff welfare • Working for a respected and viable organization • Respect 	<ul style="list-style-type: none"> • Dedication • Conformance with job description • Knowledge • Integrity 	<ul style="list-style-type: none"> Industrial action Inefficient service delivery Providing incorrect information 	<ul style="list-style-type: none"> • Communication • Training • Increased wages • Improvement of benefits • Improvement of working conditions
Consumers/General Public		Low	Low	<ul style="list-style-type: none"> • Fish is available for their consumption 	<ul style="list-style-type: none"> Purchase fish from licensed fishers, vendors, wholesalers and retailers Information and intelligence 	<ul style="list-style-type: none"> Not purchasing locally produced fish Spread misinformation on certain food fish 	<ul style="list-style-type: none"> • Public education campaigns • Improving fishing beaches to increase attractiveness.
Ministry of Agriculture and Fisheries		High	High	<ul style="list-style-type: none"> • Implementation of policies • Addressing issues affecting industries • Performance on our mandate • Provision of information 	<ul style="list-style-type: none"> Increased budgetary support Provide consistent policy framework Provide institutional support 	<ul style="list-style-type: none"> Reduction of budgetary support Change in ministerial objectives that negatively impact us Not supporting policies and initiatives 	<ul style="list-style-type: none"> • Increased communication • Consistent performance • Advocacy

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
Ministry of National Security and its agencies		High	High	<ul style="list-style-type: none"> • Collaboration • Information • Intelligence • Partnerships 	Enforcement Provide valuable information and intelligence Protection	Failure to collaborate	<ul style="list-style-type: none"> • Consultation • Collaboration • MOUs • Communication
Ministry of Finance and the Public Service and its agencies		High	High	<ul style="list-style-type: none"> • Implementation of policies • Addressing issues affecting industries • Performance on our mandate • Provision of information 	Increased budgetary support Provide consistent policy framework Provide institutional support	Reduction of budgetary support Change in ministerial objectives that negatively impact us Not supporting policies and initiatives	<ul style="list-style-type: none"> • Increased communication • Consistent performance • Advocacy
Ministry of Labour and Social Security		Low	High	<ul style="list-style-type: none"> • The Authority is compliant with ILO and Human rights • Compliant with licensing policy 	Timely provision of work permits	Denial of service	<ul style="list-style-type: none"> • Communication and collaboration
Ministry of Health and its agencies		High	High	<ul style="list-style-type: none"> • Proper regulations • Compliance • Growth of the Fishing industry 	<ul style="list-style-type: none"> • Food safety • Disease prevention • Disease surveillance Education and Training	<ul style="list-style-type: none"> • Withdrawal of services Influence policies negatively	<ul style="list-style-type: none"> • Consultation and collaboration
Tertiary and other training institutes		High	Low	<ul style="list-style-type: none"> • Information and data on the sector • Employment opportunities • Permits for Research and Surveys 	Data and information Human Resources Competent Staff	Negative advocacy	<ul style="list-style-type: none"> • Communication and consultation

Stakeholder	Impact	Interest	Power	What is important to the stakeholder?	What contribution can this stakeholder make?	How could this stakeholder block the plan?	Strategy for engaging the stakeholder
International Agencies, e.g. European Union (EU)		High	High	<ul style="list-style-type: none"> Compliance with international standards and obligations. 	Financing Training Trade	<ul style="list-style-type: none"> Withdrawal of financial support Trade barriers Refusal of products 	<ul style="list-style-type: none"> Communication Sharing of data, information and statistics Diplomacy
National Environmental and Planning Agency (NEPA)		High	High	<ul style="list-style-type: none"> Collaboration Compliance Provision of information and data 	MOUs and working relationships to facilitate more seamless service delivery	Slow pace of approvals Requiring fees of the NFA	<ul style="list-style-type: none"> Collaboration and engagement at the policy maker level
Urban Development Corporation		High	High	<ul style="list-style-type: none"> Use of beach Collaboration and information 	Assistance with ensuring formal tenure of lands For fisheries and aquaculture	Refusal of permits Eviction Negative policy advocacy	<ul style="list-style-type: none"> Consultation and collaboration

ANNEX B: RISK REGISTER

Major Activity	Risk Description	Opportunity/ Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
Capture Fisheries Objective: To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2026	If there are no interested parties in managing and the fish sanctuaries once established, the objective of establishing more protected areas will not be realised	Threat	Medium-term Strategic Risk	4	3	12	Reduction	Solicit parties to garner interest in managing fish sanctuaries and engaging in more public awareness activities on the importance of managing our fisheries.	Principal Director, Capture Fisheries
	If funds are not forthcoming for the sustainability of the fish sanctuaries, these will collapse.	Threat	Medium-term Strategic Risk	3	5	15	Reduction	Lobby for funds from local and international authorities. Public Education on the importance of managing fisheries Strategic choice of sanctuary partners.	Principal Director, Capture Fisheries
	The threat of climate change and pollution are major factors which will affect the sustainability and viability of the fish sanctuaries. However, this presents an	Threat	Medium to Long-term Strategic Risk	5	4	20	Reduction	Site selection for the most suitable sites, based on research surveys. Public education to inform stakeholders on the effects of pollution and impact of climate change. Increased monitoring and surveillance to acquire data to make informed decisions	Principal Director, Capture Fisheries

Major Activity	Risk Description	Opportunity/Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
	opportunity to receive funding	Opportunity	Medium to Long Term Strategic Risk	4	5	20	Acceptance	Capitalise on international funding to receive assistance for climate change mitigation strategies	Principal Director, Capture Fisheries
	Infringement of sanctuary boundaries by persons engaged in illegal, unreported and unregulated (IUU) fishing activities.	Threat	Immediate Strategic Risk	5	3	15	Reduction	Increase enforcement activities in and around sanctuaries.	Principal Director, Fisheries Compliance, Licensing and Statistics
	Controlled access to the sanctuary can be a tourist attraction. However, uncontrolled and unregulated access by tourists will affect the integrity of the sanctuaries.	Threat	Medium Term Strategic Risk	3	3	9	Reduction	Increase enforcement around tourism areas. Monitoring and surveillance Public Education	Principal Director, Capture Fisheries Principal Director Fisheries Compliance, Licensing and Statistics
		Opportunity	Immediate Term Strategic Risk	5	4	20	Acceptance	Increase partnerships with international and local investors Public education	Principal Director, Capture Fisheries
Aquaculture To triple fish production from Aquaculture to	Inadequate funds to facilitate the construction of a new bio-secure RAS hatchery	Threat	Immediate Term Strategic Risk	3	5	15	Reduction	Identifying other partners that can fund the required activities	Principal Director, Aquaculture

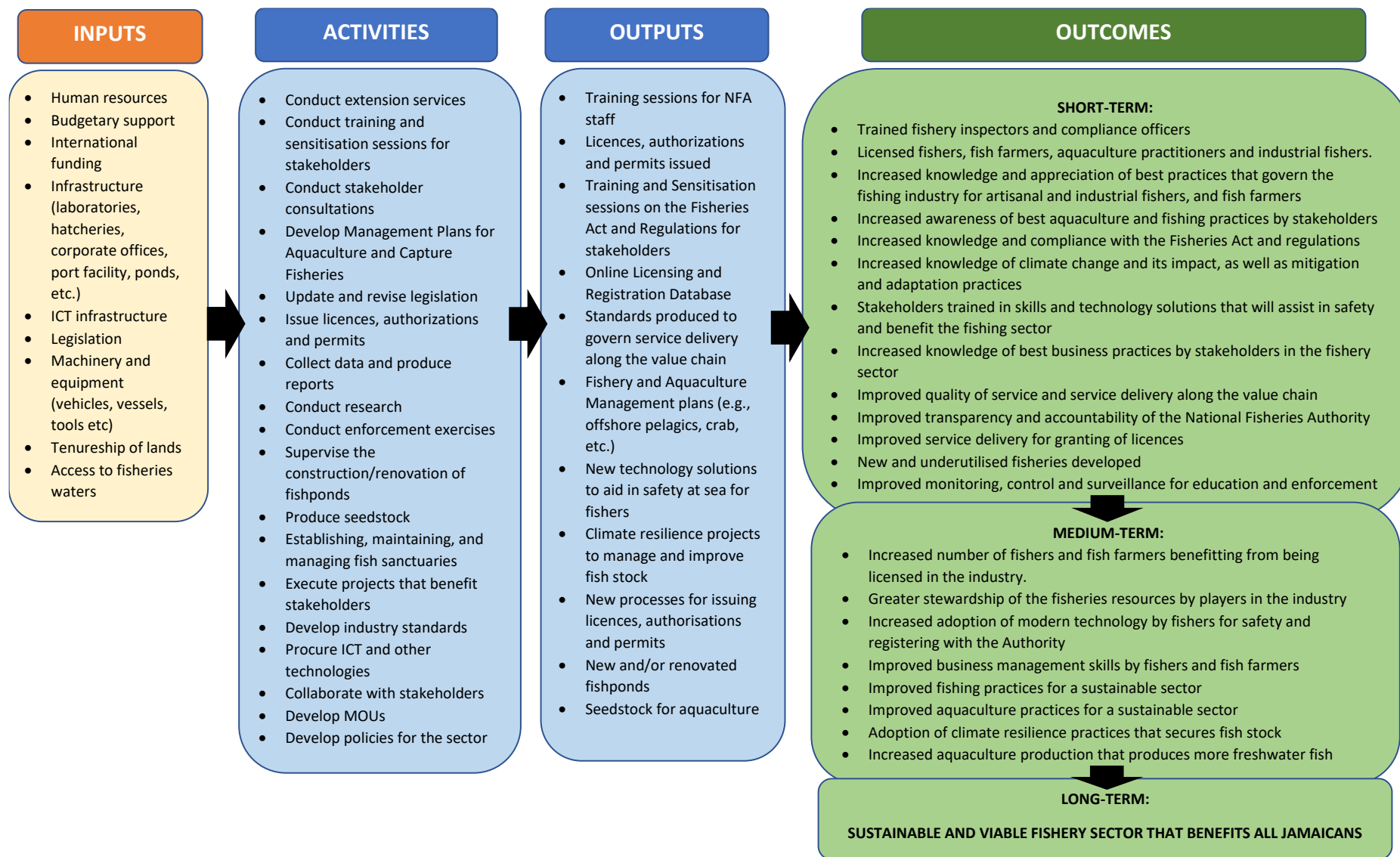
Major Activity	Risk Description	Opportunity/ Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
over 3400Mt by 2025.	Diseases can potentially impact the fish stock.	Threat	Medium Term Strategic Risk	2	3	6	Reduction	Proper Standard Operating Procedures (SOPs) to manage the hatchery	Principal Director, Aquaculture
	Inefficiencies in adapting to and operating new technology due to learning curve	Threat	Medium Term Strategic Risk	3	3	9	Reduction	Training and adherence to SOPs.	Principal Director, Aquaculture
Blue Economy Growth To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.	Inadequate budgetary support or funding to implement required statistical monitoring of fish production and to conduct socio-economic surveys	Threat	Immediate Term Strategic Risk	4	4	5	Reduction	Re-organize budget or operational priorities	Principal Director, Compliance, Licensing & Statistics Principal Director, Aquaculture Principal Director, Capture Fisheries
	Global trade disruptors such as the ongoing pandemic and trade barriers, reduce or prevent access to new markets	Threat	Medium Term Strategic Risk	3	5	15	Acceptance	Engage bi-lateral or multilateral partners regarding trade access	Chief Executive Officer
To increase the number of fisheries being managed through fishery and aquaculture	World Bank Fisheries PPCR fails to deliver expected outputs (e.g., Pelagics and Mariculture activities)	Threat	Operational Risk	3	5	15	Reduction	Improve coordination of and / or operational management of project activities	Chief Executive Officer / Project Manager

Major Activity	Risk Description	Opportunity/ Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
management plans, from 2 to 10 by 2027.	Lobster fishery survey not implemented	Threat	Operational Risk	3	4	12	Reduction	Improve coordination of and / or operational management of project activities	Principal Director, Capture Fisheries
Fisheries Compliance, Licensing and Statistics To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027.	A lack of buy-in from fishers regarding the intent of the law will lead to low registration of these fishers.	Threat	Medium Term Strategic Risk	4	3	12	Reduction	Increase the number of public education sessions and outdoor licensing sessions for artisanal fishers	Principal Director, Fisheries Compliance, Licensing and Statistics
	Lack of support from security forces for enforcement of the Fisheries Act and regulations will lead to an increase in illegal activities.	Threat	Immediate Term Strategic Risk	2	4	8	Reduction	Strengthen the relationship between the NFA and security forces through agreements and MOUs.	Principal Director, Fisheries Compliance, Licensing and Statistics
	Failure to comply with the requirement to have landing data collected will affect the quality of the Data Collection Programme which lowers the integrity of management decisions made about the fisheries sector.	Threat	Medium-Term Strategic Risk	3	4	12	Reduction	Training and sensitisation sessions for industrial fishers, as well as, training of Fishery Inspectors to support data collection at landing sites.	Principal Director, Fisheries Compliance, Licensing and Statistics

Major Activity	Risk Description	Opportunity/ Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
Central Administration For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027.	Inadequate funds to pay for the increased staffing required	Threat	Short Term Strategic Risk	4	3	12	Reduction	Deploy existing staff to accomplish tasks and ensure workplans are in place so there is efficiency in operations	Senior Director, Corporate Services Director of Finance
	Inadequate staffing to enable roll out of ICT systems	Threat	Short Term Strategic Risk	4	4	16	Reduction	Seek Human Capacity assistance from the central Ministry	ICT Manager Senior Director, Corporate Services
	Inadequate HR skills available to implement requisite procedures	Threat	Short Term Strategic Risk	3	3	9	Reduction	Train existing staff to increase knowledge capacity. Request additional human resource capacity from central Ministry.	Senior Director, Corporate Services
To obtain ISO:9001 certification to strengthen the Authority's transition into a world class organisation by 2030.	Inadequate commitment to the process resulting in non or late achievement	Threat	Medium Term Strategic	4	4	16	Reduction	Commitment at Policy level of organisation frequently articulated.	NFA Board, Chief Executive Officer
Legal To strengthen the legislative framework by	Required Policies are not in place to guide the process required to update the regulations.	Threat	Medium-term Strategic Risk	3	3	9	Reduction	The policy personnel needs to be recruited to minimize the occurrence of this risk. As well as the necessary management plans for fisheries are to be prepared	Legal and Principal Director, Fisheries Capture

Major Activity	Risk Description	Opportunity/ Threat	Risk Category	Likelihood (P)	Impact (I)	Risk Score	Response Category	Response	Risk Owner
providing policy guidance for five key regulations to govern the fisheries and aquaculture sector by 2025.								to guide any policy to be recommended.	
	The necessary consultation cannot be facilitated	Threat	Medium-term Strategic Risk	3	3	9	Reduction	Ensure that work to be done is scheduled to allow for time to enable consultation.	Legal
	The required personnel are not recruited to steer the process	Threat	Medium to Long-term Strategic Risk	3	3	9	Reduction	The NFA needs to look at the periods of employment of each employee to ensure that the objectives to be fulfilled can be done within the slated contract period.	Legal Senior Director of Corporate Services
	Lack of support for policy move from parent Ministry	Threat	Immediate Strategic Risk	3	3	9	Reduction	The Minister needs to appoint the members to the Fishery Advisory Counsel, so that any policy needed to drive the completion of the Regulations can be approved etc.	Chief Executive Officer, Legal

ANNEX C: LOGIC MODEL



ASSUMPTIONS: It is assumed that stakeholders will be interested in collaborating, that scientists/students will want to conduct research and that funds are available or be made available for all activities.

CONSTRAINTS: The impact of climate change is a constraint for the sector. Also, rising cost of fuel and overall increasing interest rate may impact the fishers' who need to be licensed.

ANNEX D: MONITORING PLAN

Activity	Performance Indicator(s)	Baseline Data (2019/2020)	Major Tasks	Monitoring Frequency						Monitoring Method(s)
				Year (2023/2024)		Year (2024/2025)		Year (2025/2026)		
				Target	Monitoring Timeline	Target	Monitoring Timeline	Target	Monitoring Timeline	
Increase the Sanctuary Cover of Coastal Fisheries Waters	# of hectares of coastal fisheries designated as sanctuaries	10,000 hectares	<ul style="list-style-type: none"> • Sign MOUs with interested parties • Conduct Consultations and Research Surveys • Prepare boundary descriptions 	11,600	Quarterly	11,600	Quarterly	20,000	Quarterly	<ul style="list-style-type: none"> • Progress Reports • Site Visits • Research and/or Survey Reports
Increase the number of fishery and aquaculture management plans	# of approved management plans	2	<ul style="list-style-type: none"> • Conducting research surveys • Develop management plans for tuna/offshore pelagics, sea moss, oyster, lobster and reef fish. • Develop aquaculture management plans for tilapia, freshwater prawn and ornamental fish. 	1	Quarterly	1	Quarterly	1	Quarterly	<ul style="list-style-type: none"> • Progress Reports • Reports on surveys • Research reports for the targeted fishery • Draft plans submitted
Increase percentage of fishers and fish farmers who are licensed	# of licences, authorizations and permits issued	5102	<ul style="list-style-type: none"> • Conduct vessel surveys • Survey active fishers to ascertain licence status • Implement online licensing system • Increase enforcement across fishing beaches and 	8600	Quarterly	9000	Quarterly	9000	Quarterly	<ul style="list-style-type: none"> • Survey reports • Data analysis

Activity	Performance Indicator(s)	Baseline Data (2019/2020)	Major Tasks	Monitoring Frequency						Monitoring Method(s)
				Year (2023/2024)		Year (2024/2025)		Year (2025/2026)		
				Target	Monitoring Timeline	Target	Monitoring Timeline	Target	Monitoring Timeline	
Triple fish production to over 3400Mt by 2025.	# of fish produced nationally	911Mt	<ul style="list-style-type: none"> Renovate 2 acres of production and brood ponds Construct new bio-secured RAS hatchery to increase fry production for stakeholders Acquire additional facility – Toll Gate 	1100Mt	Quarterly	1250Mt	Quarterly	>1500Mt	Quarterly	<ul style="list-style-type: none"> Status reports on renovation and construction activities
Increase fisheries contribution to GDP to J15B by 2027.	% contribution to GDP	\$10B	<ul style="list-style-type: none"> Develop new and underutilised fisheries Monitor and measure fish production Identify new local and international markets Develop fisheries tourism 	\$12B	Annually	\$13B	Annually	\$14B	Annually	<ul style="list-style-type: none"> Production Reports Revenue tracking of new markets Development plans completed for new and underutilised fisheries
Strengthen the legislative framework	# of new regulations for which guidance provided	0	<ul style="list-style-type: none"> Review existing regulations and laws Consult with technical directors and stakeholders Prepare drafting instructions 	2	Quarterly	1	Quarterly	1	Quarterly	<ul style="list-style-type: none"> Progress Reports

Activity	Performance Indicator(s)	Baseline Data (2019/2020)	Major Tasks	Monitoring Frequency						Monitoring Method(s)
				Year (2023/2024)		Year (2024/2025)		Year (2025/2026)		
				Target	Monitoring Timeline	Target	Monitoring Timeline	Target	Monitoring Timeline	
Update the Fisheries Act with climate resilient clauses	% completion of the update to the Fisheries Act to include climate resilience	0	<ul style="list-style-type: none"> Update the Fisheries and Aquaculture policy to reflect climate smart fisheries and aquaculture to inform updates to the Fisheries Act. 	-		10%	Quarterly	40%	Quarterly	<ul style="list-style-type: none"> Progress reports
Implement pilot programmes to introduce climate smart technologies and alternative livelihoods	# of pilot programmes implemented	0	<ul style="list-style-type: none"> Implement Pilot project for introduction of offshore pelagic fishing Implement Pilot project to construct Recirculated Aquaculture System (RAS) to conserve water. 	-	-	1	Quarterly	1	Quarterly	<ul style="list-style-type: none"> Progress Reports
NFA's full transition to a statutory body	# of critical components completed	0	<ul style="list-style-type: none"> Implement ICT and IT Management systems. Hire competent staff. Draft policy and strategies for the NFA and implement the Standard Operating Procedures 	1 ICT and IT systems	Quarterly	1 SOPs in place	Quarterly	1 Fully staffed NFA	Quarterly	<ul style="list-style-type: none"> HR Reports IT Reports Audit Reports
ISO 9001 certification for the NFA	% completion of certification requirements	100%	<ul style="list-style-type: none"> Engage ISO representative to monitor Designate ISO focal point Document processes Conduct internal audits and facilitate external audits 	25%	Annually	50%	Annually	100%	Annually	<ul style="list-style-type: none"> Review of audit reports Review of documented processes

ANNEX E EVALUATION PLAN

Major Activity	Objectives	Expected Outcome(s)	Evaluation Type (Frequency) and Completion Date	Evaluation Questions	Evaluation Method(s)	Division/Unit Responsible for Evaluation
Increase the Sanctuary Cover of Coastal Fisheries Waters	To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2026	<ul style="list-style-type: none"> • The no-fishing zones in Jamaica are increased • Fish production within sanctuaries is increased 	Once July 2026	<ul style="list-style-type: none"> • Is there an increase in fish abundance and production within sanctuaries? • Are sanctuaries being managed according to the requirements of the MOU with the Authority? • Is there an increase in overall fish production in coastal waters? 	<ul style="list-style-type: none"> • Research reports • Surveys conducted • Statistical analyses 	Capture Fisheries Division
Increase the number of fishery and aquaculture management plans	To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.	<ul style="list-style-type: none"> • New and underutilised fisheries are developed • There is increased production associated with the fisheries and aquaculture • Economic benefits are realised 	Every 2 years	<ul style="list-style-type: none"> • How many new fisheries have been developed? • How many underutilised fisheries have been developed? • Is there increased production since the implementation of fishery and aquaculture management plans? 	<ul style="list-style-type: none"> • Research reports • Analysis of data 	Capture Fisheries Division

Major Activity	Objectives	Expected Outcome(s)	Evaluation Type (Frequency) and Completion Date	Evaluation Questions	Evaluation Method(s)	Division/Unit Responsible for Evaluation
				<ul style="list-style-type: none"> Is there an increase in financial output resulting from the management of targeted fisheries? 		
Increase percentage of fishers and fish farmers who are licensed	To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027.	<ul style="list-style-type: none"> Increased number of fishers and fish farmers benefitting from being licensed in the industry. Improved monitoring, control and surveillance for education and enforcement 	Every two years May	<ul style="list-style-type: none"> Is there an increase in the number of persons applying for licences, authorisations and permits? Is there an increase in the rate of renewal of licences for actively participating fishers Is there a decrease in the incidence of Illegal, Unreported and Unregulated fishing? 	<ul style="list-style-type: none"> Research Report Evaluation Case Studies Data analysis 	Fisheries Compliance, Licensing and Statistics Division
Triple fish production to over 3400Mt by 2025.	To triple fish production from Aquaculture to over 3400Mt by 2025.	<ul style="list-style-type: none"> Increased aquaculture production that produces more freshwater fish Improved aquaculture practices for a sustainable sector 	Once May 2025	<ul style="list-style-type: none"> Is the new hatchery operating at its desired capacity? Is there an increase in fry production? Are fish farmers purchasing more fry from the Authority? 	<ul style="list-style-type: none"> Research Reports Audit of facility 	Aquaculture Division

Major Activity	Objectives	Expected Outcome(s)	Evaluation Type (Frequency) and Completion Date	Evaluation Questions	Evaluation Method(s)	Division/Unit Responsible for Evaluation
		<ul style="list-style-type: none"> Improved business management skills by fish farmers Increased number of fish species cultured 		<ul style="list-style-type: none"> Is there a significant increase in profit associated with the activity? Are fish farmers using more sustainable practices? 		
Increase fisheries contribution to GDP to J15B by 2027.	To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.	<ul style="list-style-type: none"> Improved quality of service and service delivery along the value chain Increased knowledge of best business practices by stakeholders in the fishery sector Improved profitability of fishers and fish farmers Increased amount of data and statistics relevant to the sector. 	Once May 2026	<ul style="list-style-type: none"> Has the financial revenue from fisheries increased? Has there been a financial benefit to licenced fishers? To what extent has the increase in production led to an improvement in lifestyle of fishers and fish farmers? 	<ul style="list-style-type: none"> Surveys Data analysis Statistical reports 	All Divisions STATIN PIOJ
Strengthening the legislative framework	To strengthen the legislative framework by providing policy guidance for five key regulations to govern the fisheries	<ul style="list-style-type: none"> Increased knowledge and compliance with the Fisheries Act and regulations Enhanced organisation efficiency and effectiveness in service delivery 	Once October 2025	<ul style="list-style-type: none"> Are regulations in place Have the regulations led to a change in practice by stakeholders 	<ul style="list-style-type: none"> Evaluation Case Studies 	Legal Service Unit Capture Fisheries

Major Activity	Objectives	Expected Outcome(s)	Evaluation Type (Frequency) and Completion Date	Evaluation Questions	Evaluation Method(s)	Division/Unit Responsible for Evaluation
	and aquaculture sector by 2025.					
NFA's full transition to a statutory body	For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027.	<ul style="list-style-type: none"> • Standard Operating Procedures are in place • HR systems and policies are in place • ICT systems and infrastructure are implemented and operating at high efficiency • Audits are done • Finance and Account systems are in place to facilitate payment of staff • Pension and Health Insurance schemes implemented 	Once July 2027	<ul style="list-style-type: none"> • Are all Divisions adhering to standard operating procedures? • Do staff members have health insurance and pension benefits? • Are audited financials being done? • Are ICT systems in place (servers, network switches, intranet)? 	<ul style="list-style-type: none"> • Document reviews • Process reviews • Audit reports 	Corporate Services Internal Audit

ANNEX F: PROCUREMENT PLAN

FOR GOODS (MATERIALS, EQUIPMENT AND SUPPLIES)

Item description (What to buy?)	Month when needed (When to buy?)	Quantity (How many to buy?)	From where to buy?	Estimated cost	Procurement Method	Procurement Schedule				
						Advertise (Insert dates)	Submission of Bids (insert dates)	Bid Evaluation and recommendation approval	Contract award (insert dates)	Delivery (insert dates)
YEAR 2 (2023/2024)										
Office Furniture -Desk -Chairs -Conference Tables	April 2023, June 2023	At least 30 depending on staff recruitment.	Market – Stationery and Office Supplies, Today’s Office, Neveast Supplies, Keith Ryan and Company Etc.	\$3,300,000	Limited tendering / Restricted bidding	1 st Quarter	1 st Quarter	1 st -2 nd Quarter.	2 nd Quarter	2 nd Quarter
Cleaning Products/Toiletries	April 2023, August 2023, December 2023, February 2024		Market - Minott Equipment and Chemicals, Zep Products Limited etc.	\$1,320,000	Limited tendering / RFQ	April 2023, August 2023, December 2023, February 2024	April 2023, August 2023, December 2023, February 2024	April 2023, August 2023, December 2023, February 2024	April 2023, August 2023, December 2023, February 2024	April 2023, August 2023, December 2023, February 2024
Software and licenses	April 2023,	1	Market-Blue Chip Strategies Limited, Ministry of Science, Energy and Technology, Spacial Data Management Development Branch	\$200,000.00	RFQ	April 2023	April 2023	April 2023-May 2023	May 2023	May 2023

Item description (What to buy?)	Month when needed (When to buy?)	Quantity (How many to buy?)	From where to buy?	Estimated cost	Procurement Method	Procurement Schedule				
						Advertise (Insert dates)	Submission of Bids (insert dates)	Bid Evaluation and recommendation approval	Contract award (insert dates)	Delivery (insert dates)
Software Renewal License	April 2023	5	Market	\$3,226,000.00	RFQ/Limited Tendering	May 2023	May 2023	May 2023	May 2023	May 2023
Computers, printers & laptops	April 2023, July 2023 and January 2024	20	Market- Royale Computers, KS Verdant Enterprise Limited, Computers and More	\$8,902,000.00	Restricted Bidding/Limited Tendering	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024
Closed User Group (CUG) for the period of two (2) years	The tender process hastely commenced.	approximately 290 Users	Market - Cable and Wireless Jamaica Limited and Digicel Jamaica Limited	\$31,000,000.00	Restricted Bidding	October 2022	October 2022	November 2022	November 2022- December 2022	March 2025
Stationery	April 2023, July 2023 and January 2024		Market - Stationery and Office Supplies, Century Business, Innovative Solutions Etc.	\$5,121,000.00	Restricted Bidding	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024
Scientific Equipment	April 2023, January 2024		Market	\$2,961,000.00	Restricted Bidding	April 2023, and January 2024	April 2023, January 2024	April 2023, January 2024	April 2023, January 2024	April 2023, January 2024
Repairs and Service to Vehicle	1 st Quarter	1	Market	\$1,000,000.00	Sole-source	1 st Quarter	1 st Quarter	1 st Quarter	1 st Quarter	1 st Quarter

Item description (What to buy?)	Month when needed (When to buy?)	Quantity (How many to buy?)	From where to buy?	Estimated cost	Procurement Method	Procurement Schedule				
						Advertise (Insert dates)	Submission of Bids (insert dates)	Bid Evaluation and recommendation approval	Contract award (insert dates)	Delivery (insert dates)
Rental of Vessel	1 st Quarter	1	Market	\$8,000,000.00	Restricted Bidding	1st Quarter	1st Quarter	1st Quarter	1st Quarter	1st Quarter
Guard Services	April 2023, July 2023 and January 2024			\$5,488,000.00	Follow-on procurement	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024
Motor Fuel/lubricant/oils etc	April 2023, July 2023 and January 2024		Market	\$6,068,000.00	RFQ/Limited Tendering	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024	April 2023, July 2023 and January 2024
Item description (What to buy?)	Month when needed (When to buy?)	Quantity (How many to buy?)	From where to buy?	Estimated cost	Procurement Method	Procurement Schedule				
						Advertise (Insert dates)	Submission of Bids (insert dates)	Bid Evaluation and recommendation approval	Contract award (insert dates)	Delivery (insert dates)
Fuel for Boat Motor	April 2023, July 2023, and January 2024		Market	\$3,250,000.00	RFQ and Limited Tendering	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024

Item description (What to buy?)	Month when needed (When to buy?)	Quantity (How many to buy?)	From where to buy?	Estimated cost	Procurement Method	Procurement Schedule				
						Advertise (Insert dates)	Submission of Bids (insert dates)	Bid Evaluation and recommendation approval	Contract award (insert dates)	Delivery (insert dates)
Repairs and purchases units	April 2023, July 2023, and January 2024	19 to be repaired or purchased	Market - Geddes Refrigeration, CAC 2000 Limited, ATL Appliances Limited etc.	\$300,000.00	Restricted Bidding /Sole Source	1st Quarter	1st Quarter	1st -2nd Quarter.	2nd Quarter	2nd Quarter
Local Advert	April 2023, July 2023, and January 2024	At Least 5	Market - JIS, Gleaner, Observer and Radio	\$1,160,000.00	Sole-source	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024
Land Survey	April 2023, July 2023, and January 2024	At least 3	Market - Lofters and Associates Limited, Donovan Simpson and Associates	\$5,500,000.00	Restricted Bidding	July 2023	July 2023	July-August 2023	August 2023	August 2023
Foreign Consultancy	April 2023, July 2023, and January 2024	1	Market	\$500,000.00	Sole-source	3 rd – 4 th Quarter	3 rd – 4 th Quarter	3 rd – 4 th Quarter	3 rd – 4 th Quarter	3 rd – 4 th Quarter
Food and Drinks	April 2023, July 2023, and January 2024		Market	\$2,910,000.00	Sole-source	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024	April 2023, July 2023, and January 2024

ANNEX G: DATA DICTIONARY FOR STRATEGIC OBJECTIVES

Strategic Objective: To increase the area of sanctuary cover of our coastal fisheries waters to 20,000 hectares by 2026			
Output/Outcome: Sanctuary cover of Jamaica’s coastal waters increased to 20,000 hectares.			
Indicator/Measure: Area (hectares) of coastal fisheries designated as sanctuaries			
Lead/Lag: Lagging	Frequency of Measurement: Annually	Unit Type: Percentage	Direction: Higher is better

Formula: Coastal area covered by sanctuary in hectares	
Data Source: Successful audits and surveys of marine coastal areas	
Data Quality: Based on the definition of ‘coastal area’ being waters down to 30 metres (m) in depth, sound research and data collection techniques to ensure accuracy and reliability.	Data Collector: Principal Director of Capture Fisheries

Baseline: 10,000 (2021)	Target: 20,000 by 2026
Target Rationale: An increase in the areas conserved as no-fishing zones will allow greater potential for increase in fish population. Through “the spill over effect” fish numbers and size will increase in the surrounding areas for fishery productivity.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Sign MOUs with interested parties who can fund, support and manage the sanctuaries. 2. Consultation and Research Surveys to determine suitable sites and to monitor sanctuary performance. 3. Prepare boundary descriptions for regulations.

Strategic Objective: To increase percentage compliance by fishers and fish farmers with licensing requirements to 60% by 2026.			
Output/Outcome: To increase percentage of fishers and fish farmers who are licensed, to 90% by 2027			
Indicator/Measure: % increase in number of fishers and fish farmers licensed			
Lead/Lag: Lagging	Frequency of Measurement: Annual	Unit Type: Percentage	Direction: Higher is better

Formula: The number of licensed fishers and fish farmers divided by the number of persons fishing and farming fish in the island x100.	
Data Source: The number of persons fishing will be informed by licensing and registration data, survey data of vessels, fishers and fish farmers.	
Data Quality: Sound research techniques employed to ensure survey results are able to withstand academic scrutiny.	Data Collectors: Principal Director, Fisheries Compliance, Licensing and Statistics Principal Director, Capture Fisheries Principal Director, Aquaculture

Baseline: 10% (2018/2019)	Target: 90%
Target Rationale: The Fisheries Act, 2018 has strengthened the legislative framework that supports the fishing industry and has transitioned the NFA into a statutory body. Through increased enforcement activities driven by a fully staffed Compliance branch and improved relations with the security forces, revenue collection is optimised and behaviours among the population improved. Increased staff complement and improved licensing processes will also lead to increased efficiency as it related to granting licences.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Increase and maintain staff complement for the Licensing, Compliance and Fisheries Extension branches of the NFA 2. Online Licence and Registration Database project funded by the IDB is to be completed by Dec. 2023 3. Increased enforcement within and around the fishing beaches. 4. Conduct survey of vessels and individual fishers

Strategic Objective: To increase the number of fisheries being managed through fishery and aquaculture management plans, from 2 to 10 by 2027.			
Output/Outcome: 10 fishery and aquaculture management plans in 2030			
Indicator/Measure: # of approved management plans			
Lead/Lag: Leading	Frequency of Measurement: Annually	Unit Type: Number	Direction: Higher is better

Formula: Number of management plans granted approval, are counted.	
Data Source: Capture Fisheries and Aquaculture Divisions	
Data Quality: Sound fishery and aquaculture planning in accordance with the Fisheries Act, 2018 and established international standards	Data Collector: Principal Director, Aquaculture Principal Director, Capture Fisheries

Baseline: 2 (2021)	Target: 10
<p>Target Rationale: The existence of this number of plans means that focussed attention has been given to the:</p> <ol style="list-style-type: none"> 1. management of existing fisheries 2. development of new and underutilised fisheries in accordance with sustainability criteria 3. responsible development of aquaculture <p>This will result in new and sustainable blue economic growth for the betterment of the country.</p>	<p>Initiatives/Projects/Activities:</p> <ol style="list-style-type: none"> 1. Offshore Pelagic development 2. Lobster Fishery Survey 3. Sea moss development 4. Oyster culture development 5. Further development of the sea cucumber management plan 6. Development of Tilapia 7. Development of freshwater prawn 8. Development of oramental fish

Strategic Objective: To triple fish production from Aquaculture to over 3400Mt by 2025.			
Output/Outcome: Increased aquaculture production that produces more freshwater fish			
Indicator/Measure: # of fish produced (metric tonne)			
Lead/Lag: Lagging	Frequency of Measurement: Annually	Unit Type: Number	Direction: Higher is better

Formula: Number of metric tonnes of fish produced by fish farmers	
Data Source: Data from Farm Management and Production	
Data Quality: Volumetric displacement is an accurate method to count fish and the staff will ensure that accepted industry standards for data collection are utilised.	Data Collector: Principal Director, Aquaculture, Director of Farm Management

Baseline: 911 MT	Target: ≥ 3400MT
Target Rationale: This level of production means that the industry will be able to supplement the needs of the local and international market for fish. It will aid in fish and nutritional security.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Improved and additional brood stock 2. Renovation of 2 acres production and brood ponds 3. Construction of new bio-secure Recirculated Aquaculture System (RAS) hatchery is planned for 2022/23 4. Acquisition of Toll Gate facility

Strategic Objective: To obtain ISO:9001 certification to strengthen the Authority's transition into a world class organisation by 2030.			
Output/Outcome: The NFA is ISO 9001 certified			
Indicator/Measure: % completion of certification requirements			
Lead/Lag: Lead	Frequency of Measurement: Annually	Unit Type: Percentage	Direction: Higher is better

Formula: Processes for the Authority are properly documented for the critical areas – Aquaculture, Capture Fisheries, Fisheries Compliance, Licensing and Statistics	
Data Source: Audit reports by ISO representatives	
Data Quality: High quality documented standards of the NFA which will stand up to the criteria set by ISO.	Data Collector: Senior Legal Officer Senior Director, Corporate Services

Baseline: 0 (not certified)	Target: ISO 9001 Certification
Target Rationale: For the NFA to become a world-class, sustainable and economically viable organisation, the quality of service needs to be at the highest standard.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Engage ISO representative to monitor 2. Designate ISO focal point within the NFA 3. Assessment and situational analysis of the organisation 4. Continuous documentation and refinement of, processes 5. Internal and external ISO audits based on standards 6. Internal and external consultations

Strategic Objective: For the NFA to be equipped with the requisite resources and infrastructure for full transition to a statutory body by 2027.			
Output/Outcome: Fully transitioned statutory body			
Indicator/Measure: % completion of HR, ICT and Finance establishments			
Lead/Lag: Lagging	Frequency of Measurement: Quarterly	Unit Type: Percentage	Direction: Higher is better

Formula: The number of staff on board in comparison to the number required for each unit (HR, Finance, ICT etc.) and completion of ICT infrastructure	
Data Source: Human Resources record	
Data Quality: Strategic recruitment done timely and in accordance with GOJ guidelines	Data Collector: Senior Director of Corporate Services

Baseline: TBD (2021)	Target: 100%
Target Rationale: The Authority was established pursuant to the Fisheries Act and to transition, it needs to be fully compliant with these areas in order to be designated a statutory body.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Identification of appropriate office space 2. Implementing an HR policy, finance strategy and ICT strategy 3. Implementation of ICT and IT Management systems 4. Board approvals 5. Procurement of various services

Strategic Objective: To strengthen the legislative framework by providing policy guidance for five key regulations to govern the fisheries and aquaculture sector by 2025.			
Output/Outcome: Regulations in place for the sector			
Indicator/Measure: % Completion of regulations			
Lead/Lag: Lagging	Frequency of Measurement: Quarterly	Unit Type: Percentage	Direction: Higher is better

Formula: Number of regulations for which policy guidance is provided	
Data Source: Legal Services Unit	
Data Quality: Through a thorough consultative process, regulations are drafter	Data Collector: Senior Legal Officer

Baseline: 0 (2021)	Target: 5
Target Rationale: To facilitate the build-out of the Legislative framework of the Fisheries Act of 2018 pursuant to section 104, so as to enable the proper implementation of the Act and enable the Authority to carry out its functions thus achieving its mandate.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Review of the various existing Regulations 2. Consultation with Technical Directorate and Stakeholders 3. Prepare Drafting Instructions

Strategic Objective: To introduce climate smart technologies and alternative livelihoods in fisheries by implementing 2 pilot programmes by 2027.			
Output/Outcome: Pilot Programmes implemented			
Indicator/Measure: % implementation of pilot programmes			
Lead/Lag: Lagging	Frequency of Measurement: Quarterly	Unit Type: Percentage	Direction: Higher is better

Formula: All components of the pilot programmes are implemented equates to 100% implementation.	
Data Source: Project Leads	
Data Quality: Accurate and comprehensive Project Reports	Data Collector: Capture Fisheries and Aquaculture Divisions

Baseline: 0 (2021)	Target: 2
Target Rationale: The Recirculated Aquaculture Systems (RAS) will be needed to conserve water in aquaculture production. A pilot project for introduction off offshore pelagic fishing will aid fishers in utilising his type of fishing sustainably.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Implement Pilot project for introduction of offshore pelagic fishing 2. Implement Pilot project to construct Recirculated Aquaculture System (RAS) to conserve water. 3. Introduce solar power technologies to fish farms and fishing operations.

Strategic Objective: To strengthen the Fisheries Act of 2018 to include climate smart and resilient fisheries clauses by 2030.			
Output/Outcome: Climate resilient clauses included in the Fisheries Act			
Indicator/Measure: % completion of the inclusion of climate resilient clauses in the Fisheries Act			
Lead/Lag: Lagging	Frequency of Measurement: Quarterly	Unit Type: Percentage	Direction: Higher is better

Formula: Number of clauses included/number of clauses projected for inclusion.	
Data Source: Legal Services Unit	
Data Quality: Thorough and comprehensive consultation to inform drafting of climate resilient clauses.	Data Collector: Senior Legal Officer

Baseline: 0 (2021)	Target: 100%
Target Rationale: Climate resilience is key for the fisheries sector due to the myriad of threats presented by climate change. Updating the primary legislation to include climate resilience will enshrine sustainable practices in law.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Stakeholder consultation 2. Policy papers 3. Issue drafting instructions

Strategic Objective: To increase the fisheries contribution to the GDP, by 50% to J\$15B, by 2027.			
Output/Outcome: Fisheries contribution to GDP is \$15 billion.			
Indicator/Measure: \$ contributed to GDP from fisheries			
Lead/Lag: Lagging	Frequency of Measurement: Annually	Unit Type: Percentage	Direction: Higher is better

Formula: Dollar contribution of fisheries production sector divided by total production of all other sectors in economy	
Data Source: National Fisheries Authority, STATIN, PIOJ	
Data Quality: Sound economic research techniques	Data Collector: Principal Director, Aquaculture Principal Director, Capture Fisheries Principal Director, Fisheries Compliance, Licensing and Statistics

Baseline: \$10B	Target: \$15B
Target Rationale: This level of contribution will indicate that fisheries is making meaningful contribution not only to food security but to the livelihood of its constituents.	Initiatives/Projects/Activities: <ol style="list-style-type: none"> 1. Monitoring and measuring of fish production 2. Socio-economic surveys of fishers and fish farmers 3. Identification and development of new markets 4. Institute development plans for new value-added products