



**Ministry of Agriculture and Marine Resources  
Government of The Bahamas**

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**Strategic Plan for Fisheries and Aquaculture Development and Management in the Bahamas  
2017-2022**

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## List of Acronyms

AG	Attorney-General
BAIC	Bahamas Agriculture and Industrial Corporation
BAMSI	Bahamas Agriculture and Marine Sciences Institute
BCFA	Bahamas Commercial Fishers Alliance
BIA	Bahamas Investment Authority
BIS	Bahamas Information Service
BMEA	Bahamas Marine Exporters Association
BMP	Best Management Practices
BNT	Bahamas National Trust
BREEF	Bahamas Reef Environment and Educational Foundation
CARICOM	Caribbean Community
CNFO	Caribbean Network of Fisherfolk Organizations
COB	College of The Bahamas
CRFM	Caribbean Regional Fisheries Mechanism
DMR	Department of Marine Resources
DRM	Disaster Risk Management
EAA	Ecosystem Approach to Aquaculture
EAF	Ecosystem Approach to Fisheries
ESA	Endangered Species Act (of the United States)
EU	European Union
FAO	Food and Agriculture Organization
FISMIS	Fisheries Information Management System
FMP	Fisheries Management Plan
GCFI	Gulf and Caribbean Fisheries Institute
GMP	General Management Plan
HACCP	Hazard Analysis Critical Control Point
HH	High Health
IGFA/BTT	International Game Fish Association/Bonefish & Tarpon Trust
IPOA	International Plan of Action (to prevent, deter and eliminate illegal, unreported and unregulated fishing)
ISO	International Organization for Standardization
IUU	Illegal, Unreported and Unregulated Fishing
MCS	Monitoring, Control and Surveillance
MPA	Marine Protected Area
MSC	Marine Stewardship Council
NGO	Non-Governmental Organization
NHI	National Health Insurance
NIB	National Insurance Board
NISS	National Invasive Species Strategy
NPOA	National Plan of Action (to prevent, deter and eliminate illegal, unreported and unregulated fishing)
PSA	Public Service Announcement
PSMA	Port State Measures Agreement
R&D	Research and Development
RAA	Aquaculture Network of the Americas
RBDF	Royal Bahamas Defence Force
RBPF	Royal Bahamas Police Force
SME	Small- and Medium size Enterprises

SOP	Standard Operating Procedure
SPF	Specific Pathogen Free
SPS	Sanitary and Phytosanitary Measures
SSOP	Sanitation Standard Operating Procedure
SWOT	Strengths, Weaknesses, Opportunities, Threats
TNC	The Nature Conservancy
US	United States
VAT	Value Added Tax
WECAFC	Western Central Atlantic Fishery Commission

## 1.0 Introduction

This Strategic Plan for fisheries and aquaculture development and management of The Bahamas (2017-2022) provides the strategic guide and operational direction to pursue the Vision set in the National Policy for Fisheries and Aquaculture of The Bahamas:

*To develop a sustainable, diverse, competitive and economically viable fisheries and aquaculture sector in The Bahamas. A sector which will deliver high quality, healthy food to consumers, and social, cultural, economic, and recreational benefits to communities, and which will operate responsibly in synergy with other sectors, in an environmentally responsible manner, locally, nationally and internationally and throughout its value chain.*

This Strategic Plan should be regarded as a contract between the Government of The Bahamas and the people of The Bahamas to support, develop and invest in the sector and maximize its impact to the overall development of the Commonwealth for the benefit of present and future generations.

The Strategic Plan provides a holistic and integrated approach to development that seeks to maximize the contribution of the sector to the three pillars of sustainability- social, economic and environmental- to ensure food security and nutrition for the people. It describes and proposes ways to meet the challenges and constraints faced by the sector.

The Ministry of Agriculture and Marine Resources is the responsible agency for the implementation of the Strategic Plan and National Policy. The lead operational agency is the Department of Marine Resources.

However, as established in the Fisheries Act and operationalized in the National Policy and this Strategic Plan, all stakeholders are ultimately jointly responsible for cooperating and working together with the Department of Marine Resources (DMR). The holistic integrated approach advocated by this Strategic Plan and the National Policy demands intra- and inter-agency cooperation with Government agencies as well as cooperation with private sector stakeholders, Non-Governmental Organizations and Civil Society Organizations. Coherence of the various agencies' programmes is essential, particularly for all departments within the Ministry of Agriculture and Marine Resources.

The Strategic Plan comprises the following sections (1) Introduction; (2) Fisheries and aquaculture in The Bahamas: a Brief Overview; (3) Potential and Challenges for fisheries and aquaculture; (4) Strategic Approach; (5) Operational Objectives (6) Outputs, Activities and Indicators; (7) Success and Risk Factors; and (8) Resources.

## 2.0 Fisheries and Aquaculture in The Bahamas: Brief Overview

### 2.1 Fisheries sector overview

The fisheries sector plays an important role in the Bahamian economy in terms of foreign currency earnings, food supply and employment. The commercial fisheries sector supplies 29 kg/capita/year of fish and fishery products to the population, generates some 80 million annually in export earnings and provides full-time employment to 9,300 commercial fishers and a few hundred more in vessel maintenance, fish processing, retail and trade. The fishing fleet is characterized as small-scale and counts approximately 4,000 fishing vessels ranging in length from 3 meters to 30 meters, but generally less than 7 meter in length.

The total commercial fisheries production in 2015 was estimated at nearly 12,000 tonnes. The total production has fluctuated in recent years. Fluctuations are largely caused by the variations in landings of spiny lobster, which were nearly 10,000 tonnes in 2010 and 2012 and around 6,500 tonnes in 2015. Spiny lobster stocks in The Bahamas are being fully exploited, while conch, snappers and groupers are, like in the rest of the Caribbean, under heavy fishing pressure and some stocks are probably overexploited. The major threats to the marine fisheries resources are coastal zone development, boat and diver damage to the reef, over-harvesting of commercial species and disturbance to sensitive sites.

The recreational and sport fisheries subsector of the fisheries sector is also very important to the country contributes an estimated 500+ million USD annually to the national economy through related expenditures by tourists, and provides employment for some 18,000 Bahamians. The recreational and sport fisheries target game fish, such as marlins and sailfishes, as well as bone fish.

The fisheries sector development in The Bahamas has been hampered by the lack of a proper policy and planning framework; a matter which is being addressed by National Policy and this Strategic Plan. Fisheries sector governance in The Bahamas is also constrained by the limited availability of data and information for management and development of capture fisheries (commercial and recreational).

### 2.2 Aquaculture sector overview

Aquaculture is a relatively new activity in The Bahamas. Following some research and pilot projects in aquaculture, the Government of The Bahamas drafted in 1977 aquaculture regulations for incorporation into the Fisheries Resources (Jurisdiction and Conservation) Act 1977 (revised in 1987). Following a number of pilot projects and trials in the last decades it can be concluded that aquaculture is still in its infancy in The Bahamas. The aquaculture subsector is currently small with just a few facilities and less than 20 persons employed.

In 2015, there were seven permitted aquaculture establishments in The Bahamas. These are described in Table 4 below.

Table 4: 2015 Bahamas aquaculture establishments

<b>Name of aquaculture farm</b>	<b>Species cultured</b>
Tropic Seafood	Spiny lobster, Nassau grouper, Yellowtail snapper
Maillis (experimental)	Tilapia, mullet, shads, snappers, Nassau grouper
Hanna	Shrimp, Tilapia, Red snapper, Nassau grouper
Adderley	Tilapia
Cape Eleuthera Institute	Cobia, Pompano, Queen conch, Spiny lobster, penshell, algae
Goodfellow Farms	Tilapia (aquaponics)
Hall	Tilapia (aquaponics)

Currently there are 22 species permitted for aquaculture in The Bahamas. Of these, 50% are indigenous species.

The production systems used in The Bahamas for aquaculture include floating cages in freshwater and salt water canals for finfish; pond culture for finfish, shrimp and brine shrimp; sea pasture ranching for conch and spiny lobster; ocean cages for finfish; and hatchery and nursery tank culture for all species.

## 3.0 Potential and Challenges of Fisheries and Aquaculture

### 3.1 SWOT Analysis

In the process of formulation of this Strategic Plan a strengths, weaknesses, opportunities, threats (SWOT) analysis was carried out, using a consultative process. The SWOT reflects the views and experiences of the stakeholders of the sector, and informs the objectives and work operationalized by this Strategic Plan (see Table 5). The SWOT analysis initially done in 2014 was further enhanced by the comments provided during the subsequent stakeholder consultations occurring in 2015 and 2016. Given the differences between the various subsectors, the SWOT tables below represent an aggregate understanding of the strengths, weaknesses opportunities and threats to aquaculture, fisheries and post-harvest activities in The Bahamas. To some extent, the National Policy for Fisheries and Aquaculture and the Strategic Plan have been created to respond to the issues identified by the SWOT analysis.

Table 5: Sector SWOT Analysis

<b>Fisheries</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Employment generator</li> <li>• Quality and availability of education</li> <li>• The presence of Bahamas Agriculture and Marine Science Institute (BAMSI), which is dedicated to education in marine science</li> <li>• Existence and capacity to hold numerous sport fishing tournaments</li> <li>• Revenue generator</li> <li>• Stable Government</li> <li>• Fisheries provide good proteins/ healthy food</li> <li>• Some fisheries stocks are healthy</li> <li>• Availability of funds for management in relation to other CARICOM nations</li> <li>• Political buy-in exists</li> <li>• Relative large size of the sector and related economic contribution</li> <li>• Fair and transparent legal system</li> <li>• Increased visitor arrivals with interest in recreational/sports fishing and who need food supply</li> <li>• Strong and well-informed NGO partners which provide support and collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of a national fisheries management plan</li> <li>• Generally insufficient resources for fishery management (i.e. human, financial and equipment)</li> <li>• Open access to coastal and marine resources</li> <li>• Lack of stock and fisheries assessments (and expertise to conduct them)</li> <li>• Insufficient data, statistics and information technology to aid in fisheries management</li> <li>• Insufficient use of fisheries technology in the sector</li> <li>• High prices of fishery products compared to chicken and beef, which reduce consumption</li> <li>• Incomplete knowledge of rules and regulations among local fishers</li> <li>• Low levels of compliance with regulations</li> <li>• Market access issues (e.g. lack of certification/eco-labeling)</li> <li>• Inadequate extension services</li> <li>• Outdated and inadequate fishery regulations</li> <li>• Small marine reserve network in need of expansion to be effective</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Outreach to facilitate changes in attitudes and behavior toward sustainable fisheries (e.g. sport fishing catch and release)</li> <li>• Healthy fisheries habitats and resources still exist in some locations</li> <li>• Education, research and training, and extension, workshops</li> <li>• Investment opportunities for quality assurance, ecotourism, aquaculture and ancillary industries</li> <li>• Increase employment</li> <li>• Improve food security</li> <li>• Improve social standing for fishers</li> <li>• International collaboration (research, information exchange, management, etc.)</li> <li>• Improve fishing technology and fisheries management</li> <li>• Increase revenue from fishing</li> <li>• Upgrade fisheries landing sites</li> <li>• Lobster Fishery Improvement Project can serve as a model for other species</li> </ul>	<ul style="list-style-type: none"> <li>• No assurance of continuity of policies and programmes if administrations change</li> <li>• Overfishing</li> <li>• Illegal, unreported and unregulated (IUU) Fishing</li> <li>• Conflicts at sea between sectors and within fisheries</li> <li>• Pollution and other forms of environmental degradation</li> <li>• Invasive alien species</li> <li>• Natural disasters</li> <li>• Climate change</li> <li>• Unchecked and unregulated technology</li> <li>• Misinformation being provided to the public</li> </ul>



<b>Aquaculture</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Product uniformity</li> <li>• Consistency of supply</li> <li>• Product origin - The Bahamas' reputation/image</li> <li>• Stock recovery</li> <li>• Minimal land required</li> <li>• Availability of adequate land and water resources</li> <li>• Diversification of products</li> <li>• Government support and incentives</li> <li>• BAMSII - an institutional resource (for technology and trained personnel)</li> <li>• Water quality — coastal waters are pristine in some locations</li> </ul>	<ul style="list-style-type: none"> <li>• High cost of capital</li> <li>• Environmental and ecological impacts from aquaculture</li> <li>• Limited local knowledge and expertise</li> <li>• High cost of production (labor, utility, inputs)</li> <li>• Lack of support from enforcement agencies</li> <li>• Poor availability of seed and feed</li> <li>• Geography: topography, geology, climate</li> <li>• Transport between islands is costly</li> <li>• Cost and reliability of electricity</li> <li>• Limited political will</li> <li>• Lack of policy and legislation</li> <li>• Limited current market demand and cultural appeal</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Increase food security and nutrition for the population</li> <li>• Nearby markets - regional, local and tourist markets in The Bahamas</li> <li>• Spin-off industries - ancillary, support, input production and supply</li> <li>• Closed recirculation and controlled systems technologies proven</li> <li>• Integration with crop production (aquaponics)</li> <li>• Employment creation</li> <li>• Economic growth</li> <li>• Research</li> </ul>	<ul style="list-style-type: none"> <li>• Invasive alien species</li> <li>• Aquatic animal diseases</li> <li>• Pollution</li> <li>• Security of stock (praedial larceny)</li> <li>• Natural predators</li> <li>• Natural and man-made disasters</li> <li>• Weather and climate variability with changes becoming less predictable</li> <li>• Competition with imports</li> <li>• Conflict among common resource users and with other sectors</li> </ul>

<b>Post-Harvest</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• A framework is in place for securing fish quality and safety (including HACCP, ISO and EU certified processors/exporters, competent authority, training of vendors in fish handling and use of SPS manual standard operating procedures)</li> <li>• The Department of Environmental Health Services inspects the domestic fish markets</li> <li>• Cold storage facilities are available in all major fishing ports</li> <li>• There are well-established business relationships with main export markets</li> <li>• The Bahamas' fisheries products have a good reputation abroad and at national level</li> <li>• The Bahamas is a net exporter (in value terms) of fisheries products</li> <li>• Fish-buying stations (collection centres) are established in almost all islands, facilitating fish sales by fishers</li> </ul>	<ul style="list-style-type: none"> <li>• High labor costs</li> <li>• Weak quality and safety inspections or controls in some Family Islands and fish landing sites</li> <li>• Poor (refrigerated) transport links for fish between certain islands</li> <li>• Flake ice supply for fishing vessels and transporters or middlemen is not available in most islands</li> <li>• Freshwater or tap water availability for fish processing is limited or lacking in various landing sites and markets</li> <li>• No proper traceability and labelling at retail level of fisheries and aquaculture products (origin, species names, expiry dates, etc. are not provided)</li> <li>• Lack of education or knowledge of fishers on hygiene, fish quality, safety and value of by-products and by catch (poor handling practices affect price and market opportunities)</li> <li>• Market infrastructure for fresh fish is limited in some islands (no flake ice, no certified scales, only chest freezers, electricity failures)</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Strong market demand locally</li> <li>• International market for conch, spiny lobster and stone crab</li> <li>• Marine Stewardship Council (MSC) certification of spiny lobster</li> <li>• Tourist market of 5 million visitors annually</li> <li>• Potential value added (spiny lobster, conch, sponge, other species)</li> <li>• Potential new product developments (e.g. lionfish)</li> <li>• Ease of entering post-harvest sector business –only need to meet technical requirements in conformity with main export markets</li> <li>• Use of byproducts (conch shells and horns, carapace of spiny lobster)</li> <li>• Use of waste from processing for animal feed, energy, fertilizer</li> <li>• BAMSI with expertise to conduct market research</li> <li>• Standards Bureau recently established</li> </ul>	<ul style="list-style-type: none"> <li>• High electricity costs</li> <li>• Disruption in cold chain during fish transport between islands</li> <li>• Few incentives provided by Government to the post-harvest sector (e.g. no duty free concessions)</li> <li>• Perception of consumers – they prefer fresh over frozen in the domestic market</li> <li>• Endangered Species Act (ESA) process in the USA may be detrimental to export of conch and Nassau grouper to the US market</li> <li>• VAT of 7.5% on fisheries products (from January 2015)</li> <li>• High market price of fish compared to chicken and pork in the domestic market</li> <li>• Price fluctuations – high prices for fish around Easter.</li> </ul>

## 3.2 Constraints

The weaknesses and threats identified in the SWOT analysis are re-cast into this list of constraints to give a better perspective of the challenges that confront the development of fisheries and aquaculture.

### 3.2.1 Social

- Not any plan exists for the sustainable use of the marine and freshwater resources of the country.
- Conflicts and competition exist in the use of resources between and within sectors
- Equity issues with low benefit sharing are raised by various stakeholder groups.
- Recreational or sport fishing – There is a concern about benefit and cost sharing between the communities and islands involved.
- Larceny - Theft of aquaculture crops, fishing gear and equipment is common.
- Competition - Perceived unfair competition from foreign (commercial and sport) fishers in local markets, in fishing grounds, and in fisheries-related tourism is widespread.
- Traditions - Preferences for Queen conch, spiny lobster and a few other fish species by tourists and nationals affect production and marketing strategies.

### 3.2.2 Technical

- Information – Knowledge gaps, limited availability and lack of access to fisheries and aquaculture data and information are common.
- Technical advice is not readily available, inadequate or inaccessible for fishers in Family Islands and fish farmers.
- Recreational/Sport fishing – Training of local guides and codes of good practice are lacking.
- Infrastructure on various Family Islands is inadequate or poorly maintained; Particularly the landing sites, cold storage facilities, ice plants, access roads, etc. Market infrastructure in Family Islands is also lacking.
- Limited guidelines for aquaculture development exist, which could support business or enterprise development plans or market development as well as promote of certain species for local and export markets.
- Resource use is inefficient, usually sub-optimal, partly caused by unavailability of information on fishery resources (lack of stock assessments, low catch per unit effort, maximum sustainable yield and reference points not available for management).
- Human capacity – The technical expertise for extension, production and resource management is limited.
- Communication among agencies – Duplication and overlap of studies and work between non-Governmental organizations (NGOs), research institutions and donor-funded projects is common.
- Logistics and costs of transporting fish to market in Nassau from the Family Islands is high.
- Inputs – Feed, fry, and fish culture equipment are scarce, not available or expensive.
- Research – There is a need for aquafeed research, identification of indigenous species for aquaculture, market research, etc.
- Knowledge of modern aquaculture technologies and systems (e.g. aquaponics, hatcheries, recirculation systems, feeding systems and value addition) is limited.

### **3.2.3 Economic**

- Micro-financing services are not available for most fishing communities.
- Fisheries stakeholders are among the disadvantaged groups in the population and have limited investment options.
- Financial services are absent in many of the Family Islands and inaccessible for the landless.
- Inadequate credit facilities for aquaculture reduce investments in this sub-sector.
- No insurance services are available for fisheries and aquaculture businesses.
- Disaster risk management (DRM) is not applied by the sector.
- The economic value of ecosystem services provided by fishery habitats and stocks is not recognized or considered.

### **3.2.4 Environmental**

- The impacts of other activities on the aquatic environment – i.e. scuba diving tourism, water tourism, urban pollution, agricultural run-offs - are not accurately assessed nor prevented.
- Non-commercial aquatic species that interact with and impact on production and reproduction of commercially attractive fisheries species are not assessed or considered.
- The impact of recreational or sport fishing on fishery resources is unknown or undocumented.
- Illegal, unreported and unregulated (IUU) fishing has not been fully assessed to determine its full impacts on the sector or the environment.
- Climate change variations are not being considered, hence adaptation efforts in the sector are minimal.

### **3.2.5 Institutional**

- The participation in fisheries management by fisheries sector stakeholders is limited.
- A centralized management system is in place within the archipelago that requires at least some decentralization.
- There exists some overlap of jurisdictions among several Government agencies.
- Enabling policies are not available (e.g. policies related to occupational health and safety in the fisheries sector).
- No mechanism for sector coordination exists.
- The fisheries legal framework in place requires enforcement capacity.
- No organized body of local knowledge for fisheries management exists.
- Long-term leasing of publicly owned local water bodies for fisheries or aquaculture is currently not possible.
- Cross-border exploitation of fishery resources is not properly negotiated or arranged with neighboring states.

## 4.0 Strategic Approach

The Department of Marine Resources of the Ministry of Agriculture and Marine Resources is the agency responsible for the development and implementation of this Strategic Plan. The proposed Fisheries Advisory Council and the National Stakeholder Forum will be the mechanisms for multi-stakeholder discussion and collaboration in the implementation of this Strategic Plan.

The Strategic Plan shall follow these general approaches:

- The National Policy for Fisheries and Aquaculture and its related strategies, plans and procedures will adhere to and be harmonized with international and regional standards. These would include the Code of Conduct for Responsible Fisheries and its related instruments<sup>1</sup>.
- The National Policy for Fisheries and Aquaculture and its related strategies, plans and procedures will adhere to and be harmonized with relevant national policies.
- Access to relevant national fisheries and aquaculture capacity (facilities and specialized expertise) is crucial for development and management of the sector. Collaboration with regional and international organizations and countries will be sought to further increase this national capacity.
- Fisheries and aquaculture management measures will be effective, practical, and cost-effective and utilize readily available resources. These resources will allow the development of appropriate national and regional policies and regulatory frameworks to encourage investments and reduce the risks associated with fishing, culture, reproduction and movement of aquatic animals. The development of management measures in the sector will draw guidance from the ecosystems approaches to fisheries and aquaculture.
- Fisheries and aquaculture management measures as well as all goals, outcomes and outputs of the National Policy and this Strategic Plan are formulated in the context of potential impacts from climate change and natural disasters. Mitigation and adaptation measures will be pursued in order to ensure the long-term security of the sector and ensure support to vulnerable fishing communities.
- The Department of Marine Resources (DMR) shall be the lead operational agency and encourage stakeholders in the fisheries and aquaculture sector in applying sustainable management and production programmes and procedures. Such measures would include Better Management Practices (BMP), Community-Based Fisheries Management, health certification, specific pathogen free (SPF) and high health (HH) stocks, biosecurity, and vaccination protocols.

The Strategic Plan shall continue current activities that are relevant, including:

- Promoting and enhancing the role of BAMSII to provide professionals and technicians to the sector,
- Facilitating the enactment and implementation of the new Fisheries Act of The Bahamas, and
- Establishment of the Fisheries Advisory Council and the National Fisheries Stakeholder Forum.

The Outputs from this Strategic Plan period (2017-2022) will be developed from ongoing or planned activities.

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<sup>1</sup> These include the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries; International Plan of Action for Conservation and Management of Sharks; International Plan of Action for the Management of Fishing Capacity; International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing; the Port State Measures Agreement; the Voluntary Guidelines for Securing Sustainable Small Scale Fisheries; the Voluntary Guidelines for Flag State Performance; the Voluntary Guidelines on Flag State Performance; and the International Guidelines for the Management of Deep-sea Fisheries in the High Seas.

## 5.0 Operational Objectives

The operational objectives are aligned with the Strategic Goals of the National Policy for Fisheries and Aquaculture and are therefore categorized under the three pillars of sustainability, namely, social, economic and environmental. A fourth pillar is the enabling environment, which is created by improved governance and enhanced institutional capacity.

The operational objectives of the National Policy and this Strategic Plan are to:

### **Economic**

1. Ensure the supply for domestic consumption through sustainable production, processing and marketing and by enhancing the value chain.
2. Increase the value and volume of fisheries and aquaculture export products through sustainable production, value addition and market diversification and by enhancing the value chain.
3. Promote independent and socially responsible entrepreneurship in the sector.
4. Enhance revenue derived from sport fishing and other tourism activities associated with the sector.

### **Social**

1. Increase employment through development of the aquaculture sector, and contribute to poverty alleviation through continued fisheries development, particularly in the Family Islands.
2. Strengthen the image of the sector and its products by highlighting the role of fishers, fish workers and their communities and increase consumer awareness on the nutritional and health benefits of fisheries and aquaculture products, environmental benefits of these resources and their role as responsible consumers.
3. Preserve and promote the culture and heritage of fishers, fish workers and their communities.
4. Ensure the access of fishers and anyone active in the fisheries and aquaculture sector to health, safety, social protection and national insurance programmes including improvements in occupational health and safety.
5. Create equitable access to the fisheries and aquaculture sector as a means of employment and poverty alleviation through awareness and training programmes targeted to women and other groups.

### **Ecological**

1. Improve production of fisheries by utilizing resources sustainably and responsibly informed by Ecosystem Approach to Fisheries (EAF) and the Ecosystem Approach to Aquaculture (EAA), including the protection of fragile ecosystems that are significant for the sector.
2. Protect fragile habitats, conserve native aquatic biodiversity and contribute to the rehabilitation of stocks of overfished, rare and endangered aquatic species.

### **Institutional**

1. Strengthen the national and local capacity for fisheries governance, including planning, management, regulation, monitoring and evaluation of the fisheries and aquaculture sector, and develop participatory approaches for co-management.

2. Reduce illegal, unreported and unregulated (IUU) fishing through improved enforcement capacity, improved regional level collaboration and improved capacity for Monitoring, Control and Surveillance (MCS)<sup>2</sup>.
3. Assist institutions to improve research and development (R&D), technical assistance, extension services, training and education.
4. Strengthen policy coherence and collaboration with other sectors (tourism, transport, development, etc.) to manage fisheries and aquaculture in an integrated fashion.

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<sup>2</sup> MCS is the implementation of a plan or strategy for ocean and fisheries management. It consists of monitoring (the continuous requirement for the measurement of fishing effort characteristics and resource yields), control (the regulatory conditions under which the exploitation of the resource may be conducted), and surveillance (the degree and types of observations required to maintain compliance with the regulatory controls imposed on fishing activities).

## 6.0 Outputs, Activities and Indicators

The outputs and activities to attain the objectives above, as well as any related key success indicators, partnerships with other institutions and the timeframe for implementation are provided in Table 6 below.

Table 6: Strategic Plan Outputs, Activities and Indicators

<b>Outputs of Economic Objective 1</b> Ensure the supply for domestic consumption through sustainable production, processing and marketing and by enhancing the value chain.	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe<sup>3</sup></b>
EC1.1 Targeted species, groups of species and/or areas and their environment are sustainably managed.	a. Develop a list of priority species that need Fishery Management Plans (FMPs). b. Identify and engage qualified individuals/institutions/ organizations to develop FMPs for priority species in consultation with DMR and relevant stakeholders. c. Conduct stakeholder management planning meetings on the respective islands d. FMPs for targeted species, groups of species and/or areas and their environment are devel-	Ministry adopts and implements FMPs  Documentation of stakeholder meetings held included as part of each FMP	In collaboration with TNC and BMEA (Lobster)	Short to Medium

<sup>3</sup> Key for the timeframe is as follows: Short – 1 to 3 years; Medium – 3 to 5 years; and Long – 5+ years.



	<p>oped, approved and implementation begins.</p> <p>e.</p>			
<p>EC1.2 Develop internal markets and increase demand for underutilized marine and aquaculture species</p>	<p>a. Identify potential species and do market research.</p> <p>b. Develop a public outreach programme for promising species.</p> <p>c. Develop value chains for species selected.</p>	<p>A market research report published</p> <p>Public outreach programme developed and directed towards fish consumption</p> <p>Contracts between producers and other stakeholders in the value chains of “new” species</p> <p>Increased sales from buyers/consumers for identified species measures through:</p> <ul style="list-style-type: none"> <li>• Annual reports from fish farmers including production statistics</li> <li>• Fish landing statistics</li> </ul>	<p>In collaboration with private sector stakeholders.</p>	<p>Short to Medium</p>
<p>EC1.3 Improved processing, safety, quality and sanitary measures to increase supply and improve internal availability and consumption.</p>	<p>a. Develop and implement Safe handling procedures, GMPs, SOPs, and SSOPs for all fishery products.</p> <p>b. Conduct training courses on SPS measures.</p>	<p>Number of processors and seafood vendors applying SPS protocols and quality protocols</p>	<p>In collaboration with seafood processors, fishers, vendors and retailers/wholesalers.</p>	<p>Short</p>

	c. Develop and implement training courses on seafood quality.	Number of persons that SPS training courses are delivered to  Seafood quality training course materials  Number of persons that seafood quality courses are delivered to		
EC1.4 Promote local/national sources of fish and aquaculture products to the public	a. Develop a National Communications Strategy to guide a promotion campaign. b. Expand public outreach on the need for compliance with fishery regulations in addition to the importance or need for sustainable fish consumption and seafood traceability.	National Communications Strategy developed and implemented  Pre- and post-surveys to indicate any changes in perceptions and consumer purchasing behavior with respect to fisheries and aquaculture products	Communications Strategy to be developed in conjunction with BIS or consultants.	Short to Medium
EC1.5 Targeted action to reduce economic losses as a result of poaching	a. Carry out a coordinated training with DMR, RBPF and RBDF in apprehension and arrest procedures for poachers/IUU fishers. b. Participate in regional training activities to address IUU fishing through organizations such as US Coast Guard and US Fish and Wildlife Service. c. Develop a reporting and rapid response network involving fishers and boaters, supported by	Training activities developed and implemented; number of officers participating in the training.  Improvement in interdiction rates coupled with reduction in reported observations of poaching	In partnership with RBPF, RBDF, US Coast Guard, US Fish and Wildlife Service	Short to Long

	<p>technology (e.g. satellite imagery, drones).</p> <p>d. Explore establishment of formal agreements with other jurisdictions to capture and penalize poachers/IUU fishers</p>	<p>Number of officers participating in regional IUU fishing related training activities</p> <p>Network established and functional. Documentation of incidences reported and final outcome (e.g. capture, evasion)</p> <p>Documentation of negotiation efforts. Formal agreements established with other jurisdictions</p>		
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<b>Outputs of Economic Objective 2</b> Increase the value and volume of fisheries and aquaculture export products through sustainable production, value addition and market diversification and by enhancing the value chain	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
EC2.1 Fish and fishery products exporters meet standards and criteria of current and potential markets.	<ul style="list-style-type: none"> <li>a. Review and revise (if necessary) seafood regulations for fisheries exports.</li> <li>b. Circulate revised regulations and standards to exporters and incentivize programme for them to adopt and comply with minimum standards being Codex Alimentarius.</li> </ul>	Adoption of revised seafood regulations (if necessary)  Adoption of standards for fishery products (Codex Alimentarius as well as those developed by Standards Bureau in partnership with DMR)  Increase in value of exports  Increase in market share and penetration	The Bahamas Bureau of Standards	Short to Medium
EC2.2 Increased promotion of export species in export markets	<ul style="list-style-type: none"> <li>a. Carry out a market research programme in the main export markets for specific export-species and share the research results with stakeholders, especially exporters..</li> <li>b. Develop an electronic marketplace for international buyers to access Bahamian companies and products.</li> </ul>	Market research programme developed and implemented  Electronic marketplace established and data gathered on reach and traffic linked to sales.	This output to be led by BAIC and BMEA members	Short

	<ul style="list-style-type: none"> <li>c. Investigate possibility of collaborations with the Ministry of Tourism to promote/advertise Bahamian fisheries resources and products.</li> <li>d. Identify and participate in a number of regional and international events (e.g. seafood exhibitions, cooking tournaments, etc.) where products can be promoted/advertised.</li> </ul>	<p>Formal agreement with Ministry of Tourism to promote/advertise Bahamian fisheries resources and products; annual reporting on dedicated funding and reach of advertisements</p> <p>Level of participation in regional and international seafood events</p>		
EC2.3 Review or assess fisheries stocks to determine feasibility of export and adherence to international agreements.	<ul style="list-style-type: none"> <li>a. Determine which stocks need review or assessment.</li> <li>b. Agree on the use of a stock review or assessment methodology.</li> <li>c. Carry out stock assessments of the main fish species stocks destined for export markets</li> <li>d. Give export permission only for stocks that are assessed or stocks with an assessment underway and with incorporation of best available scientific information into decision-making</li> </ul>	<p>Assessment results published or made available upon request</p> <p>Documentation of export permissions granted to confirm they are only given as described</p>	In collaboration with BAMSI	Medium

<b>Outputs of Economic Objective 3</b> Promote independent and socially responsible entrepreneurship in the sector.	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
EC3.1 Producer organizations strengthened to participate in the National Stakeholder Forum and other decision-making processes as well as improved stakeholder stewardship and ownership over sector	a. Consult with existing fisheries forum groups to confirm which programmes or initiatives already exist that can be modified and used for The Bahamas to help to engage and support fishers. b. Develop Bahamas-specific fisherfolk initiative inclusive of outreach materials and training opportunities.	Increased membership in formalized fisherfolk organizations  Number of fishers and fisherfolk organizations participating in National Stakeholder Forum in comparison to participation of other sectors	In collaboration with Bahamas Commercial Fishers Alliance (BCFA) and other fisher organizations.	Short to Medium
EC3.2 Guidance, support, information materials and other tools developed to promote entrepreneurship in the sector	a. Review aquaculture applications based on formalized and transparent criteria, inclusive of robust business plans. b. Train persons in business planning and management, at least once annually, under Bahamas-specific fisherfolk initiative.	Criteria developed and published; documentation of applications received and approved.  Business planning and management manuals available for persons involved in the sector	This output is the mandate of BAIC.  DMR will provide support and guidance to BAIC.	Short to Medium
EC3.3 Pilot and demonstration projects develop in support of commercially viable aquaculture operations	a. Develop pilot and demonstration projects. b. Publish results of pilot projects. c. Provide support to investors who want to conduct pilot projects	Number of pilot and demonstration projects  Number of pilots that evolve into commercial operations	This output is the mandate of BAIC and BAMSI This is in collaboration with BIA (for foreign investors)	Short to Medium

	jects, including sharing Aquaculture Technical Prospectus (FAO-DMR).	Number of persons receiving Prospectus		
EC3.4 Financial services made accessible to fishers and farmers to develop new opportunities in the sector and/or to improve existing operations (See National Fisheries Fund)	<ul style="list-style-type: none"> <li>a. Activate the National Fisheries Fund</li> <li>b. Publish information on financial services available locally for fishers and farmers</li> </ul>	<p>National Fisheries Fund activated (Dependent on enactment of new Fisheries Legislation)</p> <p>Information on available services publicly available</p>	In cooperation with relevant Government and private sector organizations	Short to Medium

<b>Outputs of Economic Objective 4</b> Enhance revenue derived from sport fishing and other tourism activities impacted by the sector.	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
EC4.1 Foreign and national vessels and anglers participating in sportfishing are fully licensed and pay the fees established in accordance with the Fisheries Act (now under consideration in the AG's Office).	<ul style="list-style-type: none"> <li>a. Enact proposed Fisheries Act</li> <li>b. Amend the fisheries regulations on sports fishing licensing and related fees structure</li> <li>c. Create awareness on, implement and enforce the regulations on sports fishing</li> </ul>	Legislation enacted  Amendments made and approved by Minister  Number of licensed vessels and individuals  Income from licenses	DMR together with the Ministry of Tourism	Short
EC4.2 An integrated program for sportfishing developed, including a review of current tournaments and permit procedures	<ul style="list-style-type: none"> <li>a. Investigate what system(s) are in place, need to be refined or created to properly collate sport fishing data.</li> <li>b. Develop information materials for distribution to marinas, lodges and all establishments that host fishing tournaments or support recreational fishing.</li> </ul>	Number of recreational fisheries tournaments  Application of IGFA/BTT and other established guidelines for catch –and-release fishing	DMR together with the Ministry of Tourism, BTT and the IGFA	Short



<b>Outputs of Social Objective 1</b> Increase employment through development of the aquaculture sector, and contribute to poverty alleviation through continued fisheries development, particularly in the Family Islands.	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
S1.1 Small and medium scale aquaculture enterprises developed and promoted	<ul style="list-style-type: none"> <li>a. Complete a feasibility study to determine which types of aquaculture projects have greatest chance of success</li> <li>b. Encourage involvement in the sector through education and training programmes about potential investments in aquaculture</li> <li>c. Assist SMEs with accessing micro-financing and other forms of financing</li> </ul>	<ul style="list-style-type: none"> <li>Publication of feasibility study</li> <li>Number of aquaculture facilities developed.</li> <li>Number of jobs created in aquaculture.</li> <li>Contribution of aquaculture to sector income</li> <li>Number of participants in education and training programmes</li> <li>Level of financing available to SMEs</li> </ul>	This output is the mandate of BAIC with technical assistance from BAMSI	Long
S1.2 National fisheries management plans produced for major commercial species to improve sustainable production	<ul style="list-style-type: none"> <li>a. Complete and adopt a lobster FMP.</li> <li>b. Develop a Queen conch FMP.</li> <li>c. Develop a Nassau grouper FMP.</li> </ul>	Fisheries management plans are in place for lobster conch, and Nassau grouper and are in line with EAF	In collaboration with TNC, BMEA, BNT, Community Conch, BREEF and Blue Project	Short to Medium

<p>S1.4 Access provided to social assistance programmes for fishers, fish workers and their communities, in line with national development priorities and actions.</p>	<p>a. Provide information to fishers, fish workers and communities about social assistance programmes (through DMR website)</p>	<p>Links to relevant Government agency websites available on the DMR website</p> <p>Records of requests for social assistance.</p>	<p>Persons would be directed to NIB, NHI, Social Services, Public Health and other relevant agencies.</p>	<p>Short</p>
<p>S1.5 Tenure rights for fishers resolved to ensure sustainability of the sector</p>	<p>a. Recognize, allocate and secure tenure rights of fishers and fishing communities to areas for physical access to marine environment, storage of boats and gear, areas for sale of products and the like</p> <p>b. Develop policies and legislation, as necessary, to formalize tenure rights, such as right-of-ways and shoreline access</p> <p>c. Increase awareness of fishers about their rights once these are formalized</p>	<p>Recommendations to Cabinet on allocating and securing tenure rights</p> <p>Policies and legislation developed and implemented</p> <p>Awareness materials developed and made publicly available on tenure rights</p>	<p>In collaboration with Government agencies including the AG's Office, Department of Lands and Surveys and Department of Physical Planning</p>	<p>Short to Medium</p>

<b>Outputs of Social Objective 2</b> Strengthen the image of the sector and its products by highlighting the role of fishers, fish workers and their communities and increase consumer awareness on the nutritional and health benefits of fisheries and aquaculture products, environmental benefits of these resources and their role as responsible consumers.	<b>Activities</b>	<b>Key Indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
S2.1 A programme to enhance the visibility and role of fishers, fish workers and their communities in society developed, including media outreach and partnerships	a. Develop public outreach materials (e.g. PSAs, presentations, billboards) b. Disseminate existing materials through available channels (e.g. radio and TV stations, school and NGOs)	Public outreach materials developed and disseminated  Increase participation in the annual Agri-business Exposition  National recognition of those within the sector (e.g. National Heroes Day)  Pre- and post-surveys to measure public awareness of role of those in the sector and their contribution to the economy and society.	In collaboration with other Government agencies, NGOs and private institutions.	Short
S2.2 A national campaign to increase consumer knowledge	a. Develop public outreach materials specific to nutritional value of these products (e.g. PSAs,	Public outreach materials developed and disseminated	In collaboration with Department of Public Health	Short to Medium

<p>on nutritional benefits of fisheries and aquaculture products designed and implemented</p>	<p>billboards, TV commercials from fishery associations)  b. Disseminate materials nationally, particularly to restaurants</p>	<p>Consumption of fish and fisheries products per capita   Pre- and post surveys to track changes in consumer preferences</p>		
<p>S2.3 A national campaign to increase consumer knowledge on the environmental benefits of fisheries and aquaculture as well as on the role of consumers in sustaining the sector through responsible choices</p>	<p>a. Develop public outreach materials specific to promotion of cultured products as alternatives to wild-caught species for conservation and sustainable purposes  b. Continue to circulate existing outreach materials on grouper closed season and purchasing/consuming legal crawfish tails</p>	<p>Public outreach materials developed and disseminated   Number of arrests/fines related to breach of regulations related to grouper closed season and crawfish size   Pre- and post-surveys to measure awareness of environmental benefits and responsible consumer choices</p>	<p>In collaboration with other Government agencies, NGOs and private institutions.</p>	<p>Short to Medium</p>

<b>Outputs of Social Objective 3</b> Preserve and promote the culture and heritage of fishers, fish workers and their communities.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
S3.1 Integration of traditional knowledge supported into fisheries research and knowledge development	<ul style="list-style-type: none"> <li>a. Include fishers in data collection design process and stock assessment process.</li> <li>b. Develop a database of fishers interested in participating in research and make it available to potential researchers.</li> </ul>	<p>Number of fishers that are involved in data collection design and stock assessment processes.</p> <p>Database developed and accessible.</p>	<p>Partnerships between fishers and Government and other institutions (domestic and international) for fisheries research</p>	<p>Short to Medium</p>
S3.2 Small scale, artisanal or traditional fishers are effectively included in the decision making process and advisory bodies and fora.	<ul style="list-style-type: none"> <li>a. Design the process to facilitate the participation of fishers in recognition of their constraints.</li> <li>b. Make information available through the DMR website so that fishers can comment on issues and receive feedback.</li> <li>c. Increase participation of fishers in the development of harvest control rules.</li> </ul>	<p>Fisheries co-management applied effectively as specified in the draft Fisheries Act, i.e. representation on Fisheries Advisory Council and National Fisheries Stakeholder Forum.</p> <p>Information available for comment on DMR website</p> <p>Active dialogue with fishers through website.</p> <p>Number of fishers participating in development of rules</p>	<p>In collaboration with TNC, GCFI and CNFO</p>	<p>Short</p>

<p>S3.3 A programme to support small-scale, artisanal and subsistence fishers and their communities in case of reduction of catch/production derived from disasters, legislation, overfishing, pollution and other potential impacts.</p>	<ul style="list-style-type: none"> <li>a. Enact the (draft) fisheries legislation.</li> <li>b. Establish a National Fisheries Fund.</li> <li>c. Explore regional insurance initiatives to support these fishers in times of crises.</li> <li>d. Explore alternative livelihood options for fishers.</li> </ul>	<p>Legislation enacted</p> <p>National Fisheries Fund established and managed as specified in the draft Fisheries Act.</p> <p>Engagement in dialogue regional insurance initiatives and recommendations made to Ministry responsible for sector on involvement of Bahamian fishers</p> <p>Engagement in dialogue with national, regional and international partners on alternative livelihood options and recommendations made to Ministry responsible for sector on options for Bahamian fishers</p>	<p>In collaboration with TNC, CARICOM, and the US Government</p>	<p>Medium</p>
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<b>Outputs of Social Objective 4</b> Ensure the access of fishers and anyone active in the fisheries and aquaculture sector to health, safety, social protection and national insurance programmes including improvements in occupational health and safety.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
S4.1 Guidance provided to the sector on health, social protection and national insurance programmes	<ul style="list-style-type: none"> <li>a. Provide guidance information on DMR website.</li> <li>b. Develop public education materials (e.g. flyers, PSAs)</li> <li>c. Develop a mobile fisheries app with information on these programmes.</li> <li>d. Provide annual notifications with permits and licenses on social insurance schemes</li> </ul>	Information available on DMR website  Public education materials developed and disseminated  Mobile app developed, launched and accessible by fishers  Notification issues on annual basis	In collaboration with NIB, NHI, Department of Social Services and Department of Public Health	Short
S4.2 Occupational health and safety training for fishers expanded	Continue to implement Port Department Training and DMR Diver Safety Training.	Number of training participants  Number of work-related accidents tracked annually  Number of work-related deaths tracked annually	In collaboration with Port Department, Department of Public Health and dive industry	Short to Medium

<b>Outputs of Social Objective 5</b> Create equitable access to the fisheries and aquaculture sector as a means of employment and poverty alleviation through awareness and training programmes targeted to women and other groups.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
S5.1 Low-investment economic opportunities identified for women and vulnerable groups as a means of poverty alleviation which do not conflict with ecological objectives.	a. Develop investment profiles. b. Highlight career opportunities in the sector including in fisheries processing, retail and management. c. Develop and implement outreach programmes targeting women and vulnerable groups	Profiles made publicly available.  Career opportunities publicly available through various fora (e.g. DMR website, presentations, school career days)  Details on outreach programmes developed and number of persons engaged	Profile development led by BAIC  Other activities in partnership with Ministry of Education, schools directly and NGOs working with women and other groups	Short to Medium
S5.2 Awareness and training programmes targeted to women and (other) vulnerable groups.	a. Share awareness and training program opportunities with women and other specified groups within the sector.	Review of existing training programme to determine impact on women and other groups.  Number of women and other specified vulnerable groups reached through awareness and training programmes.	In collaboration with agencies already offering training programmes	Short to Medium



<b>Outputs of Ecological Objective 1</b> Improve production of fisheries by utilizing resources sustainably and responsibly informed by the Ecosystem Approach to Fisheries (EAF) and the Ecosystem Approach to Aquaculture (EAA), including the protection of fragile ecosystems that are significant for the sector.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
EO1.1 Fisheries management plans developed and informed by an ecosystem approach to enhance, conserve and protect fisheries.	a. Develop EAF management plans for the major commercial species – lobster, conch and Nassau grouper	EAF FMPs completed and implemented.  Performance indicators for each species from FMPs	In collaboration with Regional Management Fisheries Bodies (WECAFC & CRFM) and local partners	Based on tracking management plan indicators
EO1.2 Growth and development of aquaculture is informed by the ecosystem approach to aquaculture, including spatial planning and development of regulations on introduction and transfer of live aquatic animals.	a. Develop/amend regulations to guide the growth and development of the aquaculture sector  b. Develop educational materials on application of the EAA including checklist of features of compliant facilities and voluntary guidelines for the aquaculture sector under the NISS <sup>4</sup>	Regulations developed/amended and enacted  Materials developed and available to sector participants  EAA performance tracking of facilities based on checklist  NISS voluntary guidelines publicly available	DMR and BAMSI to guide the process	Short to Medium

<sup>4</sup> NISS is the National Invasive Species Strategy first published in 2003 and revised in 2013.



<b>Outputs of Ecological Objective 2</b> Protect fragile habitats, conserve native aquatic biodiversity and contribute to the rehabilitation of stocks of overfished, rare and endangered aquatic species.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
EO2.1 A strategy/process in place to define and implement marine reserves and other protected areas in order to implement Section 26 of the Fisheries Act.	a. Implement the 2012 Master Plan for the Bahamas National Protected Area System with respect to marine reserves and the in 2015 declared marine protected areas	50% of MPAs effectively managed and sustainably financed as stated in the Bahamas 2020 Declaration.	In collaboration with Ministry of the Environment as well as local and international NGOs, especially TNC.	Medium
EO2.2 A programme in place to prevent, contain or reverse the impacts from alien and invasive species.	a. Implement the 2013 NISS Action Plan with respect to fisheries and aquaculture.	Action Plan implemented Performance indicators from 2013 NISS	In collaboration with regional and local partners.	Medium

<b>Outputs of Institutional Objective 1</b> Strengthen the national and local capacity for fisheries governance, including planning, management, regulation, monitoring and evaluation of the fisheries and aquaculture sector, and develop participatory approaches for co-management.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
II.1. Enactment of the new Fisheries Act.	a. Enact and gazette Act	Act is formally gazetted and enacted.	Ministry of Agriculture and Marine Resources	Short
II.2 Aquaculture legislation formulated and adopted and a national aquaculture plan developed.	a. Draft in a consultative process adequate aquaculture legislation b. Enact and gazette the aquaculture legislation c. Develop an aquaculture plan d. Approval of aquaculture plan by Cabinet	Reports of stakeholder consultations  Legislation is gazetted and enacted.  Cabinet formally approves Plan  Plan available publicly	DMR with BAMS and key stakeholders, such as the attorney general's office	Medium
II.3 A functional National Fisheries Stakeholder Forum and Fisheries Advisory Council with internal rules and procedures established in accordance with the Fisheries Act	a. Ministry responsible for fisheries appoints members of the Council on advise of the DMR b. Ministry organizes the National Stakeholder Forum and the DMR provides its secretariat	Established and functional National Fisheries Stakeholder Forum  Established and functional Fisheries Advisory Council	Collaboration with institutions named in the Fisheries Act.	Short to Medium

	c. Forum and Council develop and document their internal rules and procedures			
II.4 A fishery sector capacity development programme established and implemented in partnership with universities, research institutions and NGO's.	<ul style="list-style-type: none"> <li>a. Conduct sector-wide capacity assessment</li> <li>b. Create a sector capacity development plan in partnership with universities, research institutions and NGOs</li> <li>c. Gain commitments from institutions that will provide training to implement capacity development plan</li> </ul>	<p>Results of capacity assessment documented and available upon request</p> <p>Capacity development plan created and available upon request</p> <p>Number of training programmes available that align with capacity development plan</p> <p>Number of participants in capacity development programmes</p>	Collaboration with universities (including COB), research institutions (including BAMSI), and NGOs (national and international)	Medium
II.5 A new national data collection, analysis and dissemination system established and functioning for both fisheries and aquaculture.	<ul style="list-style-type: none"> <li>a. Establish the FISMIS</li> <li>b. Train fisheries officers in data collection and analysis</li> <li>c. Train fishers and their communities to assist with data collection</li> <li>d. Publish summary reports of data and information collected and analyzed</li> </ul>	<p>Statistics gathered through FISMIS updated regularly and available upon request</p> <p>Based on protocols established for the system, some statistics will be publicly available and/or published on an annual basis</p> <p>Analysis reports generated by the system to inform decision-making</p>	DMR in collaboration with fishers and their communities	Short

		<p>Number of fisheries officers trained in data collection and analysis for FISMIS</p> <p>Number of fishers and community members trained in data collection</p>		
<p>II.6 A functional aquaculture sub-unit established within the DMR</p>	<p>a. Create and staff a sub-unit focused on implementation of those activities specific to aquaculture under the purview of DMR</p>	<p>Unit created with clear duties and responsibilities</p> <p>Unit staffed with a minimum of 2 members</p> <p>Unit contributions to Departmental annual report specific to implementation of Strategic Plan activities related to aquaculture</p>	<p>DMR</p>	<p>Medium</p>

<b>Outputs of Institutional Objective 2</b> Reduce illegal, unreported and unregulated (IUU) fishing through improved enforcement capacity, improved regional level collaboration and improved capacity for Monitoring, Control and Surveillance (MCS).	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
I2.1 A functional training programme for authorized officers, which provides the capacity to enforce and administer fisheries legislations and regulations and increase staff compliment.	<ul style="list-style-type: none"> <li>a. Develop training programmes for all DMR authorized officers with respect to their roles as enforcement officers, including powers and procedures for arrests and , prosecution of offenders, the conduct of patrols and investigations, how to work jointly with other enforcement agencies</li> <li>b. Conduct agency needs assessment to determine staff capacity development needs</li> <li>c. Increase staff compliment to meet assessed needs</li> </ul>	Training programmes developed and implemented  Number of officers participating in training programmes  Needs assessment completed and results shared with Cabinet  Changes in staff compliment on an annual basis	DMR in collaboration with Customs, RBDF and RBPF	Short to Medium
I2.2 The Bahamas is an active member of regional and international processes to combat IUU.	<ul style="list-style-type: none"> <li>a. Re-activate participation by The Bahamas in the International MCS Network</li> <li>b. Continued support by The Bahamas to the efforts of CRFM, WECAFC and other bodies combating IUU fishing</li> </ul>	Documentation of participation in Network  Reporting on activities to support CRFM and WECAFC efforts to combat IUU fishing in the annual Departmental reports	DMR in collaboration with regional and international partners	Short and medium

<p>I2.3 The Bahamas implements the IPOA on IUU fishing, and has a national plan to combat IUU fishing.</p>	<ul style="list-style-type: none"> <li>a. Re-examine The Bahamas' position in respect of the PSMA on IUU fishing.</li> <li>b. Seek external support to assist in the development of a draft NPOA on IUU Fishing for The Bahamas</li> <li>c. Implement the NPOA IUU Fishing in the EEZ of The Bahamas</li> </ul>	<p>Recommendations to Ministry responsible for fisheries on PSMA</p> <p>Development and adoption of an NPOA on IUU fishing.</p>	<p>DMR</p>	<p>Short</p>
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<b>Outputs of Institutional Objective 3</b> Assist institutions to improve research and development (R&D), technical assistance, extension services, training and education.		<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
I3.1 The aquaculture research and training centers (BAMSI and BAIC) produce classes of professionals capable of being involved in the sector.	a. Develop courses in aquaculture informed by sector capacity needs assessment and a capacity development plan b. Provide courses and programmes at the centers that include development of research skills for students, teacher assistants and other staff	Details on courses available and education materials.  Number of persons trained	This output is the mandate of BAMSI and BAIC; they would be assisted by sector capacity assessment and plan completed by DMR and its partners	Short to Medium
I3.2 The Bahamas is an active member of regional aquaculture and fisheries development collaboration platforms and networks	a. Participation to the extent possible in regional aquaculture and fisheries activities	Membership in regional organizations such as WECAFC and CRFM  Documentation of engagement in regional platforms and networks in Departmental annual report	DMR	Medium
I3.3 A national data and statistics system for fisheries is in place and informs policy and decision making	a. Develop and operationalize the FISMIS system b. Utilize FISMIS to inform research and development priorities particularly where gaps in critical data exist	FISMIS established and functional.  FISMIS data needs shared with research institutions and agencies tasked with devel-	DMR	Short

	<p>c. Utilize FISMIS in the provision of technical assistance and extension services to fishers and aquaculturists</p> <p>d. Utilize FISMIS in training and educational programmes (internal and external)</p>	<p>opment of the sector; documentation of R&amp;D-related activities in annual Departmental report</p> <p>Technical assistance and extension services incorporate FISMIS data or their design is informed by FISMIS data; documentation of these activities in annual Departmental report</p> <p>Documentation of FISMIS use in training and educational programmes in annual Departmental report</p>		
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<b>Outputs of Institutional Objective 4</b> Strengthen policy coherence and collaboration with other sectors (tourism, transport, development, etc.) to manage fisheries and aquaculture in an integrated fashion.	<b>Activities</b>	<b>Key indicators</b>	<b>Partnerships</b>	<b>Timeframe</b>
I4.1 The Fisheries Advisory Council actively encourages and welcomes the participations of ex-officio members as established in Section 7 (f) of the draft Fisheries Act.	a. Seek input from stakeholders in suggesting ex-officio members for the Fishery Advisory Council after the passage of the draft Fisheries Act	Ex-officio members appointed. Minutes of the Council meetings	Collaboration with other agencies as named in the new Fisheries legislation.	Short
I4.2 Representatives of DMR sit on advisory and decision-making bodies of other sectors and Ministries	a. DMR to designate officers to serve on advisory and decision-making bodies when such invitations are received.	Appointments to committees	Other Government agencies	Short

## 7.0 Success and Risk Factors

The successful outcome of this strategic plan will largely depend on the Government's actions to implement success factors and address risk factors as outlined below.

### 7.1 Success factors:

Clear commitment to the National Policy and this Strategic Plan is the key to their success. This will be concretely expressed by the following:

- a) Adoption and enactment of the new Fisheries Act.
- b) Establishment of the Fisheries Advisory Council and the National Fisheries Stakeholder Forum as well as commitment to an open dialogue on fisheries issues and decisions.
- c) Sustained support for BAMSIS and other educational and training opportunities in the sector.
- d) Establishment of the National Fisheries Development Fund and a commitment to providing the Fund with the necessary resources to support its activities.
- e) Enforcement of laws, rules and regulations by Government agencies, including improved oversight and monitoring.
- f) Commitment from fishers, fish workers and their organizations, including the private sector, fish buyers and retailers to achieve the objectives of the Policy and Strategic Plan, including a renewed commitment to well-organized and motivated associations and organizations.
- g) Increased participation in regional and global processes, including ratification of relevant international agreements on fisheries and aquaculture.
- h) Increased communication amongst Government agencies and with citizens of The Bahamas to enhance integrated and holistic approaches to the various sectors that are involved with or impact fisheries and aquaculture.
- i) Enhanced attention to and participation of the Family Islands in fisheries planning, management and development processes.

### 7.2 Risk factors

Success can be jeopardized by the following:

- a. Limited enthusiasm and support for the National Policy and Strategic Plan.
- b. Lack of a sense of ownership of the Strategic Plan by stakeholders and lack of commitment to engage in the implementation process.
- c. Socially and culturally insensitive policies and regulations and their implementation.
- d. Insufficient or wrong incentives for communities and stakeholders to participate in fisheries and aquaculture management.
- e. Limited and poor commitment from Government to enforce and, from the public, to comply with regulations, particularly related to illegal fishing and corruption.
- f. Limited empowerment of stakeholders to carry out the fisheries co-management and responsible fisheries and aquaculture management tasks assigned to them.
- g. Insufficient investments by the Government to implement the Strategic Plan.
- h. Insufficient resources allocated to the Department of Marine Resources, the National Fisheries Fund and for the stakeholder consultation platforms.

## 8.0 Resources to implement this Strategic Plan

### 8.1 Human and institutional capacity building

The success of the implementation of this Strategic Plan will depend on the capacity of the Department of Marine Resources and other relevant Government agencies to deliver the services required by the fisheries and aquaculture sector. Delivery of these services entails a commitment to improve and expand the human capacity of the Department to respond to the numerous demands of the sector. Concurrently, the DMR will work in partnership, where appropriate, with fishers, fish workers and their organizations, NGOs, and research and academic institutions in the development of the sector. The development of the capacity of these individuals and institutions to effectively engage in the decision-making processes and to be effective co-managers in the fisheries and aquaculture sector is a central aspect of the Strategic Plan.

The sources of funding to develop the required institutional and human capacity will come from the national budget, including the National Fisheries Fund, where appropriate. Additional resources, particularly those directed at human capacity, may be derived from associations with national, regional and international partners. A detailed action plan inclusive of a budget will be developed in order to understand the financial requirements of this capacity building.

National universities, colleges, and research institutions (such as BAMSI), as well as private enterprises should play an important role in building capacity and training professionals in the sector, particularly in the case of aquaculture. Fisher organizations, civil society organizations and other NGOs will also work in partnership with the DMR to improve capacities of fishers and fish worker organizations.

Participation in regional fisheries bodies (such as CRFM and WECAFC for fisheries and, if appropriate, the Aquaculture Network of the Americas (RAA) for aquaculture) will enhance national capacities and supplement national information resources with a wider body of information and relevant experiences that can enhance the ability of The Bahamas to benefit from its generous aquatic resources.

### 8.2 Strategic Plan Implementation

The investment for implementation of the Strategic Plan as well as for research and development projects will originate from national budgetary allocations. In the future, these will be complemented by the National Fisheries Fund which is to be established under the new Fisheries Act. These financial commitments will be in addition to the continued commitment to current investment programmes, such as BAMSI. International partner and donor assistance, as well as private sector investments, could also complement these national budgetary allocations.

For new fisheries management plans and aquaculture development projects, an ecosystem approach is preferred, which will require partnerships between various institutions. These institutions could provide expertise and may also be willing to provide investment for planning and development of the sector. This Strategic Plan will be complemented by short-term action plans (as appropriate), which provide information on detailed budgetary requirements, to support effective implementation.