

AUDITOR GENERAL'S DEPARTMENT



ECONOMY

EFFICIENCY

EFFECTIVENESS

**PERFORMANCE
AUDIT REPORT
ON
THE FISHERIES'
DIVISION OF
THE MINISTRY
OF
AGRICULTURE**

Auditor General's Department

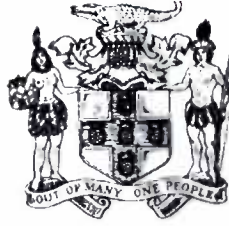
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MISSION STATEMENT

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- *Conduct independent audits and make reports to improve the use of public resources;*
- *Ensure that public sector financial transactions comply with the wishes of Parliament, relevant laws and regulations and are conducted with due regard to the avoidance of fraud, waste and extravagance; and*
- *Develop and maintain the professional competence of our staff.*



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January 29, 2009

The Hon. Delroy Chuck, M.P
Speaker of the House of Representatives
Houses of Parliament
81 Duke Street
Kingston
Jamaica

Dear Sir,

Pursuant to the provision of Section 29 (i) of the Financial Administration and Audit Act,
I have the honour to submit my Performance Audit Report on the Fisheries Division of
the Ministry of Agriculture for tabling in the House of Representatives.

Yours faithfully,

Pamela Monroe Ellis (Mrs.) FCCA, FCA, CISA
Auditor General

FOREWORD

This report contains the results of the Performance Audit of the Fisheries Division for the period April 1, 2005 through March 31, 2008. The audit was conducted pursuant to Section 25(1) (c & f) of the Financial Administration and Audit Act and in accordance with Performance Audit Auditing Standards issued by the International Organization of Supreme Audit Institutions (INTOSAI).

The Fisheries Division under the direction of the Ministry of Agriculture is concerned with the development of the local fishing industry. The Division is mandated to ensure the conservation and sustainable utilization of the fishing resources, which facilitates optimum benefit. Information provided by Statistical Institute of Jamaica indicated that the contribution of the fishing industry to the country's GDP for the year 2007 was approximately J\$3B.

Noted newspaper articles and various stakeholders comments emphasized the continued deficiencies and challenges plaguing the fishing industry which threatens the sustainability of the fish stock and limits its GDP contribution potential. Consequently, the performance audit of the Fisheries Division was commissioned because of its oversight responsibility for the fishing industry.

The audit identified two (2) main areas that need urgent attention. First the promulgation of the proposed, revised Fishing Industry Act to secure the sustainability of the country's fishing industry. Second, the Institutional Strengthening of the Fisheries Division to enhance its capacity to effect monitoring control and surveillance activities in keeping with its mandate.

The Fisheries Division responded positively to the Report and indicated that the conversion of the Division to an Executive Agency will greatly improve the capacity of the entity to fulfill its mandate.

I wish to express sincere thanks to the Fisheries Division for the cooperation and assistance given to my staff.

Pamela Monroe Ellis (Mrs.) FCCA, FCA, CISA
Auditor General

September 2008

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FISHERIES DIVISION

APRIL 1, 2005 THROUGH MARCH 31, 2008

EXECUTIVE SUMMARY

The Fisheries Division in the Ministry of Agriculture is responsible for the conservation and sustainable utilization of the Jamaican fisheries resources in a manner that ensures optimum social and economic benefits to Jamaica. The Fishing Industry Act (1975); Fishing Regulations (1976) along with the Pedro and Morant Act (1907) regulate the Jamaican Fishing Industry. Other related Acts such as the Natural Resources Conservation Authority Act (1995), the Wildlife Protection Act (1945) also impact on the management of the Fishing Industry.

The Fishing Industry Act (1975) provides for the general administration and protection of the Fishing Industry by requiring that all vessels and fishers must be registered and licensed in order to engage in any form of fishing activity. It also states that all transfer of ownership of boats and vessels, loss or destruction of vessels, and cancellation and suspension of licences must be reported to the Fisheries Division. Protection of the industry includes the declaration of closed fishing seasons and the establishment of fish sanctuaries.

MAJOR FINDINGS	SUMMARY	Management's Response
Finding No. 1- LICENCING AND REGISTRATION	Of the approximately 17,552 registered fishers at May 2008, only 1,928 were licensed, a non-compliance rate of 89%. In addition, of the 4,719 registered vessels, only 187 were licensed, a non-compliance of 96%.	Refer to page 13
Finding No. 2 – MONITORING, CONTROL, SURVEILLANCE (MCS) AND ENFORCEMENT	Lack of staffing and financial resources impacted negatively the effectiveness and efficiency with which (MCS) and enforcement activities were conducted.	Refer to page 17

	Inefficiency was noted in the record keeping and reporting on MCS activities.	
Finding No. 3 - RESEARCH AND DEVELOPMENT	The Division lacked the necessary resources to undertake extensive and comprehensive research activities.	Refer to page 21
Finding No. 4 - MANAGEMENT OF THE WHITEHOUSE FISHING COMPLEX (WHC)	The objectives of WHC to make the Whitehouse fishing beach a prototype for a self-reliant and sustainable small-scale fishing industry was not accomplished.	Refer to pages 24 - 25
Finding No. 5 - INFORMATION MANAGEMENT	Financial information was not captured under the specific activities, which made it difficult to ascertain the associated costs. Insufficient biological and catch information hindered informed decision-making on the status of lobster fishery.	Refer to pages 27 - 28
Finding No. 6 - PUBLIC EDUCATION AND AWARENESS	An in-effective system of communication was noted, as the public awareness community outreach meetings were limited to eleven (11) beaches and only 588 fishers and vendors attended. The inability to educate a wide cross section of the fishing community may result in the continued infringement in the industry.	Refer to pages 30 - 31

HIGHLIGHTS OF RECOMMENDATION

- **Urgency should be placed on the passing and the promulgation of the proposed revised Fishing Industry Act.**

MANAGEMENT'S RESPONSE

Cabinet's endorsement of the Draft National Fisheries Policy and the passing of the new Fisheries Act is a priority of the Honourable Minister of Agriculture. The Fisheries Division has recently completed a series of five (5) national consultations across the island where we have received final endorsement of the Draft national Fisheries Policy and draft Fisheries Bill.

The Legislative Committee is scheduled to consider the draft Fisheries Bill at a two day retreat at the conference room of the Ministry of Agriculture, on the 6th and 7th of December 2008.

- **All fishers and boats must be registered and licensed and action taken against identified offenders in keeping with the law.**
- **The Division must be institutionally strengthened to efficiently execute its Monitoring, Control and Surveillance mandate and as such requires the following:**
 - **additional vessels with a dedicated crew;**
 - **training in surveillance and evidence gathering; and**
 - **adequate funding**
- **Project management must be strengthened to facilitate the satisfactory development and implementation of related research activities.**
- **The Fisheries Division should develop and adopt more innovative strategies to better execute its Public Education and Awareness programmes to fisher and other participants in the industry.**

MANAGEMENT'S RESPONSE

The modernization of the Fisheries Division into an Executive Agency with the requisite staffing and resources is well on the way. The new structure will provide the necessary

corporate and accounting support system that will greatly improve the capacity of the organization to fulfil its mandate.

- **Urgent actions should be taken to collect the applicable fees and reactivate the management committee of the Whitehouse Fishing Complex.**

MANAGEMENT'S RESPONSE

The reactivation of the management committee of the Whitehouse Fisheries Complex is scheduled for the last quarter of the 2008 – 2009 financial year. The first order of business of the management committee would be to encourage and facilitate greater compliance by users of the complex and to regularize the collection of applicable fees by the introduction of formal arrangements such as specific user agreements between the users and the Fisheries Division, Ministry of Agriculture.

BACKGROUND

The Fisheries Division (FD) in the Ministry of Agriculture is responsible for the conservation and sustainable utilization of Jamaica's fisheries resources in a manner that ensures optimum social and economic benefits to the country. The Fishing Industry Act (1975) (hereafter referred to as the Act); Fishing Regulations (1976); along with the Pedro and Morant Act (1907) govern Jamaica's Fishing Industry. Other related Acts such as the Natural Resources Conservation Authority Act (1995), the Wildlife Protection Act (1945) also impact on the management of the Fishing Industry.

Under the Fishing Industry Act, all vessels and persons must be registered and licensed prior to engaging in any type of fishing. The Act also provides for the general administration of the Fishing Industry through regulations for registration and licensing of boats and fishers, transfer of ownership of boats, reporting on the loss or destruction of vessels, and the cancellation and suspension of licences. The Act further makes provision for fishery protection in the form of "closed seasons" and the establishment of fish sanctuaries. The closed season for lobster is 1st April to the 30th June and for conch 1st August to the 30th November of each year. However, FD has the authority to extend the closed periods beyond the stated dates. Restrictions are also in place to prevent fishers from catching undersized fish and lobsters and prohibit the use of certain hazardous materials and undersized nets to fish. The two fish sanctuaries are Bogue Lagoon in St. James and Bowen in St. Thomas.

The Morant and Pedro Cays Act 1907 regulates fishing on the Cays. It also addresses the capture and slaying of turtle within the outer limits of the Country's territorial seas and on the Cays.

The wildlife Protection Act is also another protective instrument of Government, which monitors the fishing industry through the restrictive use of destructive fishing methods: such as dynamiting, and the use of chemicals and poisons. It also discourages the capture of immature fish and protected species like turtles.

The Natural Resources Conservation Act provides for the establishment of marine parks and protected areas, where fishing activities are prohibited. These areas are:

- Montego Bay Marine Park
- Portland Bight Protected Area
- Port Royal Protected Area
- Negril Marine Park
- Ocho Rios Marine Park

The two main branches of the Division are Marine and Aquaculture, which direct the activities of open sea and inland fishing respectively.

The major activities of the branches are:

MARINE BRANCH (Open Sea)

- Fisheries monitoring and enforcement
- Fisheries extension and development
- Fisheries administration
- Research
- Development and maintenance of infrastructure on fishing beaches (including Pedro and Morant Cays)

AQUACULTURE BRANCH (Inland)

- Research and Development
- Pond construction for fresh water fish
- Sale of seed stock
- Fish inspection and quality assurance
- Extension training to farmers and inland fish production

Marine fishing is divided into two main types, namely inshore and offshore fishing. The inshore fishing includes operations carried out on the Island's shelf areas not exceeding 64 km from mainland, while offshore fishing includes operations performed outside the zone proximal banks (areas in excess of 64 km from the Country's mainland). Only fishers operating mechanized vessels utilize the proximal banks and other offshore areas. The Country's fishing industry is described as artisanal¹ in nature, that is, it is not highly technological and consists mainly of fishermen operating from small vessels. Also Jamaica's capture fisheries sector includes a small industrial fleet mostly fishing in the offshore banks for conch, lobster and fish.

¹ Fishery Policy Document – July 20, 2004

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

PERFORMANCE AUDITING

Performance auditing is concerned with the audit of economy, efficiency and effectiveness and embraces:

- (a) audit of the economy of administrative activities in accordance with sound administrative principles and practices, and management policies;
- (b) audit of the efficiency of utilization of human, financial and other resources, including examination of information systems, performance measures and monitoring arrangements, and procedures followed by audited entities for remedying identified deficiencies; and
- (c) audit of the effectiveness of performance in relation to achievement of the objectiveness of the audited entity, and audit of the actual impact of activities compared with the intended impact.

OBJECTIVES

The objectives of this Performance Audit were to determine whether:

- FD's management controls including information gathering, documentation and reporting systems were complete and accurate and in compliance with the Fisheries Management Plan and Regulations;
- the programmes in place to coordinate enforcement, public education and awareness; aimed at ensuring that fishers are conducting their harvesting activities in a sustainable manner were effective and efficient;
- due regard was given to the avoidance of waste and extravagance in the use of its financial resources; and also
- the number of research projects undertaken during the period under review, the status and impact of these projects on the fishing industry.

SCOPE

The audit examined the duties and responsibilities of the Fisheries Division. Specific emphasis was placed on: management practices; reporting systems, monitoring, control and surveillance; research and development; public education and awareness, and financial management for the period April 1, 2005 to May 30, 2008.

METHODOLOGY

The audit was conducted pursuant to Section 25(1) c) & (f) of the Financial Administration and Audit (FAA) Act and in accordance with the Government Auditing Standards which are applicable to Performance Audit and issued by the International Organization of Supreme Audit Institutions (INTOSAI). The methodology in support of the audit objectives included:

- interviewing and corresponding with management from the Fisheries Division, and representatives from the industry (fishermen);
- reviewing the Fishing Industry's Act (1975), the Regulations (1976) and other related Acts such as the Natural Resources Conservation Authority Act (1995), the Morant and Pedro Cay Act (1907), the Maritime Area Act (1996), the Exclusive Economic Zone (EEZ) Act (1991), the Wildlife Protection Act (1945) and other relevant documentations including reports, publications, studies and materials written by recognized organizations such as the Food and Agricultural Organization (FAO);
- conducting inspections;
- reviewing and analyzing FD's database with respect to licensing, registration, fishing gear; and
- reviewing the procedures for the management of conch and lobster.

FINDINGS AND RECOMMENDATIONS

1 LICENSING AND REGISTRATIONS

- 1.1 Under the Fishing Industry Act all vessels and persons must be registered and licensed in order to engage in any form of fishing activity (Sections 3 and 8). The Act also provides for the general administration of the Fishing Industry through transfer of ownership of boats and vessels (Section 12), reporting on the loss or destruction of vessels (Section 14), and the cancellation and suspension of licences (Section 15).
- 1.2 The licensing and registration functions are performed by officers of the Licensing and Registration Unit (LRU) of the Fisheries Division. The role of this unit is to ensure that vessels and fishers involved in fishing activities are registered and licensed in keeping with the Fishing Industry Act. The objective of the registration process is to account for the number of persons/ vessels within the fishing industry; while the licence provides the authority for a fisher/ vessel to participate in fishing activities and outlines the conditions for such operations. Failure on the part of an individual to obtain a fishing licence attracts a fine not exceeding one thousand dollars or twelve months in prison, whilst the use of an unlicensed boat attracts a fine not exceeding two hundred dollars or imprisonment of up to six months.

CRITERIA:

- Fishing boats must be licensed and registered.
- Existence of clear guidelines outlining procedures for the registration and licensing of boats.
- The enforcement of penalties outlined in the Act against offenders.

AUDIT FINDINGS

- 1.3 An examination of FD's licence register at May 2008 disclosed that only 1,928 of the 17,552 registered fishers possessed valid licences to conduct fishing activities, a non-compliance rate of eighty-nine per cent (89%). In addition, only 187 of the 4,719 registered vessels were licensed, a non-compliance rate of ninety-six per cent (96 %).
- 1.4 Discussions with various fishermen from four (4) beaches revealed the general sentiment that there was no strict enforcement policy. Consequently, acquisition of a licence was not deemed a priority.² They further stated that it was more

² Fishers from the Old Harbour Bay, Rocky Point, Forum and Port Henderson beaches were interviewed.

profitable to go fishing and pay the related fines than to spend a day ashore waiting for the licensing and registration officers.

- 1.5 Further examination revealed that none of the 256 registered boats at the following beaches was licensed:

Table 1- Quantity Unlicensed Boats

Location	Quantity of Boats
Alligator Pond	99
Annotto Bay	18
Lucea	52
Discovery Bay	30
Falmouth	58

Source - Fisheries Division Licence Register

- 1.6 Except for conch fishers, there was no evidence that legal actions were being taken against persons operating in contravention of the related Acts.

MANAGEMENT COMMENTS

- 1.7 The Chief Fishing Instructor with responsibility for LRU indicated that efforts were being made to improve the compliance rate for the registration and licensing of fishers and boats.

- 1.8 Also, the following activities are being used to improve the compliance rate:

- the posting of renewal dates for the registration and licensing of boats and fishers at the various Cays;
- fisheries' personnel visiting rural beaches to assist fishers in the registration and licensing process; and
- fisheries instructors assigned to the various sub-stations being asked to monitor boats and fishers at their respective locations to ensure full compliance to the related laws.

- 1.9 He also indicated that the related penalties in the proposed revised Fishing Act would be substantially increased to further help to reduce the level of non-compliance. He was however, unable to give a specific timetable for the promulgation of the proposed revised Fishing Industry Act.

- 1.10 The Division's focus was on educating offenders rather than sanctioning fishers.

- 1.11 There were only 12 fishing instructors to monitor over 180 landing sites which impacts negatively the dissemination of information to fishers.

EFFECTS

- 1.12 In the absence of reliable data on the number of fishers, FD is challenged to develop and implement mechanisms to secure the sustainability of the Country's fishing industry.
- 1.13 The fishing industry is under threat from overfishing and damage to the Country's coastline, which could result in an eventual collapse of the Country's fish stock.
- 1.14 The related penalties prescribed under the Act were not harsh enough to act as a deterrent to offenders of the Act;

RECOMMENDATIONS

- 1.15 All fishers and boats must be registered and licensed and action taken against identified offenders in keeping with the Law.
- 1.16 Urgency should be placed on the passing and promulgation of the proposed revised Fishing Industry Act.

MANAGEMENT'S RESPONSE

1. *We agree with your findings of very poor compliance rate for the renewal of fishing licences. This problem has long been recognized by the Fisheries Division and our investigations have shown that fishers pay scant regard to the fishing licence requirement due to several factors. Chief among which is the very low level of sanctions under the existing law coupled with the equally low level of enforcement activities.*
2. *It must also be borne in mind that in stricto sensu the Fisheries Division has no legal authority to compel registered fishers to re-licence neither themselves nor their boats. Our legal authority can only be enforced when fishers are found fishing without a licence. Thus a critical issue here is enforcement.*
3. *Two main actions are currently in train to address this problem.*
 - i. *The New Fisheries Act is in an advanced stage of development and is scheduled to be considered by the Legislative Committee on the 6th and 7th December, 2008. The new Act sets out greatly increased fines for fishing without a licence in respect of a person or boat.*
 - ii. *The modernization of the Fisheries Division will greatly increase its capacity to engage in a comprehensive fisheries monitoring, control, and surveillance (MCS) and enforcement programme. It is planned to establish within the new Fisheries Executive Agency a "Compliance Unit" staffed with lawyers and staff dedicated to MCS and enforcement.*

2. MONITORING, CONTROL, SURVEILLANCE (MCS) AND ENFORCEMENT

- 2.1 Section 20 (1) of the Fishing Industry Act provides the conditions for enforcement, monitoring and surveillance. It gives the Fishery Inspectors the authority to inspect all fishing boats, obtain information from the operators of the fishing vessels and to conduct the requisite examinations of fishing nets, lines and other fishing equipment.

CRITERIA:

- 2.2 Coordinated and effective MCS including effective enforcement are necessary to prevent the depletion of the fish stock.

AUDIT FINDINGS

- 2.3 The audit noted through discussions with Fisheries officials that shortage of staff and financial resources have impacted negatively the level of effectiveness and efficiency with which the duties of MCS and enforcement are conducted.
- 2.4 FD is equipped with only one (1) functional patrol vessel and twelve fisheries instructors. Consequently, it experienced difficulty in enforcing the regulations in a mobile industry with a coastline of approximately 1,022km and (180) potential landing sites³.
- 2.5 With limited access to sea – going equipment support, most of the MCS activities were restricted to the possession of lobster during the closed season.
- 2.6 The Fisheries Inspectors assigned to the various beaches were required to monitor the activities of their respective locations and take the appropriate action where breaches were identified. These officers were also required to gather critical information such as the size, species, quantity and other biological data of the fish caught at such locations.
- 2.7 FD explained that priority was given to data collection because of a concern that fishers may withhold information, if penalized.
- 2.8 The Fisheries Division reported that both terrestrial and marine monitoring exercises were undertaken by them. Terrestrial exercise is the monitoring of registration and licensing of boats and fishers, and the inspection of beaches, food establishment and processing plants. While marine exercise deals with the interception of boats at sea and checks for legitimacy and safety.
- 2.9 Monitoring reports were prepared for inspections undertaken at food establishments and processing plants. The monthly reports prepared by Fisheries

³ Issues Facing The Fishing Industry – File no. 77/5 – Fisheries Division

Inspectors stated the number of registered and licensed boats and fishers on each beach and those not registered and licensed.

- 2.10 Despite repeated requests no monitoring reports were presented for marine monitoring activities reportedly undertaken by FD. Thus, the audit could not determine the adequacy of marine monitoring activities and whether effective measures were in place to discourage fishers from using prohibited fishing gear.
- 2.11 Investigation disclosed that FD routinely asked hotels to provide free accommodation and meals to Fisheries Inspectors undertaking inspections at hotels and food establishments during the closed seasons for lobsters. In discussion with the Director of Fisheries Division, he stated that FD was not provided with sufficient funds to enable it to undertake such inspections independently of the hotels.
- 2.12 The related fines under the Fishing Industry Act for harvesting lobster during the closed seasons or the injuring of any juvenile lobster ranged from \$500.00 to \$1,000.00. FD indicated that such fines did not serve as a deterrent when compared to the economic value of the lobster.
- 2.13 The existing Fisheries Act is silent on the minimum mesh size for fish traps. However, FD attempts, by “moral persuasion”, to encourage fishers to use mesh size not smaller than 1 1/4 inch.
- 2.14 FD does not have a structured MCS training programme.
- 2.15 The conch surveys conducted in 2006 and 2007 indicated a significant reduction in the country’s conch and the national total allowable catch was decreased from 640 metric tons for the 2007 to 400 metric tons for 2008 fishing season.
- 2.16 Poaching and other infringements of the Fishing Industry Act have been reported as major issues affecting the industry; however, there was no documentary evidence indicating the preventative action being taken by FD to reduce the occurrence of such practices.

MANAGEMENT COMMENTS

- 2.17 Insufficient funding and shortage of staff frustrated their effort to conduct effective monitoring and enforcement activities.
- 2.18 Poaching was the reason given for the rapid decrease in the conch stock
- 2.19 The delay of the opening of the conch season was due to unavailability of funds, which prevented the engagement of divers to conduct the Conch Abundance Survey.

- 2.20 FD indicated that training was needed in the areas of surveillance; evidence gathering and observation technique.

EFFECTS

- 2.21 The absence of provision(s) in the Act to regulate the size of mesh used for fish traps affects negatively FD's capacity to effectively protect the juvenile fish stock.
- 2.22 The lack of effective monitoring and enforcement could allow fishers to continuously use illegal fishing gear to deplete the Country's fishing stock.
- 2.23 The practice of asking hotels to meet accommodation and meal expenses to facilitate inspection of their properties constitutes a conflict of interest. Inspectors may feel obligated to condone breaches found at the establishment offering accommodation.
- 2.24 Lack of a structured training programme in MCS activities weakened FD's capacity to function effectively.
- 2.25 The use of damaging fish gear was not being monitored. Small mesh apertures in fish pots cause large quantities of juvenile fish to be caught, which endangers the fish population⁴.

RECOMMENDATIONS

- 2.26 FD must be institutionally strengthened to efficiently execute its MCS mandate and as such requires the following:
- additional vessels with a dedicated crew
 - training in surveillance and evidence gathering
 - adequate budget
- 2.27 The proposed amendments to the Act should address the mesh size for fishing traps.
- 2.28 The practice of asking hotels to provide free accommodation and meals should desist immediately.

⁴ Jamaica Gleaner _-Wednesday November 15th, 2006 "Overfishing in Jamaica" – Peter Espeut

MANAGEMENT'S RESPONSE

1. *Your findings are accurate.*
2. *This is especially the case with seagoing MCS and enforcement activities as a result of the lack of suitable seagoing assets and the failure to secure the services of a Master Fisherman to the establishment that would ensure timely reporting and that these activities are properly coordinated with vessel readiness and maintenance protocols.*
3. *Additionally, our Fisheries Instructors function as extension officers who must interact closely with the fishers and who in many cases reside in or around the fishing beach area. It creates a problem (including a personal security problem) when Fisheries Instructors have to engage in both extension activities where they need to gain the trust and confidence of the fisher and also enforcement where the possibility for conflict exist.*
4. *Priority will be placed on MCS and enforcement in the upcoming 2009 – 2010 financial year. The Fisheries Division in conjunction with the JDF Coast Guard and Marine Police will engage in a sustained enforcement exercise focusing on dynamiting and other illegal fishing activities.*
5. *As discussed above, MCS and enforcement will be a core priority function of the new executive agency which will be implemented through a unit dedicated to MCS and enforcement. This will greatly improve the compliance rate among fishers and fish farmers. The new Fisheries Act will mandate that fish farmers must now have to comply with certain requirements under the Act.*

3. RESEARCH AND DEVELOPMENT

- 3.1 Fisheries research and development is needed to provide critical information and enhanced technologies to foster a sustainable and efficient fishing industry. It is also needed to offer new fishing opportunities and to allow persons in the industry to better understand the basic biology and dynamics of the various fisheries resources.

CRITERIA:

- 3.2 There should be a sustainable programme in place to identify and implement research projects, which will enhance the sustainable and economic development of the industry.
- 3.3 Research and development programmes should be provided with all the necessary resources; financial, human and others to allow FD to meet its stated objectives.

AUDIT FINDINGS

- 3.4 Research activities were undertaken in collaboration with various research institutions such as the Scientific Research Council, the University of the West Indies and various Project Units at the Ministry of Agriculture.
- 3.5 Information was not provided to facilitate the assessment of the economy and efficiency of the implementation of the research projects. The incompleteness of the projects prevented determination of their effectiveness.
- 3.6 Information included in this report regarding projected completion date is based on discussions with officers of FD.

Table 2 – Research Projects

Research	Period Started	Expected Completion	Status	Estimated Cost \$	Expenditure to Date
Oyster Punch	NP	October 2008	WIP	163,754	NP
Lobster Casita	September	March 2009	WIP	NP	NP
Technology	2006				
Diamondback	NP	NP	H	NP	NP
Squid Fishing					
Fish	NP	OG	H	NP	NP
Aggregating Device					
Fish Feed	January 2007	NP	H	4.3M	NP

Key 1

NP – Not Provided

OG – On Going

WIP – Work in progress

H - Hold

DiamondBack Squid

- 3.7 In 2004, FD in collaboration with the University of the West Indies, Caribbean Maritime Institute and Japan International Co-operation Agency undertook a study of the biology and ecology of the Diamondback Squid to determine the economic potential of the species in Jamaica.
- 3.8 The Division reported that since the inception of the project in 2004 only two (2) squids were found and that the project was placed on hold due to insufficient funding. The Director was unable to indicate what future plan(s) was in place for this project.

Fish Aggregating Device (FAD)

- 3.9 The Fisheries Division in collaboration with fishermen from the Whitehorses Beach in St. Thomas developed a FAD to attract large school of fish to selected areas.
- 3.10 The original device developed was destroyed. No other such device has since been built or deployed.

Development of Fish Feed:

- 3.11 In January 2007 the Scientific Research Council (SRC), the Agricultural Support Services Project (ASSP) and the Fisheries Division, Aquaculture Branch embarked on the captioned project. The objective of the project was to conduct a pilot study for the development of a basic fish feed formulation (FF#1) to be used by the local ornamental fish industry.

3.12 The project was substantially completed in June 2007. In a report dated July 2007, jointly prepared by officers of the various agencies, it was stated that the following activities were necessary to satisfactorily complete the project:

- The expansion of carbohydrates in the formulations by modifying the carbohydrates composition, utilizing expansion additives and spraying on the fat after extrusion.
- Investigate the use of more local raw materials, e.g. trash fish and conch waste as fishmeal source.
- Investigate essential fatty acid composition of shrimp head meal to ensure it has all necessary fatty acids required for ornamental fish development.
- Further refinement of the formulation and field scale investigations for the confirmation of the commercial effectiveness and efficiency of FF#1.

3.13 There was no evidence to indicate that any of the above activities were being undertaken.

3.14 The Fisheries Division reported that insufficient funding prevented the completion of the project and there was no timetable in place for the completion of this project.

Oyster Punch:

3.15 The Fisheries Division in an effort to expand the number of value added oyster product developed the oyster punch in November 2006. In March 2008, the Scientific Research Council (SRC) was contracted to redesign and standardize the punch as a shelf stable product.

Lobster Casita Technology:

3.16 The Lobster Casita Technology Project began in September 2006 and was originally scheduled to be completed by March 2008; however this was extended to March 2009.

3.17 The technology is aimed at developing and facilitating growth in the Lobster fishery through the use of artificial Lobster shelters.

3.18 The Casitas have not been built.

EFFECT

- 3.19 The inability of FD to provide basic information on the expected project cost; expenditure to date and expected completion dates questions its effectiveness.
- 3.18 Lack of adequate funding will impede the sustainability of the research projects. FD may also experience difficulty in obtaining the requisite funding because of failure to provide status reports for ongoing projects.
- 3.20 The tardiness in completing research and development projects will result in nugatory expenditure.

RECOMMENDATION

- 3.21 Project management must be strengthened to facilitate the satisfactory development and implementation of related research activities, which include proper documentation; adequate funding and staffing.

MANAGEMENT'S RESPONSE

1. *We agree with your findings.*
2. *One important point that should also be considered is the lack of suitable Corporate and accounting support for the efficient functioning of the Division. In many cases, technical officers spend too much time engaged in administrative and accounting matters generally as well as those related to their specific technical assignments.*
3. *The modernization of the Fisheries Division will address these areas in bringing on board a proper corporate directorate and accounting structure.*
4. *Additionally, the modernization of the Fisheries Division will provide adequate staffing and funding to engage in fisheries and aquaculture research in a more meaningful manner.*

4. MANAGEMENT OF THE WHITEHOUSE FISHING COMPLEX



- 4.1 The Whitehouse Fishing Complex (WHC) in Westmoreland was constructed through a partnership Grant Aid Project between the Governments of Japan and Jamaica. The WHC is equipped with fish handling and sorting facilities, gear lockers and an area designated for boat repairs. It was designed to facilitate effective and efficient fishing operation and marketing in the Whitehouse, Westmoreland fishing village.
- 4.2 It was envisaged that fishers and fish vendors would participate in self-sustaining the WHC after its completion. The facilities were completed in 1999 at a cost of US\$6.5M (J\$110M). It is owned and operated by the Fisheries Division.

CRITERIA:

- 4.3 Related fees should be collected from users of WHC.
- 4.4 Oversight Committee should administer the operations of WHC in an economic, efficient and effective manner.

AUDIT FINDINGS

- 4.5 The completed WHC should have included a “fully tooled” workshop for servicing and repairing outboard engines⁵. The audit site inspection revealed that there were no tools.

⁵

- 4.6 It was observed that the area was used for storing the fishers' outboard engine; no revenue was collected for the outboard storage.
- 4.7 Twenty-four (24) gear lockers were assigned to fishermen at a rate of one thousand dollars (\$1,000.00) per month. However, the related records disclosed that of the \$288,000 collectable only \$12,000 was collected for the calendar year 2007.
- 4.8 Plans to build a selling area for the fish vendors did not materialize. Instead fish vendors were housed in the fish handling and sorting facilities at various rental rates.
- 4.9 Refuse from the cleaning, scaling, washing and gutting of fish was being disposed of in the sea. The fisheries officer said that efforts were being made to construct a suitable disposal facility at the WHC.
- 4.10 Few repairs were undertaken in the boat repair facility. Persons using the facility were asked to contribute to the payment of the electricity bill.
- 4.11 The records indicated that for the calendar year 2006 FD received \$74,800 from a collectable amount of \$1,105,200.00 relating to use of WHC while \$366,020.00 was collected from a collectable amount of \$2,325,500.00 for the years June 2002 – July 2005.⁶
- 4.12 The WHC's management committee, which was appointed in November 1999, has been inactive since the year 2000. The committee had responsibility for the daily management of the operations at WHC and to provide advice to the management of the Fisheries Division.

MANAGEMENT'S COMMENTS

- 4.13 The Chief Fisheries Instructor stated that users were adamant that the facilities were given to them free of cost by the Government, at the handing over ceremony in May 1999.

EFFECTS

- 4.14 The goal for self-sustainability of the WHC was not realized.
- 4.15 The non-functioning of the oversight committee has resulted in the ineffective administration of WHC's operations. This may encourage abuse and neglect of the facilities and undermines the intended purpose of the development.
- 4.16 In light of the foregoing there was no evidence to indicate that the stated objective of the project was being met.

⁶ Ministry of Agriculture Internal Audit Report - September 15, 2005

RECOMMENDATIONS

- 4.17 Urgent action should be taken to reactivate the management committee to undertake the administrative functions required for the effective and efficient operations of the WHC.
- 4.18 Formal agreements should be executed between the users of the WHC and FD in an effort to collect the applicable fees. Actions should also be taken to collect the outstanding amounts.

MANAGEMENT'S RESPONSE

1. *Your findings are correct.*
2. *However, it must be borne in mind that the original design of the project was significantly scaled down (i.e., approximately by 66%), and thus the primary objective of the project could not be realised because there was no subsequent follow-up activity/funding to fully implement the original project design.*
3. *The project was significantly scaled down such that no facilities were provided for the over 70 fish vendors or the majority of the 700 fishers. In fact the project only provided 24 gear-sheds to add to the existing 45.*
4. *The majority of the fishers instead of paying to use the facilities at the WHC just continued to use "Bottom Beach" or otherwise called "Old Bay" (the beach section adjacent to the WHC) to ply their trade in the same manner that they, their fathers and grand fathers did.*
5. *It was through much encouragement that we were able to convince the vendors to use, for an agreed monthly fee, the area originally designed for fish handling and sorting, an area which was not being utilised in the manner in which it was originally intended in that a fee should have been collected for the use of the area. The benefits of the vendors using the area included; (i) the proper and hygienic handling of fish for sale; (ii) a mechanism for the collection of revenue to assist in the maintenance of the complex; and (iii) the maximization of the use of the facilities at the complex.*
6. *This Division will focus on the revitalization of the Whitehouse Fisheries Complex management committee during the fourth quarter of the 2008 – 2009 financial year. The priority of the management committee will be to address several critical issues including the lack of proper fish vending facilities, non-compliance by some users in the payment of fees and the devolution of management arrangements for the Complex.*

5. **INFORMATION MANAGEMENT**

CRITERIA:

- 5.1 Financial transactions are accurate, complete and carried out in accordance with the Financial Administration and Audit Act, Government procurement Guidelines, Ministry of Finance and the Public Service circulars and directives, and established accounting principles.
- 5.2 An adequate system exists which captures and disseminates information that is timely and reliable thereby ensuring that public accountability obligations are met.
- 5.3 There exists accurate and sufficient data on the Country's fish stock.

AUDIT FINDINGS

- 5.4 The total expenditure for the year was approximately \$110M.
- 5.5 The financial transactions were classified using the established government coding system. Consequently, the financial information was not captured under the specific activity, such as MCS, this made it difficult to ascertain the cost associated with the various activities.

Table 3- Financial budget and Expenditure

	Proposed Budget	Approved Budget	Actual Expenditure
Recurrent	90,830,827	98,029,000	94,952,185.41
Capital	26,695,000	14,161,000	15,252,150.48
Total	117,525,827	112,190,000	110,204,335.89

- 5.6 It was reported that suppliers' bills submitted to the Ministry of Agriculture were in many instances not paid on a timely basis. This impacted negatively FD capability to procure goods and services.
- 5.7 Documented operational procedures were not in place to guide fisheries officers in the execution of their regulatory duties.
- 5.8 A report prepared by FD indicated that they did not capture adequate biological and catch information to facilitate informed decision on the status of Lobster fishery.

MANAGEMENT COMMENTS

- 5.9 The manner in which FD's accounting records were maintained; inadequate staff and training contributed to the unavailability of the requisite information.

EFFECTS

- 5.10 Management's ability to make informed decision will be affected by the quality of information available.
- 5.11 In the absence of reliable information the audit could not evaluate the economy, efficiency and effectiveness of FD's operations.
- 5.12 Lack of reliable information prevents the effective management of FD and the achievements of its goal to preserve and protect the Country's fishing industry and improves economic benefits to fishers.

RECOMMENDATION

- 5.13 All transactions and significant events should be fully and clearly documented; and be readily available for examination.
- 5.14 An adequate information system should be developed and implemented to support the achievement of FD's goals in an economical, efficient and effective manner.
- 5.15 Urgent effort should be made to update the relevant files and registers

MANAGEMENT RESPONSE

1. We agree with your findings.
2. The transformation of the Fisheries Division into an executive agency should greatly strengthen the Division's capacity to improve its information management systems for technical as well as financial and accounting data.
3. Recommendations have been made to upgrade the accounts unit staff at the Division. It has long been recognized that the position of the accounting staff was not in keeping with the complexity and extent of the work load. For example, the Fisheries Division has twenty-two (22) Sub-Offices with seventeen (17) currently operational located island-wide in addition to the Aquaculture Branch with only one available senior "Accounting Technician" (AT3) in charge. It is hoped that the necessary approvals to upgrade the accounting positions will be in place soon.
4. In recognition of the difficulty to properly manage projects and programmes this Division intends to ask for funds in the upcoming 2009 – 2010 financial year to contract a consultant to develop a suitable financial management software system that will allow

for easy and accurate tracking of expenditures and budget status on an activity by activity basis and through the generation of specific routine or specialized reports.

5. Additionally, we intend to contract a suitable consultant to develop a comprehensive information management system (i.e., hard and soft) that will improve the efficiency of the Registry and library as well as information exchange (administrative, accounting and technical) within the organization.
6. The collection of biological and catch data for all our important commercial fisheries will be a priority function of the modernized agency. In keeping with this core function the agency will be adequately staffed to ensure the collection, analysis and interpretation of data to facilitate informed decision-making on all our fisheries including the lobster, conch and finfish fisheries.

6. PUBLIC EDUCATION AND AWARENESS

- 6.1 One of the policies of FD is to enhance the institutional capacity for the management and development of capture fisheries, aquaculture and the Fishing industry as a whole and to provide education at all levels in all matters relating to fisheries.

CRITERIA:

- 6.2 There exists a clearly defined and documented public awareness strategy to disseminate information on the role of FD regulations governing the fishing industry and good fishing practices.
- 6.3 Adequate resources are in place to execute public education and awareness programmes.

AUDIT FINDINGS

- 6.4 Beach meetings and the distribution of brochures were the activities undertaken during financial year 2006/2007. A review of related reports revealed that issues such as 'destructive fishing practice, conservation of fishing industry, beach pollution and hurricane preparation in coastal communities were discussed at these meetings. However, the coverage was limited to eleven (11) beaches and five hundred and eighty-eight (588) fishers and venders.⁷
- 6.5 Press releases were used to inform the public of the closed seasons for Conch and Lobster.
- 6.6 No information was provided on the public awareness activities undertaken for the financial year 2007/2008.

MANAGEMENT COMMENTS

- 6.7 Insufficient funding and shortage of staff resulted in restricted public education programmes. Lack of interest contributed to the poor attendance as the fishers thought it was more profitable to go fishing than to spend the time at these meetings.
- 6.8 No budgetary provision was made for Public Education and Awareness activities and therefore fisheries instructors had to undertake this additional function.

⁷ Report On Community Involvement Programme – 2006/2007 – Fisheries Division

EFFECT

- 6.9 The inability of FD to educate a wide cross section of the fishing community may have resulted in the continued infringement in the industry.

RECOMMENDATIONS

- 6.10 The FD should develop and adopt more innovative strategies to better execute its Public Education and Awareness programmes to fishers and other participants in the industry.

MANAGEMENT'S RESPONSE

1. *We agree that our system of public education and awareness must be strengthened.*
2. *Note that our education and awareness activities are not limited to the community involvement meetings referred to in your report. In fact, our Fisheries Instructors engage in continuous interaction with stakeholders in the field. We also participate in several events such as the Denbigh Agricultural Show, the World Food Day celebrations, and other annual events put on by stakeholder organizations such as the Caribbean Coastal Area Management Foundation (CCAM) and Bluefields Bay Fishermen Friendly Society.*
3. *We do not agree that an output of eleven beaches and 588 fishers necessarily amounts to an ineffective system. In fact, based on our budget our annual work plan for the 2007 – 2008 fiscal year targeted one (1) Fishing beach per month. The focus of these community involvement meetings are not just sensitisation of critical fisheries management and development issues but also capacity building, empowerment, group dynamics and organization. In many of these sessions, external assistance is given by the Jamaica Fishermen's Cooperative Union or the Cooperative Department.*
4. *It must also be borne in mind that our clientele are largely illiterate (though very numerate) and are generally very individualistic and cynical in nature. Consequently, it is difficult to mobilize the entire population of fishers. As a strategy we target community leaders and other stakeholders that are respected by their peers.*
5. *The modernization of the Fisheries Division will greatly strengthen our capacity to engage in a more effective education and awareness programme. As part of the modernised corporate structure, a public relations expert and support staff will be brought on board to deliver a more effective and efficient programme.*

6. *Given the new direction as dictated by the Draft National Fisheries Policy and Draft Fisheries Act, greater emphasis will be placed on sensitizing fishers and the public on the implications of these new initiatives. Additionally, public education and awareness will be a priority in the 2009 – 2010 financial year.*

REFERENCES

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2. The Fishing Act (1975) and Regulations of 1976
3. The Natural Resources Conservation Authority Act (1995)
4. The Morant and Pedro Cay Act
5. The Maritime Area Act (1996)
6. The Exclusive Economic Zone (EEZ) Act (1991)
7. The Wildlife Protection Act (1945)
8. Reports of Senior Technical Meetings
9. Jamaica's Country Report, Errol Bartley, April 25-28, 2006
10. [Http://www.jis.gov.jm](http://www.jis.gov.jm)
11. The Daily Gleaner publications
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GLOSSARY

Capture fishing	Encompasses every fishing activity that involves capturing wild fish or shell fish
Fish stock or fish resource	The living resources in the community or population from which catches are taken in a fishery. Use of the term fish stock usually implies that the particular population is more or less isolated reproductively from other stocks of the same species and hence self-sustaining.
Fishery	The term fishery can refer to the sum of all fishing activities on a given resource, for example a conch fishery or lobster fishery. It may also refer to the activities of a single type or style of fishery.
Fishing capacity	The quantity of fish that can be taken by a fishing unit, for example an individual, community, vessel or fleet, assuming that there is no limitation on the yield from the stock.
Fishing effort	The total amount of fishing activity on the fishing grounds over a given period of time, often expressed for a specific gear type, number of hours or number of hooks set per day.
Over-exploited	Exploited beyond that limit which is believed to be sustainable in the long term and beyond which there is an undesirably high risk of stock depletion and collapse.
Sustainable use	The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.
Total allowable catch (TAC)	The TAC is the total catch allowed to be taken from a resource in a specified period (usually a year), as defined in the management plan. The TAC may be allocated to the stakeholders in the form of quota as specific quantities or proportions.
Poaching	Illegal fishing.