



Managing sustainable fisheries



A PERFORMANCE AUDIT REPORT OF THE OFFICE OF THE AUDITOR
GENERAL OF THE REPUBLIC OF FIJI



Fisheries are an important source of food, employment economic activity and recreation for people of many nations. Effective management of fisheries resources is important not just from an environmental perspective but also because of its impact on country economies and the livelihood of the population.

The fisheries sector is one of the most important economic sectors in the Pacific region and contributes significantly to the economic welfare and sustainable development in all PICs. The tuna catch in the Pacific has increased to record levels in recent years driven by global demand for fish. Sustainability of the tuna stocks remain pertinent to the economies of the Pacific Forum Island members from the perspective of providing opportunities for the development of domestic tuna industries and maintaining revenue.

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Acronyms

CAP	chapter
CITES	Convention on International Trade in Endangered Species
CMM	Conservation management measures
EEZ	Exclusive economic zones
ETA	Estimated time of arrival
EU	European Union
FD	Fisheries division
FFA	Forum Fisheries Agency
FIMSA	Fiji Islands Maritime and Safety Agency
FJD	Fijian dollar
GDP	Gross domestic product
HACCP	Hazard Analysis and Critical Control Points
IEA	International Environment Agreement
IUU	Illegal unregulated unreported
KPI	Key Performance Indicators
MCS	Monitoring Control and Surveillance
MPA	Marine Protected Areas
NFA	National Fisheries Authority
PAFCO	Pacific Fishing Company Limited
PDF	Project Development Fund
PIC (s)	Pacific island country (ies)
PIP	Pacific island Parties
SC	Science Committee
SPC	Secretariat of the Pacific Community
TAC	Total allowable catch
TMP	Tuna Management Plan
TUFMAN	Tuna Fisheries Database Management System
USD	United States dollar
VMS	Vessel Monitoring System
WCPFC	Western and Central Pacific Forum Agency

Glossary

Terms	Definition
Access agreement	Treaty, agreement or other arrangement entered into
Convention	Refers to the South Pacific Forum Fisheries Agency
Exclusive economic zone	The seas, seaward and of adjacent to the territorial sea as defined in the Marine Spaces Act
Fishing licence	Any licence for fishing issued or recognised
Foreign fishing vessel	Any other fishing vessel other than a Fiji fishing vessel
License fee	Fee prescribed to be paid in relation to licenses issued
Minister	Refers to the Minister of Fisheries and Forest.
Observer	Any person authorised to act as observer and any person designated in accordance with a treaty, or an access agreement or related agreement to act as observer aboard a vessel licensed under that access agreement
Quota/ Total allowable catch	The size of catch that can be extracted within a year.
Sustainable use	Conserving, using, enhancing and developing marine resources to enable people to provide for their social, economic and cultural well being
Transshipment	Transfer on board a vessel onto another vessel of any or all of the fish

1.0 EXECUTIVE SUMMARY

Background Fisheries are an important source of food, employment, economic activity and recreation for the people of Fiji. Effective management of fisheries resources is important not just from an environmental perspective but also because of its impact on the country's economy and the livelihood of its population.

Coverage The audit on "Managing sustainable fisheries" looked into three main areas which include the Planning of offshore fisheries", Economic returns from offshore fisheries" and "Management information is informed by accurate information".

The audit focused on the Department of Fisheries as the agency entrusted for regulating, administering and monitoring the fisheries sector.

Key findings *Planning of offshore fisheries*

- The draft decree on Offshore Fisheries submitted to the Attorney General's Office for vetting in November 2010 includes provisions for the management, development and sustainable use of fisheries and marine resource, is yet to be vetted.
- The last Tuna Management Plan developed provided a framework for the conduct of a stable and profitable tuna fishery in Fiji for the years 2006 to 2010. A similar documented strategy for the ensuing years has not been developed.
- There are no formal arrangements between the Department of Fisheries, the Naval Division and the Police Department to define roles and expected outcomes from surveillances conducted and any legal proceedings for incidences of non compliance with the legislations respectively.

Economic returns from offshore fisheries

- Increase in licences issued over the 4 years 2008 to 2011 resulted in corresponding increases in the revenues earned from issues of such licences for those respective years.
- However despite the growth in revenues, total catches from offshore fisheries for those years fell short of the annual total allowable catch quotas of 15,000mt.

Management information is informed by accurate information

- There is evidence that the Department utilises information gathered from economic, surveillance and monitoring reports to influence its decisions on maximising economic returns from its tuna industry.
- Observer programs are hindered by a lack of human and financial resources.
- There is no database maintained to record illegal fishing vessels.

Overall Conclusion Despite the lack of an all encompassing framework on offshore fisheries management and a relevant documented TMP or the current term, planning for offshore fisheries for the two years 2011 to 2012 has been provided for under the Department of Fisheries' Annual Corporate Plans for the respective years.

However there is no evidence to support that the Department utilises information gathered from economic, surveillance and monitoring reports to influence its decisions on maximising economic returns from its tuna industry.

General Recommendation The Department of Fisheries should continuously follow up with the Solicitor Generals Office in having the draft decree on offshore fisheries management vetted to enable its transmission to Cabinet for endorsement. The Department should also consider developing a TMP for the current term as this document provides strategies which are more descriptive for the management of sustainable fisheries. The Department should continue to make the best use of information gathered from economic analysis, surveillance and monitoring activities to enhance decisions made that will maximise its economic returns.

2.0 INTRODUCTION

This section of the report provides reasons for conducting the audit as well as a brief overview of the arrangements in place for managing sustainable fisheries and the entities responsible for ensuring its implementation.

2.1 Background

- 2.1.1 Several fish stocks are over fished today. Despite major efforts over the past years, the state of the environment remains poor. Several species of fish, such as Tuna stocks are still in a very risky situation. The fundamental reason for over fishing is the excessive size and efficiency of the fishing fleet. This means that fishing must be reduced to more long-term sustainable levels to give fish stocks a chance to recover. In the past year there were sixty six (66) active fishing vessels fishing in Fiji's Exclusive Economic Zone.
- 2.1.2 The objectives of fisheries policy and the legislation governing it have changed in recent decades. While the objectives in the past used to be geared mainly towards development of the industry, they have increasingly been designed to ensure a long-term sustainable development in the economic, social and environmental fields.
- 2.1.3 In the short term, there are conflicts among the economic, social and ecological objectives for fisheries. For example, fishing with purse seines may be the most efficient method from a business perspective. From a social perspective, however, large-scale and efficient purse seines may threaten future benefits to Fijians. And from an ecological perspective, intensive purse seines may severely deplete fish stocks.
- 2.1.4 The Fisheries Division (FD) in the Ministry of Fisheries and Forestry is responsible for the conservation and sustainable utilization of Fiji's fisheries resources in a manner that ensures optimum social and economic benefits to the country.
- 2.1.5 The Fiji Fisheries Act (1942); Marine Spaces Act; along with the international conventions Fiji is signatory to, govern Fiji's Fishing Industry.
- 2.1.6 Under the Fisheries 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. The issuing of licence process and requirements to support applications for licence are attached as appendix 1 and 2 to this report respectively.

2.2 Reason for the audit

- 2.2.1 The 14th PASAI Congress held in Tonga in August 2011 endorsed the topic of "Managing Sustainable Fisheries" for its 3rd regional cooperative performance audit.
- 2.2.2 Overfishing is an activity that is difficult for regulating agencies within the Pacific region to address.

3.0 AUDIT OBJECTIVES SCOPE & METHODOLOGY

This section of the report describes the objectives and scope for this audit. It also discusses the methodology utilised to gather information for the audit.

3.1 Audit objective and scope

- 3.1.1 The objective of the audit is to assess the effectiveness of the management of off-shore fisheries (in particular the tuna fishery) by national fisheries authorities in accordance with national fisheries policies and frameworks.
- 3.1.2 The scope of the audit is limited to the management of fisheries within Fiji's EEZs and the actions taken by responsible agencies to manage this resource within the legal/policy framework that applies in Fiji.

3.2 Audit methodology

- 3.2.1 The audit was conducted using the following evidence gathering techniques.

Table 1: Methodologies used to gather information

Audit Methods	Details
Documentary review	All the necessary documents relevant to the audit topic were reviewed by the audit team. Documents reviewed included the Fisheries Act 1942, the Marine Spaces Act 1978, the Fiji Tuna management Plan 2006 – 2010, Department of Fisheries organisational plans, international/regional/subregional treaties
Interviews	Discussions were held with relevant personnel at the Department of Fisheries and the Fiji Navy personally and through the telephone
Electronic confirmation	Information and reaffirmations sought and provided through emails and faxes
Site visits	Accompanied enforcement and monitoring officers in boarding vessels to verify processes
Internet research	Information regarding similar works or studies on sustainable tuna fisheries were extracted from the internet

4.0 THE PLANNING OF OFFSHORE FISHERIES

This section of the report looks into the key aspects of off-shore fisheries to determine whether they are appropriately planned.

4.1 Framework for management of sustainable fisheries

- 4.1.1 There should be an overarching legal framework for the management of sustainable tuna fisheries that considers international, regional and sub regional arrangements and commitments. An overarching framework provides all encompassing objectives and principles for managing fisheries, identifies institutional arrangements, and reduces risks to the fisheries.
- 4.1.2 The framework for the management of tuna fisheries in Fiji consists of the national fisheries legislation, government policies and the national Tuna Management Plan that takes into account social, economic and conservation objectives relating to sustainable tuna fisheries, as well as the various international agreements and regional arrangements that Fiji is a party to.

4.1.1 Legal framework

- 4.1.1.1 The national fishery legal framework should be aligned with international, regional and sub regional commitments.
- 4.1.1.2 The use of marine resources in the Republic of Fiji is governed by the Fisheries Act Chapter 158 of 1942 with subsequent amendments and additional regulations, and the Marine Spaces Act Chapter 158A of 1978.
- 4.1.1.3 The Act defines Fiji's fisheries waters as all internal waters, archipelagic waters, territorial sea and all waters within the exclusive economic zone. It establishes the archipelagic waters of Fiji and a twelve nautical mile territorial sea. The Act also establishes a 200 nautical mile exclusive economic zone over which Fiji has sovereign rights for the purpose of exploring and exploiting, conserving and managing, the natural resources of the seabed, subsoil and superjacent waters¹.
- 4.1.1.4 The Act prohibits the taking of fish in Fiji waters by way of trade or business without a licence. All licence granted are personal to the licence holder and not transferable and terminate on the 31st of December of the year in which licence is issued.
- 4.1.1.5 The law also empowers the Minister to make regulations prohibiting any practice or methods, or employment of equipment or devices or materials which are likely to be injurious to the maintenance and development of stock of fish; prescribing areas and seasons within which the taking of fish is prohibited or restricted, prescribing limits to the size and weight of fish; prescribing limits to the size of nets or mesh of nets which

¹ FAO FID/CP/FJI October 2009 National Fishery Sector Overview Fiji s.8 page 12

are used to take fish; regulating the procedure for issue and cancellation of licenses and their associated forms; prescribing the fees to be charged for licenses; and regulating any other matter relating to the conservation, protection and maintenance of a stock of fish which may be considered necessary².

4.1.1.6 Government in its Strategic Development Plan 2007-2011³ and the Roadmap for Democracy & Sustainable Socio-Economic Development 2009-2014⁴, recognised that these legislations needed to be reviewed, considering the lapse of time from when legislations were enacted and the many developments that have arisen in the fisheries sector since then such as the revision of the UN Fish Stocks Agreement, and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Fisheries in 2004, etc.

4.1.1.7 Review of existing institutional arrangement including legislations to take account of the global and national developments⁵ was identified as one output in the Ministry of Fisheries and Forests Annual Corporate Plan for 2010.

Reviews of the legislations were carried out by the Department of Fisheries in 2010 with assistance from the Forum Fisheries Agency (FFA), and took into consideration developments required from international and regional agreements and incorporated these into the draft "Fiji Offshore Fisheries Management Decree".

4.1.1.8 The draft decree provides for the management, development and sustainable use of fisheries and marine resources in the Fiji Islands, and which also seeks to repeal sections of the Fisheries Act (CAP 158) and Part III (Management and Conservation of Fisheries) and Part IV (Miscellaneous) of the Marine Spaces Act (CAP 158A)⁶ was submitted to the Solicitor General's Office for vetting in 2011.

Audit ascertained on 19/1/12 from discussions held with relevant Fisheries personnel that the Solicitor General's Office in its last response to the Department on 6/4/11 was still vetting the draft decree.

4.1.1.9 The proposed decree once endorsed will empower the Department of Fisheries in effectively managing offshore fisheries. It will also provide a fair playing field for all commercial fishermen by ensuring that there is no overfishing, and ensure sustainable fishing which will protect and boost fish populations

4.1.2 National Tuna Management Plan

4.1.2.1 The Tuna Management Plan should reflect the existing long term objectives of international/regional agreements of sustainable fisheries.

It should also state its long term objectives with indicators to measure its progress.

4.1.2.2 Fiji's Tuna Management Plan was first developed for the years 2002 to 2005, followed by another for the years 2006 to 2010. The Plan which was prepared with the support

² FAO FID/CP/FJI National Fishery Sector Overview Fiji s. 8 page 12

³ Strategic Development Plan 2007-2011 s. 3.2.5

⁴ Roadmap for Democracy & Sustainable Socio-Economic Development 2009-2014 s.3.3.12

⁵ Ministry of Fisheries and Forests Annual Corporate Plan 2010 Table 2 – page 9

⁶ Fiji Offshore Fisheries Management Decree – Final Draft – Nov 2010

of the Forum Fisheries Agency, the SPC and stakeholders, complements Fiji's existing legislations in the management of tuna resources.

4.1.2.3 The objective of the Fiji Tuna Management Plan 2006-2010 is to provide a set of policy decisions that will create a framework for the conduct of a stable and profitable tuna fishery in Fiji.

Decisions in the Plan include identifying commitments for the 5years 2006-2010 with an annual public assessment of performance as set out in Table 2 below.

Table 2: Commitments stated in the TMP 2006-2010

	OBJECTIVE	STRATEGY	COMMITMENT
1	Stability	Long term plan	This is a five year plan with annual assessments
2	Sustainability	Economically sound industry	There will be only sixty long line licences issued each year
3	Indigenous participation	Increase indigenous ownership	Twenty five licences will be set aside for indigenous Fijians
4	Fijian ownership	Strict charter conditions	Conditions will be applied in considering licenses for vessels charters
5	Transparency	NFA	NFA will be implemented as decided by Cabinet with consultation of stakeholders
6	Protection of inshore	Archipelagic MPA	MPA will be established in the archipelago restricting long line fishing to small locally vessels of less than 40 cubic meter capacity
7	Fairness	Fees restructuring	Fees will be restructured to collect more from vessels using Fiji Ports and less from vessels fishing Fiji's EEZ
8	Reduce red tape	Reduction in permits	Permitting will be restructured to include annual permits whenever possible reducing the paperwork for both industry and government while maintaining our commitments to international agreements
9	Resource protection	Pursue regional agreements	Fiji will encourage a regional action plan within the WCPFC to ensure the sustainability of big eye and yellow fin stocks
10	International cooperation	Pursue bilateral access agreements	Fiji will pursue bilateral and multilateral agreements of mutual benefits with its neighbours to increase the effectiveness of management and encourage joint schemes of enforcement

4.1.2.4 Other objectives of the TMP include:

- determining the level of sustainable fishing effort and distribution of licenses within Fiji's EEZ;
- setting a fair but not restrictive set of fees paid to government in terms of licensing fees, fishing fees, port charges and export permits;
- addressing the conservation and management of tuna resources within the Fiji waters; and
- providing policy direction to government towards new areas for development that would increase the economic gains from tuna fishing.

4.1.2.5 The TMP identified the need to create a Fiji National Fisheries Authority to be responsible for implementing the TMP. The Authority would be authorized to issue

licenses, collect fees, monitor the fishery and enforce regulations, but this is yet to eventuate.

- 4.1.2.6 Although not included in the TMP, key performance indicators (KPI) are identified in the Ministry's Strategic Plan (SP) 2010-2014 for the long term and in its Annual Corporate Plan for each target outcome for the immediate term.

Strategies and KPIs identified in the Ministry's SP 2010-2014 to address its policies of "ensuring food security through sustainable fisheries resources management" and "fisheries resource utilisation for optimum economic benefit" is listed in the table below.

Table 3: Strategies and KPI in the SP 2010-2014

Strategy	Key Performance Indicators
<ul style="list-style-type: none"> Review existing institutional arrangement including legislation to taking into account of global and national developments. Build local industries on EU market requirements, MSC accreditation, HACCP accreditation and CITES requirements. Review existing policies and regulations on Offshore Tuna Industry Provide appropriate support through institutional strengthening 	<ul style="list-style-type: none"> Adoption of revised legislation, policy and management plans by 2011. Fisheries sector contribution to GDP increased and maintained at 3% from current level of 2.8% Proportion of total tuna catch landed by indigenous Fijians licensed vessels to be increased by 25% to 40% in 2011 Increase resource owners participation and business ownership by 5% by 2012 Domestication of the Fiji licensed fleet

- 4.1.2.7 The Ministry prepares quarterly progress reports to identify achievement of target outputs and this is monitored by the SFCCO Unit under the Prime Minister's Office.

- 4.1.2.8 The Tuna Management Plan 2006-2010 has now expired. Despite the Ministry identifying the review of the Tuna Management & Development Plan in its 2011 Annual Corporate Plan, there has been no assurance from the Department that the TMP will be reviewed.

Without a Tuna Management Plan for the years following 2010, the Department lacks a documented strategy or guidelines that will assist it to identify objectives, implement strategies, and monitor achievement of its commitments as aligned with regional commitments and identify institutional arrangements.

4.1.3 International and Regional Agreements

- 4.1.3.1 Affiliations with international and regional agencies benefit small islands nation through funding or technical equipment/expertise received that could prosper the functions of the respective implementing agencies.

- 4.1.3.2 Fiji is a signatory to various bilateral, sub regional, regional, and international environmental agreements (IEAs). Details of the various agreements Fiji is a signatory to and the obligations it has to meet and the benefits it can derive from such affiliations is listed under Appendix 3 of this report.

- 4.1.3.3 Fiji is also affiliated to the South Pacific Forum Fisheries Agency (FFA) ever since the establishment of the Agency.

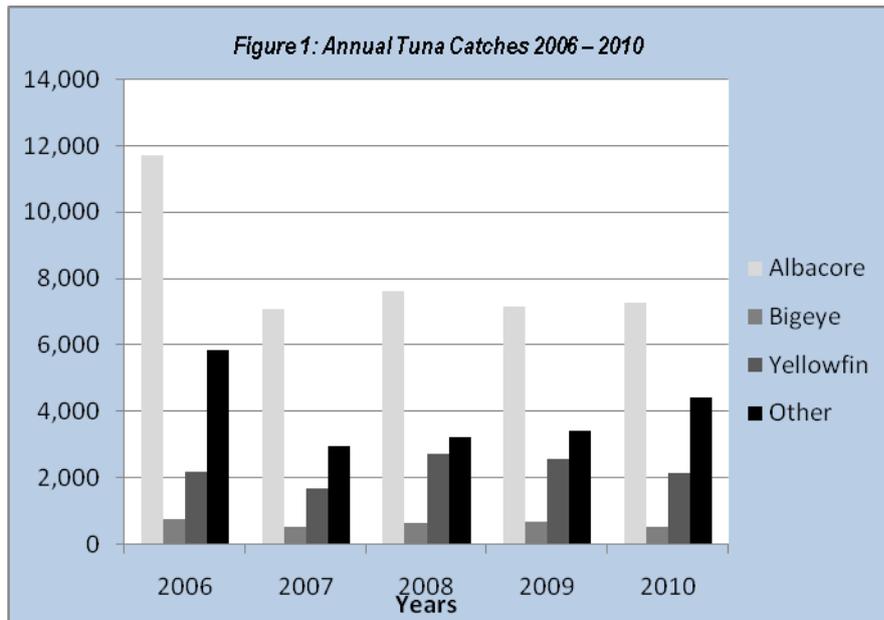
- 4.1.3.4 As a member country, it is required to provide the FFA with available and appropriate information which include:
- catch and effort statistics in respect of fishing operations in waters under Fiji's jurisdiction;
 - relevant laws, regulations and international agreements;
 - relevant biological and statistical data; and
 - action with respect to decisions taken by the Committee of the FFA
- 4.1.3.5 Fiji benefits as a member country of the FFA by having access to⁷:
- statistical and biological information regarding high migratory species of the region;
 - relevant information concerning management procedures, legislations and agreements adopted by other countries within and beyond the region;
 - relevant information on prices, shipping, processing and marketing of fish and fish products;
 - technical advice and information, assistance in the development of fisheries policies and negotiations, and assistance in the issue of licences, the collection of fees or in matters pertaining to surveillance and enforcement.

4.2 Harvest Strategy

- 4.2.1 There should be a harvest strategy in place which should identify controls to manage risks to tuna stocks.
- 4.2.2 The Marine Spaces Act dictates that the Minister shall from time to time determine the basis of best available information on the total allowable catch in respect of every fishery within the exclusive economic zone, and the portion of that catch which Fiji's fishing vessels have the capacity to harvest.
- The area between internal waters and the shoreward boundary of archipelagic waters is closed to vessels over 20 meters and those owned by non indigenous Fijians. All vessels using commercial fishing gear such as long line, purse seine, pole and line require a license irrespective of length⁸.
- 4.2.3 The overall total allowable catch (TAC) within Fiji's EEZ for the tuna species which includes albacore, big eye and yellow fin is 15,000 metric tonnes and has been applicable since 2002.
- 4.2.4 Harvesting strategies are monitored by observers on board vessels, who provide feedback reports back to the Department of Fisheries. From 2006 to 2010, the catch sizes have not exceeded the quota. The highest recorded catch within this period was in 2006 where the catch was only short of reaching the quota by 1.3 percent. Illustrated in the diagram below is the quantity of tuna catches recorded for the period 2006 to 2010.

⁷ Article VII of the South Pacific Forum Fisheries Agency Convention (1979)

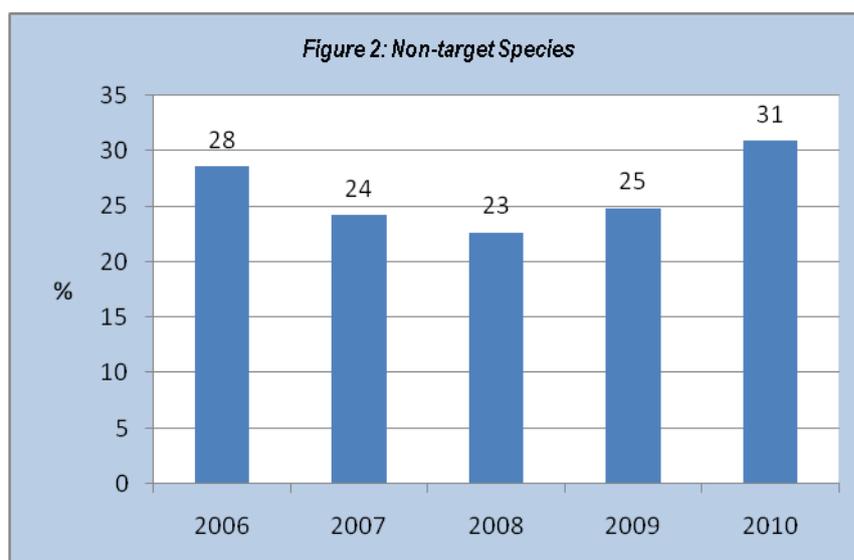
⁸ Draft Outline SAP II Project: National Project Preparation reports s.1.2 page 2



4.2.5 The low levels of tuna catches over the 4 years 2007 to 2010 imply that the quota may be set too high or that there is some degree of under reporting catches.

Although the Department has not reviewed the established quota set since 2002, it is evident that it utilizes statistics obtained to consider options that maximize the exploitation of annual targeted quota. For instance, licenses issued have increased over this period from 46 in 2008, 53 in 2009 and 58 in 2010. Numbers of permits issued were further increased to 67 in 2011 and 70 in 2012.

4.2.6 On the other hand, it was noted that non target catches which are usually sold locally at supermarkets, restaurants or directly to consumers, comprised a significant percentage of the total catch in the Fiji EEZ. For instance, non-target catches were recorded at 28% of the overall catch in 2006, declined in the next couple of years, and increased in the ensuing years, to comprise 31% of the total catch in 2010 as illustrated in figure 2 below.



- 4.2.7 Declines in the years 2007 and 2008 indicated some degree of under reporting since observers do not conduct 100% checks on all vessels and the Department relies on records of details of the catches (log sheets) provided by the vessels' Captain.

Currently reporting has improved with the collection of more observer data. Where log sheet records are not provided, estimates of the non target species are determined using the proportion of observers' non target species composition to the target species percentage composition.

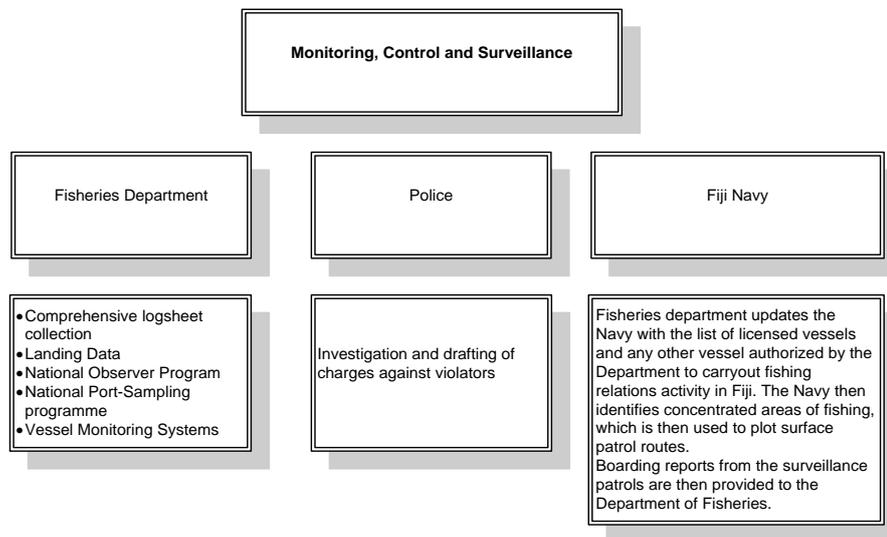
4.3 Formal arrangements for monitoring and surveillance

- 4.3.1 The involvement of external agencies in monitoring and surveillance would require formal arrangements to be in place.

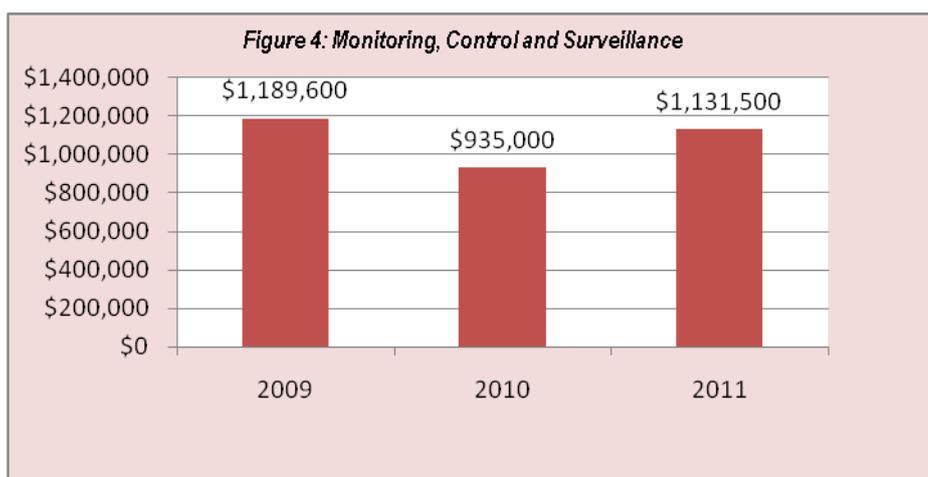
The existence of a formal agreement amongst the agencies is essential as it will clearly outline the specific role of each agency, and its expected outcomes in terms of surveillance programs. It will also ensure that duties are properly coordinated and discharged by all parties.

- 4.3.2 Outlined below are the parties responsible for the monitoring and surveillance of offshore fisheries.

Figure 3: Parties responsible for monitoring and surveillance of offshore fisheries



- 4.3.3 The Offshore Unit is responsible for the monitoring and enforcement of compliance of Fisheries regulations. Funds are allocated in the Department's Budget for Fish Monitoring, Control, Surveillance and Technical Service. Illustrated in the figure below are the budgets provided for the years 2009 to 2011.



- 4.3.4 The Naval Division is responsible for the surveillance of Fiji's waters to ensure compliance with the Fisheries Act, either through sea patrol or aerial survey. The Enforcement Unit of the Fisheries Department at times accompanies the Navy on sea patrol.
- 4.3.5 Audit gathered that the Department has appointed officers from the Naval Division as honourable fish wardens and as fisheries officers as required under the Fisheries Act and Marine Spaces Act respectively. For instance, 29 officers were appointed as honourable fish wardens and as fisheries officers in 2010. Although gazetted, it was noted there is no formal agreement between the two agencies to define the responsibilities and obligations between the two agencies with regards to monitoring and surveillance.
- 4.3.6 The Police Department is responsible for facilitating court action against those found to be contravening provisions of the Fisheries Act. However there is no formal arrangement to outline the boundaries of responsibilities and obligations between the two agencies.
- 4.3.7 The lack of formal arrangements may result in the duplication of resources as the boundaries of monitoring work that has to be conducted by the two agencies are not clearly defined.
- 4.3.8 The lack of resources impairs the effectiveness of surveillance activities over our waters and inhibits the full realisation of potential benefits associated with fisheries which may arise from non detection of illegal, unreported and unregulated activities.

4.4 International Accreditation

- 4.4.1 International accreditation of the tuna industry indicates that our industry is aimed at ensuring the tuna we provide to our consumers is sourced from stocks that are harvested and managed in a manner which ensures that we can continue to supply seafood for future generations.
- 4.4.2 However Fiji is yet to formulate a policy requiring tuna processing companies to include international accreditation on their product labels.
- 4.4.3 Branding with international accreditation will show that our tuna industry is committed and confident, and that we can affect change that will preserve precious resources for future generations.

4.5 Risk to sustainability of tuna

- 4.5.1 Risks to the sustainability of the tuna stock should be appropriately identified so that appropriate measures could be established to minimise its impact to the effective management of sustainable fisheries. Conservation and management measures play a vital role in minimising the risk to the sustainability of tuna stocks.
- 4.5.2 One of the risks to the sustainability of the tuna fishery includes over fishing. Tuna species found in Fiji waters include albacore, big eye, yellow fin and skipjack. Commercial tuna fishing is directed mainly towards albacore, big eye and yellow fin and most vessels use long-line operations to harvest this fishery.
- 4.5.3 Risks to the sustainability of the tuna fisheries are addressed in the Fiji Tuna Management Plan. The Fisheries Department obtains its scientific advice from the Science Committee (SC) of the Western and Central Pacific Fisheries Commission (WCPFC), which provides the region with the updated status of tuna stock in the WCPFC region.
- 4.5.4 The Ministry utilises the scientific advice received from the WCPFC to manage risk to the tuna fishery by:
1. including fishing conditions in the License requirements;
 2. setting a Total Allowable Catch for tuna species at 15,000 metric tonnes;
 3. progressively limiting fishing licenses issued in a year;
 4. having Observers on board vessels during fishing trips;
 5. requiring submission of catch log sheets from vessel owners; and
 6. monitoring vessel movements through the Vessel Monitoring System (VMS)

Information provided by the WCPFC has identified that yellow fin tuna and skipjack tuna are not in an over fished state. However, the Scientific Committee also noted that big eye tuna is approaching an over fished state and that current levels of catch are unlikely to be sustainable in the long term even at the recent [high] levels of recruitment estimated for the last two decades. The current catch levels from the South Pacific albacore stock appear to be sustainable, and do not indicate over fishing or an over fished state.

- 4.5.5 However the Department lacks the staff to effectively implement the new measures directed by the regional bodies. Although the regional responsibilities have increased, staff establishment in the Unit has remained at 31 since 2002. It is also noted that there is no separate VMS officer to perform monitoring duties full time.
- 4.5.6 The inadequacy in the staffing level directly affects the proper management of sustainable fisheries.

RECOMMENDATIONS

The Department should:

- continuously follow up with the Solicitor General's Office about the vetting of the draft Fiji Offshore Fisheries Management Decree, to enable its transmission to Cabinet and subsequent endorsement;
- review the Tuna Management Plan that will assist it in identifying institutional arrangements, and support the management of sustainable fisheries for the years 2011 onwards whilst the draft legislations are still being considered;
- review the total allowable catch (quota) or empowering its enforcement, monitoring and surveillance arms to enhance reporting of fishing activities to reflect realistic data;
- have formal arrangements with the Fiji Navy and Fiji Police to define responsibilities and obligations of parties with relation to monitoring and surveillance activities;
- work with the Naval Division in securing more resources to enable effective surveillance of Fiji's waters; and
- consider working together with all related stakeholders towards having Fiji tuna products branded with international accreditation as this will increase the value of Fiji tuna;
- make proposal to its line Ministry to request additional manpower to assist in implementing measures directed by the regional bodies.

Management Comments

- *On the outset, it is sad to note that despite the notion that the fisheries sector is one of the most important economic sectors in the Pacific region and contributes significantly to the socio economic welfare and sustainable development in all Pacific Island Countries, our genuine attempts to have a modernised fisheries law to address most or all of our outstanding obligations to international, regional and sub regional conventions and agreements has been undermined by the ill resourced office that is responsible for clearing our draft laws.*

After the initial consultation with Fisheries and other relevant Government agencies in 2008, it was decided to have 3 modern laws each of which to specifically cater for; the offshore fisheries sector, the inshore fisheries sector and the aquaculture fisheries sector.

After 3 rounds of wide stakeholder consultations for the Offshore and Aquaculture Decrees, the drafts were handed over to the Solicitor General's Office for legal vetting in October 2010. Unfortunately it took 8 months before the first consultation between the SGO and the Department was undertaken.

In January 2012, the EU mission on EU IUU Regulation 1005/2008 was in Suva to see what Fiji had in place at national level to enforce the provisions of their regulation. One of their finding was the weakness in our existing fisheries laws and the insufficient amount in fines to offenders of our laws. Despite us advising them of the ongoing review process, they felt that 4 years of consultation was too long and would like to have a finalized instrument by July 2012.

Another EU Mission is expected to be in Suva in early July 2012 and I am afraid that no progress has been made and I do not want to predict the next step the EU will undertake with regards to exports of our fishery products to them.

A similar exercise was undertaken by the EU in 2007 when they found out then that the Ministry of Health did not have the legal framework to address the sanitary and phyto-sanitary measures on seafood under their existing laws. On their return visit, Fiji Government did not address their recommendation to their expectation and immediately closed their markets to Fiji fishery products in the same year.

Fiji got back into the EU market in February 2011 after complying with their strict measures.

Up until to date, we still have yet to receive any solid confirmation from the SGO if the document is ready to be taken to Cabinet for a decision despite the draft Cabinet paper being prepared and vetted by the same office.

- *The first round of stakeholder consultation on the review of the Tuna Management and Development Plan (TMDP) was undertaken in April 2012 the outcome of which saw the first draft drawn up and presented at the second round of consultation in June 2012. This was preceded in informal discussions between FFA, SPC and Fisheries senior officials in the margins of regional meetings since 2011.*

The national stakeholder consultation included the outcome of a bio-economic study of the domestic tuna industry to show the economic viability of the industry based on certain fisheries financial information supplied by the industry.

To date we are awaiting the final draft of the revised TMDP 2013 – 2017.

- *Part of the strategies of the revision of the TMDP is to come up with a total allowable catch (TAC) for our main target tuna species of albacore, yellowfin and bigeye. The existences of the current TAC of 15,000mt has been questioned and at the same time suggestions received were to have it decreased to 10,000mt and another was to have it increased to 20,000mt. Even though our catch hovers around 9,000-12,000mt it is only advisable to have it maintained at 15,000mt so as to have a buffer zone of 3,000-6,000mt for the future and as our aspiration to develop our fishery as Small Island Developing States (SIDS).*

At the same time the existing establishment of 28 officers is inadequate and with the new decree to be effectively implemented, it will need additional staffing and finance. This has been addressed by requesting the PSC for an additional 23 officers the outcome of which to be part of the Cabinet Paper for the recommendation for the promulgation of the draft Offshore Fisheries Management Decree.

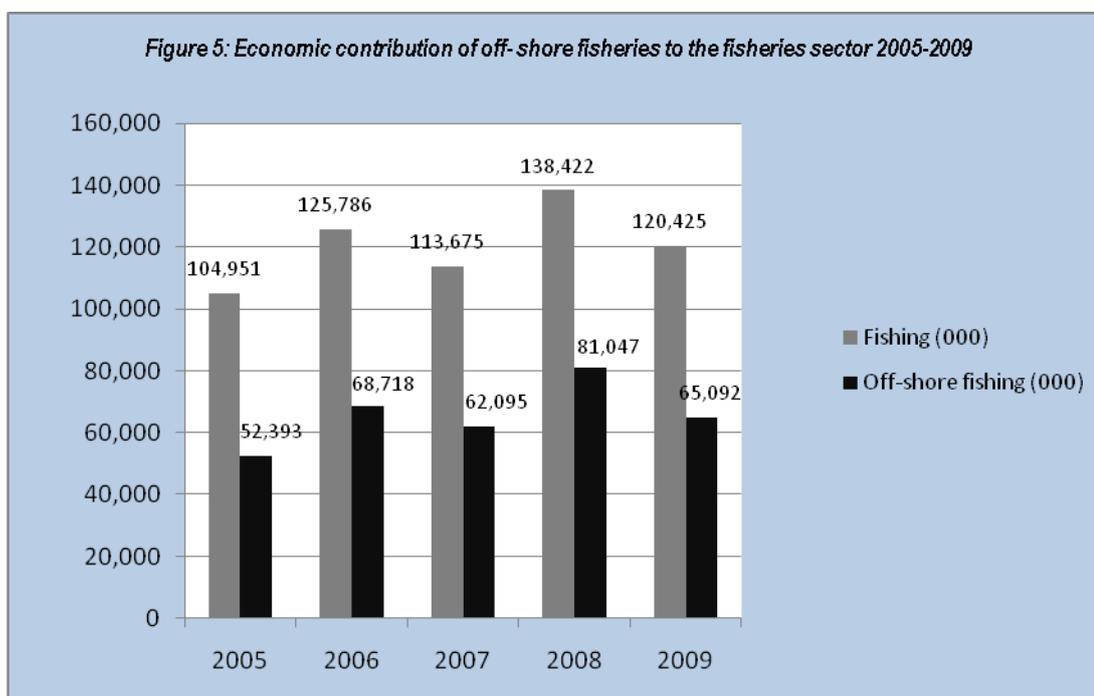
- *This has been in the pipeline for quite some time and we may need to have a draft MoU drawn up.*
- *We need improved working relations with the Fiji Navy so as to effectively carry out more sea patrols inside and outside our national jurisdiction. For this to come into fruition may need to have bigger patrol vessels specifically for fisheries patrol having bigger fuel tanks to allow the vessel travel to the outer limits of our EEZ and the high seas.*
- *The Fiji Tuna Boat Owners Association (FTBOA) is currently being assessed under the Marine Stewardship Council (MSC) and once accredited will greatly benefit the products sold by its members by having the MSC logo added to its labels. At the same time the Fiji Offshore Fisheries Association (FOFA) is also proposing to have a similar assessment on its membership.*
- *This has been done as described in third bullet point above.*

5.0 ECONOMIC RETURNS FROM OFFSHORE FISHERY

This section of the report looks into establishing whether economic returns from offshore fishery are appropriate.

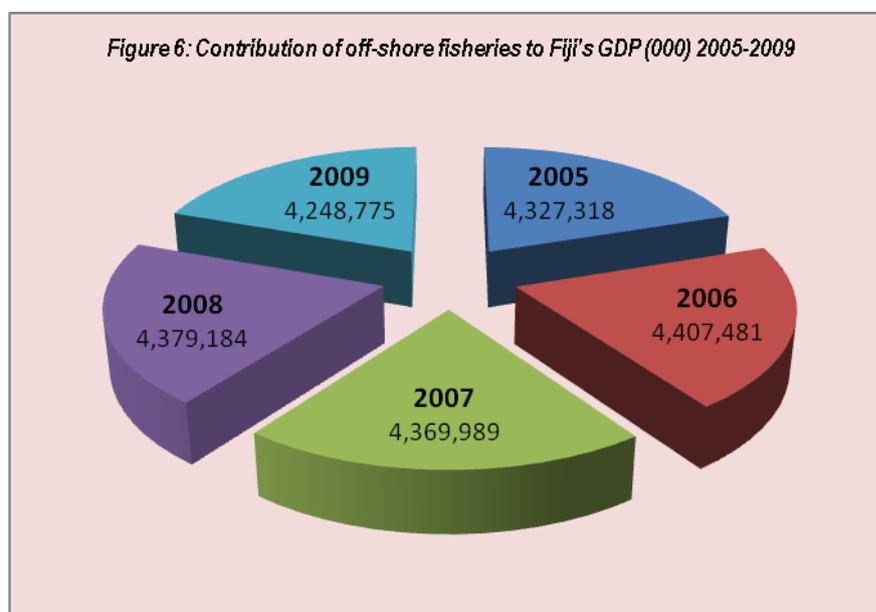
5.1 Contributions to GDP

- 5.1.1 The fisheries sector contributes to the economy's GDP through revenue, exports, and employment.
- 5.1.2 Fishery is considered a priority sector for the Fiji Islands due to its significant contributions to the count GDP, which was approximated at 3% for 2010, and real domestic export earnings of \$205 million or 13% of all exports for the country as at 31 December 2010. The bulk of the contribution from the industry is attributed to the harvesting sector (85%) of offshore fisheries and aquaculture and inshore commodities. Other contributors are processors (10%) and input suppliers (5%). The tuna industry dominates the sector in terms of output and export and it's estimated that 42% of total catch is sold to canneries, 37% as fresh fish exports, and 21% as domestic sales⁹.
- 5.1.3 The audit gathered from statistics provided that the contribution of offshore fisheries to the fisheries sector has been fluctuating over the years. Refer to the diagram below for details for data relating to the period 2005-2009.



⁹ Ministry of fisheries and Forests draft Annual Report 2010

- 5.1.4 As can be gathered from the illustration above, the recent statistics on the monetary value off-shore fisheries to the fisheries sector is a little over \$65 million. There has been a decrease of 19.68 percent in 2009 compared to the previous year.
- 5.1.5 Off-shore fisheries comprise a substantial component of the overall contribution of the fisheries sector to Gross Domestic Product from 2005 to 2009 as illustrated in the figure below. Recent statistics was also unavailable during the audit examination.



As noted from the illustration above, the largest contributions of offshore fisheries to GDP over the five year period was in 2006.

5.2 Government Revenue

- 5.2.1 Government policy recognises that tuna resources can be exploited to generate government revenue¹⁰.
- 5.2.2 The Department derives revenues for government in the form of license fees. License fees are prescribed in the Fisheries Regulation and Schedule 2 of the Marine Spaces Act Cap 158A.
- 5.2.3 In 2011 Cabinet approved the amendment of Schedule 2 of the Marine Spaces Act to increase the Fishing Licence fee schedule. Refer the table below for details of the existing fees charged.

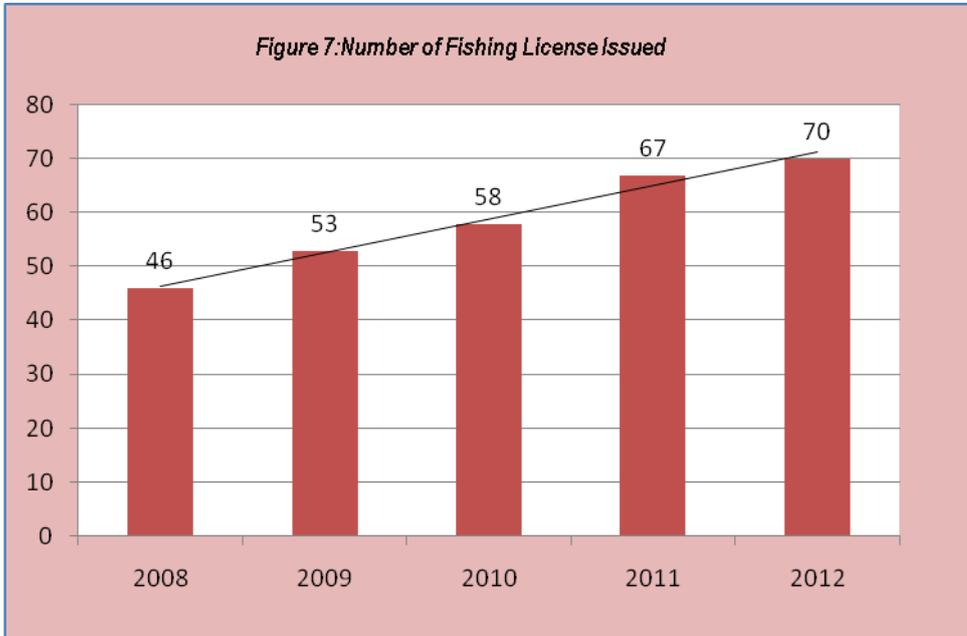
Table 4: Fishing licence fee schedule

Type of vessel	Size of vessel	Amount \$
Foreign Vessel	≥ 20 meters	26,000
Foreign Vessel	< 20 meters	21,000
Local Vessel	≥ 20 meters	16,000
Local Vessel	< 20 meters	11,000
Indigenous Vessel	fixed	8,000

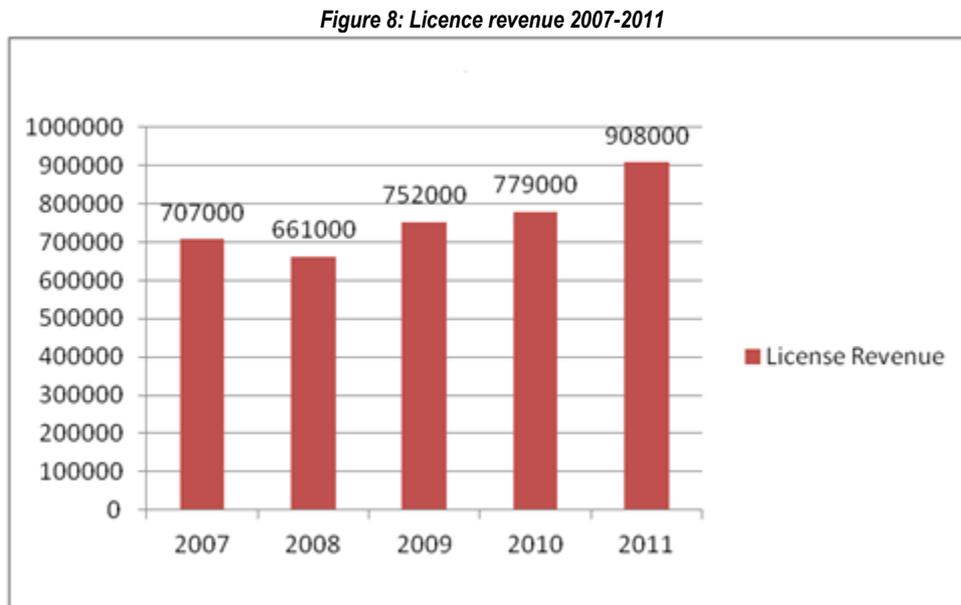
¹⁰ Fiji's Tuna management Plan 2006-2010

5.2.4 The number of licenses to be issued in any one year is identified in the Ministry’s Annual Corporate Plan. The total number of licenses permitted to be issued is capped at 70 with effect from 2011. Previously permits issued were limited at 60.

5.2.5 Licences issued for the 5 years 2008 to 2012 have increased from 46 in 2008 to 70 in 2012 and have been within the limits set. Figure 7 below portrays the gradual increase in numbers of licenses issued.



5.2.6 The increase in the number of licenses issued over the years 2008 to 2011 have resulted in corresponding increases in revenues received for those years as illustrated in figure 8 below.



5.2.7 Data provided was not separated to reflect revenue from off-shore and in-shore fisheries thus audit was not unable to determine the amount of contributions to license fee revenue contributed by off-shore fisheries. It can be gathered from the above diagram that license

revenue received by government over the five year period have been substantial with the 2011 figure recording the highest of more than \$0.9m over the five year period.

5.3 Exports

- 5.3.1 Government policy recognises that tuna resources can be utilised to gain export earnings¹¹.
- 5.3.2 Tuna fishery contributes to the economy in terms of exports. Exports of fishery products are about 9.1% of all exports¹².

Values of fishery exports published by the Reserve Bank of Fiji are reflected in the table below.

Table 5: Value of fishery exports

Year	Value of fishery exports (US\$ millions)	Value of all Fiji Exports (US\$ millions)	Fishery exports as % of total exports
2004	49.1	696.2	7.1%
2005	50.9	705.5	7.2%
2006	56.9	694.2	8.2%
2007	63.3	518	12.2%

Most of the fishery exports of the country from off-shore fishing are albacore, big eye and yellow fin.

- 5.3.3 In 2010, Fiji exported 87% of tuna to Japan and America¹³. The remaining 13% was exported to other countries namely China, Australia, New Zealand, Germany and Reunion Island, Canada and Taiwan.
- 5.3.4 Albacore and skipjack tuna are processed at the PAFCO or exported to Pagopago. The raw fish material supplied to PAFCO is exported as either canned fish, packed tuna loins or as fish meal. The canned tuna is mainly exported to the American, Canadian and Japanese markets. Tuna loins are exported to America for further processing while the fishmeal is shipped out mainly to the Philippines and Japan.

5.4 Employment

- 5.4.1 Tuna resources can be used to provide jobs for men and women¹⁴.
- 5.4.2 Fishery generates employment opportunities. It was established from studies conducted by the Asian Development that jobs directly related to fisheries represent about 3.8% of the total number of jobs in Fiji (wage, salaried and self employed). Employment from three categories of fisheries constituted about 21% of all estimated fisheries employment as at 2004¹⁵. Offshore fishery provided for equivalents of 510 full time employments, whilst tuna cannery provided for equivalents of 800 full time employments, and 639 full time employments in other fish processors.

¹¹ Fiji's Tuna Management Plan 2006-2010

¹² FAO National Fishery Sector Overview, October 2009

¹³ Information on Fisheries, Research and Statistics

¹⁴ Fiji's Tuna Management Plan 2006-2010

¹⁵ National Fishery Sector Overview

- 5.4.3 An important component of fisheries employment in Fiji are those jobs related to offshore fishing. A study by the FFA to track the number of citizens employed in Fiji's offshore fishing industry, both on board vessels and in the processing plants over a seven year period is tabled below.

Table 6 : Employment in Fiji's Tuna Industry

	2002	2006	2008
Local jobs on vessels	893	330	150
Local jobs in shore facilities	1,496	2,200	1,250
Total	2,389	2,530	1,400

The results indicate that employment in Fiji's offshore fishing industry is important but inconsistent.

5.5 Multilateral treaty on Fisheries

- 5.5.1 The FFA administers and provides support for the implementation of the Multilateral Treaty on Fisheries between Certain Governments of the Pacific Island States and the Government of the United States of America (commonly referred to as the "US Treaty"). The US Treaty first started in 1987 and it has been renewed on two occasions, with the last renewal in 2003 and to run for 10 years until 2013.

The US Treaty enables US purse seine fishing vessels to fish in the waters of the 16 Pacific Island Parties which are: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

- 5.5.2 There is an overarching agreement between FFA and the US for Pacific Island countries requiring that a percentage of the annual cash payment of US\$14 million is distributed by FFA to each country according to their share of the volume of catch (up to 55 licences issued to US flagged purse seine vessels). The Project Development Fund, as it is referred to, is administered by the FFA on behalf of its member countries.

- 5.5.3 The stated objectives of the US Treaty are:

- To access Pacific Island Parties (PIP) waters by US Purse Seine vessels at agreed financial package;
- Maximise benefits from development of PIPs fisheries resources;
- Cooperate with PIPs through technical and economic support
- Maximise the economic and social benefits to PIPs through:
 - Use of canning, transshipment, repair facility
 - Purchase of equipment & supplies, e.g. fuel
 - Employment of PIPs nationals on board vessels

- 5.5.4 Applications for funding from the Project Development Fund are made by respective divisions to the Permanent Secretary for Fishery for endorsement. The endorsed application is submitted to the Ministry of Foreign Affairs for onward transmission to FFA. Funds are received through the Ministry of Foreign Affairs.

- 5.5.5 The Department of Fisheries does not maintain records of funding sought and received internally. These records are maintained by the Ministry of Foreign Affairs.
- 5.5.6 The Department received a total of US\$264,856.16 in project development funding from June 2011 to February 2012. Funds received for 2010 could not be determined as data requested was not received from the Department, indicating that the Department does not maintain records of funding sought and received and relies on the Ministry of Foreign Affairs. Impacts of benefits derived from funding received and developments arising from the above source could not therefore be ascertained.

RECOMMENDATIONS

The Department should:

- **reconsider limits to the number of licenses issued to maximize exploitation of total allowable catch that can generate economic gains;**
- **explore avenues to attract access agreements with other countries as this would provide increased employment opportunities;**
- **lobby with other Pacific island countries to negotiate the amounts paid to the FFA members.**
- **set up an internal committee to consider all applications for PDF funding which would enhance transparency and accountability.**

Management Comments

- *The license revenue for the Offshore Fisheries can be easily identified and the challenge is with the Accounts section at the time of payment due to wrong posting of allocations.*

The current license cap of 70 should not be exceeded, but potentially be decreased even though the TAC of 15,000mt for the target tuna species of albacore, yellowfin and bigeye has never been reached.

During the presentation on the outcome of the bio-economic study of the domestic longline fleet, it was revealed that for its economic viability the number of vessels needs to be between 45-56.

From the consultation, it was clear that the industry was split when it comes to the TAC and license cap. If the industry cannot come to a common ground in terms of TAC and license cap then Government will step in and announce the best measure that will be less painful for all. There are other areas that we may need to look at in terms of limiting access to our fishery resources in our EEZ such as vessel day scheme (VDS) currently being trialed by members of the Party to Nauru Agreement (PNA).

- *Fiji can claim as one of the few Pacific Island countries to have a fully domestic fishing fleet and therefore needs no foreign vessels to come and harvest fishery resources within our Exclusive Economic Zone (EEZ). To create employment on fishing vessels that we license the mindset of Fijians needs to drastically change because despite us being good and hardworking, it is very difficult to have our nationals to be constantly employed on vessels that stay out at sea for more than 2 months.*

Since Fiji flagged fishing vessels are fishing outside of our waters it is only proper that we access our neighbouring country EEZs for our economic development.

Fiji has two bilateral proposals that are with our Ministry of Foreign Affairs to negotiate on our behalf and it is taking extremely long for any outcome.

- *The renegotiation of the US Treaty is on-going and Fiji is represented by our Director of Fisheries and at times someone from our Foreign Affairs.*
- *The setting up of a Committee to consider PDF applications is welcomed and will definitely be taken on board.*

6.0 MANAGEMENT DECISION MAKING IS INFORMED BY ACCURATE INFORMATION

This section of the report seeks to determine whether decision making concerning offshore fisheries is informed by accurate assessments of the fishery and that changes in the status of the fishery are monitored and reported

6.1 Management decision making

6.1.1 The Department of Fisheries utilises science based data provided by the WCPF to assist it in managing Fiji's fisheries resources in accordance with its responsibilities as defined under the Fisheries Act, the Marine Spaces Act, and its commitment as per the FTMP.

6.1.2 Information obtained from monitoring and enforcement activities by the Department that have an impact on fishery decisions made include total allowable catches, actual catches categorised under certain species, catches of non targeted species, and the Tuna Management Plan.

6.1.3 Fishery decisions made pertain to:

- setting total allowable catch for tuna fishery;
- increasing permissible licenses to harvest tuna fishery;
- designating areas specifically for fishing;
- providing for seasons to fish in designated fishing waters;
- identifying methods of harvesting tuna;
- increasing fees; and
- utilising observer data to best estimate non target species catch.

The Department uses the FTMP to guide the conservation and sustainable use of its marine resources.

6.1.4 Information obtained is used by the offshore section to compile their quarterly and Annual Reports for management information purposes as well as for reporting requirements to the WCPFC and FFA.

6.1.5 However, the Department and the line Ministry's Annual Report do not disclose key information such as the number of licenses issued for offshore fisheries for the year with respect to licences permitted, quantifying new entrants to the industry who were issued with licenses and license revenues derived from the issue of licenses,

6.1.6 Disclosure of such information in the Department's reports enhances accountability and provides indications that such data are developed on a regular basis for informed decisions making.

6.2 Tuna Fisheries Database Management System

6.2.1 A good fisheries management database is essential to understanding the condition of fish stocks and the health of the fishing industry of Fiji¹⁶.

Fisheries decisions are made based on information obtained from the Tuna Fisheries Database Management System (TUFMAN) database.

6.2.2 The TUFMAN is a database tool developed for Pacific Island Countries to manage their tuna fishery data. It provides for data entry, data management, data quality control, administration, and reporting. The system is the same throughout the region but is highly customizable and setup specifically for the needs of each of the individual countries. It has been developed over many years and has evolved from a simple system to one that is becoming a comprehensive tuna data management tool. TUFMAN supports many types of tuna fisheries data as well as the major gears (long line, purse seine, pole-and-line). Information stored in the database pertain to licensing; port sampling; log sheets; unloadings; Observer trips; packing lists; Vessel Activity Reports; Vessel Position Reports; and vessel monitoring system (VMS). The system's data quality tools can perform reconciliation of the different types of data in the system and can be used to improve the estimates of catch and effort statistics, highlight under-reporting and missing information, and assist with calculation of coverage of data, vessel position conflicts.¹⁷.

6.2.3 The Offshore Division of the Fisheries Department maintains 2 databases namely the - Tuna Fisheries Database Management System (TUFMAN) and the TUFMAN Monitoring, Control and Surveillance (TUFMAN MCS). Reports generated by TUFMAN and used by the Department are listed below:

- Catch statistics for TUNA species by date range
- Catch statistics for ALL species
- Catch statistics by COMPANY
- Unloaded catch – TUNA species
- Unloaded catch – ALL species
- Unloading by Market destination and species
- Nominal Catch rates for TUNA species
- Vessel Trip catches by species and set
- Annual Vessel Trip Report
- End of Month Log sheet Incoming Log
- Reconciled Catch from Log sheet and Unloading
- Catch Estimates by Broad Ocean Areas
- Catch statistics for TUNA species by year
- Annual vessel catch for Home EEZ only

6.2.4 Observer or vessel officials submit the fishing logbooks to the Department after each fishing trip. Two data clerks are responsible for entering all data for each vessel into the TUFMAN database such as types of fish caught, location where fish was caught, quantity of fish caught, etc.

¹⁶ Fiji Tuna Management Plan 2006-2010, Page 18

¹⁷ <http://www.spc.int/oceanfish/en/office/data-management/spc-members/dd/140-tufman>

- 6.2.5 The Monitoring Unit of the Department also provide landing data of quantity of catch unloaded after verifications of catches unloaded.
- 6.2.6 The TUFMAN MCS DB incorporates all Boarding/Inspection and Infringements data functions as a database recording all the above data and allows for minimal analysis of the data inputted. This is provided by the Enforcement Section which is responsible for carrying out surveillance at the harbour or wharf. The DB, which was designed in 2011, is yet to meet its expected required ability.
- 6.2.7 However, the audit noted that there was no database maintained to record illegal fishing vessels. The Department relies on the WCPFC to provide the updated list of all illegal, unregulated and unreported fishing vessels.
- 6.2.8 In addition the audit gathered that the TUFMAN MCS DB is kept on a single laptop and is not linked to any external networks. Data is backed up by the department every week.
- 6.2.9 Having a proper database to record illegal fishing vessels would provide the Department with relevant and timely data to deal with them as required under legislations.

6.3 Monitoring and enforcement reports

- 6.3.1 Data obtained from monitoring and surveillance activities are inputted into the TUFMAN and assist management in the fisheries decisions made.

Data obtained from the various monitoring and enforcement programs are listed in the table below.

Table 7: Reports generated from monitoring and enforcement programs

Monitoring & enforcement program	Description
Comprehensive log sheet collection	Log sheet data is provided by the vessel captain. Data is necessary to monitor catch rates, and the distribution of catches and fishing efforts. These are verified against Observer records where available.
Landing Data	Vessels provide monthly report listing of landings made by each vessel with a simple statement of volumes landed by species. Reports provide a timely measure of catches and managing log sheets. The list of trips is matched against log sheets submitted, and is a means of estimating any shortfall of catch that is not covered by log sheets.
National Observer Program	Observers gather data (especially scientific data), and monitor compliance with fishing conditions, i.e. they monitor the extent of any gear saturation/congestion effects.
National Port Sampling Program	Program designed to secure a range of biological data necessary for tuna stock assessment.
Enforcement	Enforcement staffs ensure that all monthly records are provided by all vessels licensed by the Minister. They recommend cancellation of licenses where licence holders are deemed non compliant.
Vessel Monitoring System (VMS)	All Fiji licensed vessels are required to have the FFA VMS installed on board whether they fish within or outside the EEZ

Source: Tuna Management Plan 2006-2010

Audit gathered the following in respect to the various monitoring reports.

6.3.1 Log sheet records

- 6.3.1.1 Every master of a licensed vessel shall maintain in English language on board the craft, at all times while the vessel is in Fiji fisheries waters, a separate fishing log sheet in which he shall enter daily, whenever the vessel is in the exclusive economic zone all the information relating to the activities of the vessel daily.¹⁸ Responsible authority should compare accuracy of ships log books with those of the observers. Scientific advice should be integrated in decision making.
- 6.3.1.2 The log sheets record the method of fishing used, fishing effort of the vessel, the areas in which fishing was undertaken and the quantities of each species of fish taken. Every licensed vessel shall, so long as it is in Fiji fisheries waters, report weekly the quantity of each species of fish taken by the vessel in the exclusive economic zone during the previous seven day period and the areas in which such fish were taken.¹⁹
- 6.3.1.3 Catch log sheets are completed by vessels and provided to the Fisheries Department as a condition of fishing licence. However, vessels do not submit weekly reports as required under section 28(2) of the Marine Spaces Act.
- 6.3.1.4 Vessel captains capture the daily catch details on standard log sheets known as *South Pacific Regional Long Line Log sheet* which are submitted to Enforcement officers when boarding and inspecting vessels offloading at ports.
- 6.3.1.5 The Fisheries Department also maintain records to monitor the frequency of log sheets submitted and log periods when vessels were active or inactive. The log sheets coverage for the Fiji domestic fleet was maintained at almost 100% levels²⁰ for the years 2006 to 2010.

Table 8 : Estimated annual coverage, 2006 – 2010

	Percentage coverage (%)				
	2006	2007	2008	2009	2010
Catch & Effort	99	99	99	99	99
Observer	2.2	2.5	3.2	2.9	3.2
Port Sampling	6.3	8.3	7.1	7.7	7.8

Source: Ministry of Fisheries Draft Annual Report 2010 and the Annual Report to the WCPFC, August 2011

- 6.3.1.6 Enforcement officers have noted incidences where log sheets provided by vessels did not account for all fishing activities, that is, vessel captains did not fill the log sheets properly as some catches were misreported resulting in the adjustment of log sheet catch totals to account for missing data. For instance, estimates of the target species for 2010 were determined by raising the available log sheet data to account for months where vessels were known to be active, but did not provide log sheets²¹.
- 6.3.1.7 Inaccuracy of data used for reporting purposes will only provide misleading information to users of the information and may impact decisions made.

¹⁸ Marine Spaces (Foreign Fishing Vessels) Regulation – Section 25(1)

¹⁹ Marine Spaces (Foreign Fishing Vessels) Regulation – Section 28(2)

²⁰ Ministry of Fisheries draft Annual Report 2010 and the

²¹ Section 4.1 Annual report to the WCPFC, August 2011

6.3.2 National Observer Program

6.3.2.1 Fiji's observer program started in 2002 with the assistance and guidance of the Secretariat of the Pacific Community (SPC).

The program involves observers [Fisheries Officers] boarding tuna fishing vessels to report on fishing catches and methods employed. Observers travel with the fishing vessels and are required to be away at sea for weeks or months at a time, to gather independent information about activities happening at sea.

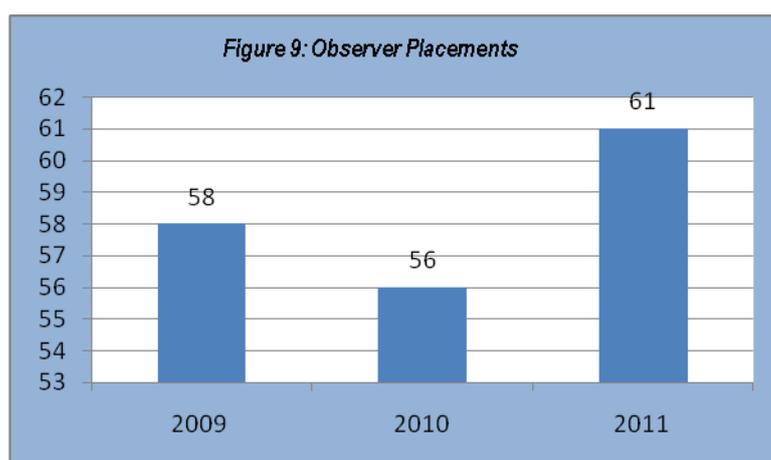
6.3.2.2 The Tuna Management Plan 2006-2010 requires that observers need to fulfil the dual roles of gathering data, especially scientific data, and monitoring compliance with fishing conditions²².

6.3.2.3 A de-briefing procedure takes place at the start of a fishing trip and at the end of the trip where an observer placement takes place. It involves taking the observer to the wharf and informing the captain about the intention to send the observer along on the trip. The observer collects the catch data and is required to submit a report on the trip to the de-briefer within two days. The de-briefer will go through each and every detail

6.3.2.4 The data that observers gather is used for scientific and compliance purposes and also used to verify the accuracy and reliability of data recorded by vessels in their log books. The observers when travelling on placement trips use the SPC/ FFA regional long line fisheries observer workbook to gather all the data details which they submit to SPC upon their return.

6.3.2.5 Currently there are eight observers employed by the Department and they continue monitoring Fiji licensed long line fleet through placement trips, port sampling during unloading and supervision of all foreign vessels unloading its catch at Fiji ports.

6.3.2.6 Observers are not enforcement officers and as part of their observer duty required to record and report offences. In 2011 the Department achieved a total of 61 observer placement trips.



6.3.2.7 The observers are paid a daily rate of \$30 (FJ) when they carry out their duties "onboard" fishing. It is payment for the extensive scientific data, compliance and monitoring data sets that they collect whilst at sea, a duty they must do even in arduous weather conditions.

²² Fiji Tuna Management Plan 2006-2010

6.3.2.8 Audit verifications noted that observers over the past years have not been meeting the target of placement trips in a year. This is attributed to the lack of both financial and human resources which are a major constraint and hinders an effective monitoring program. Despite the shortage of staff, the observers have to observe, do port sampling and also do transshipment.

6.3.2.9 There is a risk that the monitoring program may not be effective as intended due to the lack of staffing.

6.3.3 Vessel Monitoring System

6.3.3.1 A monitoring, control and surveillance strategy should be in place to encounter illegal, unreported and unregulated fishing. Effective monitoring and enforcement are keys to the successful implementation of the strategy for limiting fishing²³.

6.3.3.2 A Vessel Monitoring System funded by the Forum Fisheries Agency is used by the Fiji Navy to monitor any illegal or suspicious fishing activities occurring in Fiji. The audit gathered that the last case reported was in 2006 and which is still being deliberated by the Court as at the time of audit.

6.3.3.3 The FFA also monitors vessels 24 hours a day and sends reports of non-compliance to the Department of Fisheries daily or once every two days. The report highlights any vessels identified by the FFA VMS to be within Fiji's waters illegally. The Department of Fisheries will then follow up with the fishing vessel company to ascertain reasons for non compliance. In some instances vessels are recalled to port to resolve the matter. If found to be at fault, the Department of Fisheries can penalise fishing vessel companies by prohibiting them from carrying out fishing activities for a certain period, or not renewing the Captain's certificate, and confiscating any restricted species found on board the vessel.

²³ Fiji Tuna Management Plan 2006-2010

RECOMMENDATIONS

The Department of Fisheries should:

- consider including statistics such as number of fishing license issued, vessel registered for offshore fisheries, revised fee structures, etc in the annual report for information purposes. This could also be updated on their official website too.
- use information from the TUFMAN database to enhance its decision making;
- keep back up data off site;
- maintain a database that will record vessels fishing illegally in Fiji waters;
- impose penalties for vessel captains who do not provide log sheets;
- strengthen its observer program to enable the accomplishment of set targets; and
- ensure that boarding is done on all vessels that arrive and depart our ports.

Management Comments

- *Definitely statistics on fishing license number issued, vessels registered for offshore fisheries, fee structure, etc, will be considered to be included in the Department's Annual Report. Such information including information on licensed vessels will be uploaded on the Ministry website once developed.*
- *At the time of preparing this response, IT expert from FFA are in the office to develop our offshore fisheries database to another level that is expected to be better than TUFMAN. The new database will incorporate all MCS information that was not included in TUFMAN and is especially custom built to Fiji's needs.*
- *Definitely data backups will be stored secured off sites.*
- *Database will also include all prosecutions and cases that were presented to Fiji courts and also on cases related to Fiji flagged vessels prosecuted in foreign courts.*
- *Imposition of penalties on Captains not providing completed catch logs is being better addressed in the new Offshore Fisheries Management Decree currently being vetted by the SGO since October 2010. The vetting process is taking too long and is becoming more a frustration than a welcoming notion.*
- *Proposal to increase staffs to effectively and efficiently implement the new Offshore Fisheries Management Decree has been submitted to the Ministry and at the time of writing this response, the Ministry is awaiting decision of PSC. The increase in number is across all activities within the Offshore Fisheries Division totaling 23 posts of different cadres. This will enable more placements on fishing vessels and more officers to man Suva, Lautoka and Levuka stations.*

7.0 CONCLUSION

- 7.1 Despite the lack of an all encompassing framework and legislation on offshore fisheries management and a relevant documented TMP, planning for offshore fisheries for the past two years has been provided for under the Department of Fisheries' Annual Corporate Plans for the respective years.

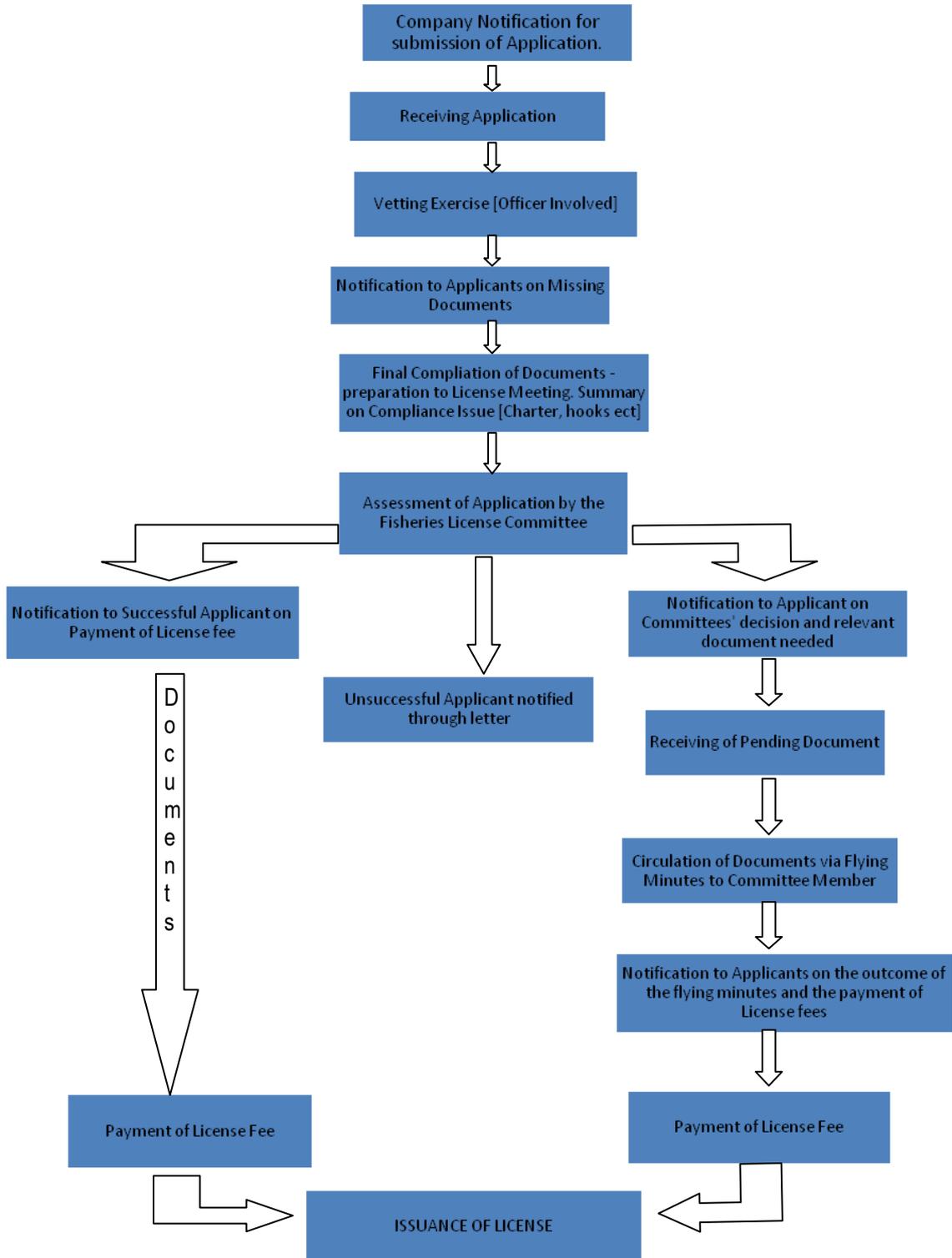
The significant challenge evidenced is the lack of surveillance of Fiji's vast waters, due mainly to a lack of resources.

- 7.2 Numbers of fishing licences issued have increased over the past 4 years, 2008 to 2011 and have led to corresponding increases in revenues earned. Since the stock assessments received indicate that tuna stocks are not currently overfished, there is still room for the Department to maximise its economic benefits since total allowable catch quota over the 4 years have not been attained.
- 7.3 The Department relies on scientific reports from regional organizations to monitor the changes in the status of the fisheries. However there is little evidence to support that the Department utilises information gathered from its economic analysis, surveillance and monitoring reports to influence its decisions on maximising economic returns from its tuna industry.

8.0 REFERENCES

1. Code of Conduct for Responsible Fisheries
2. Convention on the Conservation and Management of Highly Migratory Fish Stock in the Western and Central Pacific Ocean
3. Department of Fisheries Report
4. Department of Forestry Annual Corporate Plan 2010
5. Department of Forestry Quarterly reports to SFCCO
6. Fiji Tuna Management Plan 2006 – 2010
7. Fisheries Act Cap 158 of 1942
8. Fisheries Agreement Online Compliance Agreement
9. International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing
10. Marine Spaces Act Cap 158A of 1978
11. Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific region.
12. Regional Monitoring, Control and Surveillance Strategy 2010-2015
13. Regional Tuna Management and Development Strategy 2009 - 2014
14. South Pacific Forum Fisheries Agency
15. The Harmonised Minimum Terms and Conditions of Foreign Fishing Vessels
16. Treaty on Fisheries between the Governments of Certain Pacific Island States and the United States of America 1988
17. United Nations Convention on the Law of the Sea 1982.
18. United Nations Fish Stock Agreement
19. Wellington Convention

APPENDIX 1: ISSUANCE OF LICENCE PROCESS FLOWCHART



Source: Department of Fisheries: Frozen, fresh and chilled long line licence application requirements and procedures

APPENDIX 2: DETAILED REQUIREMENTS OF EACH CATEGORY

Mandatory Information:

- 1) The TAC for Fiji is 15,000 mt of tuna species only including Albacore, Bigeye and Yellowfin.
- 2) The established license cap is 70 distributed as 25 for indigenous Fijians category and 45 for open category in 2011. This allocation will not target fulfilment but consideration for credibility and sustainability.
- 3) At least 50% of the sea going officers and 50% of the sea going crew shall be locals with an increase of 12.5% per year for 4 consecutive years. In the event that local crew requirements become a hindrance to production this requirement can be compromised only after Fisheries Department through its Licensing Committee is convinced that the compromise is necessary.
- 4) Vessels greater than 20 meters in length with maximum number of 3,500 hooks shall only be considered to fish in the areas outside the outer limits of the territorial waters but within the exclusive economic zone;
- 5) Vessels from 15 meters to 20 metres in length with maximum number of 2,500 hooks shall only be considered to fish in the areas from the baseline towards the outer limits of the exclusive economic zone;
- 6) Only vessels having less than 40 m³ in fish hold capacity and maximum of 2,500 hooks per day and locals to own 51% of the vessel shall be considered to fish inside the archipelagic waters.
- 7) Validity and Good Standing of vessels under the FFA vessel and Vessel Monitoring System Registers.
- 8) Additional information on auxiliary items and carrying capacity of vessels shall be further collected and supplied for management purposes.
- 9) Finally supply of wrong information will be deemed a violation of our efforts of conservation and management of fishery that could lead to the automatic cancellation of license at any point in time this is known.

Corporate Information

For ongoing companies with foreign interest:

- 1) All foreign partners or investor must have valid papers and a permit to work and operate a business in Fiji.
- 2) All foreign crew and officers must have valid papers and work permits.
- 3) All taxes shall be cleared and confirmed by FIRCA for the past licensing period before their participation in next licensing period.
- 4) All foreign partners shall maintain their original arrangement, which allowed their initial participation to qualify for further participation. Any change should be informed and approved by both FTIB and the Licensing Committee of the Fisheries Department and formalised through the Office of the Registrar of Companies. Only if this happens can the change be recognised by the Committee and permits the further participation in the industry.
- 5) All foreign partners and investors that enter Fiji through the tuna long line industry and wishes to participate in other fishery development or investments in other areas of the economy shall only be allowed to do so if they have the continuous active involvement in the long line industry to ensure sustainability and growth. This hopefully will prevent those that only use the industry for their own convenience.
- 6) They must have a clear negative due diligence record at all times in Fiji.

For all companies having either foreign, local or both interests.

- a) Company registration certificate from office of the Registrar of Companies with a copy of share holding agreement, share holding certificates validated by a notarised office in Fiji.
- b) A copy of Memorandum of Articles and Articles of Associations of the company as registered with the Registrar of Companies validated by a notarised office in Fiji.
- c) A copy of an audited consolidated financial statement of accounts for the year before the last licensing period validated by a notarised office in Fiji.

- d) A scorecard of business performance according to plan and a copy of a 3 or 5-year strategic plan along with operation, financial and cash flow forecast.
- e) A Bank declaration both by company's Bank and the Reserve Bank of Fiji to confirm that all remittances relating to all exports are current with clear indications of what is outstanding.
- f) All Customs and Inland Revenue requirements are fulfilled and satisfied.
- g) All trust accounts (FNPF, PAYE, VAT) due must be confirmed by relevant authorities are fully settled and current.
- h) All indigenous Fijians must produce his certificate of registration from the Native Lands and Fisheries Commission *Vola ni Kawa Bula* validated by a Justice of Peace within that Office.
- i) All locals must produce a naturalised certificate validated by JP in the Immigration Department to confirm the period of their naturalisation in Fiji.
- j) Any company applying for license or have been issued licenses that are undergoing liquidation, receivership, bankruptcy or are implicated for any violation of the laws of Fiji shall have their application or licenses be automatically rescinded unless the company produces a letter of comfort from the Courts to demonstrate that such action will not lead to the closure of the company's operation.

Statutory Information

- 1) All vessels coming into Fiji after approval of a fishing license shall be subjected to all clearance and tax requirements under the laws of Fiji. This will include the payment of VAT based on the valuation of the vessel by a registered valuer in Fiji.
- 2) All vessels participating in the tuna long line fishery are to be flagged and registered in Fiji unless there is debt to be serviced against the vessel before full ownership is assumed. In such case the grace period given before the enforcement of flagging and registration will only be for a reasonable period allowing for full debt servicing.
- 3) All fishing vessels must be registered with the Fiji Island Maritime and Safety Administration.
- 4) Hull and Machinery Surveys are to be done in accordance with FIMSA Regulations whilst the Safety certification of the vessel shall be done annually.
- 5) Only vessels that are under exclusive charter arrangements with very clear provisions of owners' totally relinquishing control and with the charterer fully assuming that control in the operation of the vessel in return for a specifically stated amount of charter fee equitable to the discharging of the risk of the owner shall be acceptable to participate in the Fiji fishery. Any vessel outside this arrangement can be allowed to be re-flagged and based in Fiji but will not be permitted to fish in Fiji zone but can participate in the high seas or other neighbouring member states. A nominal fee for using services and infrastructure in Fiji will be considered and charged.
- 6) All companies, vessels, owners, officers skill competence shall have good standing under the Laws of Fiji. Records pertinent to the facilitation of law enforcement activities must be maintained in English.
- 7) All companies, vessels, owners, officers and crew must comply, respect, cooperate, supply, facilitate and observe all legal requirements relating to boarding, sampling, observation and collection of company shore based data, catch and effort and environmental data including exports and shipment data.
- 8) All vessels and companies are compelled to report to all enforcement agencies any observation of practise that is in violation of the laws of Fiji during the conduct of their fishing business activities.

APPENDIX 3: INTERNATIONAL REGIONAL AND SUB-REGIONAL AGREEMENTS

INTERNATIONAL AGREEMENT		
Agreement	Year	Obligations of the Fiji Government
United Nations Convention on the Law of the Sea 1982 (UNCLOS)	1982	- Fiji satisfies UNCLOS by being party to RFMO [Regional Fisheries Management Organisation] – which are WCPFC and SPC who set conservation and management guidelines for the region. - Fiji has two current Acts that clearly define Fiji zone and its role to ensure long term conservation and sustainability of straddling and highly migratory fish stock.
United Nations Fish Stock Agreements 1995	1995	As per the above and most so under the WCPFC CMMs. Fiji supplies scientific data to the science provider [SPC] under the convention.
Code of Conduct for Responsible Fisheries	1995	Fiji implements this under the current practices performed by the Department
International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	2001	Fiji implements this under the current practices performed by the Department
The Harmonized Minimum Terms and Conditions of Foreign Fishing Vessel Access (MTCs)	2003	Fiji does not license Foreign Vessels to Fish in its EEZ. However, under the bare boat charter agreement, foreign vessels are classified as Fiji Vessels when being chartered.
Fisheries Agreement Online Compliance Agreement.	2003	Not party- Fiji implements this under the current practices performed by the Department
Convention on the Conservation and Management of Highly Migratory Fish stocks in the Western and Central Pacific Ocean 2004	2004	Fiji complies with this under the following CMMs. CMM 2009-04-SHARKS: Fiji is implementing this under the 5% fins to Caucasus ratio. CMM 2008-01-BIGEYE and YELLOWFIN: Fiji provides catch and effort data for commercial tuna in its annual scientific report to the commission. CMM 2008-03-TURTLES: Fiji provides catch data to the commission and further implements this CMM through mitigation and awareness programs at national and regional levels. CMM 2007-01-REGIONAL OBSERVER PROGRAM: Fiji has 15 trained regional observers who are actively involved in data collection in the high seas. CMM 2007-02-VESSEL MONITORING SYSTEM: Fiji requires all fishing vessels to be in compliance to commission requirements by having MTU on vessels and switched on at all times.
REGIONAL AND SUB REGIONAL AGREEMENTS		
South Pacific Forum Fisheries Agency Convention 1979	1979	Fiji works closely with FFA and has a current agreement to enhance national capacity.
Treaty on Fisheries between the Governments of Certain Pacific Island States and the United States of America 1988	1987	The Treaty on Fisheries between the Governments of Certain Pacific Island States and the United States of America has been in place for last twenty-five years now.
Wellington Convention	1989-1992	Fiji prohibits the use of driftnet
Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific region.	1993	Fiji supports this under the current Regional Surveillance program and is part of Kurukuru Operation.
Regional Tuna Management and Development Strategy 2009-2010	2009-2014	Supporting regional solidarity
Regional Monitoring, Control and Surveillance Strategy 2010-2015	2010	Fiji does this under the current MCS operations.