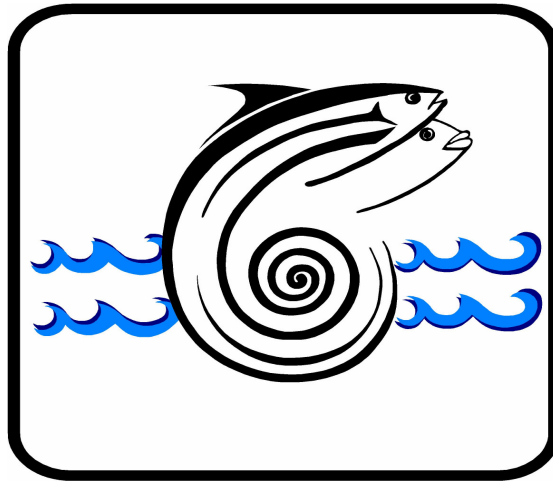


# FISHERIES DEPARTMENT 2007 ANNUAL REPORT



***"We are Aiming Higher & Reaching Further"***

This report briefly outlines the program activities of the Department of Fisheries and the Department's achievements and challenges in 2007. The Department has in 2007 a total of four major programs. The program activities were satisfactorily executed, resulting in rural communities receiving a number of essential services. The Department also made another record revenue collection.

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## 1 GENERAL FISHERIES BACKGROUND INFORMATION

Vanuatu is an archipelago with an Exclusive Economic Zone (EEZ) covering an estimated area of 680,000 square kilometers. The total coastline length is about 2,528 kilometers. In contrast to neighboring Pacific Island countries which are endowed widely extensive with large areas of fringing reefs, barrier reefs and lagoons, Vanuatu's inshore or shallow water areas are quite small. Inner reef areas are limited to narrow fringing reefs with the combined coral reef area covering an approximated 408 square kilometers. Other biologically important reef associated habitats, which include mangroves, estuaries and lagoons amount to a total area of 25 square kilometers (Done and Navin, 1990<sup>1</sup>).

### 1.1 Fisheries

Vanuatu fisheries are utilized on a subsistence, artisanal and commercial level.

#### 1.1.1 Subsistence

The subsistence fishery targets the inter-tidal zone and lagoon resources and in some cases includes the nearshore pelagic species associated with fishing aggregating devices (FADs). The gear types and activities employed ranges from gillnetting, hand line, reef gleaning, spear-fishing and traps. In more remote areas various traditional fishing practices may be used. Recent data from the Preliminary Report of the 2006 Census of Agriculture indicated that 72% of the households possess fishing gears and engaged in fishing activities (National Statistics Office, 2006<sup>2</sup>). Information regarding recent subsistence production is not known, however, a combined production was estimated about 2,400 tones (ADB, 2002<sup>3</sup>) and continues to increase (Preston, 1996<sup>4</sup>; ADB, 2002<sup>5</sup>).

#### 1.1.2 Artisanal

The artisanal fisheries exploit resources that fall into two main categories; resources that are marketed and consumed locally and those primarily for export purposes. The gear type employed include gillnetting, hand line, reef gleaning, spear-fishing, traps and including diesel powered outboard motors and canoes.

The main target fishery are the deep-bottom snapper and grouper fishery, inshore tuna fishery associated with FADs, reef fishes including various invertebrates fisheries such as trochus, sea cucumber, lobster, giant clam and octopus. Records for the resources marketed and consumed locally are not known, however, the export production is shown in appendix I.

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<sup>1</sup> Done, T.J. & Navin, K.F. 1990. *Vanuatu Marine Resources*, Australian Institute of Marine Sciences, Townsville

<sup>2</sup> National Statistics Office. 2006a. Preliminary Report, 2006 Census of Agriculture. Republic of Vanuatu, Port Vila.

<sup>3</sup> ADB, 2002. Pacific studies series, Vanuatu: Policy Issues in Agriculture, Fisheries and Forestry Sectors, ADB Manila, Philippines. 99- 124.

<sup>4</sup> Preston, G.L. 1996. Masterplan for sustainable management and development of Vanuatu's inshore fisheries resources. Food and Agriculture Organization of the United Nations, technical Cooperation Program. TCP/VAN/4552, technical Report No. 2.

<sup>5</sup> Refer to footnote 3.

The artisanal fleet consists of canoes and small skiffs and mainly targets the deep-bottom snapper and grouper fisheries as well as the inshore tuna fisheries associated with FADs. More and more, the fleet is becoming dominated by those skiffs powered by 20-60 hp engines. The skiffs which range from about 5-7 meters in length are made of wood, aluminum or fiber glass. According to the Fisheries Annual report (2003<sup>6</sup>), there are over 70 artisanal fishing boats scattered throughout the country and increasing every year. The fishing capacity of the skiffs ranges from 500-1000 kg. But the actual average catch per day ranges from 40-70 kg per boat. Appendix II illustrates the total artisanal production from 2002- 2007.

### **1.1.3 Commercial/Industrial fishery**

The industrial fishery encompasses the tuna fishery including other tuna like pelagic species. The major targeted species include the albacore tuna (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*), yellowfin tuna (*Thunnus albacares*) and skipjack tuna (*Katsuwonus pelamis*).

The commercial fleet is dominated by foreign vessels mainly longliners targeting tuna species. Vanuatu has two local commercial vessels; however, their main focus is primarily targeting deep-bottom snapper and grouper fishery. The total catch of the foreign fishing vessels fishing in Vanuatu's EEZ is given in appendix IV.

## **2 CORPORATE STRUCTURE**

### **2.1 Background**

The Management and development of fisheries in Vanuatu is understood to mean the exercise by some authority, of control over access to fishery resources that ultimately limits, redistributes or otherwise modifies the type or amount of fish or seafood being caught, and thus the economic or other returns deriving from it. The main principles underlying fisheries management and development in Vanuatu are:

- To maximize the the social and economic returns and other benefits from the exploitation of marine resources to the people of Vanuatu, particularly the indigenous population;
- To promote the rational exploitation of marine resources while ensuring that they can be exploited in a sustainable manner over the long-term;
- To promote and encourage the growth of the private sector; and
- To avoid development activities that implies an on-going recurrent cost to the government.

The Government body charged with the implementation and enforcement of fishery management laws, policies, regulations and principles is the Fisheries Department under the Ministry of Agriculture, Quarantine, Forestry and Fisheries. On top of that, the Department is also responsible for the implementation and monitoring of development projects.

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<sup>6</sup> Fisheries Department Annual Report 2003. Ministry of Agriculture, Quarantine, Forestry and Fisheries, Port Vila, Vanuatu

The Department's headquarter is in Port Vila, but there is also a regional office in Luganville, and smaller extension centers or sub centers at each of Vanuatu's six provinces. The Department is headed by a Director, and has five divisions, namely: Management & Policy Division; Compliance, Licensing & Enforcement Division; Research & Aquaculture Division; Development & Capture Division and; Administration Division.

### **3 CORPORATE OVERVIEW**

#### **3.1 Introduction**

This report briefly outlines the program activities undertaken by the Department of Fisheries in 2007. It also accounts for the challenges faced and the achievements made. The format of this report follows that of previous years which means that activities undertaken are reported under each division within the Department rather than reporting by budgeted activities as in the last two years annual report. The Department has five Divisions namely: i) Management & Policy Division; ii) Compliance, Licensing & Enforcement Division; iii) Research & Aquaculture Division; iv) Development & Capture Division and; v) Administration Division. Despite major financial and man-power constraints, the activities implemented under each division were satisfactorily executed; resulting in a number of essential services being provided to ensure effective and efficient management of the fisheries sector is sustained.

2007 was one of the most challenging and difficult years for the Fisheries Department. Having put into place essential and effective management and conservation measures in 2002 (Tuna management plan) and again in 2005 (Fisheries act No. 55 of 2005), the Department was faced with budget and human resource constraints to continue the effective implementation of the management and conservation measures in 2007.

The 2007 budget was reduced by over 16 million vatu from the previous year, 2006. The reduction has a major impact on the Department to implement its plan activities and the Department was forced to cut back on some of its activities which were vital to ensure services to the rural areas are continuously provided and monitored. In addition to the budget cut, there was further reduction in the Department budget caused by the Forestry court case that the government lost and has to pay for compensation to a private entity.

In 2007, the long time Director of Fisheries Mr. Moses Amos left on a secondment to take up a senior position at the Forum Fisheries Agency (FFA) based in Honiara, Solomon Islands. Towards the end of 2007, the Department again lost another senior staff Mr. William Naviti who resigned after serving the Department for more than 12 year. These losses had a huge blow to the Department human resource which in 2007 has a total of only 22 staffs' country wide.

In 2005, the Fisheries act [CAP 158] was repealed by parliament and replaced by the new Fisheries act No. 55 of 2005. The fundamental rationale for the repeal was to ensure that Vanuatu meets its obligation in the regional and international conventions by including some of the provisions of those conventions that Vanuatu was a signatory in its national legislation. The second and most important rationale was to ensure that the Fisheries Department is well equipped to better and effectively carryout its mandate which is to manage its fisheries. With the new fisheries act, a Compliance Unit must be established.

This has prompted the Fisheries Department to undergo a structural review. The review started in 2006 and in 2007 the proposed Department organizational structure was submitted to the Public Service Commission (PSC) for consideration. The proposed structure was not approved. Despite the structure not being approved, the Department is obliged to carry out and implement the management and conservation measures put in place in 2002 and again in 2005. This has a huge impact on the Department in terms of effectively carrying out its mandate.

Despite the major constraints, the Department is committed to its fundamental obligation that is to manage, conserve and develop the fisheries sector in Vanuatu. The urge of commitment has led to some notable achievements in 2007.

To address the financial constraints, the Department works closely with other government agencies, local NGOs, regional and international fisheries management organization and funding agencies in accessing funds to ensure essential services are provided. In 2007 a number of development projects in the rural areas were instigated and funded; bulks of it rural fishing projects.

The commitment of the Department in the management and development of fisheries in Vanuatu has also seen the management and conservation measures put in place in 2002 went under review in 2007. Another achievement was the ratification by parliament of the US Treaty text. The ratification means that Vanuatu will now receive a higher percentage of the US Treaty funds paid annually to the FFA member countries. The Department also made a substantial revenue collection in 2007. Another major achievement is the instigation of the fish processing plants. This is a milestone achievement that will see Vanuatu gain maximum benefits from its tuna resources and at the same time signifies an effort from the fisheries sector in contributing substantially to the national economy in the near future. Once the fish processing plants are fully operational, it is foreseen that its impact to the national economy will be substantial.

Despite the strong potential that the fisheries sector has in Vanuatu to develop further in the future, the fisheries sector falls last in government priorities compared to other primary sectors. This is reflected in the Department annual budget allocation for fisheries sector development.

Gradually the fisheries sector is growing and gaining attention both nationally and regionally. In 2007, the National Statistics Office reported an increase in production in the fisheries sector (National Statistics Office, 2006<sup>7</sup>). Regionally, in 2007 fisheries issues were in the agenda of the forum leaders meeting held in Vava'u, Tonga where leaders reaffirm the importance of fisheries sector contribution to national economy and pledge to ensure development of domestic fisheries sector (Vava'u Declaration, 2007<sup>8</sup>).

If Vanuatu is serious to see its current and future generations continue to gain maximum social and economic returns from its fisheries resources, the government must commit itself to make sure that the Fisheries Department is better equipped to ensure that the fisheries sector is

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<sup>7</sup> National Statistics Office. 2006. National Accounts of Vanuatu, 2006

<sup>8</sup> Pacific Islands Forum Secretariat. Forum Communiqué. Thirty-eight Pacific Islands Forum. Nuku'alofa, Tonga 16- 17<sup>th</sup> October 2007.

[http://www.forumsec.org/\\_resources/article/files/2007%20Forum%20Communique,%20Vava'u%20-%20Final%20Version.pdf](http://www.forumsec.org/_resources/article/files/2007%20Forum%20Communique,%20Vava'u%20-%20Final%20Version.pdf)



developed in a sustainable manner but also important is that the capacity of the Department is geared to meet the current and future developments in the fisheries sector. Some of the issues need addressing are identified in the 2002 Department annual report<sup>9</sup>.

### 3.2 Our Objectives

“Good **management** and **sustainable development** of the fishery **resources** to achieve maximum benefits for the people of Vanuatu”.

By **management** we mean legislating, implementing and enforcing Fisheries laws, regulations, and policies to ensure there is good monitoring and control over access to Vanuatu’s limited resources.

By **sustainable development** we mean that future generations should be able to live on and enjoy our marine resources and healthy environment, just as we do today.

By **resources** we mean species of edible, cultural or potential value that inhabit or use our waters.

### 3.3 Our Vision

“To ensure sustainable development of the fishery sector, with particular focus on the establishment of rural-based commercial fishing to achieve a long-term utilization of marine resources”.

### 3.4 Our Mission

*“To ensure sustainable management, development and conservation of fish resources in order to achieve maximum social and economic benefits to Vanuatu for the present and future generations”.*

### 3.5 Our Values

We believe in the value of integrity, a good teamwork spirit, honesty, commitment, innovation, creativity, effective communication and outstanding services to improve our service delivery to the people of Vanuatu.

### 3.6 Our Services

There are five main Divisions within the Department headed by the Director of Fisheries.

#### 3.6.1 Management & Policy Division

The Management & Policy Division is the Fisheries Department’s arm responsible primarily for coordinating all the Department’s activities relating to management and policy matters. Despite the lengthy pending period for its formal approval under the Fisheries Official Structure, the

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<sup>9</sup> Amos J. M. 2003. Fisheries Department 2002 Annual Report. Pg. 5-6

Division has gone ahead to address and implement some of the outstanding issues relating to fisheries management in Vanuatu. The core activities of the division include:

1. Appraisal of investment proposals,
2. Provide investment advice on potential areas,
3. Develop and manage Departmental database,
4. Reviewing and development of new management policies, regulations and fishery plans.
5. Be in charge of Department's Information Technology
6. Maintain close collaboration with line government agencies such as VIPA, CCI, EU, Provincial Authorities, and Customs.

### **3.6.2 Compliance, Licensing & Enforcement Division**

This division has a total of five officers. The role of the division is to ensure that fishing activities within Vanuatu's 200 miles EEZ comply with Fisheries laws and regulations: in particular, the Fisheries Act of No. 55 of 2005. This governs the harvest of resources, access to resources and sets penalties. The Fisheries Act empowers the section to:

- Process, issue or refuse licenses to vessels or companies for specific fishing activities.
- Process or refuse export/import permits
- Improve surveillance and enforcement of Fisheries laws and regulations.
- Collect data for the foreign fishing vessels fishing in Vanuatu waters including Vanuatu flag vessels fishing outside Vanuatu waters

### **3.6.3 Research & Aquaculture Division**

This Division deals mainly with research work, which includes stock assessment of resources, aquaculture and development of awareness materials.

The Division's objectives include:

- Exploring potential marine resources and new initiatives for rural people.
- Carrying out stock assessment and analysis on all edible and commercial marine resources.
- Developing effective materials and information for fishers.

### **3.6.4 Development & Capture Division**

This division which was formally known as the 'Rural Fisheries Development Program' (RFDP) deals directly with domestic fisheries development activities within the six-mile provincial zones. Its objectives are to encourage private, commercial and subsistence fishing enterprises to improve livelihood in the rural areas.

This division plays a vital role in ensuring that essential services provided by the Department are delivered to the rural areas. All six provinces in the country have extension centers, however, due to budget constraints, only five out of six centers operated in 2007. The Fisheries Extension Centers have all the necessary information for setting up fishing enterprises.

### **3.6.5 Finance and Administration**

This division is the Department's gateway to other government departments and ministries. It provides the financial and administration backup that allows smooth delivery of fisheries programs to the people of Vanuatu.

## **4 PROGRAM REPORTING**

### **4.1 Management & Policy Division**

Despite the fact that the Management & Policy Division was not formally included under the official Departmental structure and most importantly does not have an operation budget, it continued to effectively execute the responsibilities that it was task to carryout to ensure essential services are provided.

In 2007, the Division has a total of four (4) staffs of which only one is a permanent officer, the other three include a volunteer (USA Peace Corps) and two contracted staffs. Due to the short staffing of the division and the pressure of the workload that it is task with in 2007 the division focused and concentrated on specific and immediate activities to ensure efficient output.

Provided below are some of the immediate activities that the division undertook in 2007.

- 1) Development of new fishery management plans.
- 2) Appraisal of investment proposals,
- 3) Provide investment advice on potential areas,
- 4) Strengthen and improve the process of data entry and processing of coastal database of the Department,
- 5) Continue to implement the objectives of the project under its administration
- 6) Maintain close collaboration with line government agencies such as VIPA, CCI, EU, Provincial Authorities, and Customs.

#### **4.1.1 Fishery management plans**

One of the core activities of this division is to develop fishery management plans for important commercial fisheries.

##### **4.1.1.2 Tuna Management Plan**

The Tuna management plan which was endorsed by the council of ministers in 2002 has gone under review. The tuna management plan was reviewed to incorporate the principles of the ecosystem approach to fisheries management (EAFM). Major part of the review process was undertaken in 2007.

##### **4.1.1.3 Aquarium trade management plan**

The final draft of the marine aquarium management plan was ones again circulated to the main stakeholders for their final input. It is now ready to go through formalities of approval by the Minister responsible for fisheries.

#### 4.1.1.4 Sea cucumber management plan

A draft of the sea cucumber fishery management plan has been put together. However, due to concerns that the resource is in the bring of extinction, the Department decided to shelf the draft and opt to serve a notice of ban for the fishery for a period of five years commencing 01<sup>st</sup> of January 2008.

The draft plan will be re-look again ones the moratorium period comes to an end.

#### 4.1.1.5 Trochus management plan

The formulation of the trochus management plan has been instigated and in process and it is foreseen that a first draft will be ready by mid 2008.

### 4.1.2 Investment and business proposal appraisal

The division continues to provide vital services in appraising potential local and foreign investment and business proposal within the fisheries sector particularly on establishment license.

#### 4.1.2 Data collection, coordination and database

The division is also responsible for coastal fisheries data collection, coordination and entry. As part of the data collection, it also maintains and manages the coastal fisheries database or Inshore Fisheries Management Information System (IFMIS). In 2007, a request was send to SPC to assist the Department upgrade its IFMIS. One of the SPC technical staff was sent over and spent a week with the Management & Policy Division upgrading IFMIS.

The data that was collected and stored in the IFMIS include export data and catch data.

##### 4.1.2.1 Export figures

Fisheries export continues to be centered on the inshore fisheries products. Three main inshore fisheries form the core of fisheries commercial export products in 2007. They include the trochus fishery, sea cucumber fishery and the marine aquarium trade fishery.

##### 4.1.2.1.1 Trochus fishery

Trochus shell export comprised of semi-processed shells and include button blanks and shell scraps. Overall, the total trochus export for 2007 was 55.2 mt with a total value of about 781,050.80 US dollar which is equivalent to about 74,199,826 million<sup>10</sup> vatu. This showed a significant increase from last year 2006 (Appendix I). Of the overall total quantity, button blanks represent 38.5% of the total volume contributing 95.4 percent of the total value. In contrast, shell scrap contributed a high total volume percentage (61.5%) but with a significantly less value percentage (4.6%).

In 2007, 51 percent of the trochus shell processed for export originated from the Tafea province with followed by Sanma province with 17 percent, Shefa with 15%, then Malampa and Penama

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<sup>10</sup> The exchange rate used: 1USD= 95 vatu

with 9% and 8% respectively. Records showed that there was no contribution from Torba province in 2007 (Figure 1).

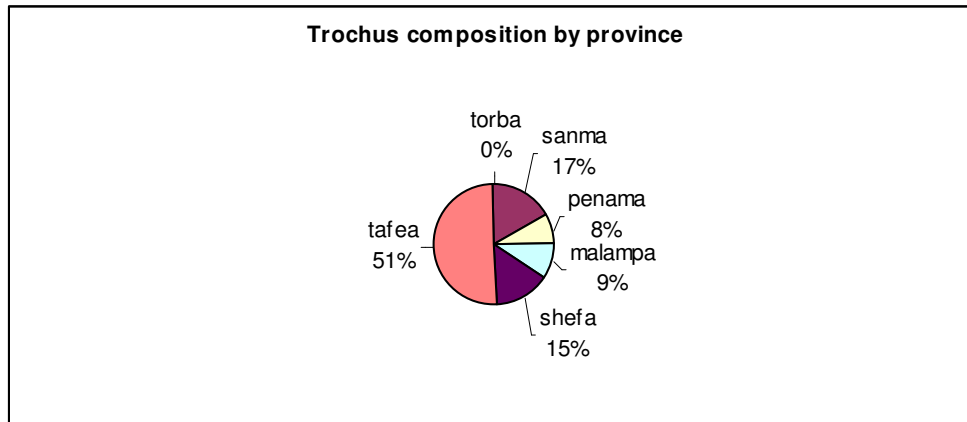


Figure 1: Trochus production by province

In 2007, due to the status of the trochus resource in the country, one only license was issued for the processing and export of trochus shell. Hong Shell Products Company Ltd was the company with the trochus processing and export license. Bulk of the total trochus volume exported in 2007 was destined for China and Hong Kong.

#### 4.1.2.1.2 Sea cucumber fishery

Export of sea cucumber is in the form of dried products, commonly known locally as 'beche-de-mer.' In 2007, a total of 15.4 mt of beche-de-mer worth of 140,860.00 US dollar which is equivalent to over 13 million vatu<sup>11</sup> was exported. This showed a significant increase in exported volume of about 19 percent from 2006 (Appendix I).

Company purchased records showed that 86 % of the sea cucumber processed for export originated from the Shefa province followed by Sanma province. Contributions from other provinces in 2007 were significantly small (Figure 2)

<sup>11</sup> The exchange rate used: 1USD= 95 vatu

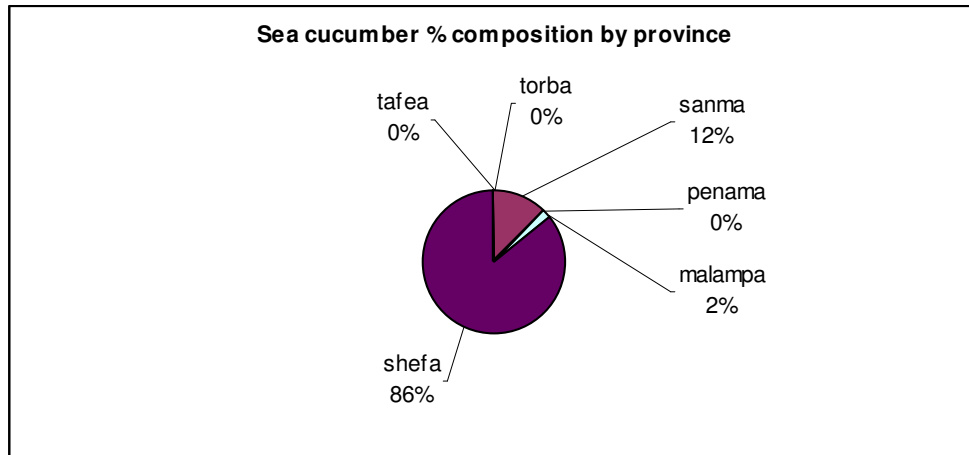


Figure 2: Sea cucumber production by province

In 2007, there were four (4) licenses issued for the processing and export of beche-de-mer. They include Hong Shell Products Company Ltd, Bluefin, Oceania Sea Products Ltd and Ah Johns. Hong Shell Products Company Ltd export contributed the bulk of the beche-de-mer in 2007 with a total of about 71.3% followed by Oceania Sea Products Ltd with 19.4% and then Bluefin with 9.3%. Bulk of the total volume of beche-de-mer was exported to China and Hong Kong.

#### 4.1.2.1.3 Marine aquarium trade fishery

The marine aquarium trade fishery products include fish, live rock, giant clam, coral and invertebrate. Currently aquarium trade fishery makes up the bulk of fisheries export products in terms of volume.

In 2007, a total of 216,446 pieces of aquarium products worth over 200,403.42 US dollar was export (Table 1). This showed a slight increase in exported volume from the records of 2006 (Appendix I). Of the total volume exported, fish dominates with 81% followed by live rock contributing 8.1 per cent; giant clam (5.5 %); corals (3%); invertebrates (2.2%) and soft corals with 0.2% (Figure 3). In terms of value, fish also dominates with 49.5% followed by giant clams (18.3%); coral (19.9%); live rock (12.1%); soft coral (1.7%) and invertebrates (0.5%). Live rock comes third in terms of value compare to second place in terms of volume (Figure 3 & 4).

Table 1: Aquarium products by volume (pcs) and value (USD) in 2007

Products	Total quantity (pcs)	Total value (USD)	% quantity	% value
Live fish	175,283	99,103.24	81	49.5
Live rock	17,464	24,240.00	8.1	12.1
Giant clam	11,883	36,767.74	5.5	18.3
Coral	6,543	35,892.59	3	17.9
Invertebrates	4,821	1,018.85	2.2	0.5
Soft coral	452	3,381.00	0.2	1.7
<b>Total</b>	<b>216,446</b>	<b>200,403.42</b>	<b>100</b>	<b>100</b>

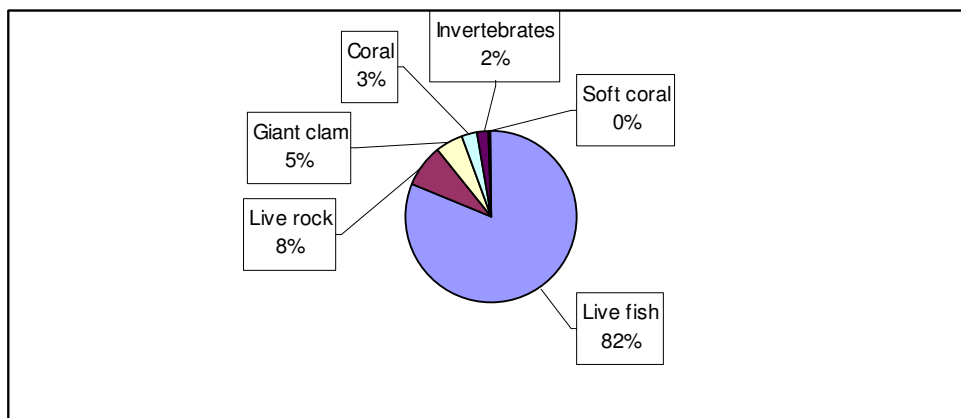


Figure 3: Composition by volume of aquarium products

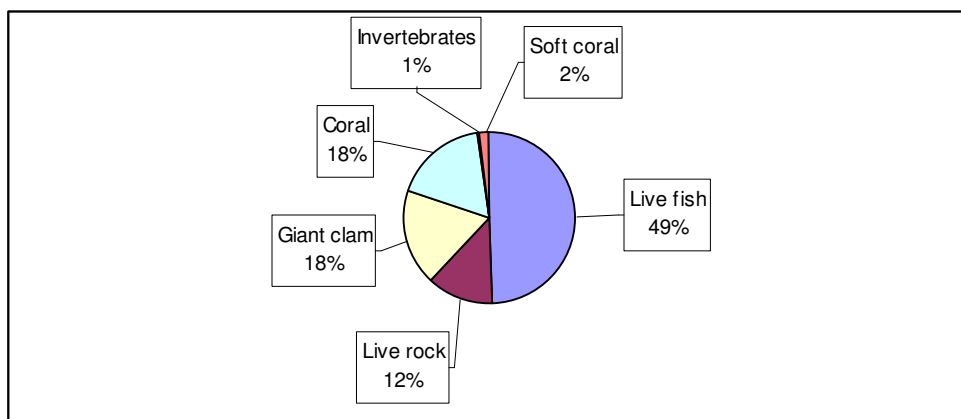


Figure 4: Composition of aquarium products by value

In 2007, three licenses were issued for the marine aquarium trade export. The companies granted licenses include Sustainable Reef Suppliers Ltd (SRS), Reef Life (Vanuatu) Ltd (RLV) and Reef Solutions (Vanuatu) Ltd (RSV). SRS contributed the largest volume of export with 86 percent followed by RSV with 9 percent and RLV contributing about 5 percent of the total export volume.

The importing countries for Vanuatu's marine aquarium trade products in 2007 include the USA, Canada, Australia, Japan, Germany, Russia, the Netherlands and UK. USA imports the bulk of the production.

#### 4.1.2.2 Fish catch

Fishing in Vanuatu is conducted on a subsistence, artisanal and commercial level. Due to the difficulty in monitoring the subsistence activities around the country, only the artisanal and commercial fish catch is presented here.

##### 4.1.2.2.1 Artisanal fishing catch

Artisanal fishery is defined by different authors according to the different circumstances in different countries. Generally, an artisanal fishery refers to a: "...fisheries usually characterized by numerous small scale vessels small locally consumed catches and numerous primitive landing places." (Arnason, 2006<sup>12</sup>). In Vanuatu, nearly all artisanal fishers use outboat motors which are less than 8 meters; in addition, artisanal fishers do not need a fishing license to fish; moreover, artisanal fishers are mostly part-time fishers who fish when the need for cash arises (Raubani, 2007<sup>13</sup>).

In 2007, a total of about 16 artisanal fishing projects were registered with the Vanuatu Fisheries Department<sup>14</sup>. However, only ten (10) fishing projects submitted their fishing catch data (Table 2). The total artisanal fishing catch for 2007 was about 6.2 mt with a total value of over 2.7 million vatu. This showed a significant decline compare to 2006 production figures (Appendix II). Two of the most caught species of the artisanal fishermen include short tail red snapper and the long tail red snapper. Together they contributed about 38 percent of the total catch volume in 2007.

Table 2: Artisanal fishing projects that were registered with the Fisheries Department and submit their catch data for 2007

Fishing project	Total catch (kg)	Island	Province
Eric Festa (sh)	965	Efate	Shefa
Isaac Seru (Futuna Fishing Association) (tf)	453.5		Tafea
Joe Kalili (Tf)	646.1	Efate	Shefa
John Willie (Sh)	693.7		
Mataso Fishermen Ass (Sh)	287	Matasso	Shefa
Daniel Nauka (Sh)	642.5	Efate	Shefa
Sam Sifu (Sh)	277.8		
Simon Eric Willie (Sh)	758.5		
Tongariki Fishermen Association (Sh)	66	Tongariki	Shefa
Walu Sak (sh)	1346	Efate	Shefa
Total	6136.1		

<sup>12</sup> Arnason, R. 2006. Community Fishing Rights: Some Basic Principles. IIFET 2006 Portsmouth Proceedings. University of Iceland and European Commission Research Centre.

<sup>13</sup> Raubani, J.J. 2007. Community Fisheries Management: Future Consideration for Vanuatu, UNU project thesis report.

<sup>14</sup> Note that data are only from artisanal fishing projects registered with the Vanuatu Fisheries Department and does not include other artisanal activities throughout the country.



Records showed that all the fishermen that submitted their catch data comes from Shefa and Tafea province. 80 percent of those fishermen were based in the Shefa province and contributed 82 percent of the catch while 20 percent were based in Tafea and contributed 17.9 percent of the 2007 total catch.

#### 4.1.2.2.2 Local Commercial fishing catch

Commercial fishing is defined as “...any fishing resulting in or intended or appearing to result in, sale, trade of any fish that maybe taken, caught or harvested during the fishing operations, but does not include recreational fishing.” (Fisheries Act No. 55 of 2005, pp.1).

For the purposes of this report, commercial fishing refers to the harvesting of fisheries resources by local commercial vessels and include the charter boats that sale their catch. A total of 15 commercial fishing licenses were issued in 2007 (Table 5). During the preparation of this report, catch production for 2007 was yet to be received by the Department. Appendix III showed the local commercial catch from 1996 to 2006.

#### 4.1.3.3 Fish markets production

In 2007, only one fish market supplied its data to the Fisheries Department compare to six (6) in 2006 (Appendix V). The total sales recorded were about 1.6 mt compare to 14.3 mt in 2006.

#### 4.1.3.4 Company purchasing data

Company purchasing records showed that three main products were purchased in 2007. They include beche-de-mer, sharkfin and trochus shell. This means that communities or resource owners themselves harvest and processed to some certain extend prior to selling to exporting companies.

The total volume purchased amount to 30 mt valued at over 7 million vatu. This is a big increase compare to 2006 but generally showed a decreasing trend from the previous years (Appendix VI). Of the total volume in 2007, beche-de-mer contributed about 55 percent, trochus 44 percent and sharkfin 0.01 percent. Records showed that products were purchased in only three provinces namely Shefa, Tafea and Malampa, this means that the 7 million vatu went directly to the rural communities in these three provinces. Tabulated below (Table 3) is the company purchasing record for 2007.

Table 3: Company purchasing records for 2007

Company name	Product	Total quantity (kg)	Total value (vt)
Bluefin Seafoods	Beche de mer	407.4	37150
Hong Shell Products Co. Ltd	Beche de mer	16273	3116663
Hong Shell Products Co. Ltd	Shark Fin	20.7	32740
Hong Shell Products Co. Ltd	Trochus	13581.9	4045162
Total		30283	7231715

#### 4.1.4 Maintain close collaboration with line government agencies

Since the Division deals with policy matters, it is responsible to maintain close collaboration with other government institutions to ensure national development policy are well coordinated to foster national development aspirations.

#### 4.1.5 Projects

In 2007, the Division has under its administration a total of three projects. Two of the projects were secured in 2006 and the implementation process was ongoing until 2007. In 2007, the Division secured another project. The projects include i) Coral Reef Research & Monitoring Network Project; ii) Aquarium Management Plan Consultation Project and; iii) Improving Fishery Information to Support Management of Sea Cucumber & Trochus Resources in the Shefa Province Project.

As earlier mentioned, the Management & Policy Division was still pending formal inclusion to the Departmental organizational structure and for that reason does not have an operation budget. Therefore projects were an essential part of the Division to assist it in undertaking parts of its assigned responsibilities.

##### 4.1.5.1 Coral Reef Research & Monitoring Network Project

The coral reef research and monitoring project was one of the projects administered and implemented by the Management & Policy Division in 2007. The project deals mainly with coral reef monitoring and conservation. In addition, the project also involved coral reef awareness in schools and rural communities. Furthermore, the project also provides training in coral reef monitoring techniques to rural communities and dive tour operators.

As of December 31<sup>st</sup> 2007, the project has worked with communities on 10 different islands and established monitoring sites in all provinces except Penama province. It has partnered with both rural communities and local dive shops to monitor their reefs. Tabulated below were the project activities implemented in 2007 (Table 4).



Local Reef Check Team members conducting a Reef Check survey on Gaua



New Reef Check Team on Aneityum

## 4.1.5.1.1 Major Activities of 2007

Table 4: Activities carried out in 2007 under the Coral Reef Monitoring Project

Activities	Dates Carried Out	Staff Involved	Outputs/Results Achieved
Community Reef Check Training: Sirity Village, Gaua	20 February 2007 - 27 February 2007	1 Permanent Staff; 1 Project Staff (Volunteer)	<ul style="list-style-type: none"> <li>16 participants from 9 villages on Gaua trained in Reef Check methodology</li> </ul>
			<ul style="list-style-type: none"> <li>Reef Check team established for East Gaua to work with support from LCIP project</li> </ul>
Development and Printing of 'Trening Buk blong Rif Jek Vanuatu'	Mar-07	1 Project Staff (Volunteer)	<ul style="list-style-type: none"> <li>Reef Check surveys conducted</li> <li>Training book printed in Bislama</li> </ul>
			<ul style="list-style-type: none"> <li></li> </ul>
Community Reef Check Training: Mystery Island, Aneityum	16 April 2007 - 26 April 2007	1 Permanent Staff, 1 Project Staff (Volunteer)	<ul style="list-style-type: none"> <li>21 participants from 2 villages on Aneityum trained in Reef Check methodology</li> </ul>
			<ul style="list-style-type: none"> <li>Reef Check team established to work on Mystery Island with support from local tourism project</li> </ul>
Community/Peace Corps Reef Check Training: Emua Village, Efate	4 June 2007 - 10 June 2007	2 Project Staff (1 Volunteer)	<ul style="list-style-type: none"> <li>2 Reef Check Surveys conducted</li> <li>7 Peace Corps Volunteers trained in Reef Check methodology; 5 community members</li> </ul>
			<ul style="list-style-type: none"> <li>1 Reef Check survey conducted</li> </ul>
Community-Based Mariculture Workshop and Tradeshow: Nuvi Village, Epi	25 June 2007 - 29 June 2007	2 Project Staff (1 Volunteer)	<ul style="list-style-type: none"> <li>20 Ni-Vanuatu from around the country and 7 Peace Corps Volunteers trained in basic community mariculture methods</li> </ul>
			<ul style="list-style-type: none"> <li>Tradeshow of local mariculture methods to 100 man</li> </ul>
			<ul style="list-style-type: none"> <li>Training materials and awareness distributed to participants</li> </ul>
Reef Check Training for Science Teachers at Malapoa College, Port Vila	September 2007 - December 2007	1 Project Staff (Volunteer)	<ul style="list-style-type: none"> <li>4 Malapoa Teachers trained in Reef Check methodology</li> </ul>
			<ul style="list-style-type: none"> <li>School Program will be implemented in 2008</li> </ul>

Monitoring at Department of Fisheries Permanent Monitoring Sites (Malapoa Point & Mangaliliu Village)	Nov-07	2 Project Staff (1 Volunteer), 2 Permanent Staff, 4 other Department of Fisheries/Fisheries Project Staff	<ul style="list-style-type: none"> <li>3 surveys conducted at Department of Fisheries permanent monitoring sites</li> </ul>
Reef Check Training: Hideaway Island Dive Resort, Mele Village, Efate	28 November 2007 & 06 December 2007	1 Project Staff (Volunteer)	<ul style="list-style-type: none"> <li>2 new permanent monitoring sites developed</li> <li>7 Dive staff trained in Reef Check methodology</li> </ul>
National Coral Reef Status Report Written & Submitted	November 2007 - December 2007	1 Permanent Staff, 2 Project Staff (1 Volunteer)	<ul style="list-style-type: none"> <li>1 survey conducted</li> <li>Staff to assist with Malapoa School Program</li> <li>Reef Check data from 2005 - 2007 analyzed</li> <li>Status Report submitted for publication to USP</li> </ul>

#### 4.1.5.2 Aquarium Management Plan Consultation Project

Under this project, the draft national marine aquarium trade fishery management plan was once again printed and circulated for final input from the main stakeholders.

#### 4.1.5.3 Improving Fishery Information to Support Management of Sea Cucumber & Trochus Resources in the Shefa Province

This project is yet to be fully implemented. The project has two major components and includes i) workshop and; ii) a survey that include underwater assessment and socio-economic survey.

##### 4.1.5.3.1 Workshop

The workshop was conducted in April of 2007. A total of 27 participants that include community leaders, Vanua-tai resource monitors, fishermen, Environment Unit and Fisheries officers attended. There are several objectives of the workshop and include:

- Review current issues and problems related to sea-cucumber and trochus fisheries by sharing views of various stakeholders
- Identify types of information needed to formulate management plans for sea cucumber and trochus fisheries
- Formulate the implementation plan for participatory data collection and determine roles and responsibilities of stakeholders in data collection

##### 4.1.5.3.2 Underwater assessment and socio-economic survey

Planning process was done but due to logistical and man power resources, survey activities were postpone to 2008.

## 4.2 Compliance, Licensing & Enforcement Division

This division deals with the issuing of licenses, compliance and enforcement of the fisheries act. It is the revenue collecting arm of the Department and consists of five staffs. Three of the staffs are permanent officers while two (2) are hired on contractual basis. The division is headed by a senior resource manager.

### 4.2.1 Program activities

The Compliance, Licensing & Enforcement Division is task to carryout responsibilities under three main areas namely licensing; enforcement; and investigation and prosecution.

#### 4.2.1.1 Licensing

Three different licenses were issued. They include Fishing licenses, Fish export processing establishment license and permits.

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### 4.2.1.1.1 Fishing license

A total of 125 fishing licenses were issued for 2007 licensing period. Of this total, 13 were issued to local fishing vessels (LFV) (Table 5) and 112 were issued to foreign fishing vessels (FFV) (Table 6). All fishing licenses processed and endorsed were subject to licensing requirements. Most of the FFV that were granted license fish in Vanuatu waters but based and land their catch outside Vanuatu and flagged in several countries including Vanuatu.

Table 5: Total number of license issued for local fishing vessels in 2007

N0.	Flag	Issued on	Vessel Name	Call Sign	License Number	End Date	Company	Agent	GRT
1	VU	17 January 2007	Out Law	YJS 7174	VAN 012/2007	31-Dec-07	Breakers Resort	Sean Winslett	
2	VU	19 January 2007	Shogun	YJS-7182	VAN 013/2007	31-Dec-07	Nautilus	Peter Hilips	
3	VU	17 January 2007	Wild Blue	YJS-0767	VAN 014/2007	31-Dec-07	Nautilus	Peter Hilips	
4	VU	19 January 2007	Lady Christina	XJS7115	VAN 015/2006	18-Jan-08	Ocean Fishing Ltd	Ocean Fishing Ltd	
5	VU	19 January 2007	Clover Bay	YJS 7187	VAN 017/2007	12/31/2007	TRIFISH	TRIFISH	
6	VU		MV Laurella	Unknown	VAN 018/2007	12/31/2007	Blue Fin Company Ltd	Blue Fin Company Ltd	
7	VU	22 January 2007	V Factor	Unknown	VAN 022/2007	31-Dec-07	YMER	Andrew Hibgame	
8	VU	31 January 2007	Santa Maria	YJS7157	VAN 026/2006	31-Jan-08	LTP		
9	VU	31 January 2007	Tanveral	YJS7127	VAN 027/2007	31-Jan-08	Snoopys	Herve Picarda	
10	VU	19 March 2007	Sig	VMQ 7357	VAN 035/2007	31-Dec-07	Jonathan Naupa	Ocean Sea Products	
11	VU	5 April 2007	In Deep		VAN 043/2007	22-Mar-08		Harris Juanick	
12	VU	11 April 2007	Kianga	Unknown	VAN 045/2007	10-Apr-08		Jeffrey Tokatake	
14	VU	26 April 2007	Bianca		VAN 051/2007	25-Apr-08	LTP	LTP	
15	VU	25 July 2007	Hinaura	Unknown	VAN 086/2007	22-Jul-08			

Table 6: Total number of license issued for foreign fishing vessels in 2007

N0.	Flag	Issued on	Vessel Name	FFA ID	Call Sign	License Number	End Date	Fishing Company	Agent	GRT
1	CN	17 January 2007	ZHONG SHUI 601	34027	BYLQ67	VAN 001/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119.00
2	CN	17 January 2007	ZHONG SHUI 603	34028	BYLQ7	VAN 002/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119.00
3	CN	17 January 2007	ZHONG SHUI 604	34029	BYLQ8	VAN 003/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119.00
4	CN	17 January 2007	ZHONG SHUI 605	34724	BYLQ9	VAN 004/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119.00
5	CN	17 January 2007	ZHONG SHUI 608	34725	BYMQ4	VAN 005/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119
6	CN	17 January 2007	ZHONG SHUI 609	34853	BYZB9	VAN 006/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	98.00
7	CN	17 January 2007	ZHONG SHUI 610	34030	BYZB10	VAN 007/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	98.00
8	CN	17 January 2007	ZHONG SHUI 611	34854	BYZB11	VAN 008/2007	31-Dec-07	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	98.00
9	CK	17 January 2007	K10	35213	ZKU2044	VAN 009/2007	31-Dec-07	WINFULL FISHING COMPANY	Yellowfin Fishing	79.00
10	CN	17 January 2007	LU RONG YU 1347	35148	BBFC4	VAN 010/2007	31-Dec-07	WINFULL FISHING COMPANY	Yellowfin Fishing	114.00
11	CN	17 January 2007	LU RONG YU 1348	35150	BBKJ	VAN 011/2007	31-Dec-07	WINFULL FISHING COMPANY	Yellowfin Fishing	114.00
12	TW	17 January 2007	SAN SHENG FA 3	34966	BJ 4737	VAN 016/2007	14-Jan-08		Sunshine Fisheries Limited	79.45
13	FJ	23 January 2007	ZHONG SHUI 602	34996	BYLQ5	VAN 019/2007	31-Jan-08	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	119.00
14	CN	31 January 2007	ZHONG SHUI 619	35000	BYWB5	VAN 020/2007	31-Jan-08	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	
15	CN	19 January 2007	NIAN SHENG	35532	BJ 4891	VAN 021/2007	18-Jan-08		Sunshine Fisheries Limited	97.55
16	CN	26 January 2007	LU RONG YUAN YU 19	34982	BZ514	VAN 023/2007	6-Jan-08		Sunshine Fisheries Limited	140.00
17	CN	26 January 2007	LU RONG YUAN YU 20	34983	BZ515	VAN 024/2007	6-Jan-08		Sunshine Fisheries Limited	140.00
18	CN	31 January 2007	ZHONG SHUI 618	34999	BYWB4	VAN 025/2007	31-Jan-08	CNFC OVERSEAS FISHERY CO.,LTD	CNFC VANUATU	115.00
19	FJ	9 February 2007	SOLANDER IX	34911	3DWW	VAN 028/2007	8-Feb-08	Solander Pacific Limited	Geoffrey Gee & Partners	113.00
20	CN	19 February 2007	LU RONG YUAN YU 25	35356	BBKF	VAN 029/2007	16-Mar-08		Sunshine Fisheries Limited	148.00

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21	CN	19 February 2007	LU RONG YUAN YU 26	35357	BBKO	VAN 030/2008	16-Mar-08	Sunshine Fisheries Limited	143.00
22	TW	23 February 2007	HO TSAI FA 18	35551	BJ2269	VAN 031/2007	22-Feb-07	Sunshine Fisheries Limited	98.00
23	FJ	23 February 2007	ZHONG DA 2	35079	3DX2	VAN 032/2007	22-Feb-07	Sunshine Fisheries Limited	136.00
24	FJ	1 March 2007	SUN STAR 1	35258	3DSS	VAN 033/2007	14-Mar-08	Sunshine Fisheries Limited	144.00
25	FJ	15 March 2007	SUN STAR 2	35258	3DSR	VAN 034/2007	14-Mar-08	Sunshine Fisheries Limited	144.00
26	CN	19 March 2007	TIAN HUA	34896	BZSJ4	VAN 036/2007	20-Apr-08	Sunshine Fisheries Limited	225.00
27	CN	19 March 2007	LU RONG YU 1035	34787	BBKK	VAN 037/2007	22-Mar-08	Sunshine Fisheries Limited	120.00
28	CN	19 March 2007	LU RONG YU 1036	34788	BBKH	VAN 038/2007	22-Mar-08	Sunshine Fisheries Limited	120.00
29	CN	19 March 2007	LU RONG YU 1527	34789	BBKG	VAN 039/2007	22-Mar-08	Sunshine Fisheries Limited	120.00
30	FJ	19 March 2007	HANGTON 2	34897	3DXK	VAN 040/2007	20-Mar-08	Sunshine Fisheries Limited	225.00
31	CN	19 March 2007	HU SHOUBEN	34789	3DYP	VAN 041/2007	20-Mar-08	Sunshine Fisheries Limited	120.00
32	CN	21 March 2007	DONG YU JI 23	35043	BKXF	VAN 042/2007	18-Jun-08	Sunshine Fisheries Limited	169.00
33		5 April 2007	DONG YU JI NO.19	35044	BKWZ	VAN 044/2007	25-Apr-08	Sunshine Fisheries Limited	169.00
34	CK	4 May 2007	ROSALINA	35086	ZKU2095	VAN 047/2007	27-Apr-08	Hangton Pacific Co. Ltd.	79
35	FJ	25 April 2007	YONG XING 1	35081	3DYB	VAN 048/2007	1-May-08	Sunshine Fisheries Limited	136
36	FJ	25 April 2007	YONG XING 2	35082	3DYC	VAN 049/2007	23-Apr-08	Sunshine Fisheries limited	136
37	TW	4 May 2007	JIN CHIN FU 66	34678	BJ4665	VAN 050/2007	27-Apr-08	Sunshine Fisheries limited	96.88
38	FJ	3 May 2007	WIN FULL 3	34803	3DWN	VAN 052/2007	11-May-08	Sunshine Fisheries limited	180
39	FJ	3 May 2007	WIN FULL 2	34308	3DVW	VAN 053/2007	11-May-08	Sunshine Fisheries limited	158
40	CN	4 May 2007	HUA YUAN YU 11	34839	BZWY27	VAN 054/2007	5-May-08	Sunshine Fisheries limited	137
41	TW	4 May 2007	YU LONG FA 36	35553	BJ4931	VAN 055/2007	26-May-08	Sunshine Fisheries limited	98.86
42	TW	4 May 2007	YU LONG FA 22	35431	BJ4878	VAN 056/2007	26-May-08	Sunshine Fisheries limited	98
43	TW	10 May 2007	YU LONG 2	35425	BJ4874	VAN 057/2007	10-May-08	Sunshine Fisheries limited	98.92



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44	CN	19 June 2007	LU RONG YU 2222	34864	BBFA3	VAN 058/2007	31-Aug-08	Hangton Pacific Co. Ltd.	120
45	CN	19 June 2007	LU RONG YU 2223	34865	BBFA4	VAN 059/2007	31-Aug-08	Hangton Pacific Co. Ltd.	120
46	CN	19 June 2007	LU RONG YU 2224	34866	BBFA5	VAN 060/2007	31-Aug-08	Hangton Pacific Co. Ltd.	120
47	CN	19 June 2007	ZHE DING YUAN YU 801	35222	BZV2	VAN 061/2007	14-May-08	Sunshine Fisheries limited	218
48	CN	19 June 2007	ZHE DING YUAN YU 802	35223	BZV3	VAN 062/2007	14-May-08	Sunshine Fisheries limited	218
49	FJ	13 June 2007	WIN STAR 2	34989	3DXH	VAN 063/2007	13-Jun-08	Win Full Fishing Company Limited	113
50	FJ	13 June 2007	WIN FULL 1	34307	3 DVU	VAN 064/2007	13-Jun-08	Win Full Fishing Company Limited	180
51	FJ	19 June 2007	SUNSHINE 6	35554	3DZB	VAN 065/2007	17-May-08	Sunshine Fisheries limited	191
52	CN	21 May 2007	XIN YA 8	35374	BZXH5	VAN 066/2007	15-Jun-08	Win Full Fishing Company Limited	142
53	CN	22 May 2007	XIN YA 9	35375	BZXH6	VAN 067/2007	15-Jun-08	Win Full Fishing Company Limited	142
54	CN	30 May 2007	ZHONG SHUI 606	34997	BYMQ2	VAN 068/2007	20-Jun-08	CNFC	119
55	CN	31 May 2007	JINN JIN YI 26	35581	BJ4917	VAN 069/2007	31-May-08	Sunshine Fisheries limited	99
56	CN	31 May 2007	JINN JIN YI 33	35582	BJ4938	VAN 070/2007	31-May-08	Sunshine Fisheries limited	99
57	CN	1 August 2007	SING MAN YI	35380	BJ4733	VAN 071/2007	16-Jun-08	Sunshine Fisheries limited	98
58	CN	1 August 2007	LONG JIA MING 6	35358	BJ4823	VAN 072/2007	28-Jun-08	Sunshine Fisheries limited	98
59	CN	13 June 2007	LU RONG YU 2535	35592	BBLZ	VAN 073/2007	12-Jun-08	Win Full Fishing Company Limited	145
60	CN	13 June 2007	LU RONG YU 2536	35563	BBLZ1	VAN 074/2007	12-Jun-08	Win Full Fishing Company Limited	145
61	CN	13 June 2007	LU RONG YU SHUI 62	35594	BBCY4	VAN 075/2007	12-Jun-08	Win Full Fishing Company Limited	145
62	CN	13 June 2007	LU RONG YU SHUI 228	35590	BBLZ2	VAN 076/2007	12-Jun-08	Win Full Fishing Company Limited	145
63	FJ	13 June 2007	ZHONG DA NO. 2	35080	3DYA	VAN 077/2007	21-Jul-08	Sunshine Fisheries Limited	130
64	TW	25 June 2007	JIN CHIN FU 16	35587	BJ 4942	VAN 078/2007	24-Jun-08	Sunshine Fisheries Limited	99
65	TW	25 June 2007	DE SHENG FA 2	35589	BJ4975	VAN 079/2007	24-Jun-08	Win Full Fishing Company Limited	99
66	CN	25 June 2007	RONG YUAN YU 805	35591	BBLZ3	VAN 080/2007	24-Jun-08	Win Full Fishing Company Limited	201

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08									
67	TW	6 July 2007	YUE SUI XI 31016	34718	BZUW5	VAN 081/2007	6-Jul-08	Sunshine Fisheries Limited	128
68	FJ	20 July 2007	RITUNA 1	35598	3DZF	VAN 082/2007	31-Aug-08	Sunshine Fisheries Limited	191
69	CN	23 July 2007	YUE SHENG YU 302	35600	BZW4	VAN 083/2007	19-Jul-08	Sunshine Fisheries Limited	121
70	CN	23 July 2007	SUI YUAN YU 21	35477	BZWA 21	VAN 084/2007	26-Jul-08	Win Full Fishing Company Limited	150
71	CN	24 July 2007	SUI YUAN YU 28	35480	BZWA 28	VAN 085/2007	5-Aug-08	Win Full Fishing Company Limited	150
72	CN	3 August 2007	LU RONG YUAN YU 17	34980	BZ512	VAN 088/2007	31-Jul-08	Sunshine Fisheries Limited	140
73	CN	1 August 2007	HU YU 911	35190	BIWA	VAN 089/2007	31-Jul-08	Win Full Fishing Company Limited	157
74	CN	1 August 2007	HU YU 912	35191	BIWB	VAN 090/2007	31-Jul-08	Win Full Fishing Company Limited	157
75	CN	9 August 2007	LU RONG YUAN YU 18	34981	BZ513	VAN 091/2007	31-Jul-08	Sunshine Fisheries Limited	140
76	CN	9 August 2007	HUA YUAN YU 18	35608	BZXL4	VAN 092/2007	9-Aug-08	Sunshine Fisheries Limited	150
77	CN	9 August 2007	HUA YUAN YU 19	35609	BZXL3	VAN 093/2007	9-Aug-08	Sunshine Fisheries Limited	150
78						VAN 094/2007			
79	CN	14 August 2007	ZHONG SHUI 803	34869	BZZZ 3	VAN 095/2007	5-Sep-08	China Fisheries Vanuatu Co, Ltd	104
80	CN	14 August 2007	ZHONG SHUI 801	34867	BZZZ	VAN 096/2007	5-Sep-08	China Fisheries Vanuatu Co, Ltd	104
81	CN	14 August 2007	ZHONG SHUI 804	34870	BZZZ 4	VAN 097/2007	5-Sep-08	China Fisheries Vanuatu Co, Ltd	104
82	CN	14 August 2007	ZHONG SHUI 802	34868	BZZZ 2	VAN 098/2007	5-Sep-08	China Fisheries Vanuatu Co, Ltd	104
83	CN	14 August 2007	ZHONG SHUI 607	34998	BYMQ 3	VAN 099/2007	23-Aug-08	China Fisheries Vanuatu Co, Ltd	104
84	VU	16 August 2007	YUH CHANG NO.7	34856	YJSK 9	VAN 100/2007	31-Aug-08	Tuna Fishing Vanuatu Limited	93.18
85	VU	16 August 2007	YUH PAO NO.2	34885	YJSN 6	VAN 101/2007	23-Sep-08	Tuna Fishing Vanuatu Limited	93.18
86	VU	24 August 2007	YUH PAO NO. 12	35365	YJUN 9	VAN 102/2007	08	Tuna Fishing Vanuatu Limited	93.18
87	TW	13 September 2007	FULL SHINE	28191	BH2778	VAN 103/2007	1-Sep-08	Tuna Fishing Vanuatu Limited	225.33
88	TW	13 September 2007	JIN DE SING 1	35366	BJ4829	VAN 104/2007	15-Sep-08	Sunshine Fisheries Limited	98.00
89	TW	25 September 2007	SAN SHENG FA	32027	BJ3987	VAN 105/2007	19-Oct-08	Sunshine Fisheries Limited	64.00
90	TW	25 September 2007	JIN JINN YI 6	32576	BJ4356	VAN 106/2007	19-Oct-08	Sunshine Fisheries Limited	64.33
91	FJ	25 September 2007	HANTON NO.3	34414	3DXU	VAN 107/2007	21-Sep-08	Hangton Pacific Co. Ltd.	136.00

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92	FJ	4 December 2007	HANTON NO.4	34415	3DXT	VAN 108/2007	24-Sep-08	Hangton Pacific Co. Ltd.	136.00
93	TW	25 September 2007	YUH YI 12	34453	BJ4613	VAN 109/2007	24-Sep-08	Tuna Fishing Vanuatu Ltd	79.69
94	VU	25 September 2007	YUH YI 21	34702	YJSB-7	VAN 110/2007	24-Sep-08	Tuna Fishing Vanuatu Ltd	93.18
95	TW	18 October 2007	YUH YI 6	34257	BJ4587	VAN 111/2007	13-Oct-08	Tuna Fishing Vanuatu Ltd	80.91
96	TW	16 October 2007	YUH YI 11	34452	BJ4612	VAN 112/2007	10-Oct-08	Tuna Fishing Vanuatu Ltd	79.69
97	TW	22 October 2007	YUH YI 1	34217	BJ4581	VAN 113/2007	13-Oct-08	Tuna Fishing Vanuatu Ltd	76.38
98	VU	22 October 2007	YUH YI 22	34709	YJSB8	VAN 114/2007	13-Oct-08	Tuna Fishing Vanuatu Ltd	93.18
99	TW	22 October 2007	YUH YUEAN 7	33479	3DUA	VAN 115/2007	21-Oct-08	Tuna Fishing Vanuatu Ltd	68
100	CN	26 October 2007	SAN SHENG FA NO.TIEN	34281	BJ4591	VAN 116/2007	9-Nov-08	Sunshine Fisheries Limited	76.15
101	CN	26 October 2007	JIN CHIN YI 16	34685	BJ4671	VAN 117/2007	9-Nov-08	Sunshine Fisheries Limited	97
102	VU	31 October 2007	YUH YI 16	34701	YJSB-6	VAN 118/2007	31-Oct-08	Tuna Fishing Vanuatu Ltd	93.18
103	VU	2 November 2007	YUH YUEAN 6	33478	3DUT	VAN 119/2007	9-Nov-08	Tuna Fishing Vanuatu Ltd	93.18
104	FJ	12 November 2007	SUN STAR 3	35538	3DOQ	VAN 120/2007	30-Nov-08	Sunshine Fisheries Limited	173
105	FJ	15 November 2007	ZHONG DA 3	35539	3DOP	VAN 121/2007	30-Nov-08	Tuna Fishing Vanuatu Ltd	173
106	TW	30 November 2007	YUH CHANG 3	34934	BJ4712	VAN 122/2007	5-Dec-08	Tuna Fishing Vanuatu Ltd	84.89
107	TW	3 December 2007	YUH CHANG 6	34932	BJ4715	VAN 123/2007	5-Dec-08	Tuna Fishing Vanuatu Ltd	84.89
108	VU	3 December 2007	YUH CHANG 1	34931	YJSJ7	VAN 124/2007	5-Dec-08	Tuna Fishing Vanuatu Ltd	93.18
109	TW	3 December 2007	YUH YI 2	34216	BJ4582	VAN 125/2007	5-Dec-08	Tuna Fishing Vanuatu Ltd	76.38
110	FJ	7 December 2007	SOLANDER X	34803	3DWN	VAN 126/2007	12-Feb-08	Yellowfin Fishing	158.00
111	TW	7 December 2007	YI SIANG	34419	BJ4561	VAN 127/2007	4-Dec-08	Sunshine Fisheries Limited	79.00
112	VU	7 December 2007	YUH CHANG 2	34933	YJSJ8	VAN 128/2007	23-Dec-08	Tuna Fishing Vanuatu Ltd	93.18

## 4.2.1.1.2 Fish export processing establishment license (FEPEL)

A total number of 20 FEPEL licenses were issued for 2007 licensing period. Tabulated below is the total number of license and the different companies and products for which the licenses were issued for (Table 7).

Table 7: Total number of FEPEL licenses issued to different companies for different products in 2007

License No	Company	License category	License Type
VAN 02/2007	Reef Life (Vanuatu) Ltd	Aquarium trade	Live rock
VAN 03/2007	Reef Life (Vanuatu) Ltd	Aquarium trade	Maricultured coral
VAN 04/2007	Reef Life (Vanuatu) Ltd	Aquarium trade	Aquarium fish
VAN 05/2007	Reef Life (Vanuatu) Ltd	Aquarium trade	Giant clam
VAN 06/2007	H & D (Pacific) Consulting Group	Sea cucumber	Beche-de-mer
VAN 07/2007	Pacific Aquaculture PTY Ltd	Eel	Adult and Juvenile eels
VAN 08/2007	Hong Shell Products Co. Ltd	Sharkfin	Sharkfin
VAN 09/2007	Hong Shell Products Co. Ltd	Trochus meat	Trochus
VAN 010/2007	Hong Shell Products Co. Ltd	Mother-of-Pearl (MOP)	Mother-of-Pearl (MOP)
VAN 011/2007	Hong Shell Products Co. Ltd	Sea cucumber	Beche-de-mer
VAN 012/2007	Hong Shell Products Co. Ltd	Trochus	Trochus
VAN 013/2007	Reef Solutions (Vanuatu) Ltd	Aquarium trade	Maricultured coral
VAN 014/2007	Reef Solutions (Vanuatu) Ltd	Aquarium trade	Invertebrates
VAN 015/2007	Reef Solutions (Vanuatu) Ltd	Aquarium trade	Cultured clams
VAN 016/2007	Reef Solutions (Vanuatu) Ltd	Aquarium trade	Live rock
VAN 017/2007	Ah John Enterprises	Sea cucumber	Beche-de-mer
VAN 018/2007	Eco Sea Food (VANUATU) Ltd	Fish, Prawn, Lobster, Crab & Squid	Fish, Prawn, Lobster, Crab & Squid
VAN 019/2007	Eco Sea Food (VANUATU) Ltd	Aquarium trade	Live rock
VAN 020/2007	Eco Sea Food (VANUATU) Ltd	Aquarium trade	Aquarium fish
VAN 021/2007	Eco Sea Food (VANUATU) Ltd	Aquarium trade	Invertebrates

## 4.2.1.1.3 Permits

A total of 567 export permits were issued in 2007. 96 percent of the export permits were issued for the export of marine aquarium products. The remaining 4 percent was issued for the export of trochus shells, beche-de-mer, sharkfin and other fisheries export products.

## 4.2.1.1.4 Home consumption certificate

In 2007, only a few home consumption certificates were issued in 2007.

## 4.2.1.2 Enforcement &amp; Surveillance

As part of enforcing the fisheries regulations under the fisheries act, routine inspection were conducted on companies granted FEPEL license to ensure fisheries regulations are adhered to. Inspections were also conducted at the municipal market and airport to check on size limits

for coconut crabs and lobsters. There were a lot of infringement of the fisheries regulations reported but no prosecution was carried out.

Vanuatu has to ensure that foreign fishing vessels that were granted license to fish in its waters fully comply with the provisions of the fisheries act and other regional and international instruments that Vanuatu is a member to. Aerial surveillance and sea patrols were conducted to ensure compliance.

In 2007, a number of aerial surveillance was conducted by French Guardian and the Royal New Zealand air force. The aerial surveillance operation was undertaken to coincide with RVS Tukoro patrols. The aerial surveillance provided by France and New Zealand was part of an agreement between Vanuatu and these two countries. Australia was part of this but due to its heavy involvement in other parts of the world has cut down on its assistance in this area.

RVS Tukoro, the national patrol boat provides one of the vital assistance to the Department of Fisheries in its effort to manage fishing activities in Vanuatu waters. In 2007, it undertook 9 patrols. This was about 1 patrol per month. Of these patrols, 1 was for the South/East/ Northern patrol (Feb 2007), 2 Western EEZ Patrol (Mar & May 2007), 2 Operation Kurukuru patrols ( AUG 2008), 1 North-eastern EEZ patrol ( Sept 2008), 1 southern and 1 northern patrol ( Dec 2008). During these patrols, 25 sighting were recorded with 21 boardings.

#### 4.2.1.3 Investigation & prosecution

2007 was one of the quite years in terms of investigation and prosecutions. Only one vessel was reported of infringement within the Vanuatu waters. RVS Tukoro was dispatched and the vessel was boarded by the patrol boat Officers. The Vessel was cleared after it was confirmed to have been misreported. No further suspected illegal fishing or other violation of the provisions of the Fisheries Act or fisheries regulation and therefore there was no case.

#### 4.2.1.4 Vanuatu flag vessels

Vanuatu is also a fishing nation. A total of 110 Vanuatu flag fishing vessels were active in 2007. Out of the 110 fishing vessels, 79 are longliners, 26 purse seiners and 5 are squid jigger. 87 of the flag vessels actively fish within the WCPFC convention area while 2 were active in the IATTC area, 16 in the ICCAT area and 5 fished in the Atlantic area (Table 8).

Table 8: Total number of Vanuatu flag vessels under different fishing methods fishing in different areas in 2007

Fishing methods	Total vessels	WCPFC	IATTC	ICCAT	IOTC	ATLANTIC	OTHERS
Longliners	79	63	-	-	16	-	-
Purse seiners	26	24	-	2	-	-	-
Squid Jigger	5	-	-	-	-	5	-
Trawler	-	-	-	-	-	-	-
Pole & Line	-	-	-	-	-	-	-
Total	110	87	-	2	16	5	-

During the preparation process of this report, the catch data of the Vanuatu flag fishing vessels have not been submitted.

#### 4.2.1.5 US Treaty amendments & review of bilateral fishing agreements

US Treaty amended text has been passed by the Vanuatu parliament in 2007. The amendment text is to allow for the increase contribution paid to the FFA member countries from the US Treaty funds administered by FFA.

Vanuatu has a total of seven Bilateral Fishing Agreements (BFA) with seven different companies as of 2007. In 2007, three of the BFA were expired and renewed.

#### 4.2.1.6 Observer program

An observer coordinators workshop was held in 2007 in Brisbane, Australia aimed to encourage countries to setup their own national observer programs. Following this workshop, Vanuatu Fisheries Department in 2007 planned an observer training program to be held in June 2008.

Observer program is one of the major elements in fisheries management in monitoring and verifying fishing data. It is foreseen that if Vanuatu has its own observer program in the near future, it will help to strengthen information flow regarding fishing activities and stock levels in Vanuatu waters.

Fisheries Observer Mr. John Mahit was hired under the regional observer program with the FFA to provide observer coverage on a US purse seine fishing in the WCPFC.

#### 4.2.1.7 Vessel monitoring system (VMS)

Since the transfer of the VMS to the Fisheries Head Office in Port Vila from the Joint Police Operation Center (JPOC), it has been fully utilized in terms of checking vessel entry and exit reports and vessel compliance status prior to issuing of licenses. Now that the system is with the Fisheries Department, vessels can be routinely monitored. Currently, all FFV granted license to fish in Vanuatu waters have VMS 100% full coverage.

A new development with the VMS that occurred in 2007 was the creation of second site based in Sydney, Australia. The second site allows fisheries compliance and enforcement officers dealing with VMS to access VMS related information through internet. The system that is based in Honiara, Solomon Islands can only be accessed through installed VMS system.

#### 4.2.1.8 Offshore fisheries management information system (OFMIS)

The overarching objective of establishing the OFMIS was to enable Vanuatu Fisheries to store and manage its own catch data submitted by FFV fishing in Vanuatu waters. Currently all catch data by FFV are submitted to the Secretariat of the Pacific Community (SPC) and whenever Vanuatu requires any data it have to send a request to SPC. This is a time consuming practice and an additional cost. It is foreseen that if the OFMIS is fully operational, it will help reduce time and cost associated with the current arrangement.

However, since its establishment in 2006, it has not been operating to meet required expectation due to several reasons like lack of funds to hire additional staffs responsible to enter data and manage the system.

### **4.3 Research & Aquaculture Division**

Under the Fisheries Department organisational structure, this Section has been structured to accommodate 8 key positions. In 2007 it has a total of 3 permanent staffs.

#### **4.3.1 Program activities**

The Research & Aquaculture Division has two main areas of program activities namely aquaculture and stock assessment. In the aquaculture area, three main activities were planned and carried out in 2007. They include freshwater aquaculture; mariculture (JICA project) and aquaculture development plan.

##### **4.3.1.1 Aquaculture**

Aquaculture development in Vanuatu include both freshwater and marine sector.

##### **4.3.1.1.1 Freshwater**

The Division continued to implement plan activities under the freshwater aquaculture focusing on tilapia farming since the program started in 2005 and has gain a lot of interest from rural communities. However, in 2007 the momentum slowed down due to budget constraints. While awaiting funds to support this program, the division continued to feed and maintain a small tilapia bloodstocks at the Fisheries Department Hatchery. Survival rates of the 14 selected male tilapia bloodstocks weighing approximately 650 grams per fish were potentially good.

Despite the budget constraints, the division ensured that essential service delivery was provided to support the freshwater aquaculture industry especially to the private sector. The Department through the Research & Aquaculture Division played an important facilitatory role in the establishment of Vate Ocean Gardens. Vate Ocean Gardens is a privately owned enterprise focusing particularly on the farming of fresh water red tilapia. Since its establishment, records showed a monthly production of 2 tones of fresh fish red tilapia fish. From the period of June to November 2007, Vate Ocean Gardens harvested a total of 12.8 mt worth over 3.2 million vatu.

The Department through this Division also continued to support and maintain good working relationship with Teuma Prawns Ltd, a large scale privately owned company now in full operation in farming marine prawns (*Litopenaeus stylirostris*). The total production in 2007 amounts to 18 mt worth 34 million vatu.

##### **4.3.1.1.2 Mariculture**

The Department through the Research & Aquaculture Division continued to undertake mass seed production under its on-going program for trochus niloticus.

#### 4.3.1.1.3 National Aquaculture Development plan

Final review and changes of the Draft Vanuatu Aquaculture Development Plan was undertaken.

#### 4.3.1.1.4 JICA funded project “Grace of the Sea”

The purpose of the Grace of the Sea Project is to promote community-based coastal resource management with the overall goal statement that reads “*Livelihoods of coastal communities are improved through the community-based resource management at the model sites and the resource propagation of the target species (Green snail, trochus and Giant clam) occupying the model areas*”

The project targets the following species and includes trochus (*Trochus niloticus*), green snail (*Turbo mamoratus*) and giant clam (*Tridacna spp.*).

The project site includes Mangaliliu village, Lelepa, Sunae and Tassiriki village on Moso.

##### 4.3.1.1.4.1 Green snail

2007 was an important year for the green snail resource. For the first time ever, green snail has been successfully spawned in Vanuatu. The first mass seed production of green snail was conducted in February 2007. Survival rate was low with 987 juveniles survived; now ranging from 2.5 - 3.5 cm in length. The second spawning was conducted in September with a relatively good survival rate with a total of 3, 624 juveniles ready for intermediate culture.

To assist with the effort to reseed depleted reef areas in the project sites, broodstock of green snail and trochus were translocated from Aneityum to the project sites. The project twice chartered an Air Vanuatu domestic flight to move the green snail and trochus to Efate.



Green snail broodstock from Aneityum Island

##### 4.3.1.1.4.2 Giant clam

For the giant clam fishery, 2007 also marks another milestone in seed production. For the first time ever, *Tridacna squamosa* or fluted clam was successfully spawned in Vanuatu. A total of about 110,000 *T. squamosa* juveniles are now ready for immediate culture as a result of the spawning that was conducted. Spawning was also carried out for the *Tridacna maxima* resulting in a total of about 5,000 maxima juveniles now in the tanks ready for inter-mediate culture.





Giant clam juveniles in hatchery

2008. 3. 18

Furthermore, 2007 also marks a historical year that saw the clam species *Tridacna gigas* that was believed to have extinct totally from the Vanuatu archipelago was re-introduced from Tonga. This arrangement was done in exchange of 70 matured *Tridacna crocea* exported to Tonga. A total of 400 juvenile *T. gigas* clam of about ranging from 22 cm – 26 cm were imported. Of the total, 200 pieces were put at Mangaliliu community farm, 100 pieces were

deployed at the Sunae community farm and another 100 pieces were put at the Tassariki community farm.

#### 4.3.1.1.4.2.1 Establishment of spawner groups

One of the activities of the JICA funded project, the “Grace of the Sea Project” is to establish spawner groups of trochus, green snail and giant clams in the project sites. In 2007 spawner groups of trochus, green snail and giant clams were successfully established at the project sites.

To assist communities to monitor and take good care of their clam at their farms, a clam grow out workshop was conducted at Mangaliliu village. Over 20 participants from Lelepa and Mangaliliu village, attended. Training was conducted by Fisheries Department staff, JICA Experts and Mr. Ulunga Faanunu from Tonga Fisheries Department. Topics covered range from suitable site selection, grow out farm establishment, maintenance and business plan. The overall objective of setting up farms was to provide to the communities additional future income generating activity.

To assist with the implementation of the JICA funded project, two short term expert were dispatch to attach with the project in the country. One of the experts was specialized in seaweed ecology and identification and another was specialized in giant clam and overseeing the clam spawning at the Department hatchery and growth-out in the community farms.

#### 4.3.1.2 Stock assessment

One of the core responsibilities of the Research & Aquaculture Division is to carryout stock assessment of important inshore resources such as trochus, green snail, sea cucumber and giant clams.

##### 4.3.1.2.1 Efate stock assessment

In 2007, a stock assessment was conducted on Efate particularly around Mangaliliu area, Hat Island, Lelepa and Moso Island. The survey focused on important species of invertebrates such as trochus, gaint clams and sea cucumbers. Food and aquarium fishes were also targeted during the survey including substrate cover on each site. Compare to previous similar undertakings, this undertaking does not only look at underwater survey (biological) but also

include the socio-economic survey which is an important aspect of resource management. Data collected were entered into excel and analyzed jointly by the team. The final report will be available in first quarter of 2008.

The stock assessment team comprised of Fisheries Department staffs, JICA Experts and five (5) students from the Bay of Plenty Polytechnic in New Zealand.

#### 4.3.1.2.2 New Zealand students participation

In the past years, students from the Bay of Plenty Polytechnic in New Zealand have been coming to assist the Department in conducting stock assessment of coastal resources. In 2007, the Department was again privileged to have the assistance of another load of students from the Bay of Plenty Polytechnic. This follows an arrangement that was instigated back in 1998 by the Department and the Bay of Plenty Polytechnic.

#### 4.3.1.3 Collaboration with FSP

In 2005, the FSP Vanuatu approached the Fisheries Department to assist it in the implementation of one of its projects that focus on coastal resources management. The two agencies saw this as an opportunity to collaborate closely in tackling the coastal resource management issues. A formal agreement was signed between the two agencies and one of the Department staffs from the Research & Aquaculture division was seconded to assist FSP with the implementation of the project.

##### 4.3.1.3.1 Launching of management plans

Following successful establishment of community management areas in the project sites which include Paunangisu village, north Efate; Marou village, Emau and Mystery Island, Aneityum, 2007 marks an important year of the close collaboration that saw the launching of the conservation area management plans. The management plans have been developed through a participatory approach by the communities, Fisheries Department and FSPV. This means that the measures contained in the plans reflect what and how respective communities in the project sites want to see their resources managed.

##### 4.3.1.3.2 Training of resource monitors

To assist project sites effectively implement the measures in their management plans, training was provided to the project sites communities. One of such training was conducted on basic stock assessment method.

##### 4.3.1.3.3 Exchange visit between Solomon Islands and Vanuatu

Resource monitors from Solomon Islands were part of an exchange trip with members from FSPI, FSPV and Fisheries Department representative visited Mystery Island Taboo area for 7 days and share experiences and also learned from the local experience on coastal resource management applied at Mystery Island.

#### 4.4 Development & Capture Division

The Development and Capture Division (D & C) formerly the 'Rural Fisheries Development Program (RFDP)' deals with the Department extension services to the rural people. This Division is task to provide essential assistance to the rural people to ensure government services and benefits in the fisheries sector trickles down to the rural population.

The D&C division deals directly with local fishermen providing assistance to rural fishermen with their fishing projects. The primary focus remains the same that is to maximize social and economic benefits of the marine resources to improve the livelihood of the rural population of Vanuatu. Over the years, the division has evolved from dealing primarily with increasing production to dealing with other areas such as aquaculture and the overall management and enforcement of fisheries regulations in the rural areas.

The D&C is one of the biggest Divisions of the Fisheries Department and has a total of nine (9) permanent officers in 2007. The rationale is that apart from the main offices in Port Vila and Luganville, there are also Fisheries sub-centers located in all the provincial headquarters. These sub centers are managed by D&C officers. In 2007, all provinces have a Fisheries Development Officers except Torba province.

In 2007, the D&C concentrated to implement five main activities. They include:

1. Ice machine, Solar & Fishing aggregating device
2. Improve coordination, monitoring and development and management of fisheries resources
3. Provide and disseminate technical advice, Information & Training
4. Improve Marketing network to provinces and rural areas
5. Promote and develop alternative fishery

##### 4.4.1 Ice machine, Solar & Fishing aggregating device

The D&C continue to provide technical assistance in activities related to technology to better support the rural fishing activities in the rural areas.

###### 4.4.1.1 Ice machine

Since 2000, Fisheries Department has installed a total of seven (7) ice making machine plants throughout the six provinces (Table 9). The plants were acquired under a project and the D&C was task with the responsibility to oversee the implementation of the project.

Table 9: Ice Machine plants installed since 2002

Area Location	Description	Year Installed
Lenakel, Tanna	12 mould block machine	2002
Tunika, Emae	12 mould block ice machine, 8.5 KVA lister generator	2003
Liro, Paama	6 mould block machine, 3.0 KVA lister generator	2005
Maskelynes Island	6 mould block machine, Generator	2005
Port Olry, Santo	6 mould block machine, 3.0 KVA lister generator	2005
Bwatnapni, C/Penticost	6 mould block machine, 3.0 KVA lister generator	2005
Port Vila	1.5 ton flake ice machine	2006

The ice machine project was one of the typical community projects that needed a thorough assessment of the communities involved before actual implementation. Since it's a community project, it was collaboratively implemented with the communities involved which means that communities input provides a vital component in the effective implementation. The project faced a lot of challenges especially from the community component and as a result failed to achieve all its objectives. In 2007, follow-up visits were conducted to the communities involved to try and speed up the installation process.

One of the ice plants actively and effectively in operation is the one located at Port Olry.

#### 4.4.1.2 Solar

Solar batteries have been the major problem that affected the Tafea rural fish market project to operate successfully. In 2007 AUSAID provided funding for the purchase of 7 sets of batteries for the solar freezers on Futuna, Aneityum, Tanna, Aniwa and Erromango. Out from the 7 solar freezers, Futuna and Waisisi each produced and supplied an average of 200kg to 300kg of fresh fish to Lenakel, Tanna.

With the small carrying capacity of the solar freezers i.e. 140L freezer, the Fisheries Department contacted a trail with the use of an inverter on to a 500L electrical freezer. It was a great success but there were more power drains from the batteries because the charging rate of the solar was insufficient.

#### 4.4.1.3 Fishing aggregating device (FAD)

In 2007, only one new FAD was deployed. The FAD was deployed off west Malo Island by the Maritime College in conjunction with the SPC training course contacted in Mid-2007 in Luganville. The FAD design was a combination of surface and sub-surface FAD, highly recommended by SPC. The FAD off Devils point at Efate has been reported missing and no indication yet from the Port Vila Game fishing association on when there would be a replacement.

#### 4.4.1.4 Boatyard

The fisheries boatyard continues to deliver essential services to the artisanal fishing sector building Hartley boats of various sizes for the rural communities. Around 12 new Hartley boats were built in 2007 fully fitted with fishing reels (Figure 5). In addition, numerous boats were being repaired at the boatyard.



Figure 5: Samples of boats that could be built by the Fisheries boatyard in Santo

#### 4.4.1.5 Fisheries infrastructure development

The main work in the construction of the new building to house the fisheries sub center based at Penama province at Saratamata has finally completed in 2007. The main rationale for the delay in completing the building was due to the lack of appropriate fisheries budget allocation. Both the fisheries office and the officers accommodation has been completed in early 2007. Around 70% of the furniture needed have been constructed by the fisheries boatyard staff and ready to be shipped to Penama province.

With the completion of this new building, Fisheries Department is looking forward to the official opening and sending one of its officers to Penama province. This will ensure that the people of Penama province are provided with the essential services of the Fisheries Department after the closure of the sub center in 1993.

Similarly the construction work on the Torba province fisheries sub center at Sola, Vanualava has been withheld due to funding constraints.

#### 4.4.2 Improve coordination, monitoring, development and management of fisheries resources

The D&C division plays a pivotal role in coordinating, monitoring, development and overall management and enforcement of fisheries regulations and resources in the rural areas. In addition, they provide an important link between the Fisheries Department and the rural community. In essence, service delivery in the fisheries sector to the rural communities



depends very much on how effective the D&C division coordinates and implements the activities.

#### 4.4.2.1 Crab Bay & Mystery Island marine protected areas (MPA)

The Amal-Crab bay project, funded by the International Waters Project (IWP), was one of the most successful MPA in Vanuatu. The project was implemented by Environment Unit in close collaboration with Fisheries Department, Malampa province and the 11 surrounding communities. In 2007, the MPA launched its management plan.



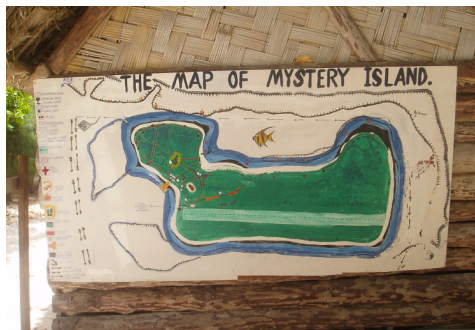
Crab bundles harvested from the access areas of the Amal\_Crab Bay MPA

A stock assessment survey carried out by the Fisheries Department on trochus stock at Crab bay MPA has estimated around 60 tonnes. Similarly the level of harvesting of land crabs at the access areas have increased and is beginning to provide a stable income to surrounding communities, particularly the mothers. The crab sales, according to a daily survey by the Fisheries Officer based at Lakatoro

showed increase production from around 233 crab bundles (Mar 2007) to 1,347 crab bundles (Nov 2007). The reef fish stocks have increase, indicated by the vast number of sharks dwelling around the shore line.

Mystery Island is another successful MPA. The success of this MPA was a direct result of a close collaboration between FSP, Fisheries Department and the community of Analgauhat in Aneityum.

In 2007 the Mystery Island MPA launched its management plan. The management plan was developed by the communities of Aneityum under the guidance of FSP and Fisheries Department. According to fisheries officer's observation there has been an increase in biomass and recovery rate of depleted resources such as Trochus, Green snail, beche- de- mer and reef fishes.



Map demarcating the Mystery Island MPA

#### 4.4.2.2 Fishermen cooperative association (FCA)

The D&C continued to established and organize fishermen into groups called 'Fishermen Cooperative Association' or FCA. The main rationale to establish and organize fishermen is to assist fishermen to work as a group in addressing some of their common needs such as marketing of their catch, fish pricing and also to access funds to assist them in their fishing projects.

The concept of FCA has gained a lot of support from fishermen and the number of FCA established continues to increase. Given in table 10 are the total numbers of FCA established in each provinces

Table 10: Total number of established FCA in each province

Province	Total Number of FCA established as of December 31st 2007
Tafea	7
Shefa	29
Penama	5
Malampa	11
Sola	4
Sanma	15
Total	71

Out of the six provinces only Shefa and Malampa have established their Provincial Fisheries Cooperative association and are called 'Shefa Fishermen Association' (SFA) and 'Malampa Fishermen Cooperative Association' (MFCA) respectively.

In 2007 during a Fisheries Department policy workshop in Port Vila a new executive committee was elected to oversee the overall "Vanuatu Naika cooperative association" formerly the "Vanuatu Fishermen Cooperative Association. This is a national body under which provincial FCA are affiliated to.

#### 4.4.3 Provide and disseminate technical advice & Information

The D&C continued to provide the vital link in terms of information flow to the rural communities and also providing technical assistance to rural fishermen with their fishing projects and community based fisheries management projects.

Malampa fisheries office has produced more than 10 newsletters especially for the Malampa fishermen association. The purpose of the newsletter is to provide awareness information to fishers and also keeping them up to date information on assistance opportunities that are available in the government. Around 60 % of the newsletter's content in 2007 covered information on environment conservation i.e. Crab Bay MPA in particular.

#### **4.4.4 Improve Marketing network to provinces and rural areas**

Effort by the D&C continued in 2007 to focus on reviving the ice making plants to fully operate and act as market links between the rural areas and the urban markets. However, due to continuous disputes among the members of the recipient communities and couple with lack of sufficient Department budget, most of the ice plants lie idle. This means that no ice was produced therefore cannot act as market link.

The lack of ice productions from fisheries ice machine units installed affected fish production in the rural areas. This directly reduced the supply of fish from the rural areas local markets and urban markets at Luganville and Port Vila. The import of fresh fish from the rural to the urban fish markets has dramatically dropped by 40%. According to observations made in 2007, there was a high demand of fish from the urban population in Port Vila and the tourism industry. Due to the low supply of fish the retail price of fish in Port Vila has increased to 950VT to 1000VT per kilogram of deep bottom fish species.

Fisheries Department has trial out the fish collection program and ice delivery service around north Efate area but was not successful. This is due to various reasons; i) the low production of fish supply to cover the high transportation cost, ii) most fishermen are part time and more agricultural oriented and; iii) the program needs additional financial support.

A new fish market belonging to AH Store has opened its door to fishers in the Northern provinces. The establishment of the fish market was undertaken with the assistance of the fisheries office in Luganville. To ensure continuous and consistent supply, the owner of the fish market also hired several local fishing boats. The total sale volume in 2007 was about 13 mt of which poulet makes the bulk of the volume.

2007 marks another important year. Fishermen from Malekula will soon benefit from a brand new fish market under construction at Lakatoro. The project which was funded by JICA is valued around 10 million vatu. The construction of the project is expected to complete in mid-2008 and it is anticipated that the once the fish market is fully completed, it will be operated by the Malampa Fishermen Association under the supervision of Fisheries Department and Malampa REDI office.

#### **4.4.5 Promote and develop alternative fishery**

As mentioned earlier, the D&C division has widened their role to include the development aspirations of the Department. One of the new areas that the Development Officers have to involve in is aquaculture. In 2007, Development Officers assist the Research & Aquaculture Division to conducted feasibility studies on suitable sites in their respective areas.

One of the aquaculture projects that the D&C officers were involved with directly is the South Santo aquaculture project at Sarete village. The farm mainly farming tilapia and freshwater prawn (the local la species) continued to receive advice and technical assistance from D&C officers based in Luganville. A total of 6 earth ponds covering an area of around 446m<sup>2</sup> have been developed for fish farming. The ponds were stocked with 4,000 tilapia fries from 22 female and 5 male brooders. The feeds were produced locally. More farmers have shown a lot



of interest to engage on small scale aquaculture farms and this has indicated its potential as an alternative fish protein supply in the rural areas where there is freshwater abundance to enable economically efficient farming and also where stocks of reef fish are not able to supply sufficient protein to the population.

Another tilapia farm was established at Middle bush Tanna but there was no follow-up in 2007 of any new developments.

## 4.5 Finance and Administration

### 4.5.1 Financial statement

The total approved budget for the Department for 2007 was VT43,652,850. The total budget was broken down into two main areas i) personnel expenses ii) operating expenses.

The total budget for personnel expenses for 2007 totals up to VT30,960,588 which is about 80 percent of the total budget. Total funds allocated for operating expenses was VT12,692,262 which is about 30 percent of the total Departmental budget.

#### 4.5.1.1 Budget expenditure

The approved appropriation budget for the Department for 2007 was VT43,652,850. The actual 2007 expenses totaled up to VT30,588,357 (Appendix VII). The reason for this under spent was due to virements made to other Departments such as the Forestry Department for their court case.

#### 4.5.1.2 Revenue

Total estimated revenue as approved by MBC for 2007 was VT132,400,000. The Department collected a total of VT118,507,460 as revenue for 2007. The 2007 total revenue was only a slight decrease from 2006 (Appendix VII). This equates to a total shortfall of VT13,892,540. However the shortfall the Department still collected a substantial amount that was more than twice its allocated budget for 2007. Moreover, 2007 revenue signifies a continuous increasing trend in its revenue collection effort from the previous years (Figure 6). Tabulated below (Table 11) are the details of the Department's 2007 revenue.

Table 11: Breakdown of the Fisheries Department revenue collection 2007

COA	Description	Forecasted revenue (as approved by MBC)	Actual Revenue Collected (as at 31, December 2002)
7NDT	Other Disposal	100,000	220,404
7NFR	Total Repairs Fees	1,000,000	1,118,855
7NOP	Total Permits Recoveries	0	1,707,905
7NOR	Total Rents & Leases Recoveries	200,000	0
7NTO	Total Other Items Revenue	1,100,000	1,360
7TLF	Total Fishing License & Registration	130,000,000	115,458,936
Total		132,400,000	118,507,460

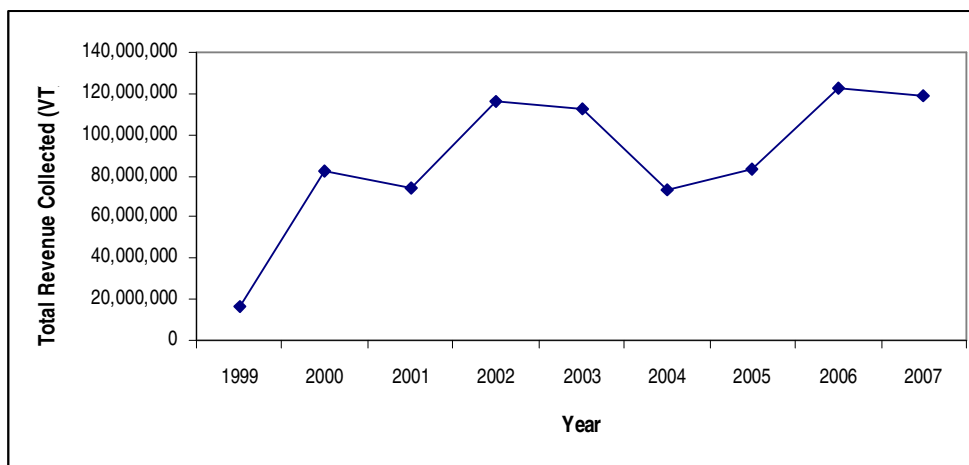


Figure 6: Trend illustrating a general increasing trend in the Department revenue collection effort

## 5 FISHERIES DEPARTMENT MOVEABLE ASSETS

Fisheries Department moveable assets include vehicles and boats.

### 5.1 Fisheries Department registered vehicle

As of 31<sup>st</sup> December 2007, the Department has within its records, a total of 10 vehicles of which 80 –90% have either in bad condition or been written off (Table 12).

Table 12: Fisheries Department vehicles records as of December 31 2007

Item	Type vehicle	Reg. No.	Brand	Year Donated	How Acquired	Purpose	Location	General Condition
1	Hilux 4x4 double carbin	684	Toyota	2006	US treaty funds	Compliance & enforcement	Port Vila	Very good
2	Hilux 4x4 double carbin	592	Toyota		US treaty funds	Extension	Port Vila	Good
3	Hilux 4x4 double carbin	575	Toyota		Donated by Tuna Fishing company	Research & Aquaculture Administration & Management	Port Vila	Good
4	Echo Car				Donated by Tuna Fishing company		Port Vila	Written off 2006
5	Hilux 4x4 single carbin	219	Toyota	1996	no info	Extension & administration	Santo	Bad condition
6	Hilux 4x4 single carbin	477	Mitshubishi		no info	Aquaculture & Extension	Santo	Written off
7	Hilux 4x4 double carbin		Toyota		no info	Extension & administration	Malekula	Written off
8	Hilux 4x4 double carbin	235	Toyota			Boatyard	Santo	Bad condition
9	Motor					Extension & administration	Santo	
10	Motor					Extension & administration	Tafea	

## 5.2 Fisheries boats

The following vessels (listed in table 13) are either still operating, in repair or beyond repair in Vila and Santo and are either purchased under development projects or granted by Aid Donors.

Table 13: Fisheries Department vessels record as of December 31<sup>st</sup> 2007

Item	Name of boat	Type of boat	Type of Marine engine	Year acquired	How acquired	Purpose	Location	General condition
1	MV Lewia	FBG	Yanmar	1987	Japanese aid	Formerly used by Extensions & Rsearch	Port Vila	Need repair
2	MV Albacore	FBG	Yanmar	1987	Japanese aid	Formerly used by Extensions & Rsearch	Port Vila	Need repair
3	MV Marum	FBG	Yanmar 15hp	1987	Japanese aid	Formerly used by Extensions & Rsearch	Santo	written off
4	Fisheries Skiff	FBG	Yamaha 40hp	1987	Japanese aid	Formerly used by Extensions & Rsearch	Santo Port	Good
5	Fisheries Skiff	FBG	Yamaha	2002	Sea weed project	Extension & Research	Vila	Good

## 6 OVERSEAS TRAINING

Training is a vital part of the Department capacity building. In 2007, Fisheries Officers continue to receive vital training to assist them effectively carryout their duties and responsibilities. Tabulated below (Table 14) is the list of Officers attending different trainings in their line of responsibilities.

Table 14: Trainings attended by Fisheries Officers in 2007

Staff Name	Title	Type of training	Sponsor	Duration	Location
Richard Donald	Natioanl Coral Reef Assistance Coordinator	Coral reef reporting & Database			Suva, Fiji
Richard Donald	Natioanl Coral Reef Assistance Coordinator				Townsville, Australia
John Mahit	Fisheries Observer	Observer coordinator	FFA/SPC	2 weeks	Brisbane, Australia
John Mahit	Fisheries Observer	Stranding of Cetaceans	SPREP	2 weeks	Auckland, New Zealand
	Fisheries Develoment	Microbranchia rosenbergii aquaculture management.			
Glen Alo	Officer, Sanma		Malaysia		Malaysia
Bruce	Fisheries Development	Integrated coastal fisheries management			
Robertson	Officer, Penama		China		China
Alsen	Senior Development Officer, North	Management and conservation of coral ecosystems			
Obed			Japan		Japan
William					
Morris	Development Officer, Torbo	Planning of fisheries community development			Japan
Kevin	Development Officer, Malampa				
Morris		Planning of fisheries community development			Japan
Graham	Principal Development	Community-based fisheries diversification in small island states			
Nimoho	Officer				Japan
Jason	Acting Principal Fisheries				
Raubani	Officer	Train-Sea Coast	FFA/USP		Suva, Fiji

## 7 APPENDIX

### Appendix I: Total fisheries annual export production from 2000-2007

Year	Trochus		Sea cucumber		Aquarium products	
	Mt	Value (USD)	mt	Value (USD)	Pieces	Value (USD)
2000	90	-	26	-	36,000	84,313
2001	73	500,000	38	127,451	45,517	70,981
2002	67	323,529	8	49,019	49,530	40,392
2003	53	607,843	25	117,647	137,605	595,097
2004	35	343,137	13	127,451	130,421	543,138
2005	36	509,803	9	166,666	153,266	892,158
2006	36	700,000	8	180,000	205,117	218,894
2007	55.2	781,050.80	15.4	135,810	216,446	200,403.42

### Appendix II: Total annual artisanal fishing production 2002- 2007

Year	Total quantity (mt)	Total Value (vt)
-	0.8	345,335
2002	2.4	654,045
2003	27.4	10,514,626
2004	21.4	17,815,627
2005	11.4	3,784,301
2006	19.7	6,216,710
2007	6.2	2,735,310

### Appendix III: Local commercial fishing catch records from 1996 to 2006

Year	Total Catch (mt)
1996	16.3
1997	26.0
1998	29.7
1999	31
2000	0.057
2001	9.4
2002	0.7
2003	15.4
2004	12.4
2005	7.1
2006	14.4

Appendix IV: Annual fish catch from the FFV fishing in Vanuatu EEZ from 1996 to 2005  
(source: SPC)

Year	Albacore	Yellowfin	Bigeye	Billfish	Skipjack
1996	2,561	455	77	94	3,199
1997	2,342	340	51	51	2,784
1998	1,253	184	62	45	1,613
1999	3,036	290	75	132	3,532
2000	2,480	422	98	122	3,122
2001	1,510	257	58	-	-
2002	2,299	597	162	-	-
2003	2,417	935	248	-	-
2004	3,207	750	179	-	-
2005	6,127	1,450	248	-	-

Appendix V: Fish market production from 2000- 2007

Year	Fish market name	Location	Total kg	Total value (vt)
2000	Niowenmal	Port Vila	25.5	12,525
2001	-	-	1,708.70	468299
	Luganville Fish Market	Luganville	3241.8	888836
	Voika Mini Fish Market		27	5940
2002	Cooperative Store		77	15400
	George Hinge Store		192	37700
	Hotel Santo		141	84600
	LCM Fish Market		178.5	40460
	Luganville Fish Market		5758.3	1473793.5
2003	Ah Yuan Fish Market		136	27200
	Chinese Restaurant- Santo	Luganville	267	100200
	Kairos		127	25400
	Luganville Fish Market		7655.4	2338804
	Port Olry Fishermen Association		3987.5	
2004	Ah Yuan Fish Market		91	18200
	Chinese Restaurant- Santo		268	108900
	Emae Fish Market		385.53	28433
	George Hinge Store		87	17400
	Japin Store		85	17000
	LTP		11306	1978550
	Luganville Fish Market		9808.6	2785105
	Oyster Island Resort		510	285000
	Port Olry Fishermen Association		6765	
	Santo Fish Market		550.5	165179
2005	-		2737.2	695990
	AH John Enterprise		374	75580
	Ah Yuan Fish Market		351	70200
	Denis Alvos		1340.4	161648
	Emae Fish Market		15	2550

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	Luganville Fish Market	9192.975	2608554.3
	Mark Sandy	152	26817
	Mazmauri	4913.58	867386
	Niowenmal Glen	1476.9	790320
	Port Olry	18604.8	4001755
	Sikou Fish Market	404.4	143916
	TauTai	1012	391100
	Voika Mini Fish Market	1528.1	41600
	William Store	208	41600
2006	-	1128	238340
	Buniga Fishermen Coop. Ass.	359	71125
	Elson Samuel	2069	458450
	Emae Fish Market	3993.7	682759
	Mark Sandy	95.7	16269
	Port Olry	83	21310
	TauTai	6543.5	808605
2007	Sunai	1610.5	287112

## Appendix VI: Company annual purchasing records 2002-2007

Year	Total quantity (kg)	Total value (vt)
2002	12,538	3,580,787
2003	76,861	14,319,407
2004	121,698	26,760,991
2005	53,975	13,872,944
2006	1,915	200,624
2007	30,283	7,231,715

## Appendix VII: Annual budget and revenue records for the Department from 1999-2007

Year	Expenditure		Revenue		
	Budget	Actual	Forecast (as set by MBC)	Actual	Surplus
1999	36,831,000	29,291,918	49,594,500	16,664,262	-32,930,238
2000	29,118,029	26,729,767	35,000,000	82,213,336	47,213,336
2001	33,318,000	30,072,225	37,900,000	74,386,070	36,486,070
2002	33,318,000	30,588,357	25,900,000	116,084,911	90,184,911
2003	39,892,273	34,298,518	22,400,000	112,774,973	90,374,973
2004	38,275,468	40,321,064	102,400,000	73,285,078	-29,114,922
2005	37,729,393	35,618,545	108,000,000	83,188,439	-24,811,561
2006	59,804,227	43,767,751	101,795,000	122,625,875	20,830,875
2007	43,652,850	30,588,357	132,400,000	118,507,460	-13,892,540