

1. EXECUTIVE SUMMARY

The Ministry of Fisheries in the year 2004 experienced great challenges despite its many limitations in terms of resources available to deliver its mandate. The year also welcomed opportunities to rejuvenate and refocus on the ministry's core functions.

A total of 91 permanent staff against a total of 101 approved permanent posts was engaged in the Ministry of Fisheries services. During the course of the year, 10 officers left the Ministry through retirement, resignation, transferral and dismissal. A significant number of staff received opportunities to further develop their skills in various aspects of fishery management and approximately 39 overseas funded training courses and meetings, local and overseas, were attended by Ministry's staff.

The cost of service delivery for the FY 2004/05 was decreased by 21.8 % when compared with FY 2003/2004. The result that decrease was due to decreased in established staff salary allocation by 38.9%, from \$1,286,892.00 in 2003/04 to \$926,523.00 in 2004/05; un-established staff allocation was also decreased by 9.1 % and the travel and communication was also decrease by 8.5% Other services like Maintenance and operation was increased by 1.2 %, Purchase of Goods and Services increased by 6.85%, and the Capital expenditure decreased by 48.6 %.

The Ministry of Fisheries functional structure is divided into four main divisions: Human Resources Development and Administrative; Economics and Finance; Resource Research & Development & Management; and Access and Compliance.

The resignation of Mr. Manase Felemi, Secretary for Fisheries in 2003 gave the Ministry a new set of challenges associated with leadership and direction. However, the leadership role was shared by the Deputy Secretaries: Ms. 'Aphisake Soakai and Mr. 'Ulunga Fa'anunu for 2004. The post of the Secretary for Fisheries was remained unfilled in 2004.

Additional to the institutional development during the year, delivering of technical services as an integral part of the Ministry's function continued for the benefit of the industry and the communities. Efforts were focused on fisheries management issues particularly policy and

planning, conservation, and research and development. A number of development management plans were developed in consultation with the industry and regional agencies, such plans included Tuna, Deep-Water Line Fishery, Marine Aquaculture, Seaweed and Charter Vessel Fishery.

Work under the Waqa Project experienced satisfactory result at Vava'u as being reported in the previous annual report. The Waqa Project was extended its assistance to the Ha'apai Groups which was started with building 1 new small fishing boat and 3 repaired boats.

Under the Vava'u Regional Development Program funded by the European Community, the fisheries development projects were completed in August 2004 consisting of Local Fish Market, Ice-block machine, fishermen wharf, Boatyard building and dry dock facilities. These facilities were officially opened by Princess Regent, Princess Salote Mafile'o Pilolevu Tuita on October 6th 2004.

Ministry of Fisheries was participated on Royal Agricultural, Fisheries and Industrial Show 2004 especially at Niufo'ou, Vava'u, Ha'apai and 'Eua. Tongatapu Royal Agricultural, Fisheries and Industrial Show was cancelled due to heavy rain.

The Ministry continued to receive both financial and technical assistance from regional and international organisations and donor countries. Of particular note are the assistance and cooperation provided by the Forum Fisheries Agency (FFA), the Secretariat of the Pacific Community (SPC), the Food and Agricultural Organization (FAO) of the United Nations (UN), Japan International Cooperation Agency (JICA) and the Australian Government.

In terms of the industry's performance in 2004, the total estimated FOB value of fisheries export for 2004 from registered companies was at T\$9.3 million compared with T\$11.9 and T\$11.5 million in 2003 and 2002, respectively. This was an earning from the export of 249.4mt of tuna (fresh and frozen), 149.8mt bottom seas fish (snapper and grouper), 495.1mt of aquarium rocks and 361,270 numbers of fish and giant clams and pieces of soft/hard coral, 5.7mt of dried shark fins, 754.5mt of seaweed and 33.7mt of shrimps and other miscellaneous fishery products.

The Ministry wishes to acknowledge contributions made by government agencies, non government organisations, regional and international agencies, and the industry. Efforts and contributions of staff is also acknowledged.

2. EXECUTIVE MANAGEMENT

Executive management involves leading and guiding the Ministry's strategic direction and daily operations and such roles are designated to the Hon. Minister of Fisheries, the Secretary for Fisheries, and supported by the Deputy Secretaries.

(a) Office of the Minister

The Hon. Minister was engaged in various events throughout the year including attending the 4th World Fisheries Congress & Global Fisheries Minister's Summit, Canada and 26th Meeting of the FAO COFI, Rome Italy.

(b) Office of the Secretary

Given the resignation of the Secretary for Fisheries, Mr. Manase Felemi, the duties of the head of the department were shared on monthly rotational bases by the two Deputy Secretaries, Mr. 'Ulunga Fa'anunu and Ms. 'Apisake Soakai. Unfortunately by the end of 2004 the post of the Secretary for Fisheries was still vacant.

The service delivery of the Office of the Acting Secretary was supported by Mrs. Katalina T Fifita, Technical Officer Gr.II, and Mr. 'Etuini Kaufusi, Driver.

Table 2.1: Staff of the Secretary for Fisheries office

Name	Post
Mr. 'Ulunga Fa'anunu	Deputy Secretary (Corporate Services)
Mrs. 'Apisake Soakai	Deputy Secretary (Technical Services)
Mrs. Katalina Tonga Fifita	Technical Office Grade II
Mr. 'Etuini Kaufusi	Driver

Mr. Fa'anunu and Mrs. Soakai in their capacity as the acting head of the Ministry represented the Ministry and the Government of Tonga at various forums and conferences locally and abroad and a list of gatherings overseas in which the Acting Secretaries participated appears below.

- Food and Agriculture Organisation (FAO) 26th Session, **February**, Rome
Italy
- 16th Annual Consultation on the Multilateral Treaty with the US
Government, **March**, Tuvalu
- PREPCON VI – Tuna Commission, **May**, Indonesia
- Food Import & Export Inspection, **March**, New Zealand.
- Forum Fisheries Committee (FFC) 58, **June**, Kiribati
- Fisheries Cooperation between China and South Pacific, **September**,
China
- Broader Cooperation Talk between Forum Fisheries Agency (FFA)
member countries & the United States America (USA), **October**, USA
- Fourth World Fisheries Congress, **May**, Canada

3. CORPORATE PLANNING AND POLICY

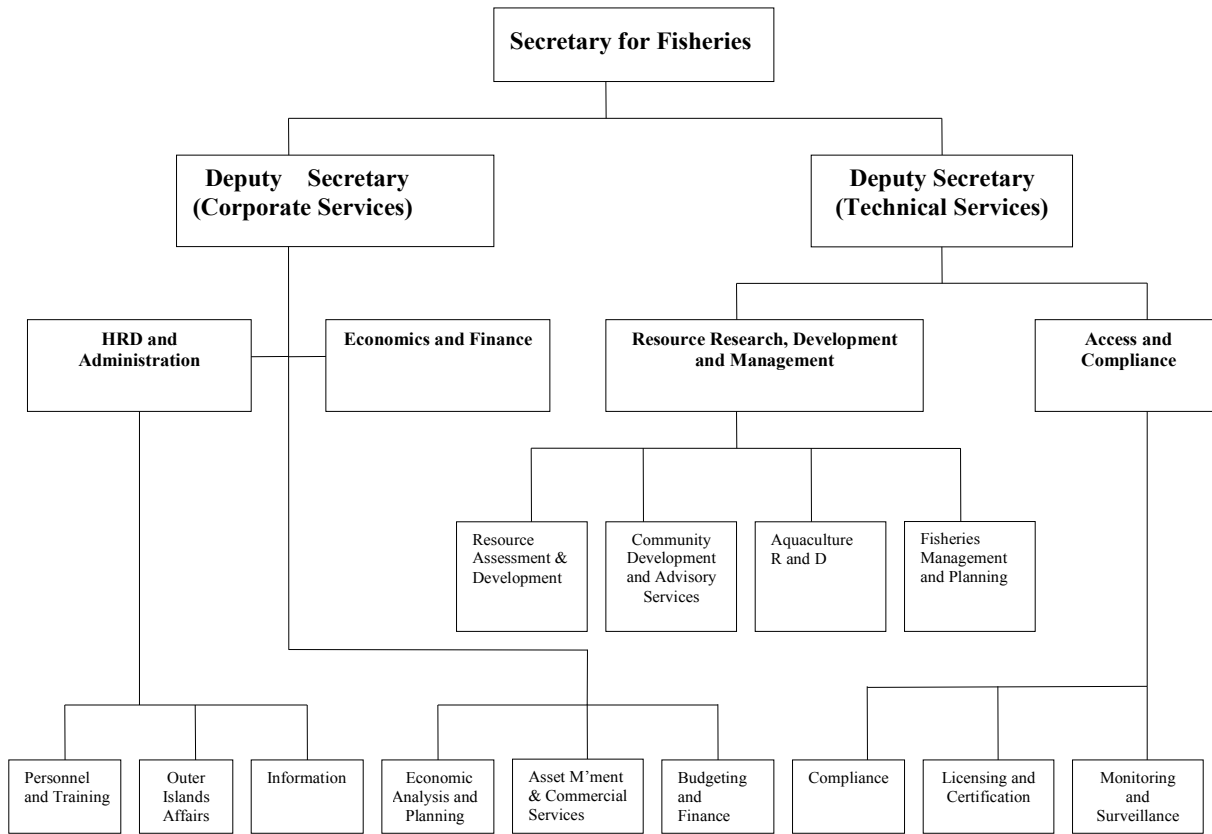
Strategic planning was an essential element of fisheries management in 2004 and a review of the corporate plan was undertaken which involved several workshops with staff and followed by a stakeholder audit to gauge stakeholder aspirations for fisheries development in the Kingdom. The outcome of the audit showed that the Ministry's performance was under par and that improvement in its in-house operation and service provision needed immediate attention.

The Ministry developed its Strategic Plan for 2004-2007, within the framework of Government's strategic and corporate planning procedures whereby the Plan attempts to link the ministry's aspiration with that of the economy and social aspirations while at the same time ensure that the concept of sustainable development is maintained through conservation measures and practises.

The current organisational structure that reflects a clear demarcation of corporate services and technical services, each receiving equal priority, was established and it also reflected the functional responsibilities of the ministry in terms of the new Fisheries Management and the Aquaculture

Management Acts as well as regional obligations stipulated in international conventions. Figure 3.1 below shows the current organisational structure.

Figure 3.1: Organisational Structure, 2004



The Ministry’s vision statement stipulates that *‘we envision that through effective and efficient management and development, Tonga’s living aquatic resources will continue to contribute to the sustainable development of Tonga by providing management, administration, training and research.’*

The Ministry’s mission statement that *“to increase the effectiveness of the living aquatic resource sector’s contribution to the sustainable development of Tonga by providing management, administration, training and research”*.

The Ministry’s values that *“We will develop and maintain a participative work environment in which our people will feel valued and able to contribute to the best of their abilities. We will maintain the highest levels of professional behaviour by:-*

- Fulfilling legislative obligations with professionalism
- Undertaking our official duties, honestly and efficiently
- Respecting the right of our work colleagues, stakeholders and the public
- Not engaging in any private activities that will bring the Ministry into disrepute or involve a conflict of interest”.

The overall fisheries goal aims at *‘the development of Tonga’s living aquatic resource industries to the highest level of use compatible with ecological sustainability with structures of ownership, participation and technology that maximise the benefits to the people of Tonga.’*

4. HUMAN RESOURCE DEVELOPMENT AND ADMINISTRATION

The HRD & Administration division is comprised of 3 main sections: (i) Personnel & Training, (ii) Information, (iii) Outer Island Affairs. Outer Island Affairs are including Vava’u, Ha’apai, Niuatoputapu, Eua & Niuafouu. The HRD and Administration division is responsible for general administration, human resources development, planning, training and coordination of HRD initiatives. The Principal Fisheries Officer, Mr. Vilimo Fakalolo, is in charge of this division.

The Ministry had a total of 101 approved permanent posts for the year and as at December 31 2004, only 91 posts were filled. Of the 10 posts which were vacant, 9 of which arised from resignation, retirement and dismissal from the service while 1 post remained unfilled. Details of the approved posts and vacancies for 2003/04 are shown in Table 4.1 below.

Table 4.1: Permanent Posts as at December 31 2004

Level	Post Title	Post Abbreviation	No. of Posts	No. of Vacancies
L/1	Secretary for Fisheries	SF	1	1
L/2	Deputy Secretary	DS	2	-
L/5	Principal Fisheries Officer	PFO	5	1
L/7	Senior Fisheries Officer	SFO	2	1
	Senior Computer Programmer	SCP	1	-
Level	Post Title	Post Abbreviation	No. of Posts	No. of Vacancies
L/9	Fisheries Officer	FO	8	1
	Technical Officer Grade 1	TOI	3	
	Computer Programmer	CP	1	-

	Accountant	ACC	1	-
L/11/9	Technical Officer Grade II	TOII	9	1
	Computer Operator Grade 1	COI	1	-
L/12	Master (M.V Ekiaki)	MA	1	1
	Engineer (M.V Ekiaki)	E	1	-
	Computer Operator Grade III	COIII	1	-
	Senior Fisheries Assistant	SFA	13	1
	Fisheries Assistant	FA	17	1
	Mate	M	1	1
L/13	Computer Assistant	CA	2	
L/14	Fisheries Trainee	FT	29	-
L/14A	Driver	D	2	1
Total Established Staff Post			101	10

5. PERSONNEL AND TRAINING

Due to shortage of staff this section was under the supervision of Mr. Vilimo Fakalolo, Principal Fisheries Officer.

Table 5.1: Staff of the HRD Section

Name	Post
Mrs. Makeleta Vaikaka	Fisheries Trainee
Mrs. Silia Soakai	Computer Assistant

(a) Staff Appointments, Promotions and Retirements

Tables 5.2 to 5.4 below outline staff appointments, promotions and resignations, retirements, and dismissals during the year.

Table 5.2: Staff Appointments, 2004

Name	Post
Mrs. Mandie Finau	Fisheries Officer
Miss. Akosita Leakona	Computer Assistant
Mr. 'Atunaisa Vea	Mate (MFV Ekiaki)

Table 5.3: Staff Promotions, 2004

Name	Designation	Present Post
Dr. Sione Vailala Matoto	Fisheries Officer	Principal Fisheries Officer
Mr. Samisoni Naupoto	Senior Fisheries Officer	Principal Fisheries Officer
Mr. Siosifa Fisi'ipeau	Fisheries Assistant	Senior Fisheries Assistant
Name	Designation	Present Post
Mr. Sione Mailau	Fisheries Trainee	Fisheries Assistant
Mr. Fotu Tu'i'onetoa	Fisheries Trainee	Fisheries Assistant

Table 5.4: Staff Resignation, Transfer, Retirement and Dismissal from the Service, 2004

Name	Post	Reason
Mrs Kolianita Lavemai	Fisheries Officer	Dismissed
Mr. Tevita Lautaha	Technical Officer Grade I	Laterally transferred from Ministry of Education
Mr. Sione Kainga Holopulu	Fisheries Assistant	Resigned
Mr. Matafonua Langi	Fisheries Assistant	Dismissed
Mrs. Mele Fukofuka	Fisheries Trainee	Resigned
Mr. Vuna Maea	Fisheries Trainee	Retired
Mr. Malupo Moala	Fisheries Trainee	Retired
Mr. Mangisi Tupou	Driver	Dismissed

(b) Short-Term Training, Workshops, Local & Overseas Meetings

Staff continued to benefit from participation at short term training courses and meetings organized and funded by regional and international organizations.. Table 5.5 below outlines local and overseas training courses and meetings in which staff participated.

Table 5.5: Training Courses and Meetings during 2004

Course/Meeting/Workshop	Duration	Location
In – Country Prosecution and Dockside Boarding Workshop.	5 days	Tonga
Symposium on sustainable use in the Pacific	2 days	Fiji
Attachment to FFA as an observer	4 months	Samoa
56 th Meeting of the FFC	1 month	Kiribati
Workshop on Compliance with the Resolution vides the PrepCon/Tuna Convention.	3 days	Japan
Fellowship Attachment Scheme with FFA	2 weeks	Solomon, Is.
Licensing Officers Workshop	1 week	Solomon, Is.
Workshop Symposium on Sustainable Use in the Pacific	1 month	Korea
Course on the Australian Navy and Fisheries Patrol	4 days	Fiji
Short Course on Maritime Air Surveillance	2 days	Australia
GEF PDF Block Project Design Workshop : Oceanic Fisheries Management	2 days	New Caledonia
Seminar on Fisheries Cooperation between China and South Pacific Countries	2 weeks	China
Management Option Workshop and Special FFC Meeting	5 days	Solomon, Is.
4 th International Observers Conference & 5 th Central Western Pacific Regional Observer Coordinator Workshop.	1 week	Australia
Fisheries Management and Statistics	5 days	Fiji
MCS/VMS Training Course	5 days	Australia
Course on Fishing Community Development	1 month	Japan
Regional Clarification Workshop on Multilateral Trade Negotiations in Agriculture	5 days	Samoa
Policy Development & Implementation Training	4 days	Tonga
Course/Meeting/Workshop	Duration	Location
In – Country C-Spot II Consultation to Tonga	1 day	Tonga
Ethics in Business Training	4 days	Tonga
Port Inspection Course	1 week	Tonga
Community Based Fisheries Management	1 day	Tonga

Fourth World Fisheries Congress	1 week	Canada
Global Fisheries Minister's Summit	1 day	Canada
16 th Annual Treaty Consultation	1 week	Tuvalu
7 th meeting of the Monitoring, control and Surveillance(MCS) Working Group	4 days	PNG
4 th UNU-ORI joint international workshop on Marine Environment Ecosystem and Conservation in Coastal Area	1 week	Japan
Food Import & Export Inspection and Certification	2 weeks	NZ
Annual Session of the Forum Fisheries Committee meeting	5 days	Kiribati
CITES meeting	3 days	Malaysia
55 th FFC meeting and the 6 th preparatory conference for the convention of the conservation and management of highly migratory fish stocks in the western and central Pacific	5 days	Indonesia
Integrated Management for Coastal Fisheries	2 weeks	Japan
Introductory course on Brackish water Aquaculture	2 weeks	Indonesia
Regional workshop on pest net Ecoport	1 week	Samoa
Prosecution and Dockside Boarding workshop	1 week	Tonga
FFA – sub – regional meetings, FFC55 and Precon 6	1 week	Indonesia
System Development of fish Inspection Workshop	1 week	Fiji
IUU Fishing Vessel Surveillance and inspection	1 week	Fiji

Due to the limited number of scholarships available to the fisheries sector, the Ministry continued to heavily rely on short training courses as a means of upgrading the technical knowledge and capability of its staff additional to opportunities provided by regional and international forums where national issues and concerns were raised and noted.

Attendance at overseas meetings was funded by the host organizations and from the recurrent budget of the Ministry or from the Project Development Fund (PDF) facility administered by the Forum Fisheries Agency. The funding assistance available under this facility was mainly for fisheries development projects, including attendance at regional and international meetings.

(c) Staff Movement during 2004

Table 5.6 provides details on staff movement that were effected during 2004 in response to manpower requirement in the various offices/stations of the Ministry. The Ministry's general policy requires Officers to serve a term of three years in any one station before s/he is relocated to another.

Table 5.6: Staff Movement During 2004

Name	Post	Pre-Location	New Location
Mr. Fonua Kite Fanea	Fisheries Trainee	Nuku'alofa	Vava'u
Mr. Sioeli Valu	Fisheries Trainee	Vava'u	Nuku'alofa

(d) AusAID-funded Tonga Fisheries Project

The Tonga Fisheries Project provided great assistance to the Ministry in terms of timely technical assistance for HRD; deployment of FADs (fisheries aggregated devices) in the outer islands, particularly the Ha’apai and ‘Eua; formulation of workplans for section and divisional heads; initiation of Community Based Management; drafting of proposals for the recruitment of Australian Youth Ambassadors and AESOP; adoption of a domestic VMS systems; procurement of ice makers for the Ha’apai region; and refurbishing the office building at Sopus.

Against the achievements of the project was set back by a set of issues that challenged its smooth implementation. One of the main constraints on the project involved formal approval of project’s 2003/04 annual plan; and the limited staff capacity in the Ministry of Fisheries who were capable of supporting the activities of the project as well as providing local counterpart role for short term consultants recruited by the project.

6. INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT) SERVICES

The ICT Section facilitates the Ministry’s requirement for disseminating information, and communication and it has fulfilled this through the effective application of technology, particularly computer technology, library, and audiovisual equipment. It continues to fulfil its obligations regarding the designing and developing of computer programs, storing and dissemination of fisheries information for MoF, Government Agencies, fishing communities and other regional and international organizations. In addition, the Section plays a key role in keeping the public and stakeholders informed through press releases, television programs and regular radio programs about fisheries development. A list of staff engaged in the Section is provided in Table 6.1. below.

Table 6.1: ICT Section Staff, 2004

Name	Post
Mr. Sosaia Tulua	Senior Computer Programmer

Mrs. Lavinia Vaikona Vaipuna	Computer Operator Grade I
Mrs. Losilini Loto'ahea	Computer Operator Grade III
Mrs. Silia Soakai	Computer Assistant
Mr. 'Emeline Tupou	Fisheries Trainee (Librarian)

(a) Computer Services

The head of ICT section Sosaia Tulua was on special leave during 2004. Computer services are provided by the Computer Unit which operates and maintains all computer hardware and software, provides computer services to all sections, and trains Fisheries personnel how to use computer equipment and applications. The Ministry's inputs are coordinated into regional computers and network systems. Services are also provided for the ministry's offices in the outer islands.

(i) Information Network Services

During August the TOFISH network operating system was upgraded to Server 2003. Still the Network has one Domain file server and backing up is manually done to one of the computer.

(ii) E-mail Server

Due to Server being upgraded it was also decided to install a different computer to host all fisheries email. In this way the system will be more secured from viruses downloaded while accessing to internet and email.

All staff has access to email through a system domain of *tongafish.gov.to*. Vava'u and Ha'apai Fisheries are also linked with the head office via the e-mail network.

(iii) Connection to Treasury Department

We were managed to install the connection with the Treasury Department. Through this connection, every computer in the Ministry's system could be able to connect to the internet.

(iv) Computer Hardware

The following table shows the current applications by types of hardware/computer equipment and its locations available in the Ministry.

Table 6.2: Inventory of Computer Equipment, 2004

Specification	No.	Use
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AMD Sempron	1	Domain Server
AMD System	2	1 Secretary for Fisheries, 1 Head Aquaculture
Pentium IV	1	Surveillance - donated by FFA
Pentium III	8	2 Policy & Planning, 2 Accounts, 1 Oceanography, 1 library - donated by SPREP, 1 Audio Visual, 1 computer room donated by SPC
Compaq Presario	1	1 Market Manager
Pentium 116	4	2 Extensions, 1 Market Clerk, 1 Engineering
Pentium II	1	Surveillance - donated by FFA
Notebook PIV	4	1 Compliance Division (Principal Fisheries Officer), 1 Economic, 1 Deputy Secretary, 1 Media, 1 to be use by staff that needs computer in workshop and short-term training overseas.
HP 5L	1	1 Market Clerk
HP LaserJet 1100	1	1 Secretary for Fisheries
HP Deskjet 5160	1	Economic
HP LaserJet 1100A	1	Aquaculture
HP LaserJet 1200	3	1 Planning and Policy, 1 Accounts, 1 Audio Visual
HL-2600 CN	1	Colour printer - computer room

(iv) *Computer Software*

The following computer software has been acquired by the Ministry over the past years and continued to be effective in 2004.

Table 6.3: Inventory of Computer Software, 2004

Type	Program Name
Operating System	Server 2003, Window XP Profesional,
Mapping	MapInfo
Graphics	Photo Editor, Adobe Photoshop 5
Office	Office XP
Antivirus	Vet
E-mail Server	FTGate
Databases	Tuna database, Takuo Logbook database, Staff Database, Aquarium Database, Export Marine Resource Database, Filing System Database, Home consumption, Snapper Database

(b) Media

Mrs. Losilini Lotoahea was internally transferred from computer activity into media duties. She is incharge of the Ministry's radio and television programme. Toward the end of 2004 the AusAID TFP financed Mr. David Lylod, Media consultant to assist Mrs. Lolo'aea on tv production, editing shooting and recording. Tonga Development Bank financed the first tv programme of the Ministry in 2004 but the radio programme is paid from government budget.

(c) Library

Since the fire that destroyed the Ministry's Library, a storeroom is temporarily used as the Ministry's Library. The library will be shift to the Ministry office when the renovation will be completed.

7. VAVA'U FISHERIES

The Vava'u office focused its effort on sustainable utilization of fisheries resources which involved community development which was largely constrained by limited qualified and experienced staff.

Table 7.1: Staff Posted at Vava'u in 2004

Name	Post
Mrs. Silika Ngahe	Technical Officer Grade II
Mr. 'Otenili Fisi'ikava	Technical Officer Grade II
Mr. Toma Kauvaka	Technical Officer Grade II
Mr. Vea Kava	Senior Fisheries Assistant
Mr. Kolimiasi Hafoka	Fisheries Assistant
Mr. 'Aisea Vailea	Fisheries Assistant
Mr. Sauaki Talasinga	Fisheries Trainee
Mr. Sese Malimali	Fisheries Trainee
Mr. Tekiteki Vailea	Fisheries Trainee
Mr. Mosese Moala	Fisheries Trainee
Mr. 'Ioane Finau	Fisheries Trainee
Mr. Tevita Tonga Valu	Fisheries Trainee
Miss. 'Akosita Leakona	Computer Assistant

(a) Major assets at Vava'u Fisheries office

Table 7.2: Major assets at Vava'u Fisheries office

Computers	3
Printers	3
Fax machine	1
Camera	1
Copier	1
Tables	10
Office chairs	6
Stools	7
TV set	1
White board	1
filing cabinet	1
multi plugs	3
HF & SSB radio	1
overhead projector	1

(b) Staff Training & Development

Some of the staff had opportunities to attend at local and overseas training and workshop. Most of

the fisheries trainings were conducted in Vava'u in 2004 were funded by the Australian Government and the EU targeting fishermen and ministry's staff for improvement performance.

(c) Aquaculture & Research

The aquaculture & research development function involved pearl oyster farming where emphasis was knowledge transfer and provision of technical advice for the Vava'u Pearl Farmers Association. Although there are only a few pearl farmers in Vava'u but the Ministry still provide technical assistance.

A survey of green snail and trochus growth was conducted and found out that they are growing very well but unfortunately that some fishermen start to harvest the trochus and green snails.

Two officers from Vava'u Fisheries were participated on bechedemer survey which was conducted at Tongatapu and Vava'u also.

(d) Fish Aggregate Device (FAD)

FAD survey was conducted toward the end of the year 2004 and found out that 1 FAD is missing, 2 FAD were taken ashore for repair and maintenance and 5 are in good conditions.

(e) EU-funded Vava'u Regional Development Program

Under the Vava'u Regional Development Program funded by the European Community, the following fisheries development projects were completed in August 2004 and were officially opened by Princess Regent, Princess Salote Mafile'o Pilolevu Tuita on October 6th 2004.

- i. New Local Fish Market including Ice-block machine
- ii. New fishermen wharf
- iii. New Boatyard building and dry dock facilities.

(f) Public Awareness Program

The European Union under the Vava'u Development Project 3 had financed a radio program twice a month for the Vava'u Fisheries which aims at raising community awareness about fishing methods that has detrimental impact on coral reef and the marine environment.

(g) Local Fishing Vessel Licensing

In 2004, five local fishing vessels were licensed. However, 3 additional boats will be licensed by next year when their navigational equipment will be installed. The following table lists the local fishing vessels with licenses for bottom line fishing.

Table 7.3: Licensed Fishing Vessels in Vava'u, 2004

Name of Vessel	Owner	Length (m)
Leisina I	Mr. Pafilio Tangitau	11.69
Leisina II	Mr. Pafilio Tangitau	10.80
Maikolo H. Koli	Mr. Taniela Koli	10.67
Praise	Mr. 'Ahongalu Fulivai	8.54
Tavake	Mr. Valupe'i Vaisima	10.37

Vessel Monitoring System (VMS) will be installed in the above licensed fishing vessels in 2005 which the costs are equally shared by the fishermen, TFP and the Government of Tonga.

(h) Duty Free Diesel Fuel

Only four boats mentioned above were entitled for fuel concession. The amount of fuel issued to each vessel is given in table 7.4 below.

Table 7.4: Duty Free Diesel were issued in Vava'u, 2004.

Name of Vessel	Diesel (Its)
Leisina I	8,200
Leisina II	9,700
Maikolo H. Koli	3,400
Tavake	6,480
TOTAL	27,780 Its

Table 7.5 Catch and Revenue from fishing boats that received Duty Free Diesel

Vessel Name	Quantity Kg (local sales)	Quantity Kg (exports)	Total revenue collected by vessel
Lesina I	12,512.5kg	3,204.7kg	T\$67,562.10
Lesina 2	12,759.9kg	3,146.5kg	T\$69,464.73
Maikolo H Koli	2,250.3kg	883.7kg	T\$43,192.96
Tavake	5,519.8kg	3,792.6kg	T\$38,239.04
KATOA	27,522.7kg	7,234.9kg	T\$218,458.83

(i) Game Fishing Boats

The 4 game fishing vessels licensed with the Ministry of Fisheries in 2004 are listed below:

Table 7.6: Licensed Game Fishing Vessels at Vava'u.

Vessels	Owners
Hakula	Mr. Jeff Le Strange
Kiwi Magic	Mr. Keith Olat Mickee
Reel Addition	Mr. Steve Campbell
Reel Devotion	Mr. Steve Campbell

(j) Fish Fence

There are 8 fish fence holders renewed their license in 2004. There has been a decline in the number of fish fence holders when compared with the previous year due to rising costs of materials especially the wire.

(k) Law Enforcement

Pursuant to the Fisheries regulations, three officers were appointed as Fisheries Inspectors to ensure compliance with the Act. Enforcement has been a challenging role due to limited capacity and lack of appropriate tools. Licensing of fish fence and fishing vessels are including as duties and responsibilities of enforcement officers

(l) Engineering

This section was responsible for the repair and maintenance of the Ministry's boats, outboard engines, and vehicle. Assistance was also extended to private fishing vessels. Only one staff is employed in this section. He attended a six months training for Fisheries Officer in Nelson, New Zealand.

(m) Community Development

Ministry of Fisheries Vava'u was participated at Royal Agricultural Fisheries and Industrial show 2004. Private fishermen, fishing companies and villages and islands showed their full support and their willingness to involved. The ministry also received financial assistance for the prizes from private fishing companies and Tonga Development Bank.

(n) Revenue

The total revenue collected by Vava'u Fisheries during 2004 was T\$10,283.02 mainly from sales of ice block, market fees, licensing of fishing vessels and fish fence and home consumption.

(o) Fish Market

Vava'u Fish Market was built in 2003 which was funded by EU. It was officially opened in October 2004. The fish market is fully furnished with ice block machine, electronic and hanging scales, trolleys and a fillet room. A board was established to manage the market. However, the Board requested the ministry to manage the market until they are ready. The total revenue being collected by the Fish Market in the first 3 months of operations was T\$ 6,214.71 and 12.15 mt of fish were sold at Vava'u Fish Market in 2004.

(p) Boatyard and slipway

This section continued to maintain and repair the Ministry's fishing boats as well as local fishing vessels. Only two staff is employed in the boatyard. The slipways facilities are remains closed due to other equipment are needed to be installed.

(q) Fishermen wharf

Fishermen wharf are being used by the fishermen for loading their ice blocks and unloading their catch but it need a spring to be installed infront the wharf.

(r) Major achievements of the year

The following provides a summary of the major activities that were accomplished as at December 2004.

- i. Bechedemer survey at Vava'u.
- ii. Green snail and Trochus growth survey
- iii. Royal Agricultural, Fisheries and Industrial Show

- iv. Completion of EU project and officially open of Vava'u Fish Market, Fishermen wharf and slipway.
- v. FAD annually check
- vi. Enforcement programme
- vii. Licensing of fishing and sport fishing vessels
- viii. Issue of Duty Free Fuel
- ix. Repair and maintenance of fishing vessels

8. HA'APAI FISHERIES

The Ha'apai office is responsible to implementing fisheries program in the region and eight officers were involved in fisheries services, all of whom are listed in Table 8.1

Table 8.1: Staff stationed at Ha'apai, 2004.

Name	Post
Mr. Tevita Mafi 'Ahoafi	Technical Officer Grade 2, (Officer-in Charge, Ha'apai)
Mr. Tu'atalatau Tonga'onevai	Senior Fisheries Assistant, (Station Manager, Ha'afeva)
Mr. Fotu Tui'onetoa	Fisheries Trainee, (Station Manager, Nomuka)
Mrs. Sosefina Vili	Senior Fisheries Assistant
Mr. Tevita 'Atana	Senior Fisheries Assistant
Mr. Talia'uli Napa'a	Fisheries Assistant
Mr. Moana Nau	Fisheries Trainee
Mrs. 'Asela Lausi'i Sauaki	Fisheries Trainee

One of major achievements of the year was the deployment of 1 shallow FAD near Lofanga of which was funded by AusAID-Tonga Fisheries Project. It is anticipated that more deep and shallow FADs will be deployed in Lulunga and Eastern Districts of Ha'apai in the future.

The sub-station at Nomuka continued to provide ice blocks for fishermen as well as providing other general extension work. The Ha'afeva sub-station service delivery was constrained by the break down of the ice making machine since February 2003 and the replacement of that ice machine is expected to be provided under the AusAID funded Tonga Fisheries Project.

(a) Aquaculture and Research

One officer was assigned to promoting aquaculture development in Ha'apai by surveying and recording the growth rate of greensnails, trochus and pearl oysters.

(i) Greensnails and Trochus

The green snails at Uoleva and trochus and green snails in Matuku were monitored monthly by staff at Pangai and the Ha'afeva offices. There were 674 new greensnails released in Ha'apai in 2004.

(ii) Black-lip and Japanese Winged Oysters

The result of the survey conducted in 2004 showed that there was a decline in the brood stock line at the western reef (Hakau-tu'u-taha) facing Taufu'ahau Wharf at Pangai this decline was caused by delayed schedules and attacks on the species by other predators.

(b) Extension and Law Enforcement

Extension staff continued to assist local fishermen in their needs for information, technical advice and demonstration of proper care and maintenance of fishing equipment. The same staff were also involved in law enforcement, monitoring, control and surveillance work. There were no prosecution cases in Ha'apai in 2004.

(i) Fish fence

A total of 2 fish fence licenses were issued by the Ha'apai office in 2004. A decline from 4 fish fences in 2003 was evidenced due to high cost of materials, particularly the wires.

Table 8.2: Location of Fish Fences Licensed at the Ha'apai Office, 2004.

Location	Number
Faleloa	1
Ha'ano	1

(c) Boatyard and Engineering

Ha'apai Waqa Project was implemented in late 2004 and the Ha'apai Waqa Committee was established to oversee and manage the repair work. The committee approved 22 fishing boats to be repaired, 11 new boats to be build and 1 new outboard engine to finance under the Ha'apai Waqa project. By the end of 2004 only 3 repaired and 1 new fishing boats were started.

The engineering section continue to provided the service needed to the community, such as repair of outboard engines and boats, re-charge of batteries and welding of anchors for local fishing boats.

(d) Training and Survey

The Tonga Fisheries Project funded and conducted a training on the using of small longline for small scale fishers and a community based management survey in Pangai, Ha’apai on August, 2004.

There were two separate bechedemer surveys were conducted in Haapai in 2004. The first one was led by Kim Friedman from SPC with the assistance of the Fisheries staff. While the second survey was conducted by Dr. Sione Vailala Matoto and his support staff from Resource Assessment section. The bechedemer survey report is not yet finalise.

The Ha’apai Fisheries was also participated at the Royal Agricultural, Fisheries and Industrial Show 2004. The Ministry thanks the fishermen, private sectors for their fully support and participation.

(e) Revenue Collected at Pangai in 2004

Revenue collected from fisheries services for 2004 was T\$19,195 except revenue from Nomuka which is paid directly to the head office.

(f) Major Assets at Ha’apai Fisheries

Table 8.3 below provides a summary of the major capital assets of the at the Ha’apai station.

Table 8.3: Capital Assets at Ha’apai, 2004.

Item	Quantity/Type	Condition	Remark
------	---------------	-----------	--------

Accommodation	6	Good	1 x used by TFP. 5 x Fisheries staffs (all need to be renovation)
Ice Block Machine	5	3 x Good 2 x Broken	Nomuka & 2 TFP Ha'afeva & Pangai
Large Deep Freezer	2	Broken	Not working
Vehicles	2	1 x P103 1 x P935	Good condition Working but need repair
Computer	2	Good	
Photocopier	1	Good	
Printer	1	Good	
Fax Machine	1	Good	
SSB Radio	1	Good	Office
VHF Radio	2	Good	office & MV Vete
Vessel/Engine	2 x Fiberglass vessel 1 x MVVete 1 x 40hp Yamaha 1 x 25hp Yamaha 1 x 15hp Mariner	Good Good Good Broken Fair	Cabin need In pieces and not working Old but still work

(g) Nomuka and Ha'afeva Sub-Stations

The ice making machine at Nomuka operated well for fishermen and the people of Mu'omu'a district but the staff quarter is need to upgrade.

The ice machine in Ha'afeva experienced problems since February, 2003. A replacement is expected to be provided under the AusAID funded Tonga Fisheries Project. In addition there was also a need to increase the water storage capacity to ensure the continued water supply for the ice making purpose.

9. NIUATOPUTAPU FISHERIES

The fisheries development activities in Niuatoputapu were managed by only one staff member. Officers from the head office regularly visited the island to assess the status of operation and to carry out general repair and servicing of machinery and equipment. Due to its remoteness and the transportation uncertain and costs involved, it has not been easy to make regular visits to the island.

Fisheries in Niuatoputapu are not as developed as in the other islands; most fishing operations were for home consumption. There was an ice-making plant and cool storage room operated by the Ministry on the island which was powered by a diesel generator. The ice machine and the generator was quite old and was subject to frequent breakdowns.

10. 'EUA AND NIUAFO'OU FISHERIES

To date, the Ministry has not been able to set up an office at 'Eua and Niuafu'ou due to funding constraints. Fisheries development activities for 'Eua are being coordinated and monitored from the Ministry's head office at Sopa like Royal Agricultural, Fisheries and Industrial Show 2004. There is plan however to set up a new office and staff quarter for the island of 'Eua and Niuafu'ou in the coming future.

11. ECONOMIC AND FINANCE

The Economic & Finance division is divided into 3 main sections, which are Budgeting & Finance, Assets Management & Commercial Services and Economic Analysis & Planning. Mr. Samisoni Naupoto, Principal Fisheries Officer, is the head of the division.

12. ASSETS MANAGEMENT AND COMMERCIAL SERVICES

The Assets Management & Commercial Services are comprised of 4 units: Engineering, Boatbuilding, MV Ekiaki, Tuimatamoana Market

The Ministry maintains asset of significant value and the responsibility for maintenance rests with the Asset Management Division which providing service for boatbuilding, engineering, carpentry etc, and supporting internal maintenance work.

(a) Engineering

The Engineering unit is responsible for the overall repair and service of the Ministry's fishing boat vessel (MFV Ekiaki) refrigeration plant and vehicles. It also offer repair maintenance service, to the general public. In 2004 the following major activities were achieved

- Mr. Alex Clark, consultant under the TFP created MOF asset registers data base.
- Register all ministry assets with code sticker
- Four (4) vehicles were bought under PDF.
- Two old vehicle were tendered

- Repair and maintenance of generator for Nomuka ice machine

The staff designation for the engineering unit is detailed in table 12.1. Most of the vehicles, boats, and ice plants are very old and are subject to frequent break down, so the staffs of the unit requires to travells to outer Island to do repair and maintenance work.

In term of staff movement during the year, Mr. Viliami Tonga Vaka, Technical Officer Grade II took special leave without pay while Mr. Mangisi Tupou, Driver was dismissed.

Table 12.1: Engineering staff for 2004

Name of Officer	Post
Mr. Sioeli Pasikala	Fisheries Officer
Mr. Lomio Tonga	Fisheries Officer
Mr. Viliami Tonga Vaka	Technical Officer Grade II
Mr. Pala'a Mausia	Senior Fisheries Assistant
Mr. Siosifa Fisi'ipeau	Senior Fisheries Assistant
Mr. Lisiate Pola	Fisheries Trainee
Mr. 'Uluaki Vaipuna	Fisheries Asistant
Mr. Fonua Kite Fanua	Fisheries Trainee

Table 12.2 provide an inventory of all vehicles in operation 2004. As will be note, some of the vehicle is more than 10 years old and some are in fair condition, while others are due for replacement which will minimize the costing of repair and maintenance.

Table 12.2: Ministry of Fisheries Vehicle Pool 2004

Years	Reg. No	Type	Location	Standard	Fund	Remarks
1990	P 936	Toyota Hiace	Sopu	Bad Condition	PDF	Tender 2004
1990	P 935	Toyota Hillux	Pangai Hp	Bad Condition	PDF	Needs to write off
1992	P 149	Toyota Hillux	Sopu	Bad Condition	Treaty Fund	Needs to Tender
1992	P 1118	Toyota Hillux	Sopu	Fair	JICA	Needs to replace
1992	P 1119	Toyota Hiace	Sopu	Bad Condition	JICA	Tender 2004
Years	Reg. No	Type	Location	Standard	Fund	Remarks
1994	P 1026	Toyota Hiace	Sopu	Good Condition	PDF	Needs to re-paint and repair
1997	P 1120	Toyota Hillux	Sopu	Good Condition	JICA	

1997	P 152	Toyota Hillux	Sopu	Fair	PDF	Needs to re- paint and repair
1997	P 39	Toyota Hillux	Vava'u	Good Condition	PDF	
1997	P 103	Toyota Hillux	Pangai Hp	Good Condition	PDF	
2003	P 1296	Toyota Litage	Sopu	Bad Condition	Leiola Duty Free Shop	Needs to Tender
2004	P 1328	Mazda Mini Bus	Sopu	Good Condition	MOF	
2004	P 1329	Mazda Mini Bus	Vava'u	Good Condition	MOF	
2004	P 1350	Toyota Hiace	Sopu	Bad Condition	Treaty Fund	Needs to repair
2004	P 1351	Toyota Hiace	Sopu	Good Condition	Treaty Fund	

(i) Outboard Engine Repair

Community section worked together with engineering unit in order to provide service and repair the fisherman outboard motors. In 2004 two trips were made to 'Eua in order to repair fishermen outboard engine. The Ministry does not have an office therefore the services for 'Eua fisherman is carryout from Nuku'alofa office.

(b) Boatbuilding and Carpentry

This unit responsible for construction and repair a small fishing vessel was maintained. Set up some 20 years ago for the construction of medium size of fishing vessel, the operation of this unit has significantly been downsize with a focus on repair and construction a small fishing vessel. Staff of the unit as outline in table 12.3, and also been tasks with the responsibility to maintain and renovation the Ministry's fishing vessel, boats and building. In addition this unit playing a role in the implementation of the Ministry's Waka rehabilitation project for Vava'u and Ha'apai Groups.

The following major activities were achieved:

- Waqa project for Vava'u group is almost completed.
- Waqa project for Ha'apai group has started
- Tevita Taulafo Technical Officer Grade II was internally permanent transferred to the Compliance section.
- Refurbishment of the Ministry's Head Office
- Replacement of the Ministry Fence at the front side.

Table 12.3: Staff of Boatbuilding and Carpentry unit

Name	Post
Mr. Sioeli Tonga Valu	Fisheries Assistant
Mr. Sione Fine Tupou	Fisheries Assistant

The Ministry office buildings and staff quarters in outer island are needed to be repaired and repaint and built a fence around the area. Due to financial problem these activities are considered for next financial year.

(c) MV Ekiaki

The MFV Ekiaki was used mainly for research and training programs including the deployment of FAD as part of the Tonga Fisheries Project. The Crew members are listed in table 12.4

Table 12.4: MFV Ekiaki's Crew

Names	Post
Mr. Haani Lave	Senior Fisheries Assistant (Master)
Mr. 'Atunaisa Ve'a	Chief Mate
Mr. Paea Mapu	Chief Engineer
Mr. Kolo Fe'ao	AB Fishermen
Mr. 'Ofa Napa'a	AB Fishermen
Mr. Tevita 'Alatini	AB Fishermen
Mr. 'Aiveni Tukuafu	AB Fishermen

The Tonga Fisheries Project took over the management and the operation of the MV Ekiaki since 2001 until 2005. The vessel has become a crucial part of the Tonga Government's contribution for the implementation of the Tonga Fisheries Project.

Activities conducted by MFV Ekiaki in 2004.

- Two times trial of longline fishing gear,
- Transportaion of materials from Ha'afeva groups for the Royal Agriculture, Fisheries and Industrial show at Ha'apai,
- Site survey for FAD deployment at Lofanga and Kalau Islands

- Deployment of FAD at Kalau and Eua Islands.

(d) Marketing and Fish Markets

The section coordinates the development activities pertaining to marketing of marine food products both in local and overseas markets. Mr. Uanoa ‘Ahoafi, Technical Officer Grade II is the manager of Tuimatamoana Fish Market.

The staffs engaged in the operation of the Tuimatamoana Fish Market is provided in the Table 12.5 below.

Table 12.5: Staffs of the Tuimatamoana Fish Market 2004.

Name	Title
Mr. Uanoa ‘Ahoafi	Technical Officer Grade I
Mrs. Makalita Mafile’o	Senior Fisheries Assistant
Mr. Mafi T. Havea	Fisheries Assistant

(i) Tuimatamoana Fish Market

The Tuimatamoana Fish Market was built about 15 years ago, equipped with freezers, cool storage room, ice making machine and fully furnished trading area to facilitate local fish trade, storage and the production of ice for fishing vessel. All the freezers and cool storage rooms are no longer operational due to lack of funds and spare parts no longer in produce. The status of the refrigeration facilities of the Market are summarized below.

Table 12.6: Status of the Refrigeration facilities at Tuimatamoana Market, 2004.

Items	Status of assets
Air blast Freezer No. 1	Broken since 1998, need to replace
Air blast Freezer No. 2	Broken since 2000
Freezer Store No.1	Broken since 1999
Freezer Store No. 2	Broken since 1998
Freezer/Chiller	Broken
Items	Status of assets
Chiller Room	Used for storage ice
Ice Store	Worked Well
Ice Machine	Broken since 2000

Fish Landing

The market recorded a total of 206.97mt of fish landed at the Market for sale in 2004 as compared to 152.7mt in 2003. Mostly landed fish at Tuimatamoana Market were from Outer Islands. 2004 has shown a tremendous increasing due to more middlemen bought fish from Ha'apai groups. About 85 % of landed marine products at Tuimatamoana market were snapper and reef fish and 15% were tuna species.

Ice Production

The market produced about 24.91mt of ice for sale. The production capacity of the ice making machine is 2.5mt per 24 hours. The production was not sufficient to meet the demand. And it is considered that another machine should be given to adding of the same capacity would help. However there is a need for a consultation with the fishing community fishermen/general public to ensure that such a service is necessary and that the Government should continue to be involved in its operation.

Fish Handling and Processing Equipment

A list of fish handling and processing equipment currently using at the Tuimatamoana Fish Market is given in Table 12.7. These were made available to fish traders on a hiring arrangement.

Table 12.7: Fish handling & processing equipment, Tuimatamoana Market, 2004.

Items	Status of assets
6 Heavy duty trolley	All broken need replacement
2 Cutting bandsaw	One work well one need replacement
1 Small C/bandsaw	Broken need replacement
4 Manual pallet truck	All broken need replacement
24 Blue cooler (ice box)	Used inside the market some need repair
4 Hanging weighing scales	Used inside the market
2 Platform weighing scales	One work well, one need replacement

Vehicle

Two vehicles were available to support the markets operation and the condition of which are shown in table 12.8 below.

Table 12.8 Vehicles at Tuimatamoana market

Vehicle Type	Vehicle Type
Forklift	Working well

Fish Processing and Packing Room

The packing and processing facility is rented to the South Pacific Resources Company at a monthly rental rate of T\$1,000.00.

Constraints

- The effective operation of the fish market is constrained by the following factors.
- Break down of all cold storage equipment
- Lack of qualified refrigeration engineer
- Shortage of ice
- Structure of market building doesn't meet hygienic and overseas market requirement e.g. HACCP.
- Fish retail area is very hot during summer month, due to close down of eastern end by the processing and packing room.
- Regular power failure.

Future Needs

- Future needs include the following:
- Need a new Air blast freezer of -30 to -50°C temperature, one storage freezer of -20°C temperature and one Chiller room to replace the broken facilities.
- A new ice machine of maximum production capacity of 3m/ton production capacity per 24 hours.
- Improve the market building structure especially fish retail area, to lower the temperature and to equip with more hygienic and proper equipment. Also the roof of the main building is required to renew due to rust and leakage.
- A water blast compressor is required for the cleaning of the market.
- A standby generator.

13. BUDGETING AND FINANCE

The Budgeting and Finance section involved budget planning and management of services rendered at Sopo and the outer island. The list of staffs who are supported the financial service delivery at the head office appears in Table below.

Table 13.1: Staff of the Budget and Finance section

Name	Post
Mr. Tevita Talakai	Accountant
Mr. Amanaki Tu'itupou	Fisheries Trainee
Mr. Sekope Tiueti	Fisheries Trainee

(a) Recurrent and Development Estimates

The total expenditure for the Financial Year 2004/5 decreased by 21.8 % compared with the previous year. The staff salary allocation was decreased by 38.9 % from \$1,286,892 in 2003/04 to \$926,523 in 2004/05 and the unestablished staff also declined by 9.1 %. The provision for travel and Communication decreased by 8.4 % and the Maintenance and Operation increased by 1.2 %, and similarly 6.85 for Purchase of Goods and Services, and 48.6% decline for Capital Expenditure. Comparison of the current financial performance with previous years is provided in the following Table 13.2 and 13.3

Table 13.2: Total expenditure Estimate by Major Components, 2002/03 – 04/05

Expenditure by Major Component	2002/03 (T\$)	2003/04 (T\$)	% Change	2004/05 (T\$)	% Change
Established staff	760,464	1,286,892	40.91	926,523	-38.89
Un-established staff	86,005	36,001	-58.14	33,000	-9.09
Travel and Communication	85,758	108,307	20.82	99,827	-8.49
Maintenance and Operations	391,096	495,405	21.06	501,575	1.23
Purchase of Goods and Services	467,537	470,605	0.65	505,227	6.85
Capital Expenditure	65,117	654,003	90.04	440,028	-48.63
Total	1,885,977	3,051,213	39.17	25,061,180	-21.75

Table 13.3: Expenditure Estimate by Funding Source, 2002/03 – 04/05

Funding Source	2002/03	2003/04	2004/05
Government of Tonga Fund	1,037,449	1,048,579	1,032,412
Government of Tonga: Revolving Fund	805,011	201,009	222,501
Overseas Donor Funding (Cash/Token)	13,518	801,110	513,135
Overseas Donor Funding (In-kind)	0	1,000,515	0
Total	1,855,978	3,051,213	1,768,048

(b) Revenue Collection

The total revenue collected during the financial year 2004/05 was approximately T\$669,411.12 of which T\$285,478.33 was received as proceeds from the Multilateral Treaty on Fisheries with the United States, \$87,608.22 receipt from revolving fund and the remaining balance was collected from Sales of produce & products, Licenses, Fees and Sundry Sources.

(c) Multilateral Treaty on Fisheries with the United States of America

Tonga remains a party to the Multilateral Treaty with the government of the US and part of that agreement provides Tonga a share of the annual fund which amounted to US\$21 million paid to the FFA in 2004, as the Treaty Funds Administrator. The annual fund is shared by the parties in an agreed formula. Tonga received from the Treaty a share since 1997 and the annual share of 15% is paid directly to the Government's General Revenue. The PDF annual share for Tonga for the 15th to the 17th (the current licencing period) is shown in the Table 13.4.

Table 13.4: Tonga's PDF Annual Share for Licensing Period 15th – 17th.

Licensing Period (Year)	15 th (2002)	16 th (2003)	17 th (2003)
Amount (US\$)	147,321.72	147,321.72	147,321.72
T \$	309,564.45	309,564.45	265,711.45

In terms of Tonga's share of the PDF, Tonga shared with other parties the annual allocation of US\$1.78 million equally distributed and Tonga's balance at the end of April 2004 was approximately US \$258,435.43 . This fund is administered by the FFA and disbursed only by approval granted by the Government of Tonga and approval for utilizing the PDF remains the discretion of Cabinet.

14. RESOURCE RESEARCH, DEVELOPMENT AND MANAGEMENT DIVISION

The Resource Research, Development & Management Division is divided into 4 main sections. It consists of Resources Assessment & Development, Community Development & Advisory Services, Aquaculture Research and Development and Fisheries Management. Dr. Matoto was promoted to Principal Fisheries Officer after successfully completed his Ph.D. in Fisheries Science

from Japan. He was appointed as the Head of this Section when he resumed duties after his study leave.

15. AQUACULTURE RESEARCH AND DEVELOPMENT SECTION

Aquaculture has been a long standing program aimed at the regeneration of depleting fisheries as well as farming new species that adds value to the industry therefore a number of ongoing projects that have been identified as suitable for Tonga involves the propagation and/or growing of marine organisms. Programs include enhancement of giant clams, introduction of trochus and green snails to create new commercial fisheries, pearl oyster farming and seaweed culture to earn foreign currency. Research and trials currently being conducted are aimed at the following:

- To relieve pressure on over-exploited traditional inshore fisheries
- Convert unused areas of natural water or agriculturally poor areas to useful production
- Revive and enhance over-exploited resources and introduce exotic species of commercial value

(a) Staffing

Mr. Fe'auini Vi and Mosese Mateaki were transferred to the Engineering and Research section respectively as part of the restructuring process. Mr. Vea Kava was transferred from Vava'u to work in this Section. A list of staffs engaged in aquaculture and research programs is shown in Table 15.1 below.

Table 15.1: Aquaculture and Research Section Staff, 2004

Name	Post
Mr. Siola'a Malimali	Fisheries Officer
Mr. Sione Holopulu	Fisheries Assistant
Mr. Vea kava	Senior Fisheries Assistant
Mr. Saia Niumeitolu	Fisheries Trainee
Name	Post
Mr. Sitiveni Sefesi	Fisheries Trainee
Mr. Tevita Sonatane Ha'unga	Fisheries Trainee

(b) Training

Training programs and attachments, both overseas and locally, contributed to developing staff skills and knowledge. Mr. Sitiveni Sefesi attended a one month course in Aquaculture Development in

Korea. Mr. Saia Niemetolu also attended a one month course on Marine farming and stock enhancement in Malaysia.

(c) Shellfish Culture

(i) Giant Clam

Export

The Section continued to supply requirements for the community's sanctuaries and export to aquarium markets. The overseas aquarium market offered good prices for relatively young clams. Clams of 1 to 12 inches shell length were sold to aquarium exporters. A total of 15951 clams (555 *T. derasa* or Tekanoa, 9707 *T. maxima* or Kukukuku, 3990 *T. squamosa* or Matahele and 1699 *T. gigas* or Vasuva Saianiti) worth \$39,845.00 were sold. The selling prices of the clams and size distribution of exported giant clams are given at Table 15.2 and Table 15.3 below.

Table 15.2: Selling Prices per Species of Giant Clam

Shell Length (inch)	1	2	3	4	5	6	7	8	9	10
<i>\$/T.squamosa</i>	1.00	1.50	2.25	3.5	5.0	6.75	8.75	10.00	11.25	-
<i>\$/T.derasa</i>	1.00	1.25	2.00	3.5	5.0	6.75	8.75	10.00	11.25	12.50
<i>\$/T.gigas</i>	1.00	1.25	2.00	3.5	5.0	6.75	8.75	10.00	11.25	12.50
<i>\$/T.maxima</i>	1.00	1.50	2.50	3.25	4.75	6.25	-	-	-	-

Table 15.3: Size Distribution of Export Giant Clam per Species

Shell length (inch)	<1.5	2-3	3-4.5	4.5-6	>6-7.5	8-9	>9-10.5	11-12	Total
<i>T. squamosa</i>	286	2527	1490	79	0	3	0	0	4385
<i>T. derasa</i>	10	0	0	1	7	177	305	55	555
<i>T. gigas</i>	0	618	210	321	29	101	13	12	1304
<i>T. maxima</i>	7142	2334	231	0	0	0	0	0	9707
TOTAL	7438	5479	1931	401	36	281	318	67	15591

The number of clams exported this year increased by 230% from 6939 in 2003 to 15951 and the value increased by 201% from \$19,761 in 2003 to \$39,845. The main reasons for the increase are due to availability of stock and the first time export the introduced species, *T. gigas*.

The demand for *T.maxima* was the highest which accounted for 62 % of the total sale. The number for 1 inch was high due to availability of sufficient stock. It represents 74 % of the total exported *T.maxima*. The demand for *T.derasa* was higher for 2 to 4 inches but we had mainly clams over eight inches. The figures in the table above, with the exception of *T. gigas*, reflects the number of stocks available to the exporters rather than the demands for each size per species. The total number of exported *T. gigas* represents the actual demand of the exporter.

Spawning

All the four species spawned in 2004 were conducted with the assistance of one aquarium accompany that is willing to invest in giant clam seed production for export to aquarium markets. This is the first time for us to use serotonin, other than thermo sock, for stimulation. The production are now three months old in the rearing tanks. The result of the spawning is summarised in the table 15.4 below.

Table 15.4 : Spawning result

Species	Spawning date	Settlement tank	Total input
T.maxima	22/9/2004	C2 & C9	2,000,000 each
		C12	5,000,000
T. squamosa	24/9/2004	C4	1,000,000
		C6	2,000,000
T.derasa	29/9/2004	C18 & C14	4,000,000 each
	1/11/2004	C13	5,000,000
T.gigas	29/9/2004	C15	2,000,000
	15/10/2004	C11	1,000,000

Ocean nursery

The giant clams (*T. gigas*) were transferred from the MoF Ocean nursery to community's ocean nursery as summarized in the table 15.5. These clams were from the 2002 spawning. There are more than two thousands pieces that are required to be transferred to make space for the production in 2004.

Table 15.5 : Record of giant clams transferred to each ocean nursery

Species	Total Giant clams released in 2004			Remarks
	Date	Site		
		'Atata	'Euaiki	
<i>T. gigas</i>	15/1/04	230		Clam sizes (5-8inches)

	06/02/2004		250	Same
	09/03/2004		200	Same
	07/04/2004	200		Same
	22/04/2004	200		Same
	15/11/2004		100	Same
Total		630	550	

Green Snail, Turbo marmoratus ('Elili lanumata)

The snails from previous years that reached suitable size (>50mm shell height) for release were released on reefs in Tongatapu, Ha'apai and Vava'u as given in the table 15.6.

Table 15.6 Total Green Snail released in 2004

Date	Site	Quantity
06/02/04	Eueiki	500
20/04/04	Vava'u	1400
15/09/04	Atata	1500
04/10/04	Atata	1200
05/10/04	Hakau mama'o	600
11/10/04	Nomuka	1000
20/10/04	Pangai	800
Total		7000

Trochus, Trochus niloticus (Takaniko)

About 200 young trochus (with shell diameter more than 7cm) spawned in 2000 are used in poly-culture with giant clam. They help to clean the weed that grows on the tank and clams. About 300 trochus of more than 60mm shell diameter were released at 'Euaiki.

Harvesting of trochus is still ban. However, we have received evidences that trochus harvest for subsistence need have been carried in many coastal areas by fishers. In addition, trochus shells have been sold at roadside handicraft stalls as well as jewellery shops.

Pearl Oyster

The Ministry of Fisheries is currently involved in ACIAR project FIS/97/31 "Pearl oyster resource development in the Pacific islands". As part of this project two hatchery runs have been conducted

at the Sopu facility to produce *P. margaritifera* spat to support the development of pearl industry in Vava'u.

Pearl oyster (*P.margaritifera*) spawning was postponed to early 2005 (January or February) as directed by Paul Southgate of ACIAR. The longline where the young oysters from previous spawning were not cleaned as scheduled due to lack of man power and technical difficulties.

(d) Seaweed (*Cladosiphon* sp. or *Limutanga*'u) Export

This year, Tangle Nano Company remained the sole farmer of *limutanga*'u at the beginning of the season, July 2004 and it concentrated on harvesting wild stocks. The good weather conditions and prolonged favorable water temperatures result in highest production when compared to previous years. The wild stocks harvested were sufficient to fulfill the market's demands. More than 1,000 tons of mozuku were exported in 2004 alone.

16. RESOURCES ASSESSMENT AND DEVELOPMENT SECTION

The Resource Assessment and Development function is to undertake resource assessments of Tonga's developed and underdeveloped fisheries resources and to provide advice to the Ministry on the conservation and development needs of these resources. The development and monitoring of ecological performance indicators for each of Tonga's Major Fisheries to ensure sustainability will be an ongoing function of the Resource Assessment and Development section.

(a) Staffing

All the staffs of this section is given in table 16.1 below.

Table 16.1: Resources Assessment and Development Section Staff, 2004

Name	Post
Mr. Poasi Fale	Fisheries Officer
Mr. Tala'ofa Loto'ahea	Fisheries Assistant
Mr. Siua Tuamei'api	Fisheries Trainee
Mr. Mosese Mateaki	Fisheries Trainee

(b) Data Collection of Tuna Resources

This program is funded by the Secretariat for the Pacific Communities (SPC). The data are collected and send to SPC for analyzing together with data from other Pacific countries. The total landing of tuna during 2004 is given in Table 16.2 and 16.3 below.

Table 16.2: Total catch by Weight by Species per bi-monthly

Species	Jan./Feb.	Mar./Apr.	May/Jun.	Jul./Aug.	Sep./Oct.	Nov./Dec.	TOTAL
Yellowfins	23,727	53,924	31840	32702	37476	35853	215,522
Bigeyes	3,978	19,236	15209	5471	3919	4265	52,078
Albacore	21,789	47,611	51973	33684	67992	13591	236,640
Sword fish	10,142	21,828	4304	1443	4716	5716	48,149
Stripe Marlin	827	1739	1547	914	2217	2069	9,313
Blue Marlin	6,418	13213	1129	385	826	898	22,869
Black Marlin	315	630	122	170	115	768	2,120
Sail fish	616	1,899	109	5288	5087	4513	17,512
SkipJack	64	0	27	1932	1994	3350	7,367
Wahoo	12,895	0	3,351	1112	1691	1005	20,054
Others	12,676	1,144	15781	7285	6937	1515	45,338
Total	93,447	161,224	125392	90386	132970	73543	676,962

Table 16.3: Total catch by Number by Species per bi-monthly

Species	Jan./Feb	Mar./Apr.	May/Jun.	Jul./Aug.	Sep./Oct.	Nov./Dec.	TOTAL
Yellowfins	1,024	2,377	1890	2153	2222	1863	11,529
Bigeyes	373	907	648	826	158	179	3,091
Albacore	1,207	2,607	2826	3011	4173	773	14,597
Sword fish	134	294	65	32	78	119	722
Stripe Marlin	14	30	45	30	42	43	204
Blue Marlin	58	123	28	8	18	19	254
Black Marlin	4	8	5	7	5	13	42
Sail fish	20	54	4	583	596	680	1,937
SkipJack	9	19	4	206	159	312	709
Wahoo	892	0	290	58	39	28	1,307
Others	1,167	98	1541	675	755	113	4,349
Total	4,902	6,517	7346	7589	8245	4142	38,741

(c) Data Collection of Snapper resources

The data collection program started at the beginning of the year. This is to compare with previous stock assessment to finalise relevant information toward formulation of a resource management plan. The total catch by species per month in number and weight are given in table 16.4 and 16.5 below.

Table 16.4: Total Landing of Snapper by Number per Species per Month

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<i>P.Filamentosus</i>	572	643	905	518	722	68	402	194	280	305	563	330
<i>P.Flavippinua</i>	610	419	547	684	771	109	298	384	213	527	379	204
<i>E.Corruscan</i>	2437	5981	6101	4772	1474	1157	3368	3576	2642	3488	3274	4230
<i>E.Morrhua</i>	262	148	163	132	104	29	665	39	64	67	21	52
<i>E.Octofasciatus</i>	50	84	70	28	115	4	23	38	25	170	35	12
<i>E.Chrysostomus</i>	1424	1705	395	105	187	0	135	234	125	257	111	236
<i>G.Rubriobeculatus</i>	802	106	109	133	62	0	15	16	0	10	33	9
<i>A.Rutilans</i>	121	68	111	323	504	125	144	500	156	77	98	116
<i>P.Kusakari</i>	208	95	178	393	994	202	121	300	351	75	170	359
TOTAL	6728	9682	8845	7503	4989	1742	5435	5869	4162	5211	5058	5902

Table 16.5: Total Landing of Snapper by Weight (kg.) per Species per Month.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<i>P.Filamentosus</i>	1144	1286	1810	1036	1444	136	804	388	560	610	112	660
<i>P.Flavippinua</i>	1220	838	109	1368	1542	218	596	768	426	1054	758	408
<i>E.Corruscan</i>	6093	14953	15253	11930	3685	2893	8420	8940	6605	8720	8185	10575
<i>E.Carbunculus</i>	774.4	1386	851.2	1328	179.2	154	844.8	1882	979.2	752	1197	1133
<i>E.Morrhua</i>	6367	3596	3961	3208	2527	705	16160	947.7	1555	1628	510.3	1264
<i>E.Octofasciatus</i>	1000	1680	1400	560	2300	80	460	760	500	3400	700	240
<i>E.Chrysostomus</i>	3560	4263	987.5	262.5	467.5	0	337.5	585	312.5	642.5	277.5	590
<i>G.Rubriobeculatus</i>	561.4	74.2	76.3	93.1	43.4	0	10.5	11.2	0	7	23.1	6.3
<i>A.Rutilans</i>	484	272	444	1292	2016	500	576	2000	624	308	392	464
<i>P.Kusakari</i>	624	285	534	1179	2982	606	363	900	1053	225	510	1077
TOTAL	21827	28632	26410	22256	17186	5291	28571	17182	12615	17347	13679	16417

(d) Stock Survey of Sea cucumber resources (Bech-de-mer)

The Section conducted a stock survey of the sea cucumber resources in the whole of Tonga. The survey was led by Dr. Sione Vailala Matoto, Fisheries Officer in collaboration with a team from the Secretariat for the Pacific Communities (SPC). The objectives of the survey were to:

- To survey and assess the status of the sea cucumber stock in the Kingdom of Tonga.
- To compile together the field survey data with all relevant available information, analyze and produce a report with recommendations for sustainable utilization of the sea cucumber and beche-de-mer resources
- Develop a management plan and harvesting guide lines for sustainable harvesting of the sea cucumber resources

(i) *Preliminary result*

Sea cucumber resources around the Kingdom held only moderately abundant stocks despite the 7 year moratorium period on fishing. This is likely a result of slow recovery from depleted stocks following previous overfishing and the mature of the environment.

Survey results indicate that there appears to be a potential for re-opening the fishery, however the gains made through the moratorium would be short lived unless fishing was conducted under strick control and management guidelines.

17. COMMUNITY DEVELOPMENT AND ADVISORY SERVICES

The community development and advisory section of the Ministry of Fisheries is responsible for providing technical advice to fishermen on proper fishing practices, management issues and general fisheries development. That includes net making & mending, outboard repair and maintenance, provide support letter to fisherman who wishes to apply for a loan from the bank.

The Section in collaboration with the Tonga Fisheries Project conducted a training programme on the construction of mini longline especially for Ha'apai and Vava'u. The Section also assist the TFP on construction and deployment of FAD. The work programme and activities of the Division during 2004 revolved around the following areas :

- Net mending and making
- Co- management through Special Management Area (SMA)
- Fish Handling and processing
- Mini Longline construction
- Fish Aggregation Device construction and deployment.
- Consultation on Fisheries Management Act and Aquaculture Act

(a) Community Base Fisheries Management.

The Fisheries Management Act 2002 provide provision that clearly explain the Community Base Fisheries Management through Special Management Area (SMA). However in 2004 the island of 'O'ua was the first one to apply for a SMA. The community section worked together with Tonga

Fisheries Project in order to legalise the declared SMA designated by the 'O'ua as a coastal community.

(b) Consultation

Toward the end of 2004 the Community section conducted a consultation programme at the villages regarding the Fisheries Management Bill 2002 and Aquaculture Bill 2003 throughout Tongatapu. The aim of this consultation is to consult with the community the Act and the SMA and the role of Community Development & Advice.

(c) Staffing

The staff of the Community Development and Advisory Services Section of the Ministry of Fisheries for the year 2004 are as follows.

Table 17.1: Staff of the Community Development and Advisory Services

Name	Post
Mr. Tevita F Latu	Senior Fisheries Officer
Mr. Sailosi 'Alofi	Senior Fisheries Assistant
Mr. Sione Mailau	Fisheries Assistant

Mr. Mailau is the counterpart of the Master Fisherman Adviser for the Tonga Fisheries Project. He was also involved at beche-de-mer stock assessment.

18. FISHERIES MANAGEMENT AND PLANNING

The Fisheries Management & Planning Section is responsible for: planning and the implementation of which, policy advice to management; and the coordination and monitoring of fisheries and the analysis of resource statistics. The achievements of the year included the development of a deepwater drop line fisheries association and drafting of Management Plans for key fisheries, particularly deepwater drop line fishery, aquaculture, seaweed, marine aquarium and charter vessels. The staff engaged in the Fisheries Management & Planning is outlined in Table 18.1.

Table 18.1: Staff of the Fisheries Management & Planning Section

Name	Post
Mr. Pau-mo-levuka Likiliki	Technical Officer Grade 1
Mr. Tevita Lautaha	Technical Officer Grade 1

(a) Deepwater Drop line Fisheries Association

The Fisheries Management & Planning continues to engage in the formulation and consultation and management advice to coastal and commercial fishers. One such aspect is to establish association for each specific fishery from commercial offshore to community based management inshore fisheries. Specific Association is encouraged through the Fisheries Management Act 2002.

The objective of the Association is to promote closer working relationship between the Ministry of Fisheries and their stakeholders. The Deepwater drop line fisheries Association have been formed. The Section was also instrumental in drafting and assisting the formulation of its constitution. It also aimed at decentralising the management decisions of the Ministry in regards to the development and management of the resources.

(b) Draft Aquaculture Management Plan

As accordance with the Aquaculture Act 2003, a draft management plan has been developed. The Tonga Fisheries Project contracted a consultant; Mr. Mike Dredge from Australia to assist the Fisheries Management staff in the formulation of the draft management plan. An aquaculture Management Advisory Committee has been formed. This involves representatives from in-line Ministries.

(c) Draft Marine Seaweed Management Plan

Draft Marine seaweed Management Plan, specifically aimed at mozuku seaweed. The year 2004 brought record harvest and therefore there was a need to develop a management plan for future harvesting because of its commercial implications to overseas markets.

(d) 2003 Tuna Conference Recommendations

The recommendations from the tuna conference have not been realise. The constraints to the tuna fisheries still pose challenges. The recommendations highlighted economic, business and technological issues. Courses of actions proposed by the conference included: improving market access to the EU and improve Tonga's competitiveness in the region; develop modelling packages for albacore stocks and improve catch rates of which through technology application; relax tax and duty requirements applied to essential production input; review public policy to match

neighbouring states (Fiji, Samoa & Cook Is) and improve on existing economic incentives; and strengthen the capacity of vessel crews through training and development programmes.

A Tuna Committee has been approved by Cabinet which will look at implementing the recommendations and due to existing limited capacity the Committee was anticipated to sit in 2004. But there has been limited forward progress. As a result of both drop in catches and the obvious constraints have caused all locally based foreign fishing vessels to leave the Kingdom

The Section was also very fortunate to have the assistance of an Australian Youth Ambassador, Ms. Phillipa Cohen from Tasmania, who has assist the staff for one year and has now returned to her home to continue her Phd research with the University of Tasmania.

19. ACCESS AND COMPLIANCE

The Access and Compliance Division is sub divided into 3 main sections which are consist of Compliance Licensing & Certification and Monitoring & Surveillance. Mr Anitimoni Petelo, Principal Fisheries Officer is the head of this division.

20. COMPLIANCE

The Compliance Section had a very busy and productive 2004, which included the successful detection and prosecution of a high profile illegal, unreported and unregulated foreign fishing vessel and the delivery of much stronger regulation of the offshore fishing fleet.

(a) Staffing

Table 20.1: Staff of the Compliance Section in 2004

Name	Post
Mr. Viliami `Anitimoni Petelo	Principle Fisheries Officer
Mr. `Ofa Moala Fakahau	Fisheries Officer
Mr. 'Inoke Mapuhola	Senior Fisheries Assistant
Mr. Tevita Taulafo	Technical Officer Grade II
Mrs. 'Ana Tapu Latu	Fisheries Trainee
Miss. Telesia 'Uhatafe	Fisheries Trainee

The Compliance Section was assisted throughout 2004 by Peter Flewwelling, a Compliance Advisor attached to the AusAID Tonga Fisheries Project and Angus McLean, a Compliance Training Officer under the Australian Youth Ambassador for Development Program.

(b) Tasks and Activities

The Compliance Section was responsible for the following areas:

- Compliance Planning
- Law Enforcement and Compliance
- Certification and Collection of resource rent.
- Quality control, inspection and certification of marine products for export
- Training

(c) Compliance Planning

Compliance Planning is an essential component of the Fisheries Management Plans currently being developed for a number of Tonga's fisheries resources.

During 2004, two compliance plans were developed – the Tuna Compliance Plan and the Deepwater Line Compliance Plan. Included in these compliance plans are the necessary regulations which provide a legal basis for fisheries management. These compliance plans are currently pending inclusion into the relevant Management Plans for these fisheries.

A number of other documents were developed by the Compliance Section which are also currently pending approval, including the Research, Survey and Test Fishing Policy and the Fisheries (Infringement Notice) Regulations proposing the introduction of administrative penalties for minor fisheries offences.

(d) Law Enforcement and Compliance

2004 proved a very successful year for fisheries law enforcement and compliance. This included the establishment of the Inter-Agency Fisheries Operational Task Force, set up by the Minister under the Ad hoc Ministerial Fisheries Council.

The aim of the Task Force was to bring together those agencies directly involved in fisheries law enforcement, including the Ministry of Police, TDS Navy, Customs, Immigration, Marine and Ports and other agencies when required such as Lands and Surveys and Labour and Commerce.

The inaugural meeting for the Task Force was in March 2004 and during the year a total of 8 meetings were held. These meetings proved to be very successful for the purposes of inter-agency coordination, sharing of information and decision making for complex fisheries cases.

(e) Illegal, Unreported and Unregulated Fishing Vessels

The Compliance Section's first major law enforcement operation occurred on 15 March 2004 when the *Yang Szu 666*, an illegal, unreported and unregulated foreign fishing vessel was detected and apprehended by the TDS Navy. The vessel and illegal catch was seized and placed under Police custody at Queen Salote Wharf. The owner, master and charterer were charged with 8 breaches of the Fisheries Act 1989. This case was eventually compounded under section 95 of the Fisheries Management Act 2002. The total penalty imposed was TOP\$200,000 and removal of the vessel from the FFA Regional Register of Good Standing. This success was reported on the front page of the FFA's MCS Newsletter, Volume 6, Issue 4.

A current IUU case involving a local fishing vessel intercepted in December 2003 was heard before the Magistrates Court for committal during July 2004. The Magistrate found sufficient evidence at this hearing and a trial date in the Supreme Court of Tonga was set for May 2005.

(f) Locally Based Foreign Fishing Vessels

Fisheries Officers spent a significant number of patrol hours monitoring the locally based foreign fishing vessel fleets. During the year a significant number of offences were detected. Several warning letters were issued for minor offences. A total of 8 locally based foreign fishing vessel licences were suspended throughout the year for periods from 2 to 8 weeks for more serious or repeat infractions of terms and conditions of fishing licences.

On 21 May 2004, after various warnings, the *Ching Fong Hwa Number 1*, a locally based foreign fishing vessel was ordered to port by the Secretary for a number of licence breaches. A boarding operation by Fisheries Officers identified further serious breaches of licence conditions. The vessel

and catch were seized and charges laid. This case was eventually compounded under section 95 of the Fisheries Management Act 2002, the total penalty being cancellation of the licence and forfeiture of catch which was sold by the Ministry for TOP\$45,000.

(g) Local Fishing

Fisheries Officers also spent a large amount of time monitoring the local fishing industry. A number of serious offences were detected throughout the year, including dynamite fishing, illegal processing and commercial distribution of Beche-de-Mer, undersize lobster and berried lobster, and taking fish out of season such as turtles.

A number of these cases are either currently under investigation or due to be heard before the Magistrates Court in 2005.

Three prosecutions for illegal local fishing were commenced in 2004 – all involved undersize lobster or lobster in berry.

- Two cases have been adjourned to a hearing before the Supreme Court in May 2005.
- A Tongatapu man was convicted and fined \$800 by the Nukua'alofa Magistrates Court on 2nd June 2004 for selling lobsters in berry. In his finding, Magistrate Samiu Palu said that a strong deterrent message must be sent to the community for fisheries related offences and he ordered that the man pay the fine within two months or spend 18 months in jail.

(h)

Restaurants

During the year the Compliance Unit identified a significant number of undersize lobsters entering the restaurant trade.

Fisheries Officers conducted a 2 day workshop for restaurant and resort owners in Tongatapu which covered an introduction to current fisheries laws and practical exercises including identification of undersize lobsters and lobster in berry. The training was attended by 26 participants.

(i)
from Tonga

Marine Exports

Fisheries products commercially exported include dried shark fins, aquarium fish, hard and soft corals, aquarium rocks, tuna, snapper, and grouper. Exports for home consumption included reef fish, octopus, pelagic and other marine products such as mollusk shells. Turtle shells and souvenirs made from black coral and oyster shells were also being exported and countries like Australia, Japan and New Zealand require letters from the Ministry certifying that such products have been harvested following the CITES (Centre for International Trade in Endangered Species) requirements.

(i) Dried Shark Fins

Emerald Marine Products, S.L.V Marine and Kandaha exported about 5716 kg of dried shark fins in 2004 valued at \$514,440 compared to 6762kg in 2003.

(ii) Snapper & Grouper Fisheries

‘Alatini Fisheries and Maritime Projects exported 149.78 mt of snappers and groupers (2004) valued at \$524230.00. This years were based on \$T3.50 per kilogram although the true returns to the kingdom are greater. Individual boat owners were catching snappers and selling their catch to the exporting companies.

(iii) Shrimps

G & J exported the first time 33.72mt of shrimps were valued at T\$674,400

(iv) Tuna Fishery

In year 2004, about 249.41mt metric tonnes were valued at \$872935. The FOB value for 2004 remained at T\$3.50 per kilogram. Exporters included Sea Star Fishing, ‘Alatini Fisheries, and South Pacific Resources Company/R.I.O.T. The tuna operators continued to benefit from duty free fuel. Some fishing vessels spent more time in port due to mechanical problems and poor catch.

(v) Aquarium Fishery

Five companies collected and exported live tropical aquarium fish, aquarium rocks (live rocks), live (hard) & soft coral, invertebrates and cultured giant clams. Aquarium exporters include Walt Smith International, Dateline Aquarium Fish Export, Vanisi International, Coral Kingdom and South Pacific Paradise.

A mean value of T\$13.80 per kg was used to calculate the value of fish exported. For invertebrates, soft corals, cultured clams, aquarium rocks (slap, solid and branch rocks) a mean value of T\$3.50 is used. For live (hard) corals, the value depends on the species that was harvested. Since most of the live coral exports were small and medium pieces, the mean value used was \$6.00 pa'anga per piece. Each company was restricted to harvest not more than 100,000 fish and 100 tons of aquarium rock per year. The total export from the five registered aquarium companies are summarised in Table 20.2 below.

Table 20.2 : Quantity and Value of Aquarium Products Exported in 2004

Species	Total Weight (kg)	Total Pieces	Value	Total Value (TOP\$)
Live (hard) corals		30,413	6.00	182478
Soft corals		43,426	3.50	151,991
Live tropical fish		2,656	13.80	36,652.8
Aquarium rocks	495,105.4		3.00	1,485,316.2
Invertebrate		285,095	3.50	997832.50
Total	495,105.4	361,270		2854270.5

The value of aquarium exports for 2004 decreased by 6% from the 2003 value of TOP\$3,213,148.11.

(vi) *Seaweed*

The seaweed industry, comprising of three companies, exported 1,195.03 tonnes of seaweed in 2004, valued at T\$478,012 based on a value of T\$0.40 per kilogram as compared to 223 tonnes in 2003; an increase of 436%.

A summary of the estimated total value of all marine products exported in 2004 is provided in Table 20.3.

Table 20.3: Estimated total value of all marine products exported in 2004.

Fisheries Exported	Amount (T\$) In 2002	Amount(T\$)In In 2003	% Change	Amount(T\$) In 2004	% Change	Unit Price (\$/kg)
Seaweed	10004.40	78053.15	83	478,012	512	\$0.40
Dried Shark fin	547,040	540,960	1	514,440	-5	\$50
Snapper & Grouper	1,153,086	1,030,834	16	524,230	-49	\$3.50
Fisheries Exported	Amount (T\$) In 2002	Amount(T\$)In In 2003	% Change	Amount(T\$) In 2004	% Change	Unit Price (\$/kg)
Shrimp				674,400		\$20.00
Aquarium	2,751,477	3,213,148.11	112	2,709,803	-16	\$3.50
Fresh Tuna	4,818,858.0	3,781,800	22	813,498	77	\$3.50
Cannery	2,223,210	3,346,200		386116.5	88	\$3.50
Total	11,503,674.40	11,990,995.46	6	9,575,548	-20	

As can be seen from the above table, the total revenue collected from the exports of marine products in 2002 and 2003 were estimated to over \$11 million pa'anga . By the end of this current financial year, 2004, the total revenue from Export decline to nearly \$9 million pa'anga.

(j) Quality Control, Inspection and Certification of Marine Products for Export

All marine exporting companies in Tonga are required to meet the certification requirements of the international standard, Hazard Analysis & Critical Control Point (HACCP). The Compliance Section was responsible for quality control assessment of fish export packing facilities, certification and documentation, and the implementation of post harvest and processing activities to these standards.

(k) Constraints

The Compliance Unit faced a number of constraints in 2004 which affected its effectiveness and service delivery.

- Separate vehicle for enforcement, boarding & inspection
- Staff shortage
- Equipment shortage including computer & a patrol vessel
- Separate exhibit room for storage of evidence
- Direct telephone line

21. LICENSING AND CERTIFICATION

This section is responsible for registration and licensing of fishing vessels, fish fences, fish processing establishment, export of marine products (live, fresh processed or frozen). It also involved in secretariat responsibilities for the Fuel Concession Committee. Staff engaged in this section is listed in table 21.1.

Table 21.1: Licensing and Certification Staff, 2004

Name	Post
Mr. Siliveinusi Ha'unga	Fisheries Officer
Mr. Mafi Makasini	Fisheries Trainee
Miss. Lupe Fakalelu	Fisheries Assistant

The work programme and activities of the section during 2004 involved the following:

- Screening of applications for registration and licenses
 - local fishing vessels
 - locally based foreign fishing vessels
 - other licenses such as commercial sports fishing, fish fences, fish processing establishment and marine products export.
- Secretariat duties for Fuel Concession Committee such as screening of applications for fuel concession and monitoring of fishing vessels' activities.
- A close liaison with other Ministries/Organisations on matters related to fishing vessels, local or foreign such as Marine and Ports, Labour Commerce and Industries and Tonga Defense Services. Also Ministry of Finance, Customs and Statistic on matters related to fuel concession.

(a) Local Fishing Vessels Registration and Licensing

All fishing vessels of 6 metres and above in length are required to register and hold a valid fishing licence if part or whole of their catches are sold locally or exported. By the end of 2004, a total of 47 local fishing vessels were recorded in the MoF register with valid fishing licence as listed in table below.

Table 21.2: Summary of local fishing vessels

Type of Fishing Vessel	Quantity	License Issued
Deep Sea Bottom Fishing	25	Nuku'alofa, Vava'u
Tuna Long Line	16	Nuku'alofa
Commercial Sport Fishing Vessels	6	Vava'u
Government Research and Training Vessels	2	Nuku'alofa
TOTAL	47	

(b) Commercial Sports Fishing

This section is responsible for the licensing of Commercial Sports Fishing or widely known as Game Fishing boats. All these vessels are operating in Vava'u and only 6 sport fishing vessels were licensed in 2004.

(c) Government Research and Training Vessels

Two government Research and Training Vessels are "Takuo" and "Ekiaki". MFV "Takuo" is operated by Ministry of Education and MFV 'Ekiaki is owned by the Ministry of Fisheries and operated by TFP mainly for research, training, deployment of FAD.

(d) Foreign Fishing Vessels

Tonga has no access agreements with distant water fishing nations (DWFN) with the exception of the Multilateral Treaty of Fisheries between certain Pacific Nations. Tonga's waters were opened to locally based foreign fishing vessels through partnership or jointventure with local fishing companies. Conditions for issuing fishing licenses for locally based foreign fishing vessels are as follows:-

- in good standing in the Regional Register List at FFA.
- in good standing in the Regional VMS Register List at FFA
- on charter by either Tongan nationals or by local fishing companies.
- carrying an ARGOS VMS in addition to the FFA VMS,
- to provide a weekly report on status of the locally based foreign fishing vessel,
- provide a catch report for each fishing trip using prescribed forms,
- needed to land all catches at specified ports and no transshipment at sea

On 27 April 2004 a decision was made to close Tonga's waters again for all foreign fishing vessels, with exception for foreign fishing vessels that have valid fishing licence and those that already applied and their licences were under process. As the result of that decision, most of the locally based foreign fishing vessels returned to their respective countries. At the end of 2004 there were only eight (8) locally based foreign fishing vessels licensed to fish in Tonga as compared to seventeen (17) in 2003.

(e) Fish Fence

The current licensing practice for fish fences is valid for 12 months which starts from September to August of the following year. All fish fence licences are expired on 31 August every year regardless the registered date. During September 2003 to August 2004 there were 58 fish fences licensed in Tongatapu, 8 in Vava'u, and 2 in Ha'apai. A total of 68 fish fences were licensed in Tonga in 2004 as compared to 66 during the licencing period that ended in August 2003. Unfortunately some license holders were not able to erect fish fences in their selected licensed sites mainly due to financial difficulties.

(f) Fish Processing Establishment

A summary of the Fish Processing Establishments of 2004 is provided in Table 21.3.

Table 21.3 Summary of Fish Processing Establishments 2004

Names	Location	Main Process Species
'Alatini Fisheries	Small Industries Centre	Tuna,Snapper,Groupers
Maritime Projects (Tonga) Ltd	Sopu-'o-Taufa'ahau	Tuna,Snapper,Groupers
R.I.O.T. Unifi Co.,Ltd	Fanga-'o-Pilolevu	Tuna,Snapper,Groupers
South Pacific Resources Co.,Ltd	Tuimatamoana	Tuna,Snapper,Groupers

(g) Registered Exporters of Marine Products, 2004

Table 21.4 below provides details of companies that have been registered with the Ministry and have been issued licences to export marine products.

Table 21.4: List of Registered Exporters of Marine Products, 2004

Name of Exporter	Address	Marine Products Exported	Established
Dateline Aquarium Fish Export Co.Ltd.	Navutoka	Live tropical fish, invertebrates, hard and soft corals, giant clams.	1994
Walt Smith International	Ma'ufanga	Live tropical fish, invertebrates, hard and soft corals, giant clams.	1980
Maritime Projects Co.Ltd	Sopu	Snapper, grouper, shark dried fin	1980

Alatini Fisheries Co. Ltd	Small Industries	Fresh tuna, snapper and grouper	1990
Vanisi International Co.Ltd	Tatakamotonga	Live tropical fish, invertebrates, hard and soft corals, giant clams.	2000
Coral Kingdom Co.Ltd	Small Industries Centre	Live tropical fish, invertebrates, hard and soft corals, giant clams.	2001
Emerald Marine Products	Kolofo'ou	Shark fins	2000
South Pacific Paradise Co.Ltd	SIC	Live tropical fish, invertebrates, hard and soft corals, giant clams.	2001
G & J Fishing Co. Ltd	Ma'ufanga	Fresh Tuna	2002
Tangle Nano	Sopu	Seaweed	2001
Name of Exporter	Address	Marine Products Exported	Established
George Nakao Farm Services Co.Ltd	Sopu	Seaweed	2002
Riot Fishing Co. Ltd	Nuku'alofa	Fresh Tuna	2002
Fung Shing Co. Ltd	Nuku'alofa	Fresh Tuna	1990
South Pacific Resources	Ma'ufanga	Fresh Tuna	2004
Health Living Co.Ltd	Nuku'alofa	Seaweed	2004

(h) Fuel Rebate Scheme

The Fuel Concession Committee (FCC) continued to carry quarterly meetings to consider the applications for duty free fuel submitted by owners and operators of fishing vessels. In October 2004 FCC agreed on a policy initiated by MoF for fishing vessels to follow are:

- a refuel certificate is issued to fishing vessels on trip by trip basis when applicants furnish certain required data.
- a refuel certificate is only valid for seven days. Vessels that do not utilise the certificate within that period shall return the unused certificate to MoF for cancellation and lodge a new application.
- a refuel certificate can only be used once and any remaining fuel in a certificate is cancelled automatically.

Customs Department and oil companies are well aware of the forementioned policy and followed accordingly. Table 21.5 provides details of fuel issued for fishing vessels qualified for refuel under the Fuel Concession Scheme in 2004.

Table 21.5: Details of Fuel Approved to be Issued Under the Fuel Concession Scheme, 2004

Type of Fishing	Diesel (1)	SAE 30 (1)	Hydraulic (1)	Refrig. (1)	Grease (kgs)
Bottom Fishing	692,200	1345	0	0	140
Tuna Fishing	792,030	3160	380	1217.5	0
Total	1,484,230	4505	380	1217.5	140

**Table 21.6: Catch Data from Fishing Vessels Participating in the Fuel Concession Scheme
Year 2004**

Type of Fish	Landing (m/t)	Local Fish (m/t)	Export Fish (m/t)
Snappers	753.244	504.350	248.894
Tuna	354.254	163.007	191.246
Total	1,107.498	667.357	440.140

22. MONITORING AND SURVEILLANCE

The activities of this section are managed by a single staff is outline in table 22.1.

Table 22.1 : Staff of Monitoring & Surveillance Section, 2004

Name	Post
Miss 'Ana Finau Taholo	Computer Programmer

This section is responsible for two major functions. They are:

(a) Vessel Monitoring System (VMS)

Vessel Monitoring System (VMS) electronically tracks location of fishing vessels using satellite technology. The Forum Fisheries Agency Vessel Monitoring System (FFA VMS) network is hosted at the Ministry of Fisheries which electronically track location of foreign fishing vessels allowed to fish in the region. Cabinet approved (CD 1809) an ARGOS VMS system for commercial fishing vessels operating in designated fisheries in Tonga be established, to closely monitor their operations to ensure full compliance with fisheries regulations. Table 22.2 provides a summary of the number of fishing vessels fishing in Tonga waters that have installed and operated ARGOS VMS during the year 2004.

Table 22.2 : Summary of fishing vessels with ARGOS VMS, 2004

Type of Fishing Vessel	Quantity
Locally based foreign fishing vessel	9
Tuna long line	7
Deep Sea Bottom Fishing	11
Trap Fishing	2

The installation and operation of the Argos VMS has been instrumental in boosting the level of compliance and has contributed immensely to moving forward compliance efforts. Data obtained

from the system have played a major role in apprehending fishing vessels in contravention of fisheries laws and regulations.

(b) Observer Programme

The aim of the observer programme is to collect information such as fish catches and onboard fish handling techniques, fishing technology, by-catches and discards for stock assessment and management planning and also for monitoring of compliance to fisheries legislation.

An in-country regional observer training was conducted by FFA and SPC in 2004. Eleven trainees from outside the Ministry and three Ministry staff participated in the training and qualified as observers. The observer programme is a cost-recoverable program, staffed by appropriately trained private sector individuals, designated as “authorised observers” by the Minister in accordance with Section 78 of the Fisheries Management Act 2002.

During the year 2004, ten observers were deployed on locally based foreign long line fishing vessels fishing in Tonga waters while two observers were deployed onboard the US Treaty purse seine vessel fishing within the region.