



Annual Work Plan



2017



Fisheries Department
Ministry of Natural Resources
Government of Tuvalu

Annual Work Plan 2017



Fisheries Department
Ministry of Natural Resources
Government of Tuvalu
Funafuti, Tuvalu
January 2017



Acknowledgements

This document was put together through the collective efforts from the Fisheries Department Senior Management Committee (SMC) with inputs from all staff of the Department. The kind support of the SPC Fisheries, Aquaculture and Marine Environment Division in laying-out and printing the document is gratefully acknowledged.

Photos were contributed by Carson Young, Moeo Finauga and Ursula Kaly.

Acronyms & Terms

AA	Access agreement
AUD	Australian dollar
BDM	Beche-de-mer
CFC	Community Fishing Centre
EEZ	Exclusive economic zone
EU	European Union
FAD	Fish-aggregation device
FCA	Funafuti Conservation Area
FFA	Forum Fisheries Agency
FFV	Foreign fishing vessel
FO	Fisheries Officer
GEF	Global Environment Facility
GIS	Geographic Information System
GOT	Government of Tuvalu
HRD	Human resource development
IMO	International Maritime Organisation
IT	Information technology
IUU	Illegal, unregulated and unreported fishing
LL	Longline
MCS	Monitoring, control & surveillance
MCSWG20	MCS working group, FFA
MFED	Ministry of Finance and Economic Development
MNR	Ministry of Natural Resources
MRA	Marine Resources Act
MSC	Marine Stewardship Council
MTU	Mobile transmission units
NAFICOT	National Fisheries Corporation of Tuvalu
NAPA	National Adaptation Programme of Action
NFD	Non-fishing days
NPOA	National plan of action
OFCF	Overseas Fishery Cooperation Foundation, Japan
OI	Outer Island
PFO	Principal Fisheries Officer
PL	Pole and line
PNA	Parties to the Nauru Agreement
PROP	Pacific Regional Oceanscape Programme
PS	Purse seine
QUAD	Quadrilateral MCS partners, Australia (AU), France (FR), New Zealand (NZ) and America (US)
R2R	Ridge to Reef Project
SDF	Special Development Fund (of the Government of Tuvalu)
SFO	Senior Fisheries Officer
SMC	Senior Management Committee

SOP	Standard operating procedures
SPC	Secretariat of the Pacific Community
STCW	Standards of Training, Certification and Watchkeeping (STCW Convention, IMO)
TFD	Tuvalu Fisheries Department
TFSP	Tuvalu Fisheries Support Programme (MFAT)
TKIII	Te Kakeega III: National Strategy for Sustainable Development 2015-2020
TMTI	Tuvalu Maritime Training Institute
TOR	Terms of reference
UNDP	United Nations Development Project
VDS	Vessel Day Scheme
WB	World Bank
WCPFC	Western and Central Pacific Fisheries Commission

Contents

1	Background	4
1.1	Introduction	4
1.2	Vision	4
1.3	Mission	5
1.4	Objectives	5
1.5	Organization	6
2	Fisheries Department Resources	8
2.1	Staffing	8
2.2	Assets and facilities	8
2.3	Budget	10
3	2017 Work Plan	11
3.1	Internal Management	11
3.2	Administration Group	12
3.3	Oceanic Fisheries Section	13
3.4	Coastal Fisheries Section	15
3.5	Operations and Development (O&D) Section	16
4	Monitoring and Reporting	19

1 Background

1.1 Introduction

In 2012 and 2013, a detailed review was carried out of the structure and functions of the Tuvalu Fisheries Department (TFD) within the Ministry of Natural Resources (MNR). The review recommended changes to the Department's staffing and activities to better reflect the responsibilities and obligations of a modern-day government fisheries agency. The review also defined objectives and key performance indicators to guide the work of the Department in the medium term.

In September 2013 the Tuvalu Cabinet approved the Department's reorganization, effective as of January 1st 2014. The reorganization was implemented in 2014, which was therefore a transitional year for the Department. By the end of 2014 a new staff structure had been put in place, key corporate and operational documents were under development, and a revised set of priority activities had been agreed.

This is the third comprehensive Annual Work Plan produced by the Department after reorganisation, and describes the immediate priorities and activities for 2017. Where possible, longer-range work targets have been indicated. Work plans for individual TFD sections have been produced in the past but achieving them has been difficult due to a number of issues, including shortage of staff, insufficient funds and other factors. Under the new structure and funding arrangements these constraints should be greatly reduced.

This year, each section will implement outstanding activities from last year and new ones for this year using this plan as a guide. It is quite ambitious and there may be some outputs that will not be achieved during the year. New issues and priorities are likely to emerge and the Department needs to be flexible to meet these challenges as they arise.

In line with the need for a longer-term 3 year work planning cycle, in December 2016 the Department produced its second Corporate Plan, covering the 3-year period 2017 – 2019. The 2017 Annual Work Plan is based on the longer term objectives and strategic directions contained in the Corporate Plan, and translates these goals into specific actions to be undertaken during the year.

1.2 Vision

The guiding vision of the Department can be stated as:

- ✿ *Bountiful inshore fisheries supporting livelihoods and providing healthy local food;*
- ✿ *Sustainable oceanic fisheries providing strong revenue and satisfying jobs.*

The physical and economic health of the Tuvalu population depends on the health of its inshore and oceanic fisheries. Inshore fisheries can be managed in-country; but the health of oceanic fisheries cannot be managed by Tuvalu alone, and requires regional and sub-regional cooperation.

1.3 Mission

The Department's mission is:

- ✿ *To maximize social and economic returns to the people of Tuvalu through sustainable management and wise use of Tuvalu's living marine resources.*

On behalf of the people of Tuvalu, the Government, through its Fisheries Department, will act as a responsible custodian of oceanic or designated inshore fishery resources and fisheries rights so that they generate sustainable national revenues and provide employment opportunities for Tuvaluans. The Department will also support the Kaupules and Fale Kaupules to manage inshore fisheries to support livelihoods and provide local food security.

1.4 Objectives

The primary objectives of the Department, as updated in the current (2nd) Corporate Plan (2017-2019) are:

1. Tuvalu's national rights and interests are secured and protected within the regional purse seine and longline Vessel Day Schemes (VDS) whose integrity and development have been promoted by Tuvalu through cooperation with other participating coastal States.
2. Fisheries revenues to Tuvalu are maintained and further improved through the optimum allocation and pricing of Tuvalu's Vessel Days and associated purse seine and longline licenses.
3. At sea employment for Tuvalu citizens (fishing vessel crew and fishery observers) increased significantly above present levels through the provision of appropriately trained personnel and the fullest application of licensing conditions for local crewing.
4. Tuvalu is fully compliant with the requirements of the Western and Central Pacific Fisheries Commission (WCPFC) and other international fishery treaties to which it is a party.
5. Tuvalu meets the requirements of overseas market states in regard to illegal, unregulated and unreported (IUU) fishing and fishery product food safety.
6. Fishery surface patrols, aerial surveillance, observer coverage and other mechanisms are deterring and detecting IUU fishing activities, which are being effectively penalized through the Tuvalu legal system.
7. New fishery joint ventures have been negotiated between the Government of Tuvalu and selected commercial fishing interests which provide increased employment for Tuvaluans and additional revenue streams to the Government of Tuvalu (GOT) while minimizing investment cost and risk.
8. The National Fisheries Corporation of Tuvalu (NAFICOT) has been reformed to comply with the provisions of the Public Enterprises (Performance and Accountability) Act 2009 and acts as a vehicle for the GOT's commercial fishery interests.
9. The relationship between the TFD, Kaupules and Falekaupules has been transformed such that Kaupules regulate local food fisheries supplying local needs, and the Department provides support in the form of data collection and analysis and fisheries management advice.
10. FADs are available to fishers throughout Tuvalu and provide increased food security, higher financial returns, improved sea safety, and reduced fishing pressure on inshore resources.
11. Small-scale fisheries increasingly target a more diverse range of ocean resources in order to reduce fishing pressure on coastal species.

12. The safety of small-scale fishers has been improved through the installation of VHF radio equipment and the development of systems to respond to emergencies.
13. The TFD has reliable information on coastal fishery resources from each island on which to base the management advice it provides to Kaupules.
14. Conservation areas, by-laws and other fishery management arrangements have been established in those coastal fisheries where this is a high priority.
15. Management plans for beche-de-mer, shark and other sensitive species are in place, if necessary, through designation of these fisheries for management by the TFD under the Marine Resources Act (MRA).
16. Improved office space, information technology (IT), internet facilities and other support arrangements have been established to allow improved delivery of TFD functions.
17. Appropriate TFD training and human resource management arrangements, including succession planning, have been implemented to support the optimum performance of the Department.
18. Continued fine tuning of the TFDs organizational structure, recurrent budget and donor support has taken place to ensure that the available human and other resources correspond to the Department's evolving needs.
19. Stakeholders and the general public are aware of TFD activities that affect them, and participate in them in a supportive way
20. Fisheries Department staff and co-workers are able to access the information and knowledge needed for them to carry out their functions effectively.

These objectives are consistent with and updated from the objectives stated in Te Kakeega III, the Government's National Strategy for Sustainable Development 2015-2020. Even though TKIII was produced quite recently (2014), there have nevertheless been significant changes in the fisheries sector since that time and some of the objectives it contains are in need of updating.

The fisheries sector is dynamic and fast-evolving: even since the formulation of the TFD's current Corporate Plan there have been new developments that require a response by the Department. These include: increasing international fishery compliance obligations resulting from Tuvalu's membership of the Western Central Pacific Fisheries Commission; changes in the economics of the tuna fishery and the prospects for joint venture or other commercial developments; new regional fishery management arrangements that affect Tuvalu's fishery revenues; and local initiatives that may have negative impacts on inshore fishery resources. All these issues require Departmental action, sometimes substantial, which may not have been anticipated and thus not fully planned for. This emphasizes the need for the Department to remain responsive and flexible irrespective of the planning framework adopted.

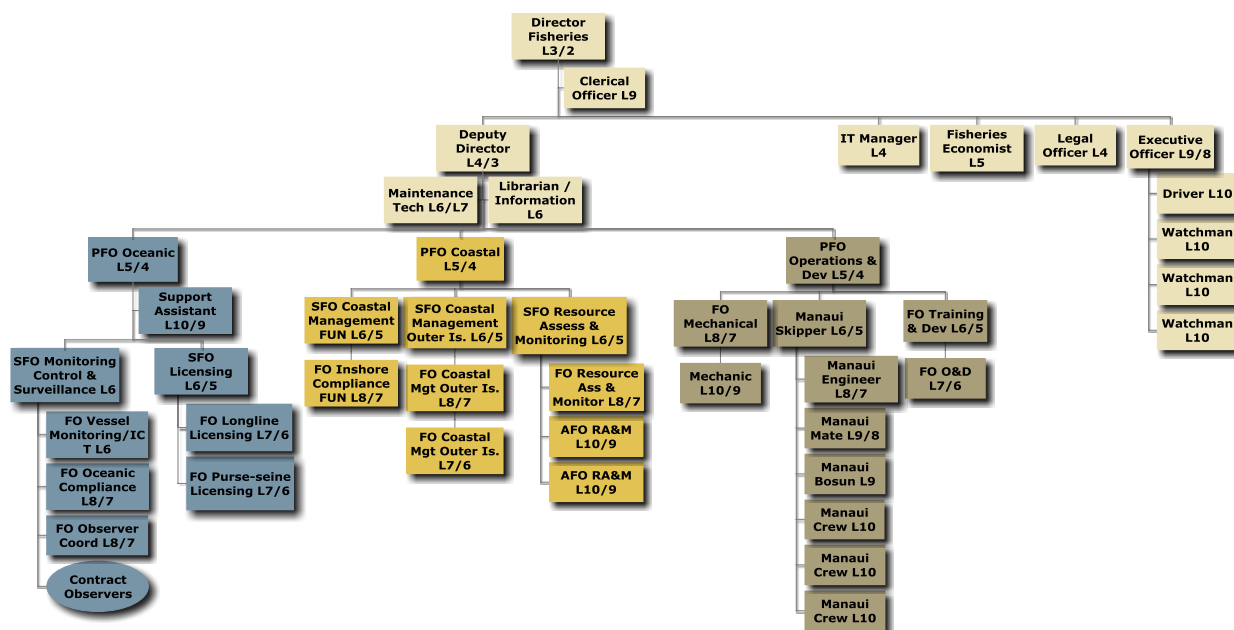
1.5 Organization

The TFD organizational structure, shown in Figure 1, was initially revised as part of the Cabinet decision of September 2013, and came into effect on 1st January 2014. In late 2016 two new positions (IT Manager and Maintenance Technician) were approved and will be recruited in 2017.

The Department now comprises:

- ✿ Administration Section: comprising the Director and Deputy Director, several professionals with cross-cutting responsibilities (Legal Officer, Economist and Public Relations Officer, Fisheries IT Manager) and the Executive staff. The group is responsible, among other things, for recommending fishery policy initiatives, negotiating fishery access arrangements, and establishment of joint ventures in which the Tuvalu Government has an interest;
- ✿ Oceanic Fisheries Section: responsible for industrial fishery vessel licensing, sale of fishery access rights, compliance with Tuvalu's obligations under international fishery treaties and conventions, and monitoring, control and surveillance of fishing activities within the exclusive economic zone (EEZ);
- ✿ Coastal Fisheries Section: responsible for inshore fishery resource assessment, monitoring and providing support to Kaupules, fishers associations and other stakeholders in the management of coastal fishery resources and the marine environment, both in Funafuti and the Outer Islands;
- ✿ Operations & Development Section: responsible for the running of the TFD vessel *Manai*, construction and deployment of fish-aggregating devices (FADs), training of fishers and fishing vessel crew, and other development-oriented activities.

Figure 1: Organisation of the Fisheries department



Several new activity streams are expected to develop in the coming years, for example the establishment of arrangements for sanitary control of Tuvalu's fishery product exports in order to meet the food safety requirements of market states. These will be located in the appropriate section of the TFD as they are implemented.

2 Fisheries Department Resources

2.1 Staffing

The TFD reorganisation in 2014 resulted in some former positions being redesignated, frozen positions being unfrozen, and the creation of a small number of new posts. The Department now comprises 42 staff (Figure 1): Thirteen (including Executive staff) in the Administration group, nine in the Oceanic Section, ten in the Coastal Section, and twelve in the Operation and Development Section.

Most positions were filled during 2014 and 2015, but in some cases this was through internal promotion, which created new vacancies. In addition, three staff left the Department in late 2014, resulting in four vacant positions at the end of the year (Legal Advisor, FO Coastal Fisheries Management (Outer Islands), Manaua Chief Engineer and SFO Licensing). In 2015 and 2016 the Department recruited several new staff. The Department has now established two new positions under the Administration Section for 2017. This includes an IT Manager who will be responsible for the smooth running of the Department's IT systems and a Maintenance Technician to perform basic repair and maintenance of the Department office buildings.

In addition, the Department has a pool of 67 trained and qualified fishery observers who are contracted to work on-board fishing vessels when required. It is planned to increase the pool to at least 100 observers in 2017, and to increase the number of those qualified to carry out debriefing and other higher-level functions.

Since October 2012 the Department has been supported by a full-time advisor, provided under New Zealand donor funding, and who has concentrated primarily on oceanic fisheries management and industrial development. An additional part-time advisor, focusing on coastal fisheries management, was recruited in late 2015.

In 2015 two more fisheries officers were recruited under the GEF-funded National Adaptation Programme of Action (NAPAI) for Climate Change for the 4-year duration of the project. The UNDP/GEF Ridge to Reef Project (R2R) may also supply an outer islands person to carry out fisheries-related activities. Finally, TFD is in the process of engaging a NZ Volunteer (retired business person or similar) to assist with restructuring the National Fisheries Corporation of Tuvalu (NAFICOT).

2.2 Assets and facilities

TFD staff are currently scattered among 6 separate buildings, some of which are in a serious state of disrepair. The unsatisfactory office environment impedes the proper functioning of the Department, prevents effective communications and personnel management, and has a negative effect on staff morale.

In recognition of these issues, the New Zealand Government has agreed to support the construction of a new office building for the Department (Figure 2). The new building will be constructed at Teone on the site of one of the Department's existing, decrepit buildings, which will be demolished for that purpose. The building was originally scheduled for completion in October 2015, but due to unforeseen delays and budget cuts, completion is now expected by September 2017.

Figure 2: New Fisheries Building to be built at Teone in 2017



TFD has two research vessels, the RV Manauai and RV Tala Moana used for deploying FADs, transmitting people and equipment to the outer islands and which are available for charter to third parties. The Tala Moana is now being used to conduct regular outer islands fisheries expeditions.

There is also a collection of vehicles, including crane trucks, motorbikes and scooters, freezers and refrigerators, and an ice machine for supplying ice to fishers. There is one tender boat and 1 working outboard motor, with several new small boats and other equipment to be procured using World Bank (WB) Pacific Regional Oceanscape Programme (PROP) funding.

The department also has a dive compressor, dive gear and tanks and various items of office and laboratory equipment used for fishery research purposes. In 2016 some items of office and technical equipment were procured through the Fisheries Support Programme (TFSP) funded by the New Zealand Ministry of Foreign Affairs and Trade (MFAT) and through WB PROP, to support the activities outlined in this work plan. Additional equipment will be procured in 2017, including the IT fitout for the new building (using PROP funds) and office equipment (financed by the Tuvalu Special Development Fund (SDF) of the Government of Taiwan).

Figure 3: RV Tala Moana arrival ceremony January 2016



2.3 Budget

Fisheries licensing, access fees and investments now generate a significant proportion of Tuvalu Government revenues. The estimated income in 2014 was AUD \$14.8 million, with a significant increase to \$26 million in 2015 and \$33 million in 2016. The forecast amount for 2017 is around \$24.9 million or 73% of non-aid government revenue (51% of the recurrent budget). The Fisheries Department plays a critical role in maximizing these returns through its ongoing participation in regional and bilateral fisheries negotiations, and the development of strategies intended to promote Tuvalu's interests.

The TFD recurrent allocation for 2017 was approved as part of the national budget process that took place in December 2016. Under the approved budget, the Department's allocation is \$791,242 of which \$639,926 (81%) is staff costs. The balance of \$151,316 will contribute to the Department's operating costs.

Recurrent budget allocations are inadequate to cover the full operating expenses of the Department, which include expeditions to the outer islands and surface fishery enforcement patrols using TFD vessels, periodic replacement of boats, computers and field equipment, in-house technical training activities, field survey work, and other high-cost activities. To be sustainable, the TFD would need recurrent budget allocations significantly higher than current levels.

To cover the shortfall, the Department has successfully negotiated substantial amounts of additional funding support to the TFD and the fisheries sector in general from several major development partners:

- ✿ The New Zealand-Tuvalu Fishery Support Programme (TFSP): This is providing NZ\$ 1,036,800 over the 5-year period from 31st May 2014. The TFSP will also provide new office facilities for the Department in 2017;
- ✿ The World Bank Pacific Regional Oceanscape Programme (PROP), approved in December 2014, is providing a total of US\$7,910,000 over a 6-year period that commenced in the first quarter of 2015;
- ✿ The GEF-funded and UNDP-managed NAPAI project is providing approximately US\$2.1 million to support fisheries development and food security activities in Tuvalu's outer islands over the 4-year period from early 2015. The NAPAI project also procured a project vessel (RV Tala Moana) which is operated by the Department, and which is being used in support of other TFD activities; and
- ✿ The GEF-funded and UNDP-managed R2R project was approved in mid-2015 and aims to support aquatic biodiversity conservation and establishment of marine protected areas in some outer islands, with some activities to be funded through TFD.

Together these programmes support a wide range of activities by the Fisheries Department working in close collaboration with other partner agencies, including the Maritime Wing of the Tuvalu Police Department, the Tuvalu Maritime Training Institute (TMTI), and the Kaupule on each of Tuvalu's islands. Activities to be funded and supported by these four programmes are fully integrated into the Department's Work Programme, and in many cases will be funded by a combination of both donor and recurrent budget allocations.

Additional support continues to be available through the main fisheries sector regional organisations (Forum Fisheries Agency (FFA), Secretariat of the Pacific Community (SPC), Parties to the Nauru Agreement (PNA) Office and the Western Central Pacific Fisheries Commission (WCPFC). Technical assistance, training and small project funding also continues to be available from time to time through a number of bilateral and multilateral partner agencies. However the TFSP and PROP will greatly reduce the Department's dependence on this type of funding, which can be unpredictable and sometimes more closely aligned with regional rather than national priorities.

3 2017 Work Plan

3.1 Internal Management

A focus of the TFD work programme in 2017 will be on strengthening the Department's internal management and coordination arrangements. As in 2016, this will be done primarily through monthly meetings of the internal Senior Management Committee (SMC). The SMC was formalized in 2015 and comprises the Director, Deputy Director, Legal Officer, Fisheries Economist, Information Officer, PFO Oceanic, PFO Coastal, PFO Operations & Development, and Technical Advisors. The SMC will continue to meet approximately monthly and will review the implementation of the Work Programme based on reports to be provided by each member prior to each meeting. Quarterly meetings of all TFD staff will also be held to discuss the implemented activities, as well as professional and social issues within the department.

2017 will see the improvement of travel reporting, under which TFD staff will be required to submit mission reports and, where appropriate, make presentations on the results of their travel at TFD seminars. The first of these seminars took place as a pilot exercise in 2014 and will

strengthen in 2017 through a programme of lectures, seminars and workshops to be held several times each month.

A further area of focus will be on succession planning. The activities of the Department are often constrained by the absence of key staff who have gone on leave, travelled overseas, or moved to other employment. A greater emphasis will be placed in 2017 on training and upskilling staff to better stand in for other officers when they are absent.

The Fisheries Department promotes an active social life, both for the enjoyment of staff and to help maintain a cohesive social environment. The Department's Social Committee organizes regular sporting activities, musical events and social functions, and TFD participates in inter-departmental sporting and other competitions.

3.2 Administration Group

The Administration section of the Department is responsible for a range of activities, including:

- ✳ Advising the Minister, Cabinet and Parliament on fishery policy issues and high-level developments within the sector;
- ✳ Negotiating fishery access agreements with distant water fishing nations, associations, fleets and companies;
- ✳ Economic analysis of fishery development and management options;
- ✳ Ensuring consistency between fishery revenue information held by the TFD and the Treasury Department of MFED;
- ✳ Promoting and managing fishery joint ventures and other commercial activities in which the Government of Tuvalu has an interest, including the restructure of NAFICOT;
- ✳ Ongoing review and updating of Tuvalu's fishery legislation to ensure it remains compliant with international treaties to which Tuvalu is a party;
- ✳ Assisting the Attorney-General's Office and other relevant government departments in regard to incidents of non-compliance with Tuvalu's fishery laws;
- ✳ Providing access to information on Tuvalu fisheries, including through the development and maintenance of a Fisheries Department library and website;
- ✳ Production of public information materials on the work of the Department, and the Tuvalu fisheries sector in general;
- ✳ Representing Tuvalu at high-level fishery discussions and negotiations;
- ✳ Managing and keeping records of departmental expenditure, travel, training and personnel issues.

Many of the Administration group's activities are ongoing or routine, such as organizing periodic staff meetings, personnel recruitment, staff appraisals, reporting, etc. However a number of milestone tasks for 2017 are identified in Table 1.

Table 1: Activity timetable for the Administration Section in 2017

Administration Section	2017 Milestones											
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016 Annual Report Production	★	★	★									
Complete NAFICOT restructure	★	★	★	★	★	★	★	★	★	★	★	★
Participate in Regional Meetings			★	★	★	★	★				★	★
Finalize MRA Amendment Bill				★								
Sub-regional pooling/Bilateral Neg.				★	★						★	★

Administration Section		2017 Milestones											
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Removal of EU Yellow card											★		
Public Information & Awareness	★	★	★	★	★	★	★	★	★	★	★	★	
Consultation trip to OIs		★	★	★									
Fish hygiene legislation enacted									★	★			

3.3 Oceanic Fisheries Section

The Oceanic Fisheries Section oversees the effective monitoring, control and management of industrial tuna fisheries in Tuvalu's fishery waters, and related activities. Mindful of the significance of this fishery in terms of its social and most importantly economic benefits, the Section focuses its work programme on achieving the following objectives:

- ✿ Improve implementation of the Purse seine (PS) and Longline (LL) Vessel Day Schemes (VDS), and manage other bilateral licensing of foreign LL, Pole & line (PL), bunkering and other fishing or support vessels;
- ✿ Follow up on outstanding actions required to rectify the EU IUU 'yellow card';
- ✿ Improve management of the National Observer Programme for data collection and compliance purposes, and to create more at-sea employment opportunities for Tuvaluans;
- ✿ Improve data collection from industrial fishing vessels for internal analysis and for dissemination to regional bodies including SPC and WCPFC;
- ✿ Improve Monitoring of transshipment activities in Tuvalu's designated port of Funafuti;
- ✿ Improve Monitoring, Control and Surveillance (MCS) of foreign fishing vessels (FFV) activities in Tuvalu's Fishery waters;
- ✿ Fulfil Tuvalu's reporting obligation to WCPFC;
- ✿ Promote the human resource development (HRD) plan through internal and external capacity-building and training courses that enhance staff capacity; and
- ✿ Provide technical training and awareness programmes to all stakeholders involved in monitoring, control and surveillance (MCS) work.

A priority for this year's work plan will be to replace to technical staff who have recently left the Department. Upon recruitment, all posts within this section will have been filled. The focus is then to enhance the capability and knowledge of staff so they can keep up with the ever-changing fishing industries with which they must interact. The battle with illegal, unregulated and unreported (IUU) fishing activity is never-ending. With emerging technologies and new ways to harvest our resources, it is very important to keep building the capacity of this section to be able to enforce our laws and improve compliance.

MCS activities require close collaboration with the Maritime Wing of the Tuvalu Police Department, the Attorney-General's Office and other government agencies involved in maritime law enforcement. With the increase in donor funding available for this year, there is an opportunity to increase coverage of surface patrol operations in the exclusive economic zone (EEZ) to deter IUU activities. This will in turn address concerns of the EU on the lack of patrols and prosecution of illegal fishing activities in Tuvalu over the last few years.

Several other activities, including participation in regional MCS activities, support to regional aerial surveillance flights, engagement in ship-rider programmes operated by QUAD (US, NZ, AU & FR) Naval and coastguard vessels, and transshipment monitoring in Funafuti Lagoon will be

carried out opportunistically but cannot be included in the work programme as dates are unknown at this stage.

The Tuvalu National Observer programme has grown in the past few years. The Oceanic Section will examine whether there is a need to expand the program to create more employment opportunities. There are now 68 active observers, among them 5 certified debriefers and 12 trainee debriefers. Also, in this pool of observers there are 31 Marine Stewardship Council (MSC) certified observers that can certify MSC compliant fish caught by Purse Seine vessels. A full operational review and performance audit of the program will be undertaken in early 2017, following recruitment of a consultant using PROP funding. Terms of reference (TOR) for this consultant were developed and the position advertised during 2016 for expressions of interest. This is important to ensure that the Observer Programme operates with maximum efficiency and effectiveness.

Some of the Oceanic Section's activities are ongoing or routine, such as renewal of licence and access agreements, updating licence lists, observer deployments, data entry, etc. However, a number of milestone tasks for 2016 are identified in Table 2.

Table 2: Activity timetable for the Oceanic Fisheries Section in 2017

Oceanic Section		2017 Milestones											
Activity/Task		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Recruitment of SFO MCS officer		★	★										
Observer program review consultant		★	★								★	★	★
Observer Program review work				★	★								
Talamoana surface patrol operation			★			★		★			★		
Te Mataili surface patrol operation													
Regional surveillance operations				★			★			★			
SOP and MOUs under NPOA IUU		★	★	★	★	★	★						
Revising of AA templates						★	★						
Consultation/Workshop local agencies						★							
Vessel Sighting awareness workshop			★			★		★			★		
VDS management (NFD verification, allocation, trading days, etc.)		★	★	★	★	★	★	★	★	★	★	★	★
WCPFC Part 1 (science) report			★	★	★	★	★						
WCPFC Part 2 (Compliance) report			★	★	★	★	★						
VSAT maintenance				★			★			★			★
In-house Information sharing			★				★			★			★
Quarterly Progress Reports				★			★			★			★
Data entry (obs & catch logs)		★	★	★	★	★	★	★	★	★	★	★	★
Monitoring transshipment (in port)													
MTU inspection/interrogation (FFA)						★							
VMS and MCS fellowship attachments							★	★					
MCS Foundation course (FFA)											★		
Regional Observer Coord. Meeting			★										
FIMS Observer e-Reporting Training					★								

Oceanic Section					2017 Milestones							
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Observer Debriefing, MSC training			★	★								
MCSWG20			★	★								

3.4 Coastal Fisheries Section

Inshore fisheries support livelihoods, food security, nutrition and human health on all the islands of Tuvalu and are significant contributors to building the resilience in all our communities. The Coastal Fisheries Section is responsible for ensuring the sustainability of coastal resources of finfishes, shellfishes and other seafoods now and in the future. Because Tuvalu's legislation essentially places control of inshore fisheries in the hands of local government, the Coastal Fisheries Division needs to work closely with the Kaupule to achieve its goals.

In the first report on creel surveys undertaken by Coastal Fisheries, completed in October 2016, strong evidence was found that at least some of the coastal species are overfished in Funafuti, Nui and Nukufetau¹. As a result of these findings, overfishing that was suspected in the past now has supporting evidence and management strategies are urgently required.

Whereas in 2016 the focus of the work plan was on data gathering, in 2017 data gathering will continue, but to that will be added work on managing stressed resources, beche-de-mer (BDM) and strengthening existing management structures (such as the Funafuti Conservation Area) and fisheries rules (e.g. rules on nets). The Division will focus its 2017 work programme on the following activities:

- ✿ **Data collection:** This will now cover all of the coastal fisheries data being collected on Funafuti and the outer islands (OI). Many of the data collections activities from 2016 will be continued, including artisanal fisheries (creel), socio-economic data, fish exports, and cases of ciguatera poisoning. In 2017 several new monitoring programmes will begin including a beche-de-mer (BDM) survey, water quality and ciguatera algae monitoring. All of these data are needed for establishing management systems and monitoring their effectiveness. In addition, fishery profile work will be carried forward from last year.
- ✿ **Resource Management:** A new activity for 2017, Coastal Fisheries will begin to develop management actions in consultation with fishers and communities, in partnership with the Kaupules. The activities will include strengthening of managed areas, development of regulations (including undersized fishes and ciguatera) and at least one management plan for BDM.
- ✿ **Awareness programmes:** will be run to ensure the public and government are informed of the status of their fisheries and are informed and consulted about mechanisms needed to ensure the resources. The programmes to be included are radio, website (with newsletter) and seminar programmes.
- ✿ **PROP:** PROP funds will be applied to support a review of the local fisheries legislation and by-laws on each island, support strengthening of the Funafuti Conservation area (FCA), develop mapping products using Geographic Information Systems (GIS) for ciguatera hotspots and other tasks and a research trail on the usefulness of Fish aggregating devices (FADs) in the lagoon.

¹ Alefaio et al 2016 Creel Survey Report 1, Tuvalu Department of Fisheries, 15pp.

- ✿ **NAPA II and R2R:** Under its funding through GEF and UNDP, the CFD will implement tasks that will include an aquaponics trial in Vaitupu, and managed area demarcation and management plans on the outer islands.
- ✿ **Training programmes:** These will be run for the staff in the form of overseas training attachments, in-country training programmes, and in-house lectures as may be required, as well as through in-service training provided by the Human Resources Division.
- ✿ **Data Systems:** will include improving databases developed in 2016, training on use of software, training in data analysis and report production. It is expected that in 2017 a newly-appointed IT staff member will maintain data systems and computers and work with Coastal Fisheries staff to improve their efficiency.

Some of the Coastal Fisheries Division's activities will be on-going from past years. However, in 2017 a range of new activities is planned. These are highlighted in Table 3 and include the introduction of 3 new surveys and a whole new programme on management of critical resources. The milestone tasks for 2017 are illustrated below to show when each activity will be most active.

Table 3: Activity timetable for the Coastal Fisheries Section in 2017

Coastal Section	2017 Milestones											
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Artisanal creel FUN	★	★	★	★	★	★	★	★	★	★	★	★
Artisanal creel OI	★	★	★	★	★	★	★	★	★	★	★	★
Metronome trips/reports			★	★	★	★		★	★			
BDM survey FUN						★	★					
Fish exports	★	★	★	★	★	★	★	★	★	★	★	★
Water quality				★	★					★	★	
Ciguatera sampling	★	★		★		★	★		★	★	★	
Ciguatera cases	★	★	★	★	★	★	★	★	★	★	★	★
Fishery profiles	★	★									★	
Socio-economic survey FUN				★			★					
Consultations FUN		★		★			★					
Consultations OI		★	★		★	★		★				
Regulations/Management plans		★		★			★		★	★		
Awareness	★	★	★	★	★	★	★	★	★	★	★	★
FCA support				★	★				★			
GIS training / maps					★		★					
Attachment training SPC/NZ							★	★				
FAD research trial in lagoon						★	★		★	★		
Aquaponics		★										
LMMA work OI		★	★		★	★		★				
In-house training		★		★			★			★		
Databases, IT	★	★	★	★	★	★	★	★	★	★	★	★
Administrative tasks	★	★	★	★	★	★	★	★	★	★	★	★

3.5 Operations and Development (O&D) Section

The artisanal fisheries sector is very important for economic and food security reasons and pressure on coastal fisheries resources, particularly in Funafuti, is high. With issues of overfishing of reef resources emerging in some parts of the country there is a strong need to encourage fishers to focus more on offshore resources (tunas and allied species). Lack of access to fishing gears, sea safety gear, and markets means that there are many pressing issues and challenges to be met by through the services provided by the O&D Section. This includes

capacity development, management of fisheries infrastructure such as vessels and deployment of fish aggregating devices (FADs) to assist Tuvaluans to derive maximum benefits out of their local resources.

The fisheries department now has now two vessels, RV Tala Moana and RV Manau, which are under the care of the Operations and Development Section. Keeping the two vessels in good working order is a priority, but also a challenge due to the lack of a dedicated budget to meet operating costs, particularly for the Tala Moana which at 34m length may require as much as \$1 million/year in stationary costs, \$300/hr to cruise and the need to dry dock outside of Tuvalu. The Manau is less problematic since all maintenance can be done locally, there is a budget allocation for operational expenses and most of the maintenance costs are met by the Japanese government through its Overseas Fishery Cooperation Foundation (OFCF).

Listed below are the activities that the O&D Section has prioritized for delivery in 2017 in order to assist with the development of the artisanal sector nationwide. Funding for such activities will come under the recurrent budget as well as from projects such as NAPAI, the TFSP, and the PROP.

- ✿ **Capacity Development:** Training on the production of smoked fish: This is a deferred item from the O&D AWP, 2016. The training is a need identified during past consultations with the fishermen in all the outer islands. The training is expected to result in the availability of a more diversified range of fisheries products in the future, including semi-preserved products that can sustain communities during periods when bad weather prevents fishing. The month of February was selected based on a mutual agreement between the department of fisheries and the OFCF (sponsor of the first training course). Subsequent smoked fish training sessions are planned to coincide with the NAPAI Metronome trips in February-March, May-June and August 2017. Expenses for the latter two training session will be met jointly by the NAPAI project and core TFD funding from government.
- ✿ **Outboard engine training:** After a workshop in 2015, fishermen on Funafuti recognized the value of the training and requested further assistance in this area. Training will be conducted in 2017 with co-funding from the recurrent budget and the Fishermen's Association. The training is dependent on the procurement of equipment and spare parts.
- ✿ **Fishing techniques:** Given that some reef fishes are being over fished, especially on Funafuti and that pelagic species such as scads, flyingfish and tunas are plentiful, there is a strong need to develop the techniques to make good use of the bountiful pelagic resources. The O&D Section will use NAPAI funds and engage with the SPC to provide training on various techniques for catching pelagic species in Tuvalu.
- ✿ **TFD Vessels:** Manau: The Manau echo sounder has been out of order since July 2016, shortly after its release from the dry dock, affecting its ability to deploy FADs. OFCF has kindly agreed to replace the unit in February 2017.
- ✿ **Tala Moana:** It was agreed by the Senior Management Committee and NAPAI to send Tala Moana to Suva at the end of 2017 for a full service. However, by the end of 2016 many defects had started to show up, some of which are quite critical. As a result timing for slipping the vessel in Suva (see Table 4) may need to be reconsidered and moved earlier. This will depend on the results of a technical report in first quarter 2017, from the Marine Department, before slipping dates for Tala Moana are finalized. The Tala

Moana also requires a mooring buoy for times when it is not berthing at the wharf, and particularly during the westerly season or cyclones when mooring is required for safety. The costs of building a mooring will be derived from PROP funding.

- ✿ **Crewing Certification:** The Tala Moana crew hold STCW 95 certificates and are likely to need to upgrade their qualifications to STCW 2010 by the end of 2017. This is a world-wide requirement and it is intended that TFD's crew will participate in the upgrade when the boat goes to Suva for slipping.
- ✿ **Mechanical Workshop:** The key role of the mechanical workshop is provide repair and maintenance services for TFD's assets, including a crane truck, two pick-ups, an ice machine and the RV Manau. Occasional visits by workshop staff to the outer islands are carried out where there is a need and funds are available, particularly now that regular metronome trips have been established 3-4 times per year.
- ✿ **FADs:** Although funds have been available for FADs in recent years through NAPAI and PROP it has been difficult to deploy them. In 2016, all FAD materials were procured and training on construction and deployment completed, but the lack of a suitable eco-sounder for identification of suitable deployment sites prevented completion. With the procurement of a new echo-sounder for Manau, it is expected that FAD deployment will resume later in the year.
- ✿ **Lagoon FAD trials** will also be started this year, beginning with the procurement of materials. One or 2 lagoon FADs will be trialled to improve accessibility to pelagic nearshore species by fishers and to promote the protection of reefs from anchor damage. The FADs will be placed close to villages on sandy bottoms away from the reefs.
- ✿ **Canoes:** One of the two NAPAI Fisheries Officers is responsible for this activity which seeks to improve access by local fishers on all islands to low-cost canoes. The focus is on trialling new materials and training on canoe-building that does not require the felling of large trees. This will involve the TFD supplying materials and tools, and running workshops on all outer islands.
- ✿ **Community Fishing Centres:** Funded by the NAPAI Project, the existing Community Fishing Centres (CFCs) on the outer islands will be augmented by the building of a maneapa-style building for the delivery of fisheries training including workshops, and the storage of tools and equipment for fishing, canoe-building and fish processing. This activity was delayed in 2016 through the resignation of the previous NAPAI officer and slow recruitment of a replacement.

The O&D Section will continue to carry out administrative tasks including SMC meetings, quarterly reporting and making logistic arrangements for TFD's infrastructure and crews. The timing of the main activities for 2017 is shown in Table 4 below.

Table 4: Activity timetable for the Operations and Development Section in 2017

Operations & Development Section	2017 Milestones											
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Smoked fish training		★		★	★	★						
Outboard motor repairs	★										★	
Fishing techniques training							★					
Manau echo-sounder install		★	★									
Talamoana slipping		★	★	★								
STCW 2010 Upgrade for crew			★									
Mooring buoy		★										

Operations & Development Section	2017 Milestones											
Activity/Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Workshop ice machine	★			★			★			★		
Workshop repainting		★										
Vehicle maintenance						★					★	
Echo-sounder procured	★	★										
FAD deployments				★	★	★						
Lagoon FADs				★	★		★					
Canoe project								★	★			
CFC Training Centre			★	★	★	★	★					
Administration	★	★	★	★	★	★	★	★	★	★	★	★

4 Monitoring and Reporting

Monitoring of Work Programme implementation and delivery will primarily be through the monthly meetings of the FMC and quarterly meetings of the PAC as described in section 3.1.

In addition, quarterly progress reports will be produced by the TFD, both for internal purposes and to respond to the requirements of NZAP, World Bank and UNDP/ GEF, the Department's major external development partners.

The Department will also continue to produce Annual Reports for submission to and approval by Cabinet.