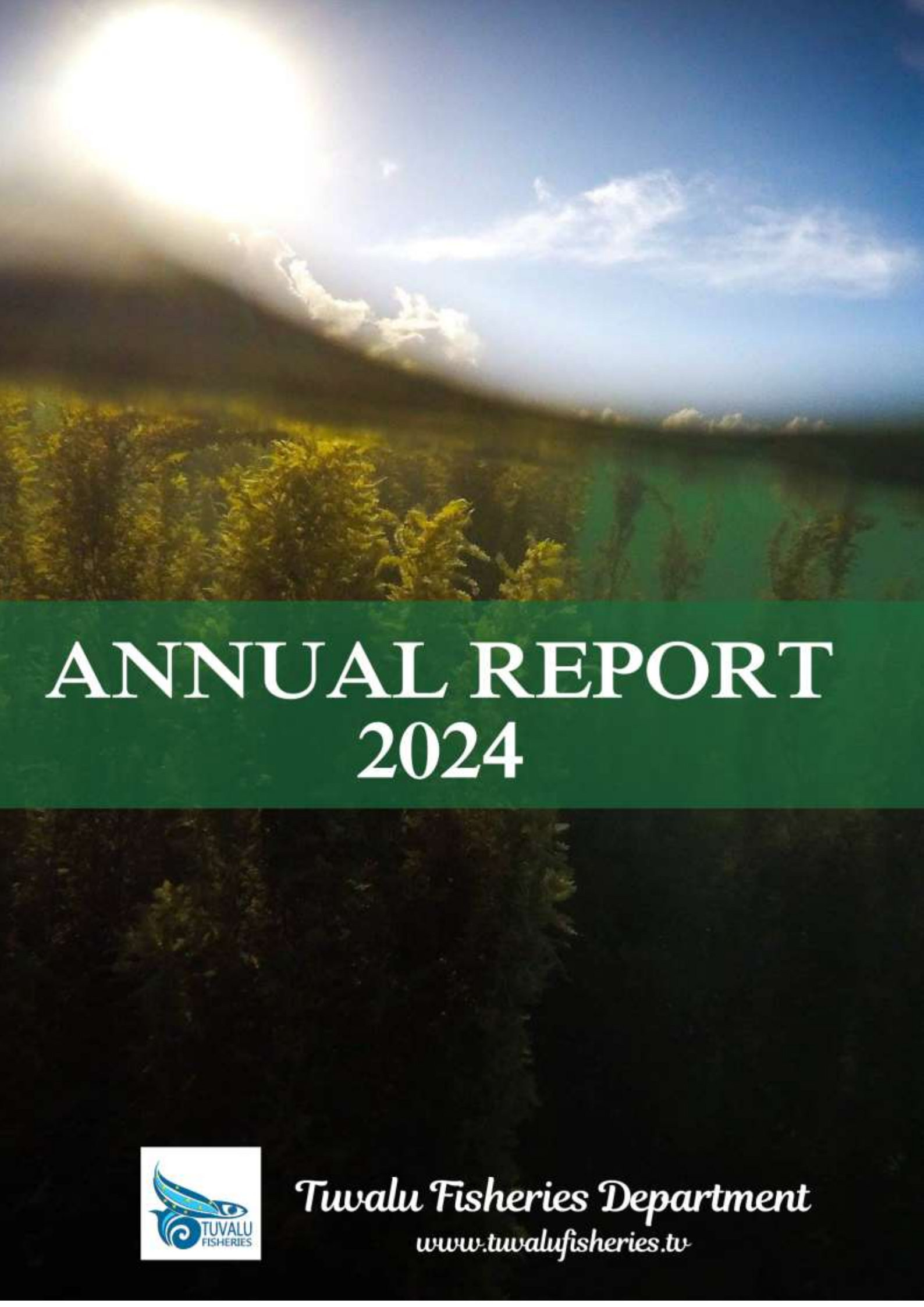


ANNUAL REPORT 2024

Tuvalu Fisheries Department

www.tuvalufisheries.tv

Tuvalu Fisheries Department
Ministry of Natural Resources and Development
Government of Tuvalu

Annual Report
2024

Prepared by:
The staff of Tuvalu Fisheries Department

Funafuti, Tuvalu
January 2025

Acronyms and Terms

AA	Access Agreement
AAO	Assistant Asset Officer
aFAD	Anchored Fish Aggregating Device
AG	Attorney General
AIS	Automatic Identification System
ASO	Aerial Surveillance Operations
AUD	Australian Dollars
AWP	Annual Work Plan
BET	Big eye tuna
CCFS	Compliance Case Files System
CEU	Compliance and Enforcement Unit
CFCs	Community Fishing Centers
CFMPs	Coastal fisheries management plans
CFO	Community Fisheries Officer
CFP	Ciguatera Fish Poisoning
CMMs	Conservation and Management Measures
CN	Chinese
COFA	Chinese Overseas Fisheries Agency
CPUE	Catch per unit effort
CTTF	Chinese Taipei Trust Fund
dFAD	drift FAD
EEZ	Exclusive Economic Zone
EIA	Environment Impact Assessment
ENSO	El Niño-Southern Oscillation
ER	e-reporting
EU-market	European Market
FADs	Fish Aggregating Devices
FAO	Food and Agriculture Organization
FDAPIN	Fisheries Development Assistance to Pacific Island Nations
FFA	Forum Fisheries Agency
FIMS	Fisheries Information Management System
FM	Federated States of Micronesia
FOFA	Fishermen on Funafuti Association
FRFSP	Funafuti Reef Fisheries Stewardship Plan
FRFSP2	FRFSP
FSM	Federated States of Micronesia
FSMA	Federated States of Micronesia Arrangements
FV	Fishing vessel
GTox	Ciguatera toxin
IRCS	International Radio Call Sign
IUU	Illegal, unregulated and unreported activities
JICA	Japan International Cooperation Agency
KOFA	Korean Overseas Fisheries Agency
KOFCC	Korean Overseas Fisheries Cooperation Center
KR	Koreans
LL	long liners
LLVDS	Long Line Vessel Day Scheme
LMMA	Locally Managed Marine Areas
MCS	Monitoring, Control and Surveillance

MCSWG26	Monitoring, Controlling and Surveillance Working Group 26 Meeting
MFT	Ministry of Fisheries and Trade
MNRD	Ministry of Natural Resources Development
MOU	Memorandum of Understanding
MPI-NZ	Ministry of Primary Industry of New Zealand
MSC	Marine Stewardship Council
NAFICOT	National Fisheries Corporation of Tuvalu
NGOs	Non-Government Organisations
NR	Nauru
NZ	New Zealand
NZ_TFSP2	NZ - Tuvalu Fisheries Support Program 2
OFCF	Overseas Fishery Cooperation Foundation
OPAGAC	EU certified fishing organisation
PAE	Party Allowable Effort
PDF	Project Development Fund
PLB	Personal Locator Beacon
PNA	Parties to the Nauru Agreement
PNAO	Parties to the Nauru Agreement Office
PNG	Papua New Guinea
POA	PNA Observer Agency
PROP	Pacific Regional Oceanscape Programme
PROPER	Pacific Regional Oceanscape Programme for Economic Resilience
PS	Purse seine
ROCW	Regional Observer Coordinators Workshop
ROP	Regional Observer Program
RSP	Regional Surveillance Picture
SC	Scientific Committee
SFO	Senior Fisheries Officer
SMC	Senior Management Committee
SPA	Special Protected Areas
SPC	Secretariat of the Pacific Community
TCA	Tuvalu Competent Authority
TDF	Tuvalu Development Fund
TEC	Tuvalu Electricity Corporation
TFD	Tuvalu Fisheries Department
TFSP	Tuvalu Fisheries Support Programme
TFSP2	Tuvalu Fishery Support Programme phase 2
TK	Tokelau
TMTI	Tuvalu Maritime Training Institute
TV-flag	Tuvalu flag
TW	Taiwanese
US	United States
USD	United States Dollars
USP	University of the South Pacific
VDS	Vessel Day Scheme
VHF	Very High Frequency
VMS	Vessel Monitoring System
VSAT	Vessel Satellite
WB	World Bank
WCPFC	Western Central Pacific Fisheries Commission
WCPO	Western Central Pacific Ocean

Contents

List of Figures

List of tables

1 Background

1.1 The Tuvalu Fisheries Sector

Tuvalu is composed of four reef islands and five atolls. They are spread out between the latitude of 5° and 10° south and between the longitude of 176° and 180°, encompassing an Exclusive Economic Zone (EEZ) of 750, 000 square kilometers and a land area of 26 square kilometers. The islands of Tuvalu, are homes to around 11,000 persons with ~60% living on the capital Funafuti.

Subsistence and artisanal activities dominate Tuvalu's local fisheries. A wide variety of techniques are used throughout the group to collect fish, crabs and shellfish which are consumed, shared or informally bartered. Fisheries Centres on seven of the outer islands, managed by the Kaupule with support from TFD, buy fish from local fishermen and sell to the public in either fresh, frozen or dried form. On Funafuti, the National Fishing Corporation of Tuvalu (NAFICOT) and the Fishermen on Funafuti Association (FOFA) both operate fish markets providing a similar service, although most fresh fish is still marketed through road-side sales. On this main island there is a substantial artisanal fishery using a fleet of 4-7-meter outboard powered skiffs which mostly fish by trolling for tuna and by line fishing for reef fish.

It has been estimated that more than half of the fish landed in Tuvalu (59% by weight) are ocean species, predominantly skipjack and yellowfin. The remainder is made of reef and lagoon species, with smaller amounts of bottom fish from deep slope areas. The most recent household income and expenditure survey (2015/16) shows that 55% of households participate in fishing for subsistence and cash, although this rises to 75% in the outer islands. This is a reduction from previous surveys and suggests a growing dependence on wages and salaries. Just under 10% of households regularly fish to sell their catches for cash. Fish consumption was estimated by this same survey at 72 kgs/person/year (90 kgs in the outer islands and 55 kgs for Funafuti). Although this is still one of the highest consumption rates in the world, it also shows a decline over the past decade.

Tuvalu waters are important for the two key industrial tuna fisheries of purse seine and longline. Fishing is generally undertaken by foreign vessels operating under access agreements and skipjack tuna make up the bulk of the catch. Fisheries licensing is now the major source of Government revenue based on the combination of license fees, selling of vessel days, transhipment fees, observer fees and management fees from Tuvalu flag vessels. The industry normally provides employment opportunities for observers, port monitors and stevedores, and it has also been planned to start placing crew.

1.2 Purpose of this report

This report describes the objectives, activities and results of the Tuvalu Fisheries Department (TFD), which was then within the Ministry of Fisheries and Trade (MFT), during 2024. The year was characterised by unusual weather conditions with a strong *El Nino* in 2023 transitioning to a weak *La Nina* in 2024.

2024 represents the second year of the Department's new Corporate Plan (2023 – 2025). This is aligned directly with the 'Te Kete', the national sustainable development strategy. Where possible, activities are reported against the thematic areas identified in the 2024 Annual Work Plan (AWP) based on the Corporate Plan.

1.3 Vision

The guiding vision of the Department is taken from *Te Kete* and is as follows:

- *Sustainable small-scale fisheries operations pertinent to income generation, food security and healthier diets are maintained and strengthened nationwide.*
- *Revenue generated from our ocean fisheries is optimized.*

The physical and economic health of the Tuvalu population depends upon the health of both its inshore and oceanic fisheries. While inshore fisheries can be managed by Tuvalu, the oceanic fisheries cannot be managed by Tuvalu alone but require regional and sub-regional co-operation.

1.4 Mission

The Department's mission, also taken from *Te Kete* is:

- *To increase the contribution of Fisheries to socio-economic development and quality of life.*

These high-level objectives build on earlier Corporate Plans, but reflect a change of emphasis towards building food security and greater economic resilience based on our fisheries resources.

1.5 Objectives

The primary objectives of the Department are as follows:

1. *Develop a sustainable commercial fishery optimizing revenue from our own waters, which includes continued support for small-scale commercial fishers as well as efforts to develop a larger scale operation.*
2. *Foster sustainable management of oceanic fisheries resources – reflecting the importance of regional cooperation as well as monitoring control and surveillance in our waters.*
3. *Improve management of coastal fisheries, imperative for sustainable inshore resources, which face threats of overfishing and impacts of climate change.*
4. *Execute a consistent data collection and analysis facility to ensure best decisions are made throughout, in support of the effective management of both oceanic and coastal resources.*
5. *Increase the value of access fishing licenses in Tuvalu waters – maintaining and if possible increasing Government revenue while seeking to develop other economic opportunities.*
6. *Develop systems, staff capacity and facilities for a Tuvalu Fisheries Authority; the transition from a Department to an Authority will be an important step in improving the efficiency and effectiveness of the fisheries agency.*
7. *Promote public awareness and education on fisheries issues, with a new emphasis on attracting talented young people into the fisheries sector.*

1.6 Organisation

The TFD organizational structure, shown in Figure 1, comprises:

- An Administration Section, comprising the Director and Deputy Director, several professionals with cross-cutting responsibilities (Legal Officer, Economist and Librarian/Public Relations Officer, Fisheries IT Officer) and the Executive staff. The Administration group is responsible, among other things, for recommending fishery policy initiatives, negotiating fishery access arrangements, securing assistance through development projects and establishment of new commercial initiatives in which the Tuvalu Government has an interest;
- A Coastal Fisheries Section, responsible for inshore fishery resource assessment, monitoring, and providing support to kaupule, fishers associations and other stakeholders in the management of coastal fishery resources and the marine environment, both in Funafuti and the outer islands;
- An Oceanic Fisheries Section, responsible for industrial fishery vessel licensing, managing the 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;
- An Operation & Development Section, responsible for the running of the TFD vessels, construction and deployment of fish aggregation devices, vocational training of fishers and

fishing vessel crew, and other development-oriented activities. The Corporate Plan calls for this Section to expand its activities to promote food security.

2 Fisheries Department Resources

2.1 Staffing

The Organizational structure of the TFD Public Service establishment at January 2024 was as shown in Figure 1. No new positions were approved from previous years, however in mid-2024 funding was agreed to support continuation of contracts for seven Community Fisheries Officers in the outer islands who had previously been project funded. The number of staff that work for the Fisheries Department and employed on contract with the Government (not part of the establishment) was therefore increased by the end of the year. These include:

- More than 70 Fisheries Observers who are only engaged when required to work on foreign fishing vessels;
- 7 Crew of the Manaui II;
- 8 Data collectors – one on each of the islands of Tuvalu except Niulakita – who carry out creel surveys of catches; and
- 7 Community Fisheries Officers (one in each outer island except Niulakita).

In addition to the public service establishment, several externally-funded activities continued to operate in 2024 and employed staff who work as part of the organization. These included:

- A Project Coordinator, Project Accountant and Project Officer for the first year of the World Bank-funded Pacific Regional Oceanscape Programme for Economic Resilience (PROPER);
- A Project Manager for the New Zealand funded TFSP2 project, which was in its 3rd year;
- Several temporary positions in the Department, to provide relief for staff undertaking training overseas and support project activities.
- A full-time Fisheries Adviser (full-time) funded by the New Zealand Aid Programme who stays in Tuvalu apart from home leave; and an Inshore Fisheries Adviser (part time) funded from the same source based in Australia and making short visits to Tuvalu. The Adviser from OFCF, who is based in Fiji also makes working visits to Tuvalu.

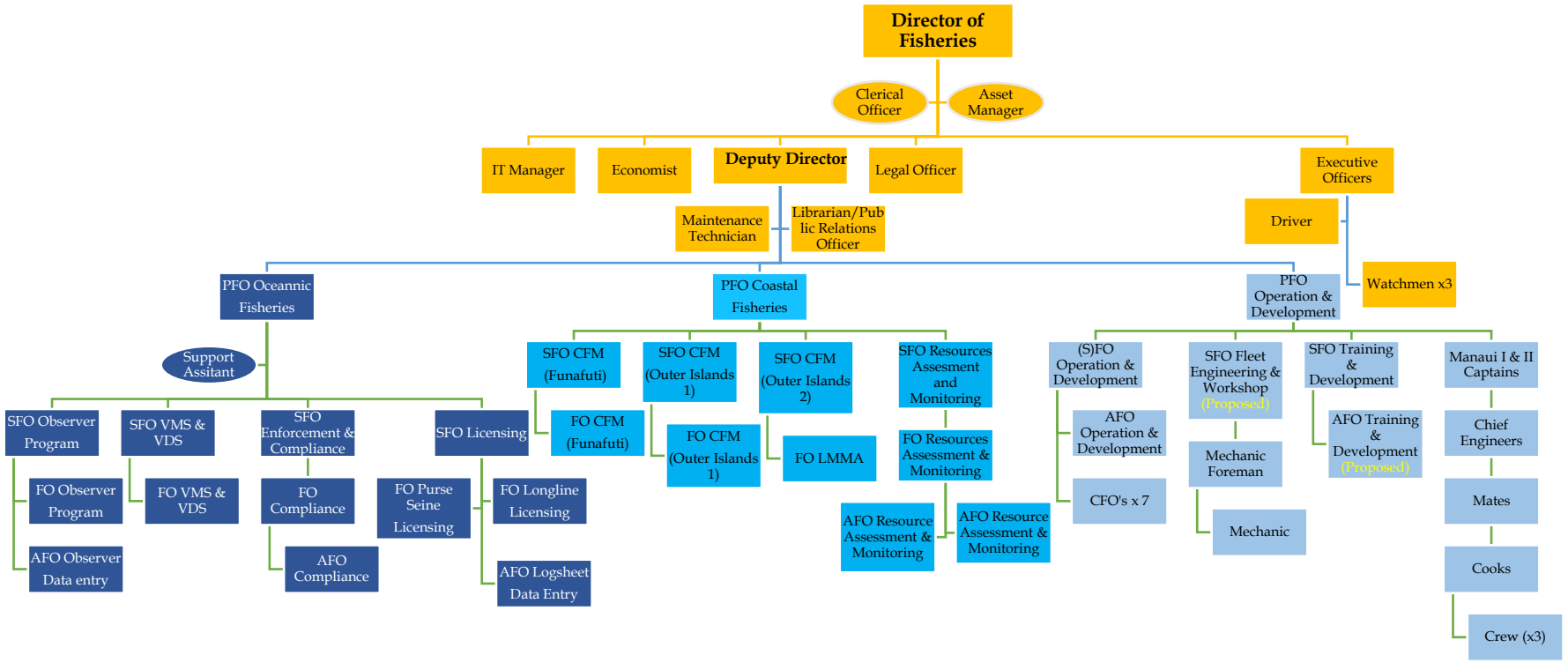


Figure 1: Tuvalu Fisheries Department Organizational Structure in 2024

2.2 Assets and facilities

Work continued in 2024 on the ongoing programme of maintenance for the TFD Office building. The photovoltaic solar power system, which should meet the electricity needs of the office from renewable energy, continued to experience problems although these were traced to the battery management system and the solar supply to the office and the grid was working. Fitting out of the wiring, pipework and installation of tanks and machinery for the new hatchery was 95% completed during the year and it will start operation in early 2025.

Figure 2: New Mariculture hatchery

In other building work, a new fuel store for the Department was completed.

A major programme of repairs for RV Manaui, the 17-metre fibreglass vessel provided in 1982 by the Japanese Overseas Fishery Cooperation Foundation (OFCF), was undertaken, led by a team from the NZ company Marine Focus. The alternator, parts of the rudder and stern-tube and other equipment was shipped to NZ for repair or replacement, and then sent back. Due to extended shipping delays this could not be completed during the year, but it is hoped to have the vessel fully operational by the end of February 2025.

The Manaui II, a relatively new 19- metre multi-purpose Fisheries vessel donated by Japan International Cooperation Agency (JICA), was also out of service for the whole year. The generator engine was reconditioned by a team from OFCF, but unfortunately the alternator had deteriorated in the meantime so there was still no electrical power on-board. Even when power is restored, there are believed to be other electrical faults that need to be corrected. Other minor faults were corrected or repaired – more detail is provided in the O&D section report.

TFD continued to operate a range of other equipment and assets, although the Department's lagoon vessels experienced a number of problems with their 4-stroke outboard motors. Overall, 2024 demonstrated the difficulty of keeping machinery in working order in Tuvalu where there is limited capacity for repairs and procurement of spares from overseas takes many months.

2.3 Asset Management

Management of these various assets is the responsibility of the Fisheries Assistant Asset Officer (AAO), who has been maintaining the Department's asset register. Most of the AAO activities are carried out on a daily basis, including

- Clearing and checking a range of project equipment and materials delivered for various projects;
- Procurement of materials and supplies funded by the recurrent budget in line with the Government's procurement rules;
- Registering new procured goods using the Asset Manager system and the Government Asset Spreadsheet, and;
- Identifying & tagging unrecorded assets and Inventory reconciliation.

After the resignation of the previous AAO in 2023, a new officer joined the department in June 2024 and has been managing the assets ever since. Some major challenges faced are delayed procurement due to supply chain issues & changing of vessel ETA dates, insufficient staff to manage increased workload, and limited storage facilities for the department.

This biannual period has been pivotal in advancing asset management practices. While challenges persist, the measures implemented have laid a strong foundation for continued improvement. Moving forward, the focus will remain on optimizing processes, enhancing efficiency, and aligning asset management with organizational goals.

2.4 Office Maintenance

In 2024 the team continued to carry out its maintenance work in the main office building which included servicing and replacing of air conditioning units, fixing door handles, lights and switches, as well as washing and painting the north side ceiling of the building. A new storage room was proposed, but could not be completed before the Maintenance Officer resigned to accompany his wife on overseas study. There has also been staff turnover in the maintenance technician positions, so several important and urgent tasks were delayed, and a local contractor was hired to complete the work. Fortunately, the group was up to full strength by the end of the year, albeit with a temporary contract for the Maintenance Officer.

2.5 Budget

Fisheries licensing, access fees and investments continued to generate a significant proportion of Tuvalu Government revenues. Since the change in the Government's financial year, it has been more difficult to account for Fisheries revenue which is based on the calendar year; but overall income for 2024 was somewhat below estimates for two reasons: (i) around 17% of Tuvalu's vessel days under the purse seine VDS could not be sold; and (ii) the expected revenue for 2024 from the US Treaty payments were not received. Transshipment picked up in the first half of the year, but shifted away for the second semester due to oceanographic conditions which favoured fishing in . The Fisheries Department plays a critical role in maximising these returns through its ongoing participation in regional and bilateral fisheries negotiation, and the development of strategies intended to promote Tuvalu's economic interests.

Although the TFD's recurrent budget allocations are far less than the true cost of running the organisation, there had been some increases in recent years. However, these increases stopped in 2019. For the 2024/25 budget year there was a small increase in funding to cover contracted staff.

The Department relies heavily on funding support to the fisheries sector from development partners. 2024 was the first year of the new World Bank PROPER project, which supports a wide range of equipment and activities. Project activities during the year were as follows:

- The WB Pacific Regional Oceanscape Project for Economic Resilience (PROPER) was operational through 2024. The project agreements had been signed in December 2023. This project has a budget of US$13 million, mainly financed from WB regional funds, and will run for 6 years from 2024.
- The New Zealand-funded Tuvalu Fishery Support Programme phase 2 (TFSP2) completed its fourth year of operations with additional funding agreed during the year. It now provides nearly NZ$5 million over 5 years plus further technical assistance (the Fisheries Adviser and Inshore Fisheries Adviser). The extra funds were provided to support the programme of repairs for Manaui mentioned above.
- The Korean Overseas Fisheries Cooperation Centre, KOFCC, project for fisheries infrastructure was not implemented during the year due to difficulties faced by the Korean Government in finding a contractor to undertake the project. It was agreed that the programme would be broken down into more manageable components and the first of these – construction of a store and boatshed – is now expected to be implemented in 2025.

- The Overseas Fisheries Cooperation Foundation continued to provide equipment and supplies in support of TFD programmes and to maintain assets. Repairs to the engine of the Manaui II generator was the main input in 2024.
- Tuvalu is one of several countries in the region which received support under the FAO Atoll Mariculture Project. This included short-term technical assistance and a small grant for operational expenses.

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

Additional support continued 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 Office (PNAO) and Western Central Pacific Fisheries Commission (WCPFC)).

2.6 Internal management, monitoring and reporting

The TFD Work Programme in 2024 was led through coordination of TFD senior management and key projects. This was done primarily through the Senior Management Committee (SMC), which comprises the TFD Director and Deputy Director, the three Principal Fisheries Officers, the Fisheries Legal Officer, Fisheries Economist (although this post was vacant for most of the year), Fisheries Librarian/Public Relations Officer, Asset Officer, Projects Coordinators and the NZ-funded Technical Adviser. The SMC aim to meet monthly throughout the year to discuss and review activities and any issues arising.

The effectiveness of the SMC was further improved through regular meetings of all TFD staff, which were held to discuss the implemented activities, as well as professional and social issues within the department.

Reports were prepared on the TFSP2 and FAO projects as required by the donors. The TFSP2 project was subject to an external evaluation, with two MFAT consultants visiting Tuvalu in September, which concluded that the project is successful. Plans for a third phase are now in preparation.

Reports and audited accounts for the PROPER project were prepared by the Project Management Unit. A mid-year report on progress with the work plan was prepared, as well as a number of briefs for periodic meetings with the Minister and international meetings.

3 Administration Fisheries Activities

3.1 General

Many of the activities of the Administration Section during 2024 are repeated every year. These include recruitment of personnel, staff appraisals, preparation of the budget and reporting on activities. Administration staff were involved in regional meetings throughout the year both in-person and virtual meetings. One of the Fisheries ongoing obligations is for fisheries information to be shared with the public. New posters were developed, and the fisheries library and the TFD website were updated and improved during the year. The section is also responsible for the management of the Department's many assets, and maintenance of the buildings.

3.2 Transition to a Fisheries Authority

Following the adoption of the Tuvalu Fisheries Authority Act by Parliament at the end of 2023, most of 2024 was devoted in the preparation and developing of systems, procedures and key documents for the Authority such as staff rules, code of conducts; revised structure, proposed salary, aligned budget arrangements. In a separate piece of work, the Marine Resources Act, Regulations and other legal documents were revised with Technical Assistance. The draft bill for the Fisheries Management Act (which will replace the MRA) was tabled for its first reading in the December, 2024 Parliament session, while other key documents will be presented to Cabinet for approval in early 2025. The Minister has given the order that the Tuvalu Fisheries Authority Act will come into effect on 1st July, 2025 and it is intended that the Fisheries Management Act will become effective at the same time.

3.3 Development Projects

The section has oversight of Fisheries Development Projects which fund most of the activities of the Department. 2024 was the first year of the World Bank funded PROPER project (Pacific Regional Oceanscape Project) with a budget of US$13 million over six years. A range of consultancies and equipment supplies are in progress with some already completed. An in-country support mission from the World Bank held meetings with TFD over a week in early July and concluded that progress was satisfactory.

The New Zealand funded TFSP project, which provides NZ$5 million over five years plus two technical advisers, was in its fourth year during 2024. The project continued to provide support to a range of fisheries activities from fitting out of the Mariculture Hatchery to repairing outboard motors for Fishers in the outer islands. A project evaluation mission sent by NZ MFAT in September concluded that the project 'has performed extremely well'. Preparations have started for a third phase of NZ support to start in 2026.

There was little progress with the Korean Project that was agreed in late 2023, with the Korean Government unable to secure suitable bids from contractors to complete all the components of the project. Korea will now break up the project into phases, and a contract for the first phase – construction of a Fisheries Store and Boatshed – has recently been signed.

Tuvalu is one of the countries participating in the FAO atoll mariculture project. Technical assistance and a small amount of grant funding for equipment and operations were received.

3.4 Fishery Access Negotiations

Access negotiations were carried out with major bilateral partners for fishing in August. Payment conditions were mainly unchanged from previous years. An increase in the observer levy for purse seiners agreed for 2024 was maintained and this will support an increase in observer remuneration in 2025.

Tuvalu again successfully included requirements for FAD registration and tracking in all access agreements, in compliance with undertakings made to PNA.

Uptake of fishing days for 2025, under nearly all arrangements (foreign bilateral, TV-flag vessels and pooling) was less than in previous years. Tuvalu started 2025 with a large number of days unsold (although fewer than at the start of 2024) which continues to pose a challenge in meeting revenue targets.

3.5 Joint ventures and domestic vessels

Tuvalu's fleet of six purse seiners was reduced to 5 flagged vessels in mid-2024 following the departure of one of the TUDO vessels from the arrangement. TFD continues to meet flag state responsibilities and supporting their operations through all the usual licensing and registration processes. All of the vessels are participating in Marine Stewardship Council (MSC) programmes which required information and commitments from Tuvalu as the flag state.

As part of our effort to ensure guaranteed sales of our days, Tuvalu enter into a charter arrangement with Fong Kuo Fishing Company in December, 2024. This involves the charter of one of Fong Kuo's purse seine vessel to Tuvalu. Tuvalu was also able to increase its vessels under a reflagging arrangement with Jih Yu Fishing Company, although this will come into effect in later 2025. This will bring the number of Tuvalu flagged vessels to 6 plus one vessel under a charter arrangement, All these vessels are now required to purchase a minimum of 150 days from Tuvalu's PAE (50% more than previously).

Development of a policy for the management of Tuvalu's flag vessels is in progress, with the PROPER-funded consultant making a first visit to Tuvalu in November.

2024 also witnessed concerted efforts in our activities for our Competent Authority, with the assistance of an expert from Fiji to lead the CA unit, supported by two part-time inspectors. Training of these inspectors was carried out, and the CA also continues its programme of vessel inspections and taking of samples for laboratory analysis. It is hoped that progress can be quite rapid, with a view to gaining EU-market access for our TV-flag fleet within the next 12 months. Communications with the EU's health Directorate DG Sante have been established.

3.6 US Treaty

For the new Treaty, the economic assistance package was greatly increased in 2024 from US$21 million annually to US$60 million. Tuvalu benefits from an equal share of the funds; a top-up for making days available under the treaty; and a further top-up based on the number of days actually fished in Tuvalu waters in the previous year. The exact amount to be received will vary slightly depending on this last payment, but will be around US$4 million per year. Unfortunately, none of this funding was received in 2024, perhaps due to problems in securing Congress approval for the US budget.

The ratification of the US Treaty amendments by Prime Minister Feleti Teo was completed at end of 2024 and signifies the importance of the US Treaty to Tuvalu, also reaffirming Tuvalu's commitment to the work of the Treaty and the FFA group as a whole.

3.7 Regional meetings

TFD Administration staff were back to the usual round of regional meetings in 2024. These included Officials' and Ministers' meetings of FFA and PNA, and of course the annual session of WCPFC. The latter was notable for the approval of a new Crew and Labour Standard CMM Tropical which was one of the major decisions adopted in this meeting. Although this may come as good news for us as we try to get

our crew on fishing vessels, however the downside of it was that this CMM will only come into force in 2028.

3.8 Training and workshops

A number of staff benefited from long term training awards overseas during 2024. The SFO (Surveillance and Compliance) successfully completed a Masters programme at the University of Wollongong funded by PNA, while the FO (VMS & VDS) was accepted for the same course with Australian support and started mid-year. The Assistant Fisheries Officer (Data Entry) started a degree programme in Taiwan. The SFO Coastal Management, Funafuti, continued with a Masters programme at USP funded by New Zealand, while the FO in the same section continued his Bachelor's degree programme, also at USP. The Chief Mechanic commenced a 3-year programme of studies in Marine Engineering at the Fiji National University.

A number of staff attended shorter term technical training programmes overseas. These included a NZ Trade Certificate in Aluminium welding for the Fisheries Mechanic, Class 5 Masters and Engineers courses for crew of the Manauis, a short course in 4-stroke outboard maintenance, as well as the usual regional programmes in stock assessment, data management, and attachments with the Regional Fisheries Surveillance Centre.

In-country training was mostly focused on the Observer Programme, with fifteen new Observers trained and two of Tuvalu's Observer Trainers achieving the PIRFO standard. A course for Data Collectors and CFOs on the new Ikasavea system for coastal fisheries data was also run in Funafuti with the assistance of SPC.
More information on training is provided in the reports of each section.

3.9 Legal Services

The Legal Officer worked with the legal consultant and SPC, FFA, Attorney General, and TFA staff to complete the Tuvalu Fisheries Management Bill 2024 and the Tuvalu Fisheries Management Regulations 2024. He participated in key regional FFA and PNA meetings. The Officer was engaged in regional meetings and working groups to review the labour standards for crew working on fishing vessels which culminated in the Western and Central Pacific Fisheries Commission (WCPFC) adopting a landmark Conservation and Management Measure (CMM) for labour standards for crew working on fishing vessels in December 2024. This CMM establishes binding rules to enhance the welfare of crew members on fishing vessel operations across the western and central Pacific Ocean and is expected to come into force in the year 2028. He also worked closely with other Tuvalu Fisheries divisions to prepare access agreements, clarify legal licence issues, renew employment contracts, prepare management plans, review and adopt policies, and review matters on the transition of the department to the Tuvalu Fisheries Authority.

3.10 Information Technology

The IT officer has consistently benefited from the continuous technical support provided by the IT consultant, which contributes to achieving the department's goals and objectives. In November, the officer attended a one-week Drupal training in Brisbane, Australia, funded by PNAO. FFA has agreed to support the department in implementing the new ICT infrastructure with new IT equipment funding by PROPER. However, this activity will carry forward to 2025.

Significant support received from the maintenance technician in performing maintenance and IT work, but the frequent changes in staff for the position pose a challenge for the department. Another major challenge is the delayed procurement process and delivery, which takes 5-7 months for the procured goods to arrive.

3.11 Public Information and Awareness Program

The period saw substantial progress in managing the Fisheries Physical and E-Library, ensuring that staff had access to essential publications and resources. Electronic copies of reports and publications were uploaded to the official website, complemented by printed hard copies for broader accessibility.

Fisheries awareness initiatives were actively promoted through various media platforms, including press releases, advertisements, and news updates. Regular updates were posted on the Tuvalu Fisheries website and Facebook page, fostering public engagement. Additionally, local broadcasts on Radio Tuvalu raised awareness about fisheries activities, effectively reaching a wider audience.

The efficiency and quality of multimedia production and public relations activities were constrained by outdated equipment. Upgrades to essential tools such as cameras and computers are critical to improving the effectiveness of documentation, outreach, and promotional efforts.

During the reporting period, significant strides were made in library management and fisheries awareness. However, outstanding objectives, such as multimedia documentation and expanded outreach programs, will require focused efforts in the coming year. Addressing equipment limitations will be pivotal in achieving the outlined goals and enhancing performance.

4 Operation and Development Section

4.1 General

Coastal fishing is deeply embedded in the fabric of Tuvaluan life, serving as a vital source of sustenance, income, and cultural identity for communities across the nation. For many households, fishing is not merely an activity but a cornerstone of survival and economic resilience, particularly for individuals without formal employment who rely on small-scale commercial fishing to support their families. Predominantly centred on artisanal and subsistence practices, local fishers-men and women alike-employ traditional and modern methods to harvest a variety of finfish and invertebrates. These resources play a crucial role in ensuring food security, fostering community sharing, and contributing to local economies through trade and sales at markets like NAFICOT, FOFA, or CFCs, as well as roadside stalls.

Recognizing the critical role of fisheries in Tuvalu's economy and community well-being, the Operations and Development Section of the Tuvalu Fisheries Department (TFD) has been at the forefront of initiatives to support and empower fishing communities. Through programs focused on sustainable practices, skills training, provision of essential equipment, and technical advisory services, the section has enabled local fishers to improve their livelihoods while adopting responsible resource management.

A pivotal component of these efforts is the operation of the two Fisheries vessels, Manaui I and Manaui II, which facilitate the delivery of supplies, research activities, and services to remote outer islands. However, significant challenges emerged in early 2024 when both vessels encountered operational difficulties, temporarily disrupting critical support to isolated communities. These challenges underscored the importance of maintaining robust and reliable infrastructure to sustain essential services across Tuvalu's dispersed geography.

Despite these setbacks, the Operations and Development Section continues to play a vital role in strengthening Tuvalu's fisheries sector. Through its unwavering commitment to community support, sustainable resource management, and economic development, it remains a cornerstone of efforts to enhance the resilience and well-being of fishing communities nationwide.

4.2 Operation and Development Workforce

The Operation and Development Section of the Tuvalu Fisheries Department is considered the largest and most resource-intensive section within the Department. It plays a critical role in overseeing the operational readiness of both vessels, development initiatives, and technical capacity of Tuvalu's fisheries sector. The section currently consists of 12 permanent staff and 15 contractual staff, making a total workforce of 27 members. The contractual staff includes 7 Manaui II crew members, 1 relieving officer, and 7 Community Fisheries Officers, who are primarily stationed on their home islands.

To address growing demands and strengthen operational efficiency, two new positions were proposed in the 2023/2024 Workforce Plan. These positions are:

1. Senior Fisheries Officer – Fleet and Workshop Marine Engineer
2. Assistant Fisheries Officer – Training and Development Officer

Regrettably, as of today, there has been no update or feedback from the Human Resource Management (HRM) Department regarding the status of this proposal.

4.3 Training and Development Activities

4.3.1 Post-Harvest and Value Added

During the reporting period from July to December, significant progress was made in training and development initiatives. The Training and Development Officer successfully organized a comprehensive post-harvest and value-added training session on one of the outer islands. This training introduced and implemented a new method called Namari-bushi, which was shared by our OFCF (Overseas Fishery Cooperation Foundation) counterparts. The training was conducted specifically for the staff at the Community Fishing Center (CFC) on Niutao Island.

The Namari-bushi method focuses on the processing of skipjack tuna and yellowfin tuna, aiming to enhance the value and quality of these key fish species. The training spanned three days and was structured as follows:

Day 1 – Presentation: The first day was dedicated to providing an in-depth presentation to the CFC staff. This session covered the theoretical aspects of the Namari-bushi method, including its benefits, processes, and potential for improving post-harvest practices.

Day 2 – Demonstration and Hands-On Practical: On the second day, the training transitioned into a practical demonstration of the Namari-bushi process. Participants engaged in hands-on activities to gain a clear understanding of how to prepare and process tuna using this method. This interactive approach allowed the staff to practice the techniques under guidance.

Day 3 – Packaging Training: The final day focused on training the participants in the use of a newly introduced packing and sealing machine. The session emphasized proper packaging techniques to ensure product quality and market readiness. Each staff member was given the opportunity to operate the machine, gaining valuable practical experience in packing and sealing processed tuna.

The adoption of the Namari-bushi method marks a significant step forward in enhancing the skill set of the CFC staff and improving the quality of fish products. This initiative not only equips the participants with advanced processing techniques but also introduces modern equipment to streamline operations. By the end of the training, all participants demonstrated confidence in utilizing the new method and equipment, paving the way for improved productivity and product value in the future.

Figure 3 Namaribushi training (Niutao CFC Staff

4.3.2 Anchored FAD: Construction and Deployment.

In line with the OD work plan focusing on Fish Aggregating Device (FAD) activities, the FAD program is tasked with constructing and deploying new Offshore and Inshore FADs for each island. Unfortunately,

progress on this initiative was hindered during this reporting period due to the non-operational status of the two fisheries boats required for deployment. As a result, all FAD activities are delayed until the vessels are back in operation.

Despite these challenges, the Training and Development Subsection successfully conducted a lagoon-based FAD (aFAD) program in Funafuti, making notable progress within the lagoon.

4.3.3 *Lagoon aFAD Activity*

The subsection planned the deployment of two lagoon aFADs and initiated the process with the first deployment. A two-week workshop was conducted to construct and rig the first lagoon aFAD. The workshop provided practical training to participants on the techniques of constructing and preparing aFADs for deployment.

The first lagoon aFAD was successfully deployed in the northern part of Funafuti Lagoon. The exact coordinates of the deployed aFAD are: 08° 35' 37.4"S 179° 03' 22.3"E

This aFAD deployment represents a milestone for lagoon-based fish aggregation initiatives in Funafuti. The second lagoon aFAD, planned for deployment in the southwestern area of the lagoon, has been deferred and will be included in next year's work plan.

4.3.4 *Additional Activities*

The Training Officer, accompanied by two members of the Manaui crew, undertook supplementary activities during the reporting period:

Flagpole Installation with Solar Light

A new flagpole equipped with a solar-powered light was installed for the lagoon aFAD. This installation improves the visibility and accessibility of the aFAD, especially for nighttime operations.

Inspection of Offshore FADs:

The team also inspected the offshore FAD deployed in the southwestern area of Funafuti. The FAD was found to be intact and in good condition, remaining securely in its designated location.

Wave Buoy Check:

While on site, the team also examined a wave buoy deployed in coordination with the Meteorological Department. The buoy was confirmed to be operational and providing reliable data.

Figure 4 Lagoon aFAD and Inshore aFAD (Funafuti)

4.4 Aluminum Boat: Repair and Maintenance

The Operations and Development (OD) team embarked on a mission to Niutao Island in response to a request from local fishermen's associations for support with aluminum boat repair and maintenance. The team travelled aboard the Nivaga III and spent two and a half months on the island, during which they conducted four key activities aimed at addressing the needs of the fishermen and improving local fisheries operations. One key activity conducted during this visit was - Aluminum Boat Welding and Repair:

The team's primary focus was repairing and maintaining aluminum fishing boats, a critical asset for local fishermen. The welding officer led this effort, completing repairs on 11 aluminum boats within a span of 10 working days. In addition to performing the repairs, the officer conducted on-the-job training sessions for the fishermen, equipping them with basic welding skills to address minor repairs in the future.

During this process, some fishermen reported that their boats continued to experience leaks after the initial repair. The welding officer promptly revisited these boats, identifying and sealing the problematic areas to ensure they were properly reinforced. This iterative approach ensured that all boats were seaworthy and reliable for fishing activities.

Figure 5 Aluminium boat repair (Niutao)

4.5 Fibre-Glass Boat/Canoe: Repair and Maintenance

As part of the OD team's efforts on Niutao, a dedicated fiberglass repair and maintenance activity focused exclusively on canoes, as there were no fiberglass boats on the island. This initiative not only addressed structural issues in the community's fishing canoes but also included hands-on training for local fishermen, equipping them with skills to perform their own repairs in the future.

Training and Repair Process

The fiberglass repair and maintenance activity was led by the officer in charge, who worked closely with local fishermen. The five-day workshop included both theoretical and practical components:

Demonstration of Techniques:

The officer demonstrated the proper use of fiberglass materials, including the preparation and application of fiberglass liquid. He explained the critical process of mixing fiberglass liquid with the appropriate hardener in the correct proportions. Participants learned how to apply layers of fiberglass mat and resin to damaged areas, ensuring a strong and durable repair.

Hands-On Training:

Fishermen actively participated in the repair process, working on their own canoes under the officer's guidance.

The hands-on approach allowed participants to gain confidence in handling the materials and performing repairs independently.

Workshop Outcomes

By the end of the five-day workshop, the following results were achieved:

Repairs Completed: Five damaged canoes were successfully repaired, restoring them to operational condition.

Skill Development: Fishermen acquired foundational knowledge and practical experience in fiberglass repair and maintenance, enabling them to address similar issues in the future.

Figure 6 Fiber-glass repair and training (Niutao)

4.6 Safety at Sea: Refresh Training and Dissemination of Safety Equipment

4.6.1 *Dissemination of Safety Equipment (VHF, GPS, PLB)*

The Training Officer undertook a crucial mission to distribute new safety devices to fishermen in the northern and southern islands. Traveling aboard the MV Manu Folau, the officer focused on replacing the old yellow Grab Bags issued in 2015 and 2016 with updated equipment. The new safety devices, funded by the Tuvalu Fisheries Support Program 2 (TFSP2), were specifically allocated to active fishermen who were still using the outdated grab bags.

Although the distribution successfully reached the northern and southern islands, it has yet to cover the central islands. Plans are in place to complete the distribution in 2025, ensuring that all active fishermen across Tuvalu are equipped with the updated safety gear.

4.6.2 *Sea Safety Workshop*

The distribution was accompanied by a one-day sea safety workshop conducted by three O/D officers, focusing on three critical topics:

1. First Aid
2. Weather Forecasting
3. Safety Equipment Use

The workshop was designed to enhance the fishermen's knowledge and ensure they are fully prepared to handle emergencies at sea.

Participation and Outcomes

The workshop saw active participation from over 43 fishermen, broken down as follows:

- 10 Fishermen: Attended to refresh their knowledge of the safety equipment in their older red Grab Bags.
- 33 Fishermen: Received new Grab Bags as part of the training.

The updated Grab Bags contain essential safety devices designed to enhance survival and communication during emergencies. Step-by-step demonstration of how to use each safety item, including life-saving tools and communication devices. Emphasis on the importance of maintaining and properly storing safety equipment to ensure readiness in emergencies.

Community Impact

The distribution of new safety devices and the accompanying workshop have significantly enhanced the safety awareness and preparedness of the fishermen in the northern and southern islands. Fishermen not only received updated equipment but also gained a deeper understanding of how to use it effectively, alongside knowledge of first aid and weather forecasting.

Figure 7 Sea safety awareness (Nukulaelae and Funafuti)

4.7 Operation and Development Activities

4.7.1 Manaui I Operation

The Manaui I has been out of service since October 2023 due to significant issues with its generator and steering system. These critical failures have rendered the vessel non-operational, causing substantial delays in fisheries activities across all outer islands.

Repairs and Maintenance Efforts

An expert team from Marine Focus, New Zealand, has been actively working on diagnosing and addressing the vessel's technical issues. During their initial assessments, the team identified several underlying causes of the breakdown, which required specialized repairs beyond the capacity of local resources.

To facilitate the necessary work:

Parts Removed for Repair: The team transported key components, including parts of the generator and steering system, back to New Zealand for advanced repairs.

Challenges Locally: The limited tools and facilities in Tuvalu made it impossible to carry out these complex repairs on-site.

Interim Measures

While awaiting the return of the Marine Focus team and the repaired components, the Manaui I crew has been actively engaged in:

Minor Maintenance: The crew has focused on cleaning, painting, and maintaining other sections of the vessel to ensure its overall condition remains optimal.

Preparatory Work: These efforts aim to streamline the reassembly process once the major parts are returned and repairs resume.

Future Steps

The Marine Focus team is expected to return in February 2025 to:

1. Reassemble the Generator and Main Engine: Once the repaired parts are shipped back, the team will undertake the task of reassembling these critical systems.
2. Comprehensive System Testing: The vessel will undergo rigorous testing to ensure all systems are fully operational and meet safety standards.

Impact on Fisheries Activities

The prolonged downtime of the Manaui I have significantly affected fisheries operations, particularly in the outer islands where the vessel plays a crucial role in transporting resources, equipment, and personnel. The delay has also disrupted scheduled training, maintenance, and development programs that rely on the vessel's availability.

Commitment to Resolution

The Tuvalu Fisheries Department (TFD) remains committed to restoring the Manaui I to operational status as soon as possible. The collaboration with Marine Focus and the proactive efforts of the crew demonstrate a collective focus on overcoming challenges and minimizing the impact on fisheries activities.

Once operational, the Manaui I will resume its critical role in supporting Tuvalu's fisheries sector and facilitating sustainable development initiatives across the islands.

Key Activity	Operation Actions	Status
Manaui I Rudder	• The rudder was successfully removed from the vessel to the Fisheries workshop. • Chipping, wire brushing and painting of the rudder. • Assembling of the parts	The Manaui I crew successfully removed these parts and worked on chipping, wire brushing and painting of these parts. The assembling of the rudder has not yet been completed as the expert from NZ will assemble this part when they arrive. .

Ships Generator Stator, Intermediate Propeller Shaft and the Wiring.	• Identifying default wiring on the bridge and cabin crew. • Removal of the generator stator and intermediate propeller shaft	The Marine Focus identifies the default wire on the bridge. The Manaui Crew packs the generator stator and the intermediate propeller shaft into a box and sends them to The Marine Focus in New Zealand for repair.

Manaui Shelter	• Repairing and maintenance of the shelter;
	  ○ Scraping off old fiberglass and cover again with fiberglass
	  ○ Painting
		The Manaui crew completed work on repairs and maintenance of the shelter which included scraping off fiberglass and painting.

Manaui Bridge	• Cleaning the inside of the bridge, applying stains to the bridge, ensuring adhesion of new floor carpet, fixing cabinet drawers, scraping, and painting where necessary.	The bridge has been successfully cleaned. It was stained well, the drawer was properly fixed, and the floor was nearly complete.
Manaui Fuel Station	• Assist in constructing the fuel station basement and shelter. Bring gravel and sand, mix them with cement, and place them as required.	The fuel station has already been constructed.
Manaui Store Rooms	• Cleaning and organizing the items inside the storeroom.	Successfully Achieved
Chain Locker	• They clean the chain locker and inspect the chain for defects.	The chain locker is clean, but the anchor chain needs to be replaced.

Table 1 Summary of maintenance work from July to December 2024

4.7.2 Manaui II Operation

The RV Manaui II, a cornerstone of the Tuvalu Fisheries Department's operations, is undergoing extensive maintenance to address critical damages to its onboard systems and equipment. This effort is part of a larger initiative to ensure the vessel continues to support vital fisheries management, research, and sustainable development activities across Tuvalu.

Collaborative Effort

The maintenance program is a joint effort between the dedicated crew of the Manaui II and technical officers from the Overseas Fishery Cooperation of Japan (OFCF). This partnership leverages the technical expertise of the OFCF and the practical experience of the Manaui II crew to ensure the repairs are comprehensive and efficient.

Scope of Repairs

The restoration work focuses on multiple aspects of the vessel's functionality:

Onboard Equipment Overhaul: Key systems and equipment are being repaired or replaced to restore the vessel's operational capabilities. Safety and Navigation Systems: Upgrades and repairs to ensure the vessel meets international safety standards and is prepared for future missions. Engine and Mechanical Systems: Comprehensive servicing of the engine and other mechanical components to ensure reliability and performance.

Commitment to Sustainability

This collaboration underscores the shared commitment of the Tuvalu Fisheries Department and OFCF to sustainable fisheries management. By restoring the Manaui II to full capacity, both organizations are ensuring that the vessel continues to serve as a key resource for preserving Tuvalu's marine ecosystems and supporting the livelihoods of local communities.

Looking Ahead

Once the repairs are completed, the Manaui II will be ready to resume its critical missions, including fisheries monitoring, training programs, and transportation of resources to Tuvalu's outer islands. The successful completion of this project will reinforce the vessel's role as an indispensable asset in promoting sustainable fisheries and advancing marine research in the region.

1.	**Key Activity: Overhaul of the Main Generator** The main generator's overheating alarm was triggered due to a deformed rubber seal in the fuel tank, causing a water leak into the combustion chambers. This poses a risk of fire or explosion if not addressed.
	Methods Applied ● Dismantling of the damaged part of the generator to the deformed rubber seals; ● Thorough cleaning of the internal parts of the generator including the external parts of the generator; ● Replacing the damaged parts of the generator; (including rubber seals and other fittings) ● Reassembling all the generator parts into place.
	Result: Partially Achieved The overhauling of the generator, which includes the dismantling and replacement of damaged parts was partially achieved due to the fact that there were still existing electrical faults within the generator with the cooling water and lub oil cooling system and other components.
2.	**Key Activity: Replace the old Auto-Pilot with a new one** The replacement of the old autopilot was necessary because, when switched to autopilot mode, the rudder falsely alters hard to starboard, causing the ship to turn sharply to starboard. The autopilot mode of operation is not set to compass mode, but rather to NMEA (GPS Compass) mode, and it is not stable in this mode, triggering a continuous false alarm to the GPS Compass.

	Methods Applied ● Ensuring the wiring of all components connected to the Auto-pilot are not damaged due to rat bites; ● Thoroughly checked the transmission signal of the GPS compass antenna is working effectively; ● Removed the damaged intermediate cable, allowing the cable from the GPS Compass to connect directly to the antenna; ● Replaced the Auto-pilot with a new one.
	Result: Activity achieved Following the replacement of the autopilot, the ship's steering system and GPS compass are now functioning properly.
3.	**Key Activity: Repair of the Engine Room ventilation fan** The ventilation fan in the engine room has been inoperable since mid-March, following the last voyage earlier this year. It is believed that rust, caused by sea spray, has affected the movable components of the fan.
	Methods Applied ● Rotate the fan manually using a spanner; ● Apply CRC spray lubricant; ● Lubricate and grease the ventilation fan components.
	Result: Activity achieved The ventilation system is now functioning properly and the fan is rotating smoothly.
4.	**Key Activity: Paint the main deck to green color** The ship's deck was previously painted gray, but it is now being repainted green, in accordance with standard maritime practice. It is customary for all ships' decks to be painted green to promote eye health for seafarers.
	Method Applied ● Swept and applied fresh water onto the deck to remove dirt's and salt caused by sea spray; ● Painted the decks using top coat green color paints.
	Result: Activity achieved The green paint on both decks has revitalized the ship, restoring its appearance and enhancing its overall beauty.

Table 2 Manaui 2 Repair and Maintenance activities

4.7.3 Manaui 1 & 2 Reserve Fuel Tank: Relocation of Reserve Fuel Station

The Tuvalu Fisheries Department has successfully constructed and relocated a new fuel storage tank to accommodate all fuel requirements for the MV Manaui 1 and MV Manaui 2 vessels. In addition, a fuel

store shelter has been built to house fuel drums for both vessels, alongside dedicated workshop and Oceanic sections. This relocation moved the fuel storage from the Fisheries Department's main office to a more accessible site on the lagoon side of the O&D workshop.

The decision to shift the fuel storage was driven by operational challenges. Following the construction of the new Fisheries Department main office, the bunker truck encountered significant difficulties refilling the fuel tank at its previous location. In response, Pacific Energy proposed relocating the fuel tank to a more open and accessible area, which would facilitate easier fueling operations.

The new location proves far more convenient for the bunkering of our vessels and will further enhance operational efficiency, particularly in anticipation of the construction of the new Fisheries Department jetty in the coming years. This relocation represents a strategic move that will streamline fueling logistics, ensuring seamless operations for the department's fleet.

Figure 8 New location for Manaui 1&2 fuel storage

4.7.4 Community Fisheries Officers

The Community Fisheries Officer (CFO) program was launched in September 2021 with the goal of providing critical support to the communities and fishermen's associations on Tuvalu's outer islands. This initiative was designed to foster sustainable fisheries development and strengthen the relationship between the Tuvalu Fisheries Department (TFD) and local communities.

Purpose and Role of the CFO

The CFO program serves as a vital bridge between Tuvalu's outer island communities and the TFD. The primary role of the CFOs is to act as the main point of contact, ensuring clear and effective communication between local fishermen and the department. By engaging directly with communities, the CFOs provide essential support in the following areas:

Fisheries Management: CFOs help local fishermen understand and implement sustainable fishing practices, providing guidance on fisheries regulations and best practices to protect marine resources.

Fisheries Development: The CFOs support the design and execution of fisheries development projects tailored to the needs of each island, ranging from resource management initiatives to infrastructure improvements and capacity building.

Project Progression: CFOs play a crucial role in monitoring and advancing fisheries-related projects on the outer islands, ensuring that these projects are properly executed, and addressing any challenges that arise during implementation.

1	**Key Activity: FAD Program** FAD was designed to attract pelagic fish to the near shore which improved safety at sea of the fishermen and reduced fishing pressure on coastal resources. The FAD program in Tuvalu aims to improve livelihoods through sustainable near shore fisheries.
	Key Actions In collaboration with TFD and working donors which enable TFD to procure FAD materials and deploy them to all islands. CFO in each island are responsible to undertake the following task: ● FAD inspections (visual sighting of the FAD status): Niutao, Nui, Vaitupu, Nukulaelae and Funafuti were the only islands with active FADs in 2021 to 2023. ● Aggregating of the FADs with coconut leaves: The responsibility to aggregate the FADs belongs to the fisher association, to improve the FAD program the CFO on each island assists the fishers with the aggregating of the FADs.
	Action Achieved In 2021 to mid 2023 there were 4 active FADS in Tuvalu – Niutao, Nui, Vaitupu, Nukulaelae and Funafuti, as for the last 6 month July - December of 2024 with a total of 3 active FADS in Tuvalu – Nukulaelae, Funafuti and Nanumaga. The CFOs on each island with active FAD managed to inspect the FADs (current status) and aggregated the FADs with coconut leaves.
2	**Key Activity: Livelihoods** Livelihood refers to the way in which individuals, households or communities depend on fishing and related activities for their income, food security and well-being. TFD supports local communities in developing their capacity on how to make use of our marine resources for food security and income.
	Key Actions 1. Post-Harvest Activity: A provision of training was demonstrated by the CFO to the community on food processing techniques which included fish sausage, smoke fish and bottling (preservation of fish in a bottle). 2. Awareness Program: The CFO on each island committed to raising awareness to the community which included women, youth and fishers. The CFO also supports TFD works on each island in conducting awareness programs to the CFC to strengthen their capacity on fish processing, storage and marketing.
	Action Achieved Nukulaelae CFO able to demonstrate post-harvest activities such as salted fish and fish sausages and continue to strengthen the capacity of the CFC workers on how to use different preservation methods/ways to increase value addition of fish products.
3	**Key Activity: Support OIDC with Data collection** One of the CFO duties was to assist the data collector in collecting data (fish length and weight). The creel survey is very important to the department and the community with the management measures and decision in sustaining and managing their marine resources.
	Key Actions 1. CFO will assist OIDC to collect fishery data– 20 creel survey samples must be submitted to the Fisheries department. 2. Editing of creel survey data – The CFO will be helping the OIDC to edit any amendment with the data collection and submit the report to the Fisheries department.
	Action Achieved Collection of data (fish length and weight) is an on-going activity for the CFO (**except Vaitupu and Nui**) to assist the OIDC in collecting 20 samples fortnightly. This data is very important to the department and the community in terms of marine resources management and measures.
4	**Activity: Enhanced Safety at sea Program.** Sea safety for fishermen refers to the practices, procedures and equipment designed to minimize the risk associated with fishing at sea. Sea Safety aims to prevent fishing incidents, injuries and fatalities and ensure the well-being of fishermen with their fishing operations.

	Key Actions The following activities were undertaken to support local fishers to ensure their well-being are as followed; 1. Grab Bag Inspections – Regular inspection of safety gears is essential for ensuring safety at sea, therefore grab bag inspection is crucial and making sure fishers with safety gears are functioning well. 2. Out-board motor repair and maintenance 3. Boat and canoe survey: TFD required a number of boats and canoe on each island for the welding and fiberglass training.
	Action Achieved 1. Grab Bag inspections - Nanumea, Nanumaga, Niutao, Nukufetau and Nukulaelae CFO successfully undertook and will continue to do grab bag inspections to make sure its functional well. 2. Outboard motor repair and maintenance - Nukulaelae able to use his abilities gained from refresher training to demonstrate local fishers on how to fix and repair outboard motors. 3. All CFOs submitted a list of boats and canoe to the Operation and Development unit.
5	**Key Activity: TFD & TFSP Project Support – Fishing Gear** TFSP and TFD support each island community by providing and donating fishing gear to be accessible by the local fishermen. The main ideas of donating fishing to supply fishing gear locally at a low cost.
	Key Action 1. The CFO is responsible for selling the fishing gears to the local fishers in the community. 2. Record and reconcile revenue generating from fishing gears with the Kaupule, 3. Consult with local fishers and make a list of the most wanted fishing gears to replenished or to order,
	Action Achieved Each Kaupule is responsible for sustaining the continuation of the fishing gears project. TFD and the support of Niutao and Nukufetau CFO has completed 2 audit reports for Niutao and Nukufetau. From this report it was found that Nukufetau needed to replenish fishing gear and Niutao needed to identify a new strategy in selling the fishing gear to the local fishers.
6	**Key Activity: Other Tasks** CFO on each island are required to undertake any other task which is required by the TFD and support them during their island visit or roundtrips.
	Key Actions The following actions were successfully implemented by the CFOs in their respective islands. • Assist metronome team when arriving at their respective island – It is a responsibility of the CFO to assist and carry out necessary tasks given when metronome and official visit (TFD) into their islands. • CFC Task – CFO on each island were also assisted to process and provide support wherever the needs identified.
	Actions achieved All island CFO had shown their support in assisting metronome team and other TFD visits to their island. The CFO program has contributed in developing CFC on their island in identifying necessary needs that the CFC needed to improve. The CFO has demonstrated their ability in developing each CFC through project proposals for donors to fund arrears to develop.

Table 3 CFO activities

Activity	Status
1. FAD deployment and awareness to Nanumea	Consultation has been made with the TFD on the location to deploy. O&D yet to deploy Nanumea FADs and awareness to the community on the importance of the FADs to the community

2. Marketing strategies to trade fish products.	CFO with limited capacity in developing such strategies required the support from the TFD in developing marketing strategy to improve marketing of fish products.
3. Welding and fibreglass training to Nanumea and Nanumaga	Aluminium boat welding and fibreglass training is important to the fishers to ensure sea worthiness of their boat and canoe. O&D will undertake this activity once the TFD vessel is operational.
4. Awareness to Faikimua primary school on Post harvest.	Nukulaelae CFO with limited time available to raise awareness to the primary school. The CFO will undertake this task when time permits.
5. Relocation of the Nanumea Land-Base VHF	Kaupule approved the new site to relocate the land base VHF. TFD to relocate the VHF due to the lack of capacity of the Kaupule to relocate this VHF.

Table 4 CFO Pending activities

4.7.5 Other Important Operation (Rearranging of Containers)

Over the years, the Tuvalu Fisheries Department (TFD) has accumulated a wide variety of materials and supplies to support its operations, including items for Fish Aggregating Devices (FADs), fishing gear, and various other essential resources. These bulk items were primarily delivered in large containers, which were then stored at a location opposite the NAFICOT and the Mechanical Workshop. While some of these containers were returned, a considerable number remained in the department's ownership and have continued to be used as storage over the years.

Space Constraints and Challenges

Despite the department's efforts to manage its resources, the storage arrangement has led to ongoing space constraints, particularly near the slipway, where several of the department's boats are docked. The presence of these containers, along with the boats occupying the area, has hindered the effective use of the slipway, a critical space for boat maintenance, repairs, and launching operations.

Collaborative Effort to Improve Space Utilization

Recognizing the challenges posed by the lack of available space, the Operations and Development (O&D) staff, in collaboration with the Mechanical section of the Marine Department, launched an initiative aimed at improving the situation. The primary objectives of this initiative were:

- Rearranging the Containers: The team undertook a thorough reorganization of the containers, ensuring that they were arranged in a way that optimized available space without disrupting access to essential materials.
- Disposing of Old, Rusted Containers: Several containers that had deteriorated over time, rusted beyond use, were identified and removed from the site. This helped clear additional space and reduced clutter, which had further exacerbated storage and accessibility challenges.

Following the successful rearrangement and disposal of obsolete containers, the O&D staff took the next step of moving several Tuvalu Fisheries Department (TFD) boats to the newly freed-up area. This relocation allowed the slipway to be cleared, ensuring that it could now be fully utilized for upcoming maintenance, repairs, and other activities related to the department's vessels.

Figure 9 New re-arrangement of containers and more spaces created

4.8 Mechanical Workshop Activities

4.8.1 Repair and Maintenance - All TFD Equipment and Machinery

Throughout this reporting period, a variety of activities were carried out at the Mechanical Workshop, contributing to the maintenance and repair of the Fisheries Department's equipment, vessels, and facilities. These activities aimed to enhance operational efficiency, ensure the proper functioning of essential machinery, and provide valuable training to local staff.

Ice Maker Installation

The installation of an ice maker machine on Niutao Island was one of the significant projects undertaken. The process began with consultations with the Niutao Kaupule to identify a suitable location for the installation. Once the designated area was finalized, the team proceeded with setting up the necessary wiring and piping for the ice maker. After installation, the machine was thoroughly tested to ensure it was operating correctly. The entire process was completed within four days, and the ice maker is now fully operational. This task was successfully achieved without any major challenges.

Aluminium Boat Repair (MIG Welding)

In another key activity, the Assistant Mechanic Officer, Mr. Talava T, led a training and repair initiative focused on aluminium boat repairs using MIG welding techniques. The training was conducted for the Niutao Kaupule Mechanic, enabling them to perform repairs on their own aluminium fishing boats. Over the course of 12 working days, a total of 11 boats were successfully repaired. This was a significant achievement, both in terms of the repairs completed and the knowledge transferred to the local mechanic, empowering them with new skills for future maintenance.

Fiberglass Canoe Repair

Additionally, Mr. Simoni Salesa carried out repairs on fiberglass canoes while providing hands-on training to Niutao fishermen on how to use fiberglass for canoe maintenance. The repairs were completed within five days, and the training proved effective in improving the fishermen’s ability to perform similar repairs independently. This activity was successfully concluded with no notable challenges.

Coastal Boat Maintenance

Coastal boat maintenance was also carried out during this period. However, this task could not be fully completed due to the lack of necessary spare parts. The parts needed for the repair were delayed in transit from Fiji, resulting in an incomplete repair. As a result, this task was not achieved as initially planned.

Ordering of Spare Parts for Fisheries Boat

Efforts to order spare parts for the Fisheries Department's boats were partially successful. Some of the required outboard motor (OBM) spare parts were received on time, but several items are still pending delivery. This delay has impacted the ability to complete all necessary repairs. However, work is ongoing, and the remaining parts are expected to arrive soon.

Crane Truck Maintenance

The crane truck underwent full maintenance, including restoration of the trailer, oil filter replacements, engine oil changes, and hydraulic oil replacements. The maintenance work was completed within three weeks, ensuring that the crane truck is now fully operational and ready for use.

Relocation of Fuel Station

As part of an ongoing effort to improve the efficiency of fuel operations, the fuel station was successfully relocated. The Manaui crew worked together to build a new shed for the fuel tank. However, the project faced delays due to late receipt of building materials. Despite this, the relocation was completed within four weeks, and the new fuel station is now fully operational.

Maintenance of Proper Vehicle

The maintenance of a Mazda BT-50 vehicle involved dismantling the transmission gear to address a shifting gear issue. The faulty slave cylinder in the transmission was replaced with a new one. The repair process took two months to complete, primarily due to delays in receiving the necessary spare parts, a shortage of workers, and the lack of the appropriate tools for the job. Despite these challenges, the vehicle is now functioning properly.

Workshop Maintenance

Workshop maintenance was also conducted during this period, with assistance from the Manaui crew. Tasks included repairing gutters, patching up cracks in concrete posts, and painting the interior of the office. Routine cleaning and upkeep were also performed, ensuring the workshop remained in good condition. This maintenance was successfully completed within the quarter, contributing to a well-maintained working environment.

In summary, significant progress was made in various areas of mechanical work, with many tasks successfully completed. While some challenges, such as delays in receiving spare parts and building materials, hindered the timely completion of certain activities, the overall outcome was positive. The initiatives carried out during this period not only improved the functionality of the Fisheries Department's equipment and vehicles but also provided valuable training to local mechanics and fishermen, strengthening the department's capacity for self-sufficiency in future maintenance and repairs.

4.8.2 Write-Off Assets

The following assets, as listed in the table below, have been officially deemed fully depreciated due to their obsolete condition and lack of residual value. After a thorough assessment, the Mechanical team identified these items for write-off, which was then approved by both the management and the Finance department. These decisions were made to ensure that the department's records reflect only assets of operational value and to clear space for necessary updates or replacements.

The decision to write off these assets was based on a combination of their deteriorated condition and inability to serve their intended function. In particular, the chest freezers on both the Manaui I and II vessels

were deemed ineffective due to severe rust and wear, rendering them incapable of maintaining their cooling functions. Similarly, the four aluminium boats were found to have structural damage in the form of unrepairable holes, making them unsuitable for safe use in fisheries activities.

By writing off these items, the Tuvalu Fisheries Department is ensuring that its inventory accurately reflects assets that are still in use and operational, while also clearing space for the acquisition of more efficient and functional replacements. The approval from both management and the Finance department underscores the importance of maintaining up-to-date asset records, which are essential for financial reporting and future planning.

This move will enable the department to focus on acquiring new equipment and resources to support its ongoing operations, ensuring that it can continue to meet the needs of the fisheries sector efficiently and sustainably.

Asset Name	Asset Value	Condition/Status
1. Manaui I chest Freezer size 700 liters X 2 pcs	0	The four chest freezers, two of which are designated for the Manaui I and two for the Manaui II, were found to be rusty, heavily worn out, and non-functional. Due to their failure to operate effectively, they were written off with management approval.
2. Manaui II chest freezer size 700 liters X 2 pcs	0	
3. Aluminium boat X 4 pcs	0	Four aluminium boats were written off after being assessed as unseaworthy. These boats were found to have irreparable holes, making them unsafe and non-functional for continued use

Table 5 List of Write-off assets

4.8.3 Stock Assessment

4.8.3.1 CFO Stock Assessment

The Tuvalu Fisheries Support Programme 2 (TFSP2), in close collaboration with the Tuvalu Fisheries Department (TFD), is actively supporting small-scale fisheries and promoting sustainable fishing practices across the country. One of the program's central initiatives is ensuring that fishing gear is made accessible to all fishermen, particularly those who have limited access to essential equipment. This initiative is a significant part of TFSP2's efforts to empower local fishermen and enhance the sustainability of fisheries activities in Tuvalu's outer islands.

Goals and Responsibilities

The primary objective of this initiative is to ensure that every island has the necessary fishing gear to support local fisheries activities. Under TFSP2, two batches of fishing gear were allocated to each island, with the Kaupules (local island councils) tasked with overseeing the distribution and long-term sustainability of the equipment. This approach aims to create a self-sustaining model for the management and replenishment of fishing gear on each island.

Fishing Gear Assessment

To ensure the proper management of the allocated fishing gear and maintain an accurate inventory, a comprehensive stock assessment was conducted by a staff member from the Operations and Development (O&D) section. The assessment had the following objectives:

Inventory Overview: To review the current stock of fishing gear, identifying quantities available on each island.

Stock Discrepancies: To assess any discrepancies or shortages in the gear available to fishermen.

Recommendations for Replenishment: To provide recommendations for replenishing or updating the fishing gear inventory as necessary, ensuring the needs of local fishermen are met.

Record Accuracy: To maintain accurate records and ensure transparency in the management of fishing gear.

Challenges and Limitations

Despite the effort to assess the fishing gear stock across all islands, the assessment was limited by several logistical challenges:

1. Transportation Constraints: Due to limited transportation options, the staff conducting the assessment was only able to visit the islands of Nukufetau and Niutao.
2. Funding Limitations: Insufficient funding also restricted the ability to visit additional islands, preventing a full assessment of the fishing gear stock across all outer islandsAs a result, the fishing gear stock list report for only Nukufetau and Niutao has been completed so far. This report, which includes detailed findings on the current inventory and areas requiring attention, will be appended for reference.

Moving Forward

The TFSP2 and TFD will continue to monitor the fishing gear distribution and inventory, with plans to expand the assessment to other islands as transportation and funding allow. Additionally, the program will work closely with the Kaupules to ensure that the fishing gear provided is properly maintained and replenished as needed, supporting the long-term sustainability of Tuvalu's small-scale fisheries.

This initiative represents a critical step in improving access to the resources needed by local fishermen, enabling them to continue their livelihoods while promoting environmentally sustainable fishing practices throughout Tuvalu.

4.8.3.2 Manaui 1 & 2 Stock Assessment

In order to effectively address the maintenance needs of the Manaui I and Manaui II vessels, it is crucial to first evaluate the current inventory of parts, tools, and equipment. The Operations and Development (O&D) section, which oversees the operation of these two vessels, has identified the necessity of conducting a comprehensive stock assessment. This assessment will provide an accurate overview of available resources and help determine any additional parts or tools required to complete essential maintenance and repairs on both vessels.

Recent Stock Assessment

A thorough stock assessment was conducted for both the Manaui I and Manaui II vessels, as well as the Workshop, from December 2023 to January 2024. This assessment included:

Engine Spare Parts: An inventory of engine components was taken to ensure that any necessary replacements or repairs could be addressed in a timely manner.

Available Tools: The tools required for ongoing maintenance and repairs were reviewed to confirm that all necessary equipment is available for use.

Machinery and Equipment: All machinery and systems aboard the vessels were assessed to ensure they are in working order or to identify any items that require maintenance or replacement.

The results of this stock assessment, which provide a detailed breakdown of available inventory and highlight any shortages, are appended for your reference.

Upcoming Stock Assessment

It is important to note that no stock assessment was conducted between July and June 2024. However, a comprehensive assessment is scheduled to take place in the first quarter of 2025. This upcoming assessment will build on the findings of the previous review, focusing on identifying any additional needs or replenishments required to maintain the operational readiness of the Manaui I and Manaui II vessels, as well as the associated workshop equipment.

Importance of Regular Stock Assessments

Regular stock assessments are a critical part of vessel maintenance and operation planning. They ensure that the O&D section has a clear understanding of the resources at its disposal and can proactively identify any gaps or deficiencies in equipment. This enables the department to:

Ensure Readiness: Maintain both vessels in operational condition, minimizing downtime and delays due to lack of parts or tools.

Plan Efficiently: Develop a clear order list for additional parts or tools needed to support future maintenance efforts.

Optimize Resources: Ensure that available resources are utilized efficiently and that any new purchases align with current and future needs.

The upcoming stock assessment in 2025 will be an important step toward ensuring the long-term sustainability of the vessels and their operations, contributing to the continued success of Tuvalu's fisheries management efforts.

4.8.3.3 Training and Development Stock Assessment

During this reporting period, no stock assessments were conducted by the designated officer. However, in December, the Training Officer compiled a comprehensive 2023 stock report covering all materials managed under the Training Officer Subsection. This report provided an overview of inventory usage and highlighted the need for a more structured approach to stock assessments in the future.

Observations from 2023

The absence of regular stock assessments throughout the year revealed gaps in tracking material usage and inventory management. This underscored the importance of implementing a systematic schedule for stock assessments to ensure accurate tracking and efficient resource allocation.

Planning for 2025

To address the shortcomings and enhance inventory management, the officer has developed a clear plan for conducting regular stock assessments in 2025:

Scheduled Assessments

Stock assessments will be conducted twice annually:

- June: To review materials used from January to June.
- December: To assess materials utilized from July to December.

Goals for 2025 Stock Assessments

- Monitor Material Usage: Ensure accurate tracking of materials used in training sessions and other activities.
- Identify Trends: Analyze patterns in material usage to forecast future needs.
- Improve Resource Allocation: Use the data to plan purchases and manage inventory effectively.

Process Enhancements

The officer will introduce a standardized stock tracking system to record material inflow and outflow on an ongoing basis. Monthly updates will be incorporated into the system to provide interim insights and reduce the workload during the biannual assessments.

Long-Term Benefits

Implementing regular stock assessments will result in several long-term benefits:

Improved Transparency: A clear record of material usage will enhance accountability and decision-making.

Resource Optimization: Accurate tracking will minimize waste and ensure that materials are available when needed.

Informed Planning: Regular assessments will provide valuable data for planning future activities and allocating budgets.

With these measures in place, the officer is committed to strengthening inventory management and ensuring that stock assessments become an integral part of operational efficiency moving forward.

4.8.3.4 TFD Mechanical Workshop

The most recent stock assessment for the Workshop was carried out between December 2023 and January 2024, and the detailed report is appended for your reference. This comprehensive assessment was essential for evaluating the current inventory of tools, equipment, and materials, and ensuring that everything required for the smooth operation of the workshop was available. Regular stock assessments are critical to the efficient functioning of the department, as they help identify gaps in inventory and determine which items need to be procured.

Conducting these assessments consistently is crucial to maintaining an up-to-date record of workshop supplies and avoiding delays in operations due to shortages of necessary items. By regularly reviewing stock levels, the department can proactively plan for procurement, ensuring that the workshop is always adequately equipped to handle both routine maintenance and any urgent repair needs that may arise.

The findings from this latest assessment will inform future procurement plans and help the department prioritize orders for materials and tools. This ensures that all activities, from vessel repairs to equipment

maintenance, can be carried out without disruption. Regular and thorough stock assessments are, therefore, a vital part of the department's efforts to maintain operational readiness and enhance overall efficiency.

Name	Specification	Quantity	Used	In stock
Form ply	12mm	4	4	0
Bolts and nuts	150mm	36	24	12
Barrel bolt		2	2	0
Knob lock		2	2	0
Wood screws		100pcs	60	40
Paint brush	4"	5	3	2
D sleeves	4"	10	5	5
Elbow	100mm	6	3	3
Join	100mm	3	2	1
Cup brush		3	1	2
SLide cutter		1	1	0
Length PVC pipe	15mm	2	1	1
PVC glue		2	1	1
PVC elbow	15mm	12	8	4
PVC joint	15mm	4	3	1
Female socket	15mm	6	6	0
Male socket	15mm	6	6	0
Gate valve	15mm	2	2	0
Thread tape		2	1	1
Reducer	20-15mm	2	2	0
Cable ties		1pkt	1pkt	0
Insulation tape		2	2	0
Roller handle		2	2	0
Cutting disc		10	10	0
Flat Disc		10	8	2
WD-40		8	8	0
Deep freezer	Western House	1 unit	1	0
Floodlight		1	1	0

Hand wire brush		8	6	2
Gloves		1pkt (12 pair)	10 pairs	2 pairs
S/tapping screws		2 pkt	2 pkt	0
Wall plug	6m	3	2	1
Electrical grinder		1	1	0
Cond flin	25mm (2m in length)	1	1	0
Cond elbow	25mm	50	37	13
Entrance lock		1	1	0
Hammer		2	2	0
Rubber gloves		2pkt	1pkt	1pkt
Galvanized nail	4"	2pkt	1pkt	1pkt
Pad lock		3	2	1
Car battery	75ah	1	1	0
Cable control TFextreme	CC633(18ft)	6	0	6
NGK spark plug		10	0	10
AZ Bond PVC Glue kit		1 set		1 set
AZ Bond Patch kit		1 set		1 set
DENSO Grease tape	50mm x 10mtrs	4	0	4
Battery terminal		24	0	24
Car battery	N70Z - SMF	2	0	2
Toolbox	Stanley	2	2	0
Cutting disc		1pkt	1pkt	0
Thinner mineral turpentine		3	3	0
Masks		20	15	5
Handle for roller		3	3	0

Roller refill	4"	2pkt	1pkt	1pkt
Paint brush	2"	6	4	2
Conduit pipe	25mm	3	3	0
Circuit breaker	20 amps	4	4	0
Long nose		1	1	0
Plier		12	1	0
Insulated screwdriver		1 set	1 set	0
Head light		2	2	0
Sandpaper disc		25	25	0
Oil filter MVP (Twin cab)		2	2	0
Fuel filter (Twin cab)		2	2	0
Oil filter (C/Truck)		2	1	1
Fuel filter (C/Truck)		2	1	1
Element set fuel filter		1	1	0
V - belt	Displa	2	1	1
Belt - V	U 041	2	1	1
Air element	W088	3	1	2
R - 600A	5kg	2	1	1
R - 134A	13.6kg	1	1	0
R - 410A	11.3kg	1	1	0
Portable Generator (for Manaui 2)	Yamaha EF55500FW	1	1	0

Table 6 Materials procured during reporting period

4.9 Japan-OFCF Support Program

The Japan Overseas Fishery Cooperation Foundation (OFCF) plays a vital role in strengthening the capacity of the Tuvalu Fisheries Department (TFD) and supporting local communities in Tuvalu. This collaboration is formalized under a Memorandum of Understanding (MOU) that is renewed every year, ensuring the continuity of their partnership and alignment of goals.

As part of this partnership, OFCF implements a five-year strategic plan with TFD, structured to align with its financial year, which runs from April 1 to March 31. This plan serves as a framework for coordinated activities and resource allocation. Each year within the five-year period, the Tuvalu Fisheries Department submits a prioritized list of needs and initiatives. Based on this submission, OFCF provides targeted assistance, including technical support, capacity-building programs, and resource development, to address the identified priorities.

This collaborative approach ensures that OFCF's contributions effectively align with Tuvalu's national fisheries goals and community needs, fostering sustainable development and improved fisheries management.

Between June and December 2024, the Japan Overseas Fishery Cooperation Foundation (OFCF) Technical Advisor, accompanied by other experts, made three successful visits to Funafuti, Tuvalu. These visits were strategically planned to address and implement key priorities outlined by the Tuvalu Fisheries Department (TFD) in their annual prioritized list of needs and initiatives, as part of the ongoing collaboration under the five-year strategic plan.

Here is a clear articulation of the purpose of their visit, and the importance of their support:

1. Repair and Maintenance of Fisheries Infrastructure

OFCF undertakes the maintenance and enhancement of fisheries related facilities such as the mechanical workshop, winch hut, docking yard, etc., ensuring these are functional and aligned with sustainable practices. This directly strengthened the operational capabilities of the Tuvalu Fisheries Department. This activity was not a priority in 2024/2025 financial year, and therefore no technical support provided by OFCF.

2. Provision of Resources and Equipment

The Japan Overseas Fishery Cooperation Foundation (OFCF) plays a vital role in strengthening the capacity of the Tuvalu Fisheries Department (TFD) by providing essential materials and equipment critical for fisheries development. Among these, the provision of spare parts for the Manaui I and Manaui II vessels stands out as a crucial contribution. These spare parts are often beyond the financial and logistical capacity of TFD to procure independently, making OFCF's support indispensable. These resources have significantly enhanced the department's ability to meet its operational and strategic objectives, particularly in supporting coastal and outer island communities.

A key component of TFD's 2024/2025 priorities, as outlined in its annual submission to OFCF, is the procurement of resources and equipment that are fundamental to maintaining the efficiency and effectiveness of fisheries operations. In response to this, OFCF has provided a dedicated batch of equipment, specifically designed to address the maintenance needs of the Manaui II and to support Fishing Technique Training programs aimed at local fishers.

The shipment, which includes essential spare parts and training materials, is expected to arrive in January 2025. The timely arrival of these assets will enable TFD to address ongoing maintenance challenges, ensuring the continued operation of the Manaui II, which is critical for supporting fisheries activities in the outer islands. Additionally, the Fishing Technique Training resources will empower local communities with improved methods for sustainable fishing, directly contributing to food security, economic resilience, and the preservation of marine resources.

3. Capacity Building and Skill Transfer

Through the deployment of expert advisors and skilled technicians, the Japan Overseas Fishery Cooperation Foundation (OFCF) plays a critical role in facilitating the transfer of specialized technical skills and knowledge. This partnership empowers the Tuvalu Fisheries Department (TFD) by building local capacity, enhancing technical expertise, and supporting the department's long-term goal of achieving sustainable fisheries management and operational self-sufficiency.

During OFCF's three visits to Funafuti in 2024, one of the key initiatives involved working closely with TFD's mechanical staff and engineers. OFCF advisors and technicians provided hands-on training and mentorship, fostering practical skills development while addressing critical technical issues. This collaborative effort focused on the maintenance and repair of essential infrastructure, including the generator systems and navigational equipment, both of which are vital for the operation of the Manaui 1&2 vessels.

The training process emphasized not only problem-solving in real-time but also the principles of preventive maintenance and troubleshooting techniques. By working side by side with the TFD team, OFCF experts ensured that the local engineers and mechanics acquired the technical competence and confidence necessary to manage similar challenges independently in the future.

This skill transfer represents a significant step toward reducing reliance on external expertise, enabling TFD to maintain its equipment more effectively and extend the operational lifespan of critical assets. Ultimately,

this collaboration strengthens the resilience and self-reliance of Tuvalu's fisheries sector, ensuring that the department can continue delivering essential services to coastal and outer island communities without disruption.

The success of this initiative highlights the importance of capacity-building partnerships in achieving sustainable fisheries operations and underscores the invaluable role OFCF plays in supporting Tuvalu's fisheries management goals.

4. Technical and Strategic Advice

Japan-OFCF plays a crucial role in providing guidance to enhance and promote fisheries activities, particularly in the areas of mechanical and engineering services, as well as post-harvest practices. These efforts are aligned with national standards and best practices, contributing to the overall strengthening of Tuvalu's fisheries sector.

Technical and strategic advice from OFCF has been a vital component in addressing critical gaps within the sector, particularly due to the limited availability of local technical skills and knowledge in mechanical and engineering fields. As a result, this activity is recognized as an ongoing and essential priority for the development and sustainability of Tuvalu's fisheries operations.

From the beginning of 2024, Manaui 1 and Manaui 2 vessels experienced prolonged periods of idleness due to persistent mechanical and electrical issues. However, through the invaluable support of OFCF experts Mr. UESEGI Goro and Mr. SAKONJU Testsuro, the Department has received exceptional technical and strategic advice. Despite the on-going issue with both Vessels, their contributions have significantly improved staff capacity, enabling the Department to address these issues effectively and ensure the vessels' operational readiness.

The continued collaboration with OFCF remains vital as it builds resilience within Tuvalu's fisheries sector, enhances workforce capabilities, and supports the long-term sustainability of our operations.

4.10 Recurrent Expenditures (Jul - Dec 2024)

The total approved budget from the government of Tuvalu to the Operation and Development Unit under TFD was $252,500 AUD for July to December 2024. With the limited funds being allocated for the O&D to achieve its goals, the O&D (TFD) relied mostly on the TFSP2 and PROPPER to support O&D to implement fisheries development in each island community. The pie chart below provides the distribution amount of the budget to each sub division, remaining balance and expenditure from July to December 2024.

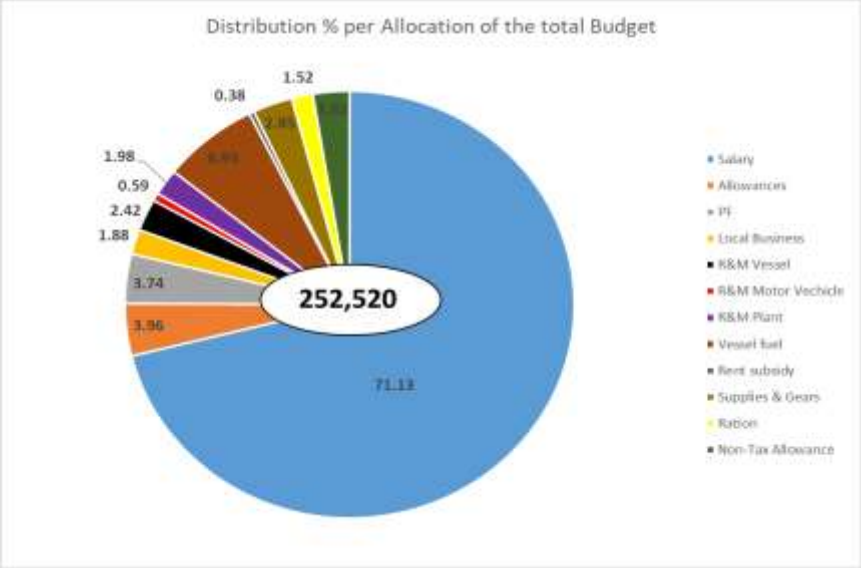


Figure 10 Budget Distribution by Percentages per Allocations: July - December 2024

Allocation	Distribution %	Budget	Actuals	Remaining Balance
Salary	71.13	$179,620.00	$100,448.87	$79,171.13
Allowances	3.96	$10,000.00	$4,568.90	$5,431.10
PF	3.74	$9,435.00	$5,547.90	$3,887.71
Local Business	1.88	$4,750.00	$4,290.00	$460.00
R&M Vessel	2.42	$6,100.00	$5,059.08	$1,040.92
R&M Motor Vehicle	0.59	$1,500.00	$720.00	$780.00
R&M Plant	1.98	$5,000.00	$3,850.00	$1,150.00
Vessel fuel	6.93	$17,500.00	$8,624.00	$8,876.00
Rent Subsidy	0.38	$960.00	0	$960.00
Supplies and Gears	2.85	$7,190.00	$4,297.12	$2,892.88
Ration	1.52	$3,840.00	$1,720.00	$2,120.00
Non-Tax Allowance	2.62	$6,625.00	$6,625.00	0
Total	**100%**	**$252,520.00**	**$145,750.26**	**$106,769.74**

Table 7 Total Expenditure to date per Allocations

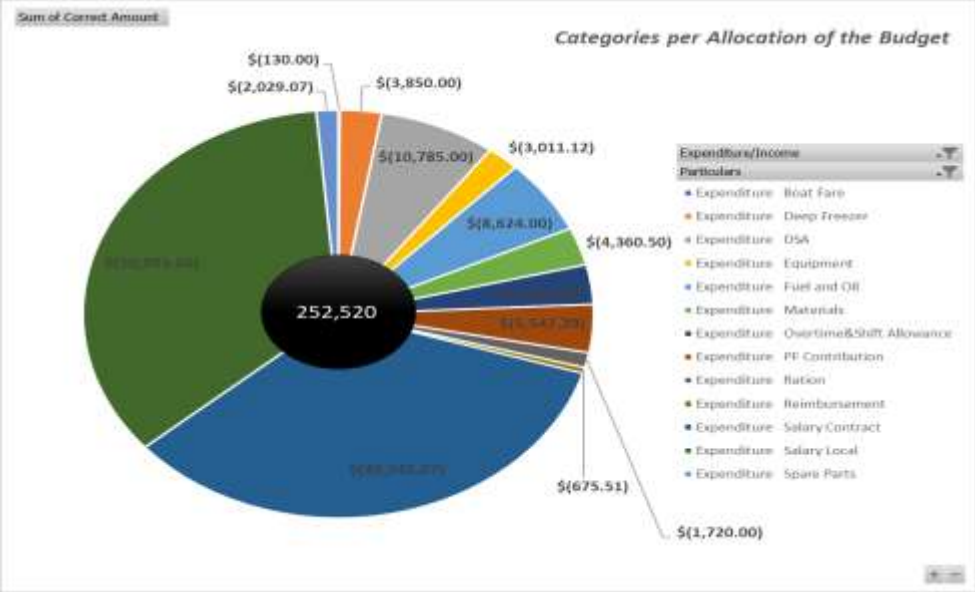


Figure 11: Categorization per Allocations

Particulars	Total
• **Expenditure** 1. Boat Fare 2. Deep Freezer 3. Daily Sub Allowance 4. Equipment 5. Fuel and Oil 6. Materials 7. Overtime and Allowance 8. PF Contribution 9. Ration 10. Reimbursement 11. Salary Contract / Expariat 12. Salary Local 13. Spare Parts	**$ (145,750.26)** $ (130.00) $ (3,850.00) $ (10,785.00) $ (3,011.12) $ (8,624.00) $ (4,360.50) $ (4,568.90) $ (5,547.29) $ (1,720.00) $ (675.51) $ (49,545.27) $ (50,903.60) $ (2,029.07)
• **Income/Allocated Budget** 1. Allocated Budget - GoT	**$252,520.00** $252,520.00
Grand Total	**$106,769.74**

Table 8: List of Items and expenses

4.11 Conclusion and Recommendations

4.11.1 Training and Development

Challenges

- Some planned development activities cannot be completed because the two vessels are still not operational.
- The training and development section is understaffed, and there is an urgent need for an assistant to support each planned activity to improve implementation and coordination.

- Activities are time-sensitive and should not depend on the use of the Manaui boat, as government boats must be used instead. Delays due to waiting should be avoided to ensure timely execution of planned tasks.

4.11.2 Community Fisheries Officer

Challenges

- There is currently no designated allocation for fishing gear revenue for some islands, leading to the merging of various revenues collected by the Kaupule into a single account.
- There is currently no well-defined process for utilizing the revenue collected from fishing sales to fund orders for the resupply of fishing gear for each island.
- The Kaupule possesses the authority to set aside fishing gear as needed, yet some members have not completed their payments.
- There was no proper handing over process conducted when the new Community Fisheries Officer (CFO) assumed position. This includes the fishing gear stock report and other fisheries equipment that was provided.
- There are types of fishing gear still in abundant supply on one island whereas it has run out on the other. This shows that these fishing gears are not suitable for fishing activities on the particular island whereby the supply is still in abundance.
- Lack of consistency in stock assessment leading to numerous fishing gear being unaccounted for.

Recommendation

- A need to allocate an account for fishing gear revenues is a must for easier traceability and reconciliation.
- In order to fully utilize these revenues, a well-defined process must be made clear in order to process a restock of the fishing gear supplies.
- Conduct thorough consultations with fishermen on each island to determine the types of fishing gear that are most desired and can effectively enhance their fishing activities and improve catch rates.
- A Memorandum of Understanding (MOU) for fishing gear should be made to stipulate that all fishing gear must be sold, with a receipt of payment required before the gear is handed out. Purchasing fishing gear on credit must not be permitted under any circumstances.
- Proper handover procedures must be clarified and strictly followed when a Community Fisheries Officer resigns to prevent the loss of fishing gear.
- Surplus fishing gear that remains unsold on one island, yet is in demand on another, should be reallocated. It is advisable for the island with a shortage of these fishing gears to procure them from the island with excess inventory.
- For all fishing gear that remains unused on any island, a system or plan must be established to sell these items at a reduced cost. This approach aims to generate funds, which can then be used to support the resupply of fishing gear that is in high demand.
- A quarterly report on the stock assessment of fishing gear must be conducted to prevent the loss of fishing gear.

The report highlights the progress, challenges, and key activities undertaken by the Tuvalu Fisheries Department across various operational and developmental areas. Despite setbacks such as vessel inoperability, staffing shortages, and logistical delays, the department has successfully implemented several

initiatives, including training programs, asset maintenance, and resource distribution, while striving to support sustainable fisheries development in Tuvalu.

Proactive measures, such as regular stock assessments, strategic resource planning, and collaboration with partners, have ensured that the department remains focused on its mission. However, addressing critical issues like vessel repairs, staff capacity, and efficient resource allocation will be essential to achieving long-term objectives and enhancing operational effectiveness.

This period’s activities underscore the department's resilience and commitment to supporting small-scale fisheries, community development, and sustainable practices, laying the groundwork for future progress and innovation.

5 Coastal Fisheries Activities

5.1 General

The 2024 came with both significant progress and unexpected challenges, but we remained committed to our mandate under our annual workplan to deliver our service and assistance to our communities and partners on areas where required. Many of the activities of the Coastal Section during 2024 were ongoing from previous years. These included data collection, resource assessment, public awareness, community-based activities, and capacity training of staffs and communities on related fishery topics. Overall, the year 2024 was remarkably successful in terms of accomplishment, and very challenging mainly because of on-going staff turnover issues and heavy activity schedule. This was accompanying by problems associated with the unavailability of both Manaui to access outer islands, unavailability of resources and insufficient staff to implement activities. Despite these challenges, an estimated total of 80% of activities under the Annual Workplan 2024 were successfully achieved. Substantial amount of time and effort was put into implementing the new Tuvalu Fisheries Authority consultation on all islands of Tuvalu, which was tabled and passed through parliament in late 2024.

2024 was also a year of achievement and growth. The implementation of a national training with SPC on Ika Savea was successfully executed which supports the new transition from paper base to digital surveys using the new Ika Savea App. In addition, there were two new joint project that was accomplished. One with USP on microplastic and another with the SPC gender team from Suva. We also advanced through the extension of the biological monitoring of ciguatoxin reef areas to new sites on the outer island which was introduced through the Metronome trips to the outer islands.

In August, we farewell Filipo Makolo, one of our long serving staff who has moved on leaving other staffs to act in that position. Also, Sapeta Malua who was single-handling work for Funafuti, left Coastal team to join the Oceanic Section, leaving that position also vacant. Eventually, these changes contributed more challenging task for staffs to implement activities on our work plan. Finding rapid replacements for these vacant positions was quite challenging due to the limited number of suitable applicants available and the lengthy recruitment system process. Reorganization of workloads and plans were urgently necessitated in order to achieve targeted activities under the Annual Workplan 2024. Through adaptive problem solving, remote engagement, and the dedication of the entire team, we successfully maintained critical service delivery to communities throughout Tuvalu supported by other section within the department.

5.2 Data Collection

5.2.1 Creel Survey programme

The Creel Survey program continued to be well implemented across all islands in Tuvalu, with the exception of Niulakita. This program entails the collection of catch data on each island by IDC(Island Data Collectors) at various locations, such as beaches, wharves, and other designated landing sites. A minimum of 10 samples per week is targeted for each IDC to collect and submitted to the head office in Funafuti. These data is transmitted into the office database that can analyze and generate creel reports for the department.

A total of 862 sample were collected in 2024. Majority of these data's were produced during the second half of the year, which proves the significant advantage of using the new Ikasavea app. Below is a 2024 summary of total number of sample collected each month.

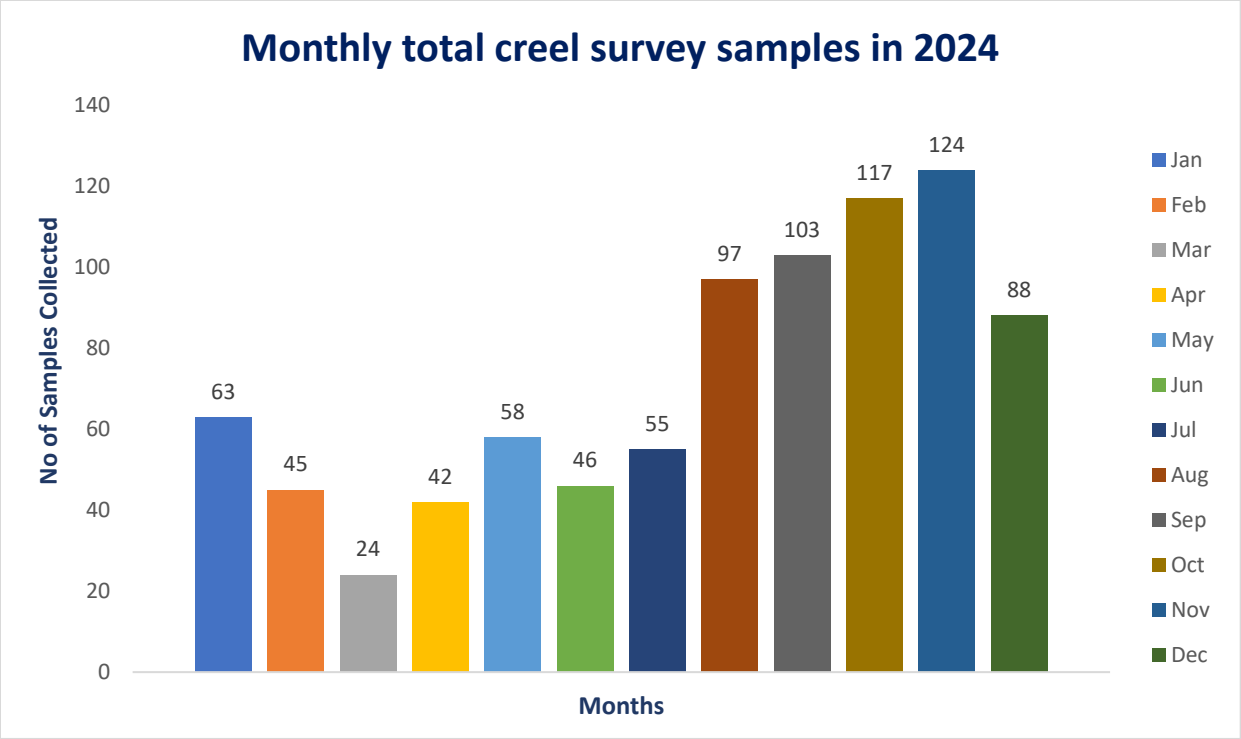


Figure 12: The monthly total of samples collected throughout Tuvalu in 2024

The above graph highlights the number of samples collected each month that have progressively advance through beginning of the month of March after the Ikasavea app was introduced. A shortfall of data was noticed from the month of March toward July, compared to the same period in 2023. This is because the IDCs are still adapting to the new app and there has also been several new development on the Ikasavea app which often causes technical glitches at times. A significant decline of data at the month of December due to the increase in festivities activities on each island.

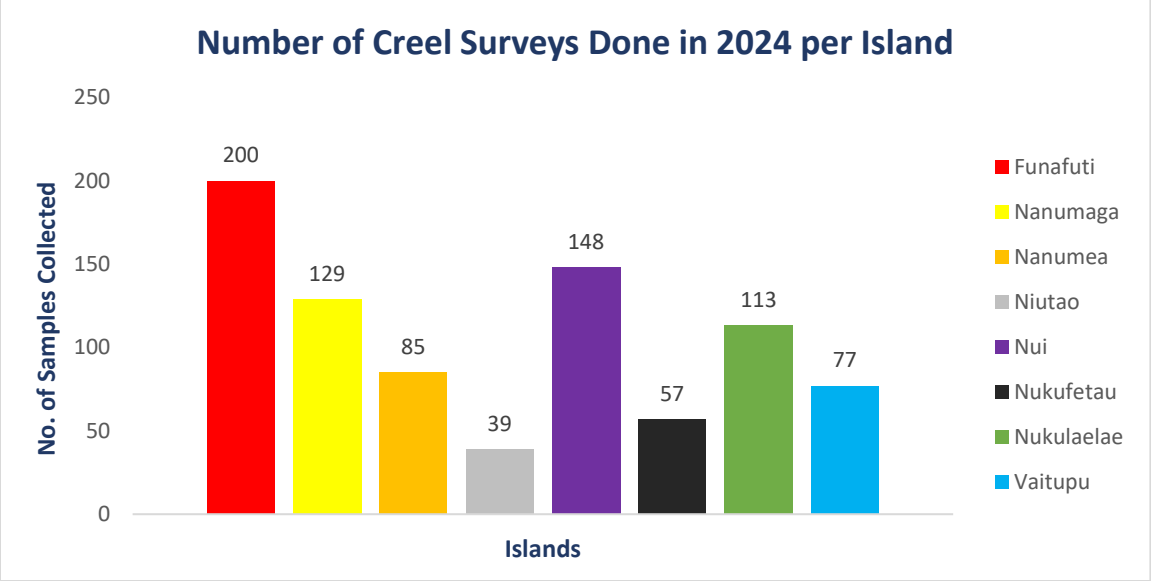


Figure 13: Creel surveys data of 2024

The Graph above indicates the total annual number of creel survey samples produced per islands by each Island Data collectors in 2024. The minimum target number is 40 samples per month or an equivalent of minimum of 10 samples per week. A number of genuine reason that may have caused the low number of data produced per islands. For instance, the challenge of recruiting replacement for IDCs, numerous technical glitches on IDC's old tablet and the app, low number of samples collected. It is hope that there will be significant progress as time progress forward once things are in place and running smoothly.

Figure 2. Shows the amount of creel focusing on invertebrate species.

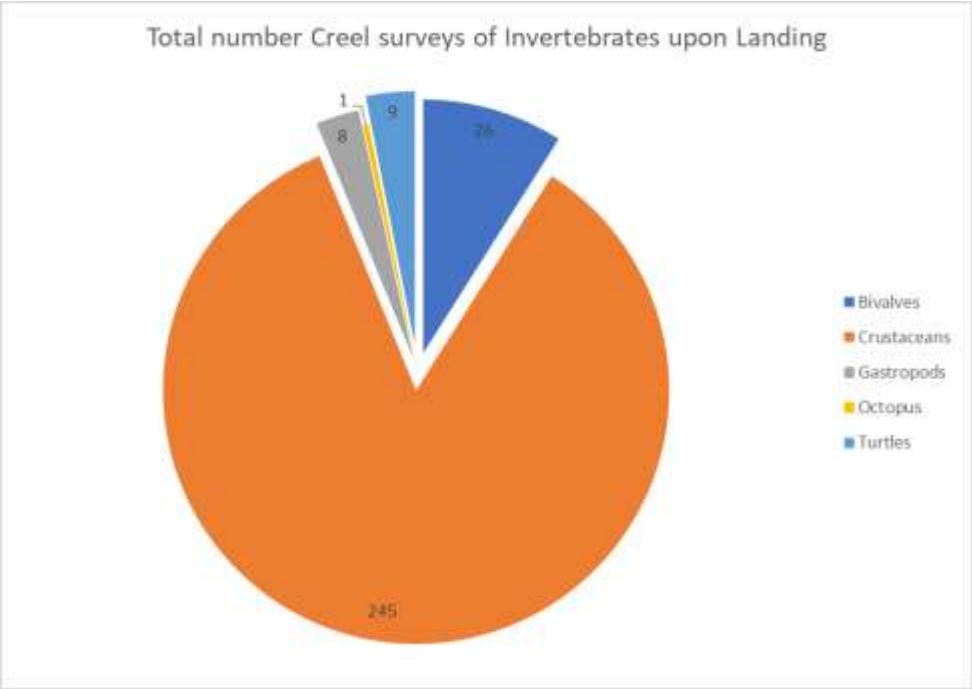


Figure 14: Shows the amount of creel focusing on invertebrate species

Out of 15,618 landing counts in Tuvalu of all creel survey work, 98.3% of creel surveyed were fin-fishes, and the other 1.7% were invertebrates. One of the main targets in the implementation of the Ikasavea app is to consider the inclusion and proper measurement of invertebrates. The new App AI will detect the length of each species if a coin is laid on top of one of the invertebrate samples on a mat or the measuring ruler. Therefore, Ikasavea has been a milestone development to the Tuvalu Coastal management plans and data analysis let alone the creel survey progression, with minor issues to be looked at, the App could be the termination of the introduction of another new database.

5.3 New staffs

The team also welcome on board two new IDC for this year. In February, a female IDC for Nukufetau was recruited adding the number of females to the team. While the IDC for Nui was recruited in late August. Preliminary training was held in Funafuti to prepare the two new recruits for their field work. Several new tablets and field equipments were dispatch to the outer islands to continue the collection of their work. This includes; weighing scale with batteries, hand-made measuring board with attached ruler-stickers

Figure 16: **Field Creel survey training.** *From left to right: Nanumea DC Mr Tonia (John) Auala, Nui DC Keith Lepana and far-right Nukulaelae DC Mr Dan Selau*

Figure 15: **Editing of data in SPC Ikasavea website.** *Far left- the new Nui DC Mr. Keith Lepana, middle- Funafuti DC- Mr Fisa Binataake and to the right – Nukulaelae DC Mr Dan Selau*

5.4 Quarterly visit

Regular visit to the outer island was made through quarterly visit. For this year, however, only one quarterly visit was carried out during the first half of 2024. This was the visit was to the central island groups with the purpose of checking the status of the creel survey equipment used by Data Collectors in their work. Additionally, the visit included interviewing for the Data Collector position on Nui Island.

The other two planned quarterly visits were unsuccessful due to staff being engaged in metronome trips, the possibility of being stuck on the islands while waiting for boats, and other staff being involved in Competent Authority (CA) work.

5.5 Ika Savea Training

In March 2024, a national training was held in Funafuti for all the IDC introducing the Ikasavea App, the training was implemented by the Coastal Section of TFD with facilitators from the South Pacific Commission (SPC). The Ikasavea app, developed by SPC, is a new tool designed to improve data collection on coastal fisheries. It enables users to easily input catch survey data, and can be downloaded onto phones or tablets, allowing IDC to record data directly on their devices. This app provides significant benefits to IDC's by addressing the issue of data loss and minimizing the time-consuming process of working out in the field while conducting the creel survey. Before the app's implementation, data sent to Funafuti could sometimes be lost or damaged. Between February 28th and March 7th, SPC representatives conducted a training session. All IDC and Community Fisheries Officers from across Tuvalu traveled to Funafuti to participate in this training.

5.6 Regional training on IkaSavea App

In September, a week long workshop was held in Nadi targeted for PIC's fisheries officers. This training was attended by a Coastal staff member and the Data Collector from Funafuti. The workshop brought together representatives from 11 Pacific countries who are currently using the Ikasavea app as part of the fisheries monitoring program. During the workshop, the two officers enhanced their knowledge and

capacity in using this new tool for data collection. This workshop was funded by the PEUMP project and was coordinated through the SPC-FAME team.

Fig 3: Participants on the Training

Fig 4: Group Activity (Creel Survey)

Throughout the transition from paper base survey to Ikasavea App, several constrains were confronted by the team.

- Staff turnover- with limited time adjusting to understand editing Ikasavea app data and monitoring
- Funding issues- to provide sufficient tablets, laptops for editing and motorbikes for Data collectors to adapt better to the use of Ikasavea App.

5.7 Quarterly biological sampling of CTox for Funafuti lagoon

The collection of Ciguatera biological samples inside Funafuti lagoon continued into the second half of the year. These surveys were planned for the month of August and November. The third survey that was planned for the third quarter did not went to planned as staffs were stranded on the outer islands due to shipping obstacles. However, the fourth survey was successfully conducted in late November and lab analysis work are currently underway in our lab.

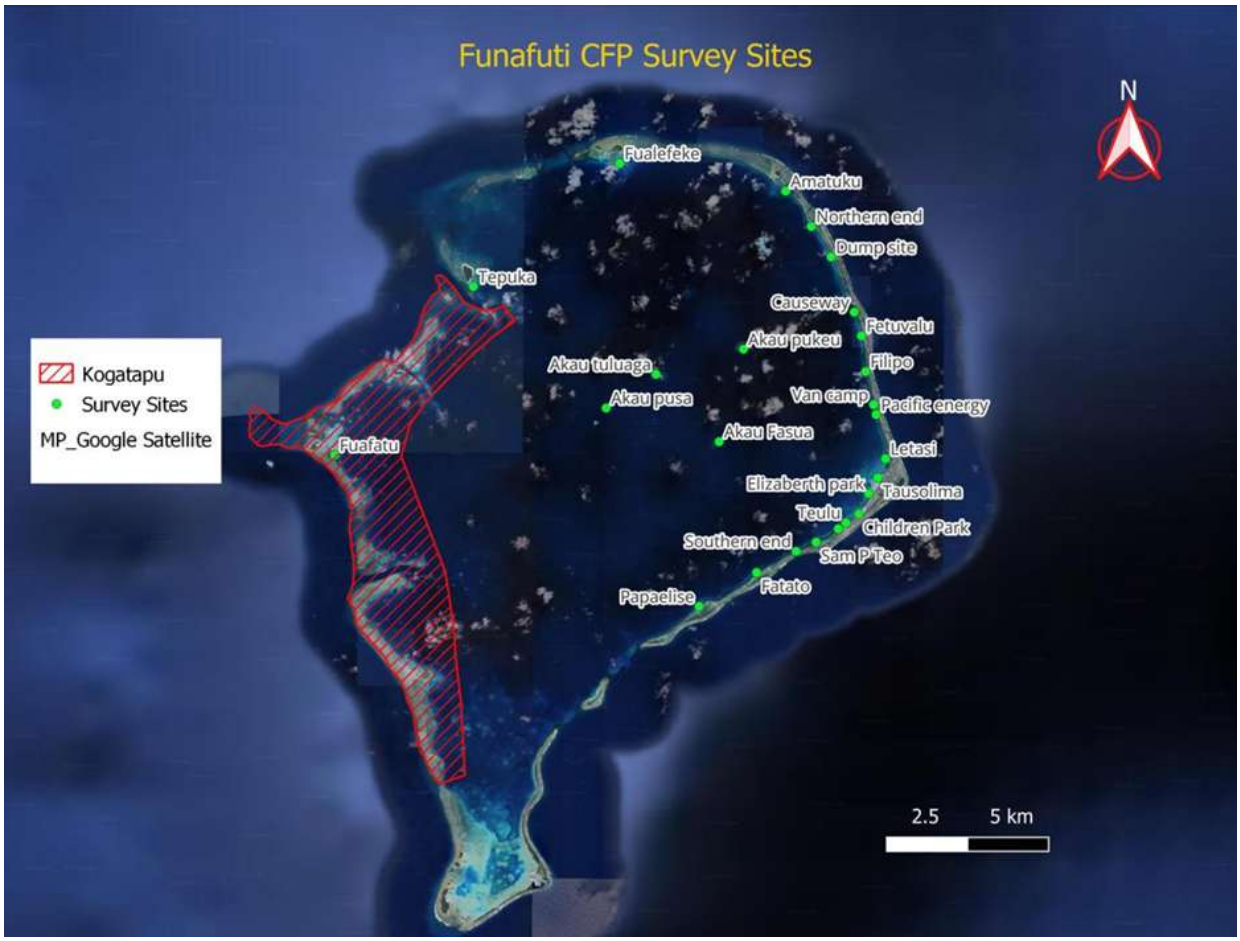


Figure 17: Map of Funafuti atoll with survey sites

5.8 Organized zoom meetings with partners

Several organized online zoom meetings were held between staffs and our overseas partners such as SPC, USP, LMMA network, to name a few. These meeting provides the opportunity to discuss important relevant issues with our partners to plan and review our progress. These online meeting includes weekly meetings with our Coastal Technical Advisor-Dr. Aimee Dixision.

5.9 Finalization and launching of all Coastal Fisheries Management Plan

Another significant milestone that was achieved during the second part of 2024 was the finalization of eight Coastal Fisheries Management Plans from all islands except Funafuti.

This great achievement was a result of tireless efforts of the coastal working with communities throughout all islands. This event marks the official launch of the eight Coastal Fisheries Management Plans (CFMPs) for Nanumea, Nanumaga, Niutao, Nui, Vaitupu, Nukufetau, Nukulaelae, and Niulakita.

These CFMPs, were endorsed by the Cabinet on 15 August 2024, represent a united effort to improve the management of Tuvalu's coastal marine resources. The official launching event took place at the Tuvalu Fisheries Department (TFD) conference room and was attended by key stakeholders, Senior Fisheries Officers and Island community leaders from the nine islands on Funafuti. The launching was officially

signified and endorsed by the chief guest Minister of Natural Resources Development, Hon. Sa'aga Talu Teafa.

Figure 18: The launching of the seven CFMPs for the Outer Islands

The development of these CFMPs has been a comprehensive process, beginning in 2022 with community consultations and followed by several stages of drafting, reviewing, and validating the plans.

In his speech, Hon. Sa'aga Talu Teafa thanked the Senior Management Committee (SMC) team and fisheries staff for their dedication and hard work in developing these management plans. He also expressed his gratitude to donors and financial supporters who played a crucial role in making these plans a reality. The Minister emphasized that with the plans now ready, the focus must shift to their implementation, calling it "the most important task ahead." The Funafuti Coastal Fisheries Management Plan will be finalized at the end of the year and endorsed at the first half of 2025.

5.10 Staff Capacity Building training

There were two key training that two of our junior staffs were involved in during the period. Firstly, was the upscaling of CBFM which was attended by our LMMA Officer-Falenga Epu which was held in Suva, Fiji in August. While the second training was attended by Kutimeni Peleti in September in the Solomon island, which was focus on HACCP as part of the CA work that he was engaged on in his job.

5.11 Metronome 28 report to the central islands

The Metronome 28 trip was successfully implemented to the central islands-Nukufetau and Nui. Meanwhile, during this time, there were many adversity and challenges that was confronted by the team, such as, lack of available staffs, unstable shipping schedule, unavailable of Manaui I & II, to name a few.

Due to these challenges, it was decided that the team was to split into two teams for the first leg of the visit. One team of three staffs to visit Nukufetau and the other to Nui. During this visit, staff were able to fulfilled our plans to expand our CTox biological sampling work to the outer islands through the collection of samples from Nukufetau on ciguatoxin algae. Some additional days were added to the visit due to delays in shipping affected from bad weather. Vaitupu islands was postpone for another trip due to limited time and unreliable shipping service.

5.12 Canoe and boat survey

For 2024, the survey was implemented on islands with the exception of Funafuti and Vaitupu. This was due to the limited number of staffs available and the cancellation of the metronome trip to Vaitupu. Presented below are data from each of the islands that the survey covered. From these results, it was evidence that aluminum boats is the most favorable type of small boat that fisher use on all these islands. Traditional dugout canoes are still in use in all islands but much less compared to the 80's and 90's.

Table 9: Canoe and boat survey for all islands except Funafuti and Vaitupu

Islands	Aluminum Boat	Wooden Boat	Aluminium Canoe	Wooden Canoes	Fiberglass Boat	Fibreglass Canoe	Plastic Boat
Niutao	13	0	0	10	0	0	0
Nanumea	11	8	5	24	9	0	0
Nanumaga	32	0	0	12	0	0	0
Nukufetau	31	8	0	3	5	0	0
Nui	24	3	0	11	17	0	0
Nukulaelae	69	1	5	4	5	0	0

5.13 Ciguatera Fish Poisoning (CFP) cases on each island

This year, CFP work continued to implement on all islands except Vaitupu and Niulakita which were not visited in 2024. Overall, there were no serious major outbreak reported on each of the island surveyed for this year.

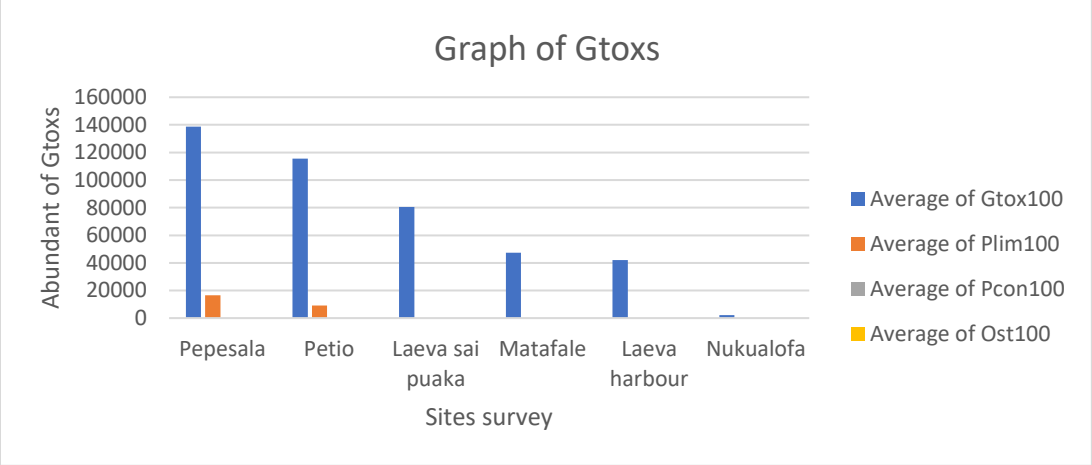


Figure 19: Average number of Gtox samples collected

5.14 Extending biological sampling of CTox to the outer islands

One the new activities for this year was the extending of the CTox assessment to the outer island. Traditionally, this work has been focus in the past years on monitoring CTox level in several parts of the lagoon in Funafuti. However, this year it was decided to implement this assessment to the outer islands as we need to have a better understanding of the current status ciguatoxin of different areas on each of the atolls. Below highlight an example of some of the result of the work that was undertaken on these islands.

Figure 20: Survey site at Fagaua, Nukulaelae

5.15 Innovative Communication Training

In a dynamic initiative aimed at bolstering sustainable fishing practices, the Coastal Fisheries team of Tuvalu embarked on a transformative journey during a specialized training session held from 12th to 15th March. Led by industry experts Steve Menzies of Flinch Marketing and Hugo Nguyen from the Pacific Community (SPC), this workshop delved into the realm of community communications campaigns with fervour and purpose.

Figure 21: Participant from the communication workshop.

The training, a collaborative effort involving staff from the Tuvalu Fisheries Department, Community Fisheries Officers, Tuvalu Media representatives, the Met Service, the Trade Department, TUCAN and various NGOs, was a strategic response to the escalating challenges posed by climate change and burgeoning population pressures. The urgent call to curb unsustainable fishing practices, such as targeting undersized fish and endangered species, resonated profoundly throughout the sessions.

With a keen focus on fostering engagement and igniting change at the grassroots level, the training encompassed a spectrum of enriching modules. From strategic planning to audience research, from crafting compelling campaigns to harnessing the power of smartphone content creation, every facet of effective communication was meticulously explored. Techniques for impactful interviewing, graphic design essentials using Canva, and direct support measures formed integral components of the immersive learning experience.

For the Coastal Fisheries team, deeply entrenched in their commitment to enhancing coastal resource management, this training served as a catalyst for innovative approaches. It provided a roadmap for weaving communities into the fabric of campaign design, execution, and evaluation. Emphasizing the adoption of sustainable practices, such as employing correct net mesh sizes, the team emerged invigorated and armed with newfound insights.

Steve Menzies, Director of Strategic Communications & Behavior Change at Flinch Marketing, expressed optimism about the transformative potential of the strategies discussed. Drawing parallels with successful interventions in realms like road safety, tobacco control, and family planning, Menzies underscored the adaptability and efficacy of communication-driven behavior change.

The sentiment was echoed by Matapepe Sikitia, a Community Fisheries Officer from Niutao, who hailed the workshop as a pivotal learning experience. “A big thanks to Steve Menzies and Hugo for delivering such an important workshop,” remarked Sikitia, reflecting the collective sentiment of enriched knowledge and empowerment among participants.

As the Fisheries team embarks on a journey fuelled by creativity and community collaboration, the ripples of this training are poised to resonate across the azure waters of Tuvalu, fostering a sustainable legacy for generations to come. With Flinch Marketing spearheading communication initiatives alongside.

5.16 Marine Plastic and Indigenous knowledge Integration

Staffs from the USP, in collaboration with Coastal staff, embark on a groundbreaking project to establish baselines for the assessment of microplastic contamination on Funafuti. This project was funded by the Asia-Pacific Network for Global Change Research under the Collaborative Regional Research Programme and was also implanted in four geographically diverse PICTs – Fiji, Tonga, Tuvalu, Vanuatu.

Key distinct objectives of this project:

(i) Build capacity in PICTs,
(ii) Establish a regional baseline for microplastics (MP) in reef-associated food fishes,
(iii) Document TEK around reef-associated food fishes and pollution using social science methodologies, and
(iv) Inform national and regional conservation efforts. Via the coproduction of research and knowledge with in-country partners, this project will provide a much-needed regional baseline of MP contamination in common food fishes (indicating risk to human health/nutrition), while the TEK will identify preferences and catch trends, and yield key biological information that can inform management tools addressing food security.

Two senior staffs of IAS from USP (Dr Brian Stockwell and Dr Amanda Ford) visited Funafuti in October to work with the staffs on completion of the study for Tuvalu. As a result of this trip, staffs were trained on examining of gastrointestinal tract of reef fishes and examine the present of microplastic in reef fish’s tissues. As a result, 201 reef fish spanning 44 species and detected microplastics in 37% of individuals. The majority of microplastic were fibres, with polypropylene being the dominant polymer

identified. These results provide critical baseline information on microplastic occurance with Funafuti's lagoon ecosystem and highlight the potential exposure risks for reef fish populations and the communities dependent on them.

The final project report is targeted to be published in the first half of 2025.

5.17 Gender Analysis assessment conducted in Tuvalu (GENSI SPC Team)

A gender analysis of the coastal fisheries and aquaculture sector in Tuvalu was conducted by the CFS team in partnership with the Pacific Community (SPC) between 26 August and 23 September 2024. A desktop review was first completed to synthesize gender-related information on fisheries and aquaculture. This was followed by a capacity training that was conducted by the GENSI SPC Team for the national team that were formulated to involved on collection of data from the field. As part of this training, staffs were able to trilled out the survey questionnaire on Funafala and Papaelise in Funafuti before the team departed for the outer islands. The survey work for this assessment was conducted across the 4 atolls that were targeted on this project, namely Nanumea, Vaitupu, Nukufetau and Funafuti. All field work for all four atolls have now been completed. The Team is currently working on analyzing the field data for the final report which will be published in early 2025.

5.18 Watch tower hut for FCA

Significant progress has been implemented on the development of the watch tower at Tepuka islet. This has been improved through several consultation meeting with the Funafuti Kaupule and other stakeholders to review implementation plan for the tower. Several field surveys were undertaken on the site to confirmed requirements for the development on the site including a cabinet paper that was submitted to Cabinet for leasing of the land. Overall, it is expected that other arrangement for the development of this project will commence once approval has been granted from Cabinet.

5.19 Metronome 29 to the northern islands completed

The northern islands were visited by our metronome team between 15 October to 3 November. A team of six staffs were deployed to conduct activities across the three islands, namely Nanumea, Nanumaga and Niutao. However, due to the lack of staffs available to travel on this trip, a new plan was deployed to ensure that all activities for each of these islands were undertaken during the trip. Therefore, it was decided for the team to be equally divided into each island.

5.20 Metronome visit to Vaitupu and Niulakita postponed

The anticipated last metronome trip of the year to Vaitupu and Niulakita was expected to be implemented in the last part of November. This special trip was aimed to visit the remaining islands that were not covered during the last metronome trip. Unfortunately, things didn't go well according to plans due to poor planning, preparation and other unforeseen risks that occurred at that time. Therefore, it was decided to postpone this trip for the first quarter of 2025.

5.21 Staff internal training

As result of the unsuccessful implementation of last Metronome trip, it was decided that an immediate internal staff capacity training and review was required. Therefore, the PFO initiated a half day situation analysis training exercise for staffs of CFS. This internal training was crafted to provide an opportunity for staffs to deeply reflect on the situation, identify solutions and adjust future plans. As a result, staff have

drafted a brief overview of outcomes of their findings and several strategies to prevent further problems with the implementation of future metronome trips.

5.22 Coastal TA third visit to Tuvalu

In November, Dr Aimee Dixson, the Coastal Fisheries Technical Advisor that is contracted under the TFSP II visited Tuvalu. This was the third time that she visits Tuvalu in 2024, to assist staffs with technical issues on the job. Part of this visit was to review several hindering issues on our data collection program and to follow up with future progress work on the new FRFSP II and to assist on the development of new activities under the TFSP III.

5.23 New Zealand Ministry of Primary Industry Training Attachment

In December, two staffs participated on a short-term training attachment in Auckland. The training was provided by the Ministry of Primary Industry of New Zealand (MPI) under its Pacific Fisheries Capacity Development Initiative. The main objective of the trip was to complete the final work for the phase II of the FRFSP which is now the FCFMP(Funafuti Coastal Fisheries Management Plan). This work was a major milestone for the CFS since it has been dragged for a long period due to many adversities that was confronted by the sub-section responsible for executing action for this. During the trip, staffs were trained on using new tools and writing techniques to complete the plan . The CFS team consist of the Coastal Fisheries Advisor, the PFO-CFS and one of the junior staffs. After an extensive week of work on the plan, the outcome of the mission was a success, resulted in producing a final draft of the new FCFMP. This plan is target to be launched before the end of the first quarter of 2025.

6 Oceanic Section

The year 2024 marked a period of significant transformation for the Oceanic Section, driven by a major structural reform initiated by the Government. This reform was centered around the transition of the fiscal calendar from the traditional January-to-December cycle to a new July-to-June timeline. The change was implemented with the aim of aligning the Section’s operations and financial processes with broader government strategies and ensuring more effective resource management across the fiscal year. The transition necessitated extensive adjustments in both the Oceanic Section’s internal processes and external commitments. The reorientation required the development of a revised Annual Work Plan to align with the new fiscal cycle, while ensuring that ongoing activities and strategic priorities remained unaffected.

In addition to the internal reformation, the adoption of a dual-operating framework was essential to address the challenges presented by the transition. While many of the Oceanic Section's operations were realigned to the new fiscal calendar, several commitments, including bilateral engagements and regional reporting obligations, remained tied to the traditional calendar year. Key operational tasks such as licensing arrangements, vessel day allocations, and compliance with regional organizational obligations continued under the previous arrangement, while new fiscal responsibilities were integrated into the revised timeline. The dual framework, though complex, was effectively managed through close coordination and strategic oversight, enabling the Oceanic Section to successfully fulfil its primary mandate of maximizing economic returns from fisheries resources.

The Oceanic section continues to operate with 14 permanent staff members, as recorded in the Government establishment register, alongside a Technical Advisor who provides critical support to the observer program. Among the team, three staff members have been engaged in long-term training programs, contributing to capacity building within the section. Of these, one officer has successfully completed his program of study, while two remain actively pursuing their studies. In response to the need for additional

manpower, a contractual officer has been recruited to assist with Vessel Day Scheme (VDS) tasks during the absence of the permanent holder of the position. However, the section experienced a staffing gap with the departure of the support officer, leaving a vacancy that requires filling. Efforts are underway to address this gap, with the position set to be filled once the necessary logistical and administrative processes are finalized, ensuring the section maintains its operational efficiency and expertise.

The performance in 2024 was noticeable by significant achievements in line with the Department's Corporate Plan. In addition to advancing regional collaboration and building national capacity, the Section also demonstrated fiscal success, generating substantial revenue from its key operational activities. The total revenue for the reporting period amounted to AUD $37,182,859.27 with AUD $3,481,366.59, or 10% derived from vessel licenses, AUD $1,239,113.05 or 3% from transshipment activities, and AUD $32,462,379.63 or 87% from fishing days. Through strategic planning, effective stakeholder engagement, and seamless execution, the Oceanic Section navigated the challenges of its restructuring with resilience and adaptability, reaffirming its commitment to sustainable fisheries management and the economic development of ocean resources.

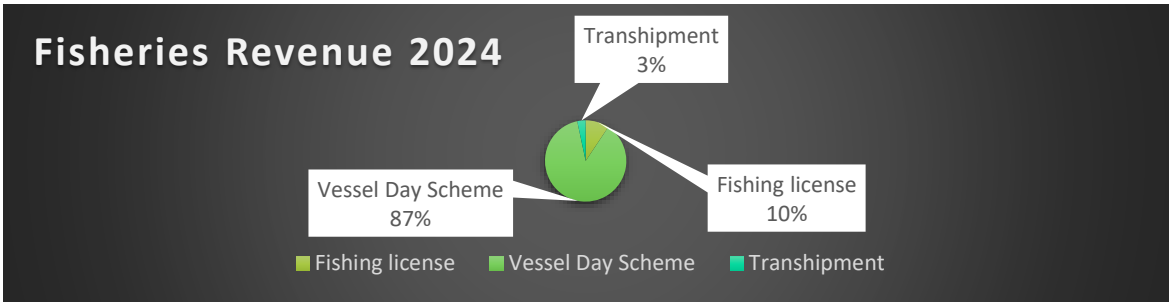


Figure 22: Present the total fisheries revenue in 2024

6.1 Licensing

6.1.1 General Overview

The Licensing Unit remained highly committed to its primary responsibilities throughout the reporting period, consistently working towards the accomplishment of its objectives. Key tasks included the renewal of access agreements, issuance of bilateral fishing licenses, and accurate data entry and analysis.

The unit's work played an essential role in supporting sustainable fisheries management and meeting regulatory standards, despite facing several challenges during the year. A significant challenge arose due to staffing changes when, midway through the year, one of the four staff members left for long-term training in Taiwan. This reduced the team's capacity by 25%, which in turn increased the workload for the remaining members and put additional strain on their ability to maintain efficient operations. Despite this, the team demonstrated strong resilience in managing the increased workload and continued to provide crucial services without compromising the quality of their work.

Technical issues with the Fisheries Information Management System (FIMS) and TUFMAN 2 added another layer of complexity. These systems, critical for streamlining data entry and ensuring accurate data flow, experienced integration problems that disrupted workflows and reduced operational efficiency. The Licensing Unit promptly reported these issues to the system developers, emphasizing their urgency and prioritizing their resolution as a key objective for 2025. Addressing these technical challenges will be crucial to enhancing the unit's operational effectiveness in the coming year.

Despite these hurdles, the Licensing Unit successfully met its regional reporting obligations, exemplified by the timely submission of the Part One Report. This report is a vital component of Tuvalu's compliance with regional fisheries management requirements and demonstrates the unit's capacity to uphold high performance standards even in challenging circumstances. Their ability to navigate staffing shortages and technical disruptions while maintaining accountability and delivering on critical commitments underscores the unit's indispensable role in ensuring the sustainable management of Tuvalu's fisheries resources.

6.1.2 Fishing License

Fishing licenses in Tuvalu are issued to vessels operating under Tuvalu's flag, as well as to bilateral and multilateral foreign fishing vessels, in line with national and regional regulatory frameworks. During the reporting period, six Tuvalu-flagged vessels were licensed to operate within the country's waters, all engaging in purse seine fishing activities.

In June 2024, one of the flagged vessels, *Deolinda*, formally requested deregistration, reducing the number of Tuvalu-flagged purse seine vessels to five. The deregistration process was conducted in compliance with international maritime protocols, reflecting Tuvalu's adherence to its responsibilities as a flag state.

Vessel Name	Flag	Registration Number	Vessel Type	IRCS	VID	Auth Period from	Auth Period to
CARIBE	TUVALU	37868220	Tuna Purse Seiner	T2PC5	2241	12-Oct-24	12-Oct-26
COSMOS KIM	TUVALU	38498121	Tuna Purse Seiner	T2QA5	1663	23-Mar-23	23-Mar-25
ELSPETH	TUVALU	37968220	Tuna Purse Seiner	T2PH5	1670	12-Oct-24	12-Oct-26
QUEEN ELLICE	TUVALU	37850920	Tuna Purse Seiner	T2FA3	9386	08-Sep-24	08-Sep-26
TAINA	TUVALU	34128217	Tuna Purse Seiner	T2BX5	2245	28-Jun-23	20-Jul-25

Table 10: Tuvalu domestic vessels. Source WCPFC RFV

During the reporting period, a total of 152 fishing vessels, representing a variety of gear types, were granted access to fish in Tuvalu's waters, reflecting a modest increase compared to the previous year, 2023. Of these, 132 vessels were authorized in the first half of the year, while 20 vessels were granted access in the second half. All licenses, however, were set to expire on December 2024.

The first half of the year saw a predominance of purse seine vessels, which aligned with the higher demand for tuna fishing during this period. In contrast, the second half witnessed a shift, with longline vessels becoming the dominant type. This change highlights the seasonal and strategic shifts in fishing practices, underscoring the dynamic nature of Tuvalu's fisheries sector, which adapts to varying demands and priorities throughout the year.

Years	Purse seine	Longline	Pole & Line	Fish Carrier	Bunker	Total
2020	98	31	16	55	4	204
2021	108	27	12	26	10	183
2022	93	23	1	6	10	133
2023	96	9	0	33	11	149
2024	81	41	0	19	11	152

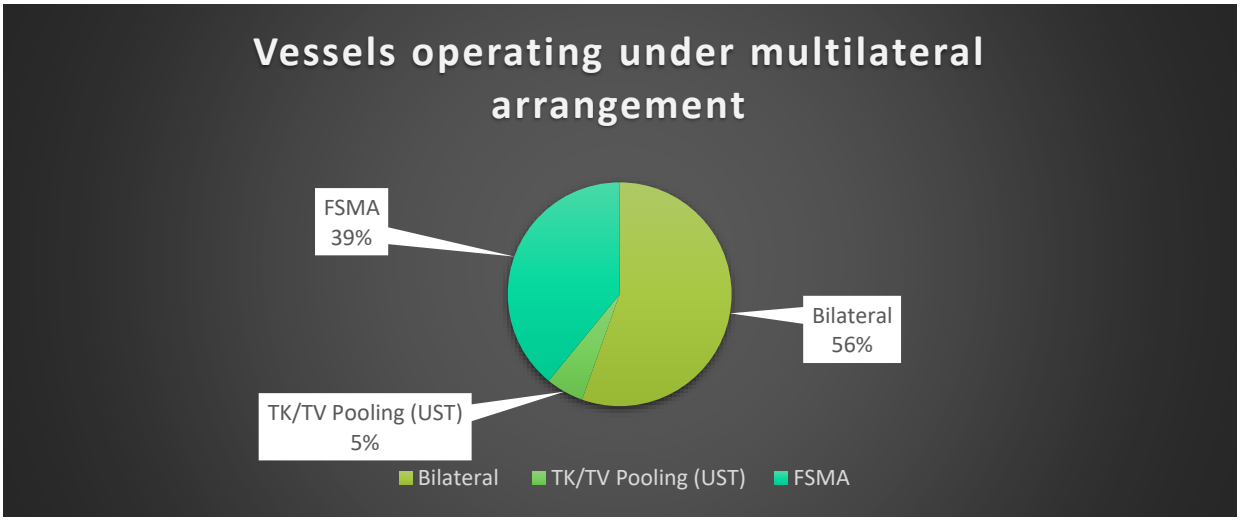
Table 11: Number of Bilateral fishing License by gear type for period 2020 – 2024

6.1.2.1 Multilateral arrangements

Tuvalu exempts fishing vessels operating under multilateral agreements, such as the FSMA and the US Treaty (Tokelau/Tuvalu pooling arrangement), from requiring additional national licensing. Vessels included in the official lists maintained under these agreements are automatically deemed licensed to operate in Tuvalu's waters. This streamlined approach eliminates the need for separate Tuvaluan licenses, reducing administrative burdens while ensuring compliance through the established multilateral frameworks.

TK/TV Mini-Pool (US)	FSMA	Total
13	93	106

The pie chart below provides a detailed breakdown of all authorized fishing vessels operating in Tuvalu's waters, categorized by flag and arrangement type. In 2024, Korea (KR), Taiwan (TW), and China (CN) were identified as Tuvalu's primary bilateral fishing partners, contributing a significant share of licensed vessels. The FSMA fleet, comprising 93 vessels, was predominantly represented by the Federated States of



Micronesia (FM) and Nauru (NR), reflecting their active engagement in regional fisheries agreements

Figure 23: FSMA and TV/TK mini pool (US)

In contrast, the U.S. fleet operating under the TK/TV pooling arrangement included only 13 vessels, marking a continued decline in participation over recent years. This reduction highlights a shifting trend in the regional fisheries landscape. Conversely, the FSMA fleet has been steadily expanding, driven by the strategic efforts of PNA members to strengthen their domestic fishing capabilities. This growth underscores the region's focus on maximizing economic benefits from fisheries while adhering to sustainable management frameworks.

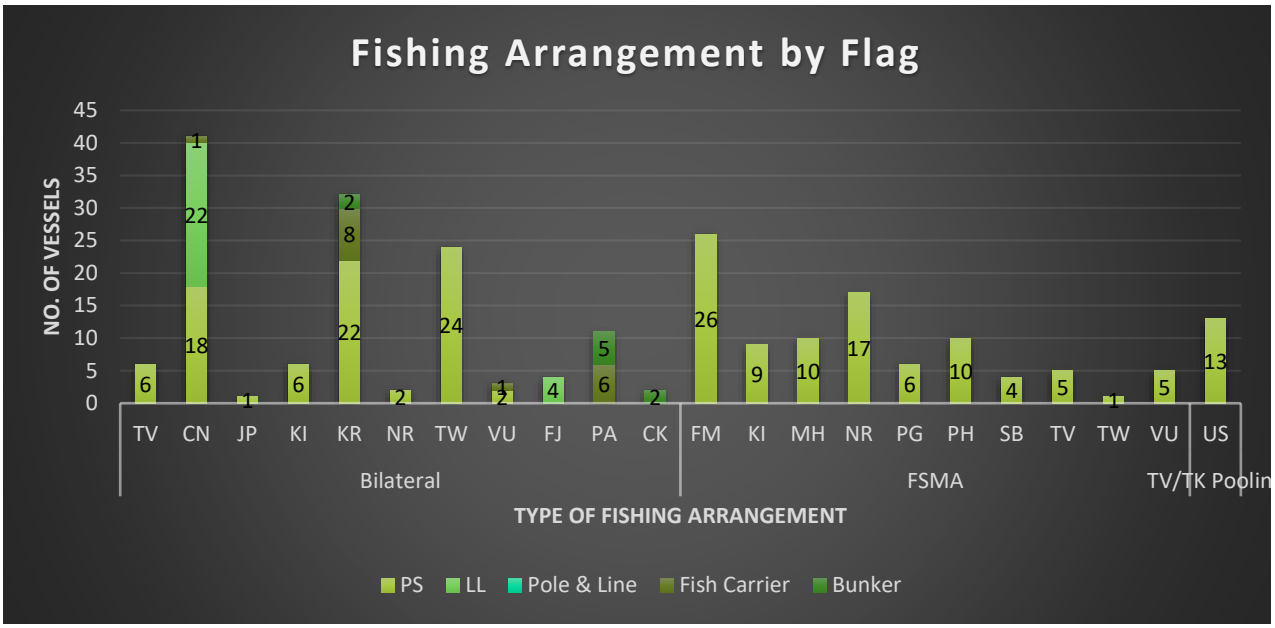


Figure 24: 2024 fishing license by vessel type and by flag

6.1.2.2 Licensing revenue

Licensing revenue is derived from two sources; i) the fisheries levy imposed on bilateral vessels as part of the licensing process, and ii) management fee paid by Tuvalu vessels.

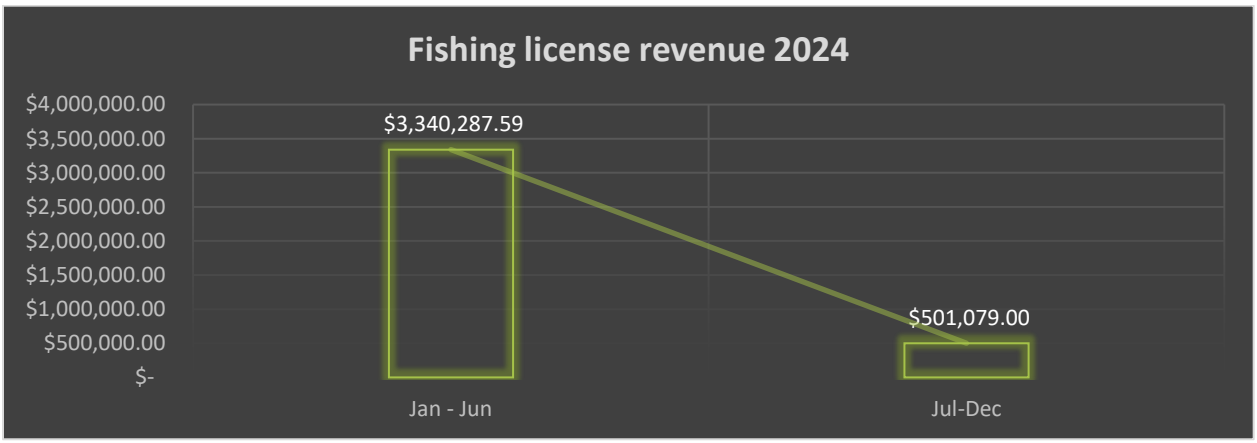


Figure 25: Fishing revenues by sources from January to June 2024

A total of AUD $3,841,366.59 was collected, divided into two halves due to the transition into the new fiscal year. In the first half of 2024, revenues amounted to AUD $3,340,287.59. Management fees contributed the largest share, generating AUD $2,172,185 (65%) of the total. This was followed by access fees of AUD $609,197 (18%), supported vessels at AUD $501,079 (15%), and longline vessels at AUD $57,825 (2%).

In the latter half of the year, a total of AUD $501,079.00 was collected. Longline vessels accounted for the majority of this amount, contributing AUD $107,596 (55%), while supported vessels, including fish carriers and bunkers, generated AUD $88,146 (45%). These figures highlight the significant contribution of

management and access fees in the first half and the growing importance of longline and supported vessels in the latter half of the year.

6.1.2.3 Tuna Catches

The Tuvalu purse seine flagged vessels recorded an estimated total catch of 23,296mt from log sheets in the year 2024. However at the time of preparing this report not all data had been entered into the system. The highest catch was recorded for skipjack tuna with an estimated total of 21,346mt Additionally, yellowfin tuna was estimated at 1,753mt and bigeye tuna at 197mt at the lowest catch.

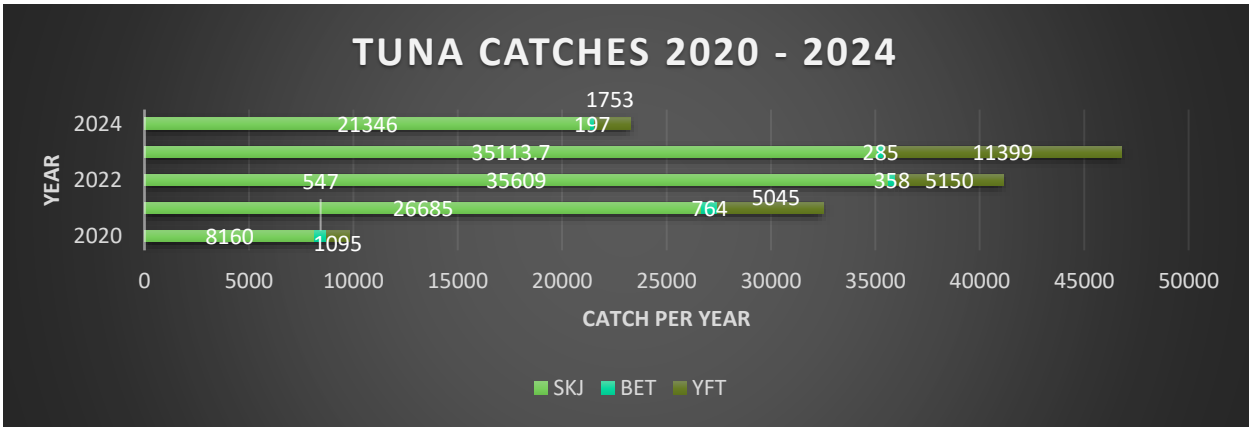


Figure 26: Annual raised catch by Tuvalu flagged vessels over the five past years (2020-2024)

In terms of tuna catches by Tuvalu-flagged purse seine (PS) vessels and species composition, January recorded the highest catch at 5,727 metric tons (29% of the total). The dominant species during this period was skipjack tuna, which accounted for the largest portion of the catch. This peak in catch volume reflects both seasonal fishing patterns and the abundance of skipjack tuna in the region during the time.

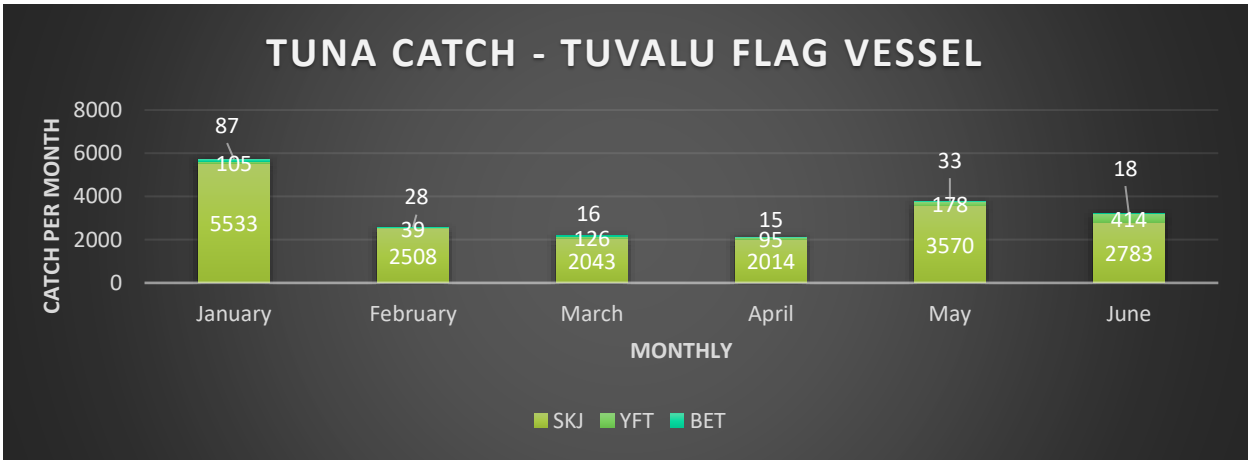


Figure 27: Tuna catches by TV PS flagged vessels by species composition in the first 6 months of 2024.

6.1.2.4 Purse seine Catch and Effort Distribution

The fishing catch and effort of Tuvalu-flagged vessels were distributed across the Western and Central Pacific Ocean (WCPO) area. The majority of the catch occurred within the exclusive economic zone (EEZ) of Papua New Guinea (PNG), while the least catches were recorded in the EEZs of the Federated States of Micronesia (FSM), Solomon Islands, Tuvalu, Tokelau, and the Phoenix Islands. This distribution reflects the varying abundance of fish stocks and the operational patterns of Tuvalu-flagged vessels within the region.

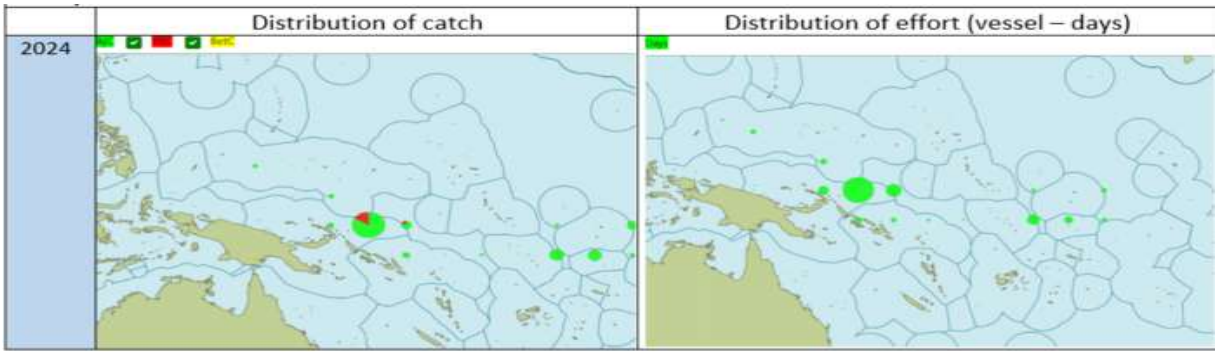


Figure 28: Tuvalu National Purse Seiner fleet operations within WCPO area in 2024. (Source:Tufman II-8b, 9b)

Purse Seine Fleets Catch

In 2024, a total of ten flag states had vessels operating within Tuvalu's Exclusive Economic Zone (EEZ), collectively landing a combined catch of 35,505.817 metric tons. Among these vessels, Kiribati flag vessels accounted for the largest share of the total catch, highlighting the significant contribution of Kiribati-flagged fleets to the fishing activity within Tuvaluan waters.

The catch composition was dominated by skipjack tuna, which accounted for the largest portion of the total catch, with a recorded amount of 34,292 metric tons. This was followed by yellowfin tuna, with a total catch of 793 metric tons, and bigeye tuna, which made up 168 metric tons of the total catch. The distribution of these species underscores the primary focus on skipjack tuna by the foreign fishing fleets operating in Tuvalu's EEZ.

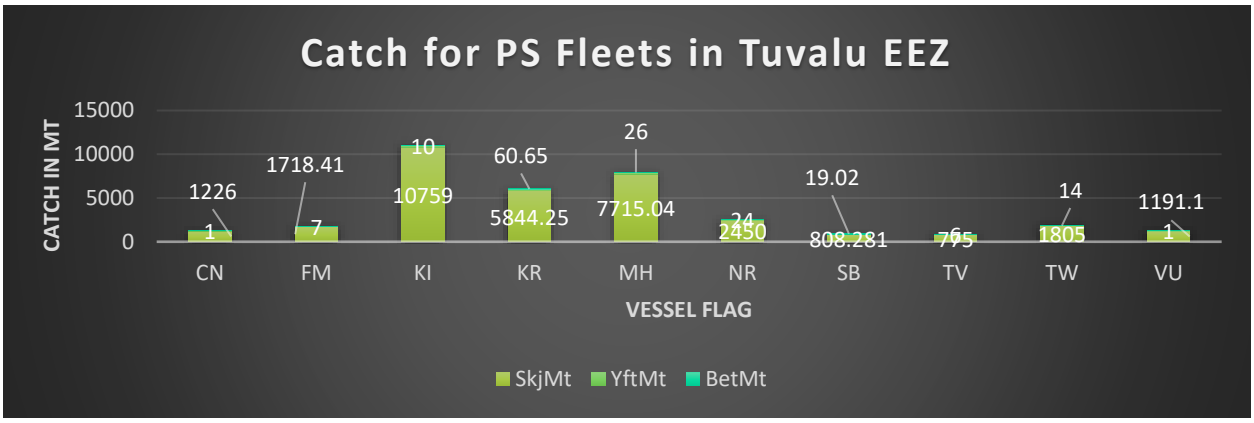


Figure 29: Tuna catches from foreign PS vessels for 2024.

Tuvalu-flagged vessels recorded a total tuna catch of 3,791 metric tons (mt) in Tuvalu waters. The highest monthly catch occurred in July, with 1,996 mt, representing 53% of the total, while October had the lowest catch at 400 mt, or 11%. The majority of the catch consisted of Skipjack tuna, accounting for 2,996 mt (79%), followed by Yellowfin tuna at 795 mt (21%).

Long line Fleets Catch

The total longline catch within Tuvalu's Exclusive Economic Zone (EEZ) reached approximately 247 metric tons (mt). China accounted for the largest portion, with 81 mt of Yellowfin tuna, followed by 72 mt of Albacore, 63 mt of Bigeye, and 31 mt of other species. During the first half of the year, January recorded the highest catch at 68 mt, with Bigeye tuna comprising 40 mt, Yellowfin tuna 16.8 mt, and Albacore tuna only 0.18 mt.

Foreign longline vessels caught a total of 1,681 mt of tuna. July saw the highest monthly catch at 35 mt, while August followed with 98 mt, and September recorded the lowest catch. Yellowfin tuna dominated the species composition, accounting for 839 mt (50%), followed by Bigeye tuna at 420 mt (25%) and Albacore tuna at 210 mt (13%).

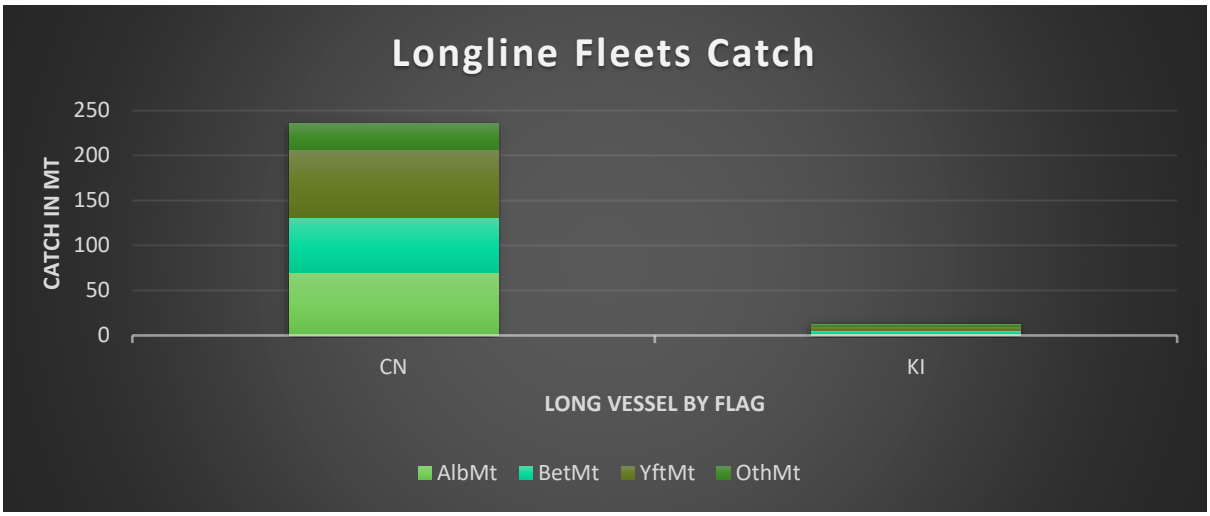


Figure 30: Tuna catches from foreign longline vessels in 2024.

6.2 Vessel Day Scheme (VDS) & Vessel Monitoring System (VMS) Unit

6.2.1 General Overview

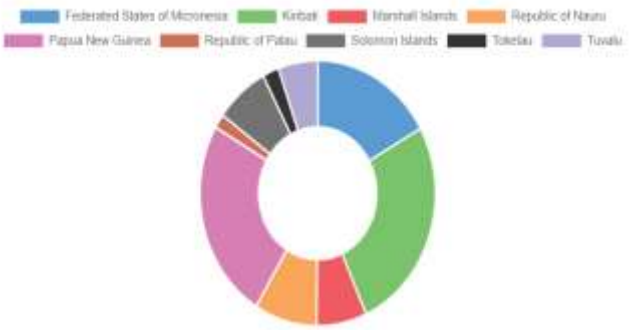
In the reporting period, the VMS and VDS section intensified its efforts to monitor and control the movement of Foreign Fishing Vessels (FFV) within Tuvalu's Exclusive Economic Zone (EEZ). The unit's mission focused on striking a balance between economic growth and environmental sustainability, with strategic fishing day allocations serving as a cornerstone of its fisheries management approach. Leveraging advanced monitoring technologies and fostering regional and international partnerships, the team reinforced

Tuvalu's ability to manage its marine resources effectively. Vigilant oversight of fishing licenses and vessel movements further demonstrated its commitment to sustainable use and conservation of marine ecosystems.

The monitoring unit, consisting of two dedicated personnel, played a pivotal role in enforcing compliance, managing fishing day allocations for purse seine and longline vessels, and analysing vessel activities within the EEZ. Key technologies such as Trackwell, the Regional Surveillance Picture (RSP), and the Fisheries Information Management System (FIMS) provided robust support, enabling real-time tracking and data integration. These tools streamlined decision-making and strengthened enforcement, reflecting our commitment to modernising its fisheries sector.

6.2.2 Vessel Day Scheme (VDS)

The Vessel Day Scheme (VDS) remained a cornerstone of Tuvalu's fisheries management in 2024, emphasizing the regulation of fishing days over catch limits to sustainably manage tuna stocks. This innovative approach aligns with Tuvalu's dual commitment to environmental sustainability and economic development, ensuring the long-term health of its marine resources while generating essential revenue. By maintaining a careful balance between ecological preservation and financial gains, the VDS supports Tuvalu's broader goal of safeguarding tuna populations for future generations while leveraging these resources to strengthen the nation's economy.



Tuvalu's fishing days under the VDS were allocated based on a detailed nine-year historical analysis of fishing effort conducted by the Parties to the Nauru Agreement (PNA). This data-driven process ensured an equitable distribution of fishing opportunities, which Tuvalu monetized by selling these days to domestic and international fishing partners. While the scheme proved effective in generating revenue and managing fishing pressure, it also faced challenges from environmental factors like El Niño and La Niña, which disrupted fishing patterns. To address these issues, Tuvalu is exploring adaptive strategies, including real-time allocation mechanisms and enhanced regional collaboration, to ensure the VDS remains resilient and continues to meet conservation and economic objectives.

During the reporting period, Tuvalu allocated fishing days to its bilateral partners based on company requests, with KOFA receiving the largest share at 480 days (19.6%) and Japan the smallest at just 7 days (0.3%). While TUDO had a separate allocation, its fishing days were managed under KOFA, creating challenges in tracking and reporting their specific usage. Taiwan, on the other hand, fully utilized its allocation and demonstrated flexibility by transferring additional fishing days to regional partners, including the Federated States of Micronesia (FSM), Solomon Islands, and Papua New Guinea (PNG). These transfers optimized the use of available days, strengthened regional partnerships, and highlighted the adaptability of the Vessel Day Scheme (VDS) in meeting dynamic operational needs, ensuring effective management and collaboration within the framework.

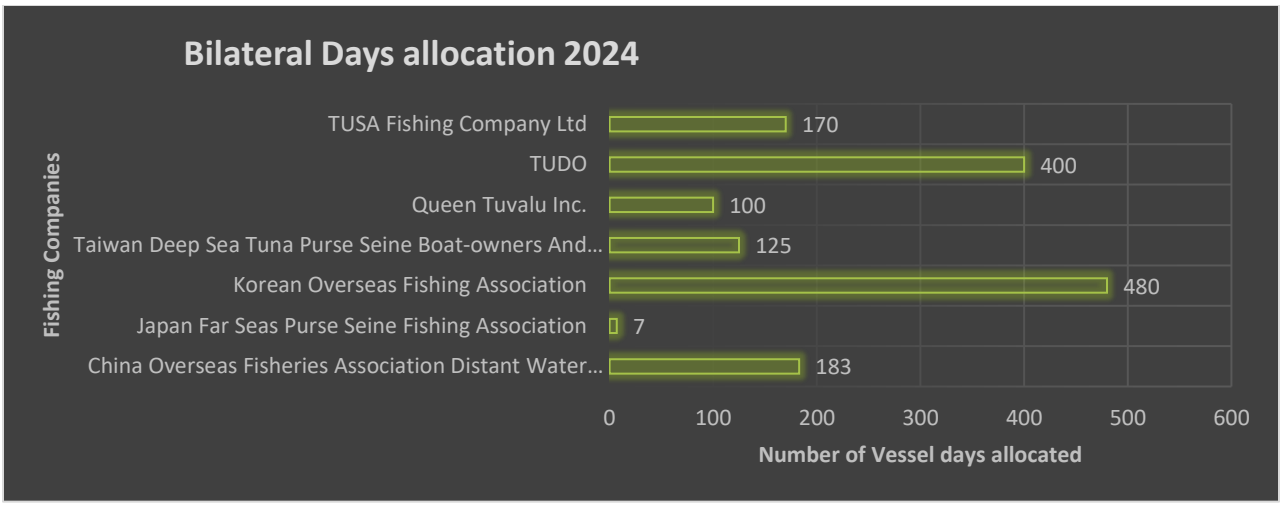


Figure 31: Highlight the vessel days allocation in the PS fishery 2024

6.2.2.1 Purse Seine Vessel Day Scheme (PS VDS)

Tuvalu's PAE allocation of 2,444 fishing days under the PS VDS was central to the country's fisheries revenue. These days were allocated to bilateral fishing companies based on signed Access Agreements. While the scheme ensured equitable distribution, managing unused days continued to be challenging, as unutilised days could not be carried forward, leading to lost revenue.

	2444	PAE
2799	355	**Trade In**
2410	389	**Trade Out**
2089	321	**FSMA**
1981	108	**SRP**
1981	0	**UST**
1947	34	**TK:TV**

Table 12: Highlight the number of days including party to party, FSMA trades and multilateral arrangement allocation.

Due to environmental shifts in the second half of 2024, fishing activities remained concentrated in the western regions of Tuvalu's EEZ. This highlighted the necessity for adaptive management practices, such as flexible allocation systems that respond to changing environmental and market conditions. Tuvalu aims to enhance its utilisation strategies to minimise inefficiencies and optimise economic returns.

The bar chart below provides an overview of the total PAE allocations granted to Tuvalu over the past five consecutive reporting years. The allocation trends highlight the consistent annual distribution of fishing days that Tuvalu can sell or utilize within its exclusive economic zone (EEZ).

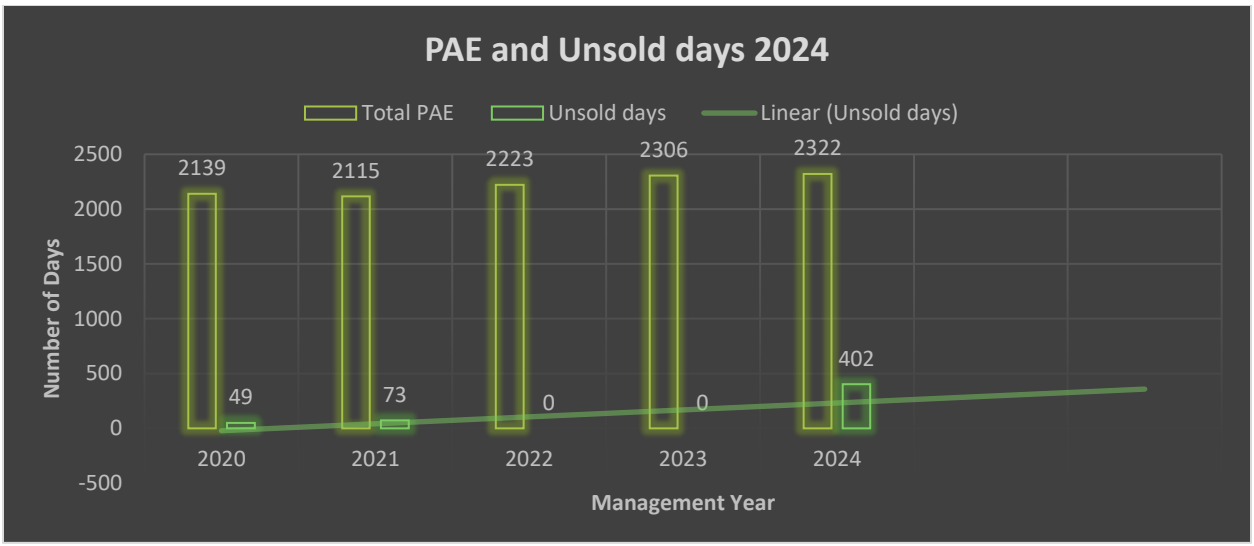


Figure 32: Highlight the PAE usage in the Ps fishery from June – December 2024

Despite stable or slightly fluctuating allocations, a significant challenge has emerged due to the westward shift in fishing concentration across the region. This shift, influenced by environmental factors such as changing oceanographic conditions (e.g., El Niño or La Niña events) and the migration patterns of tuna stocks, has caused a notable decrease in the utilization of allocated fishing days within Tuvalu's EEZ.

As a result, 402 allocated fishing days remained unsold during the reporting period. One contributing factor was the allowance of day transfers between PNA party members. Having used up their allocated days, some companies requested additional days to be transferred from other parties. This challenge has not been limited to a single party but has been faced by all PNA members.

6.2.2.2 Longline Vessel Day Scheme (LLVDS)

In 2024, the Longline Vessel Day Scheme (LLVDS) faced significant challenges, including an oversupply of fishing days and low demand. Tuvalu was allocated 6,751 fishing days, but demand remained substantially below the Party Allowable Effort (PAE), revealing a mismatch between supply and market need. This undersupply highlighted the need for adjustments to the LLVDS to better align with demand and improve its economic viability. The pricing model, which offered the first 100 fishing days free with the purchase of a vessel license and the next 100 at USD 5,000, successfully encouraged participation but suppressed the market value of fishing days, limiting potential revenue. Additionally, instances of vessels exceeding their allocated days exposed weaknesses in monitoring and enforcement, signaling the need for stronger oversight.

To address these challenges, recommendations include adjusting the PAE allocations to align better with actual demand, revising the pricing model to balance affordability with revenue generation, and enhancing monitoring systems to track real-time usage. By implementing these changes, Tuvalu aims to improve the LLVDS's operational efficiency, increase its financial sustainability, and ensure the optimal use of fisheries resources, contributing to both economic returns and environmental conservation.

6.2.2.3 Purse Seine Vessel Days Usage:

The available data indicates that none of the bilateral companies exceeded their allocated limits during the reporting period. However, in most cases, some companies submitted requests to transfer days to the FSMA to compensate for any overshoot days. This primarily involved Tuvalu-flagged vessels operating under the FSMA, which requested the transfer to ensure compliance with their operational allocations.

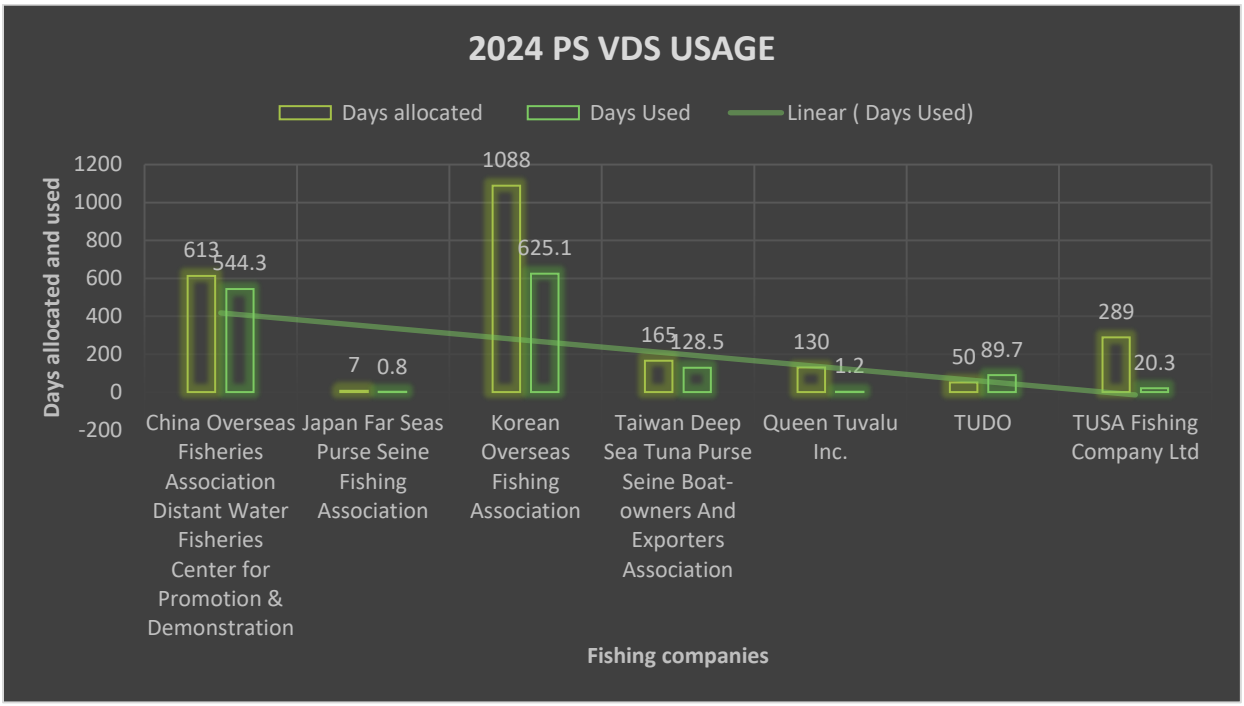


Figure 33: Highlight the VDS usage in the Ps fishery from June - December 2024

6.2.2.4 Non-Fishing Days claims:

Each purse seine vessel licensed in Tuvalu's waters operates under a set fishing days allocation, with the Federated States of Micronesia Arrangement (FSMA) defining criteria for non-fishing days (NFDs), which are periods when vessels are inactive but still count toward their allocation. Companies must submit NFD claims through the Fisheries Information Management System (FIMS) for validation, though many claims, particularly from Korean-flagged vessels, were successfully processed, while Tuvalu-flagged vessels submitted the fewest. Some claims were rejected due to duplicate submissions or non-compliance with FSMA criteria, with recurring errors pointing to a need for clearer submission guidelines. Addressing these issues in future bilateral negotiations is recommended to streamline the NFD claims process and improve compliance.

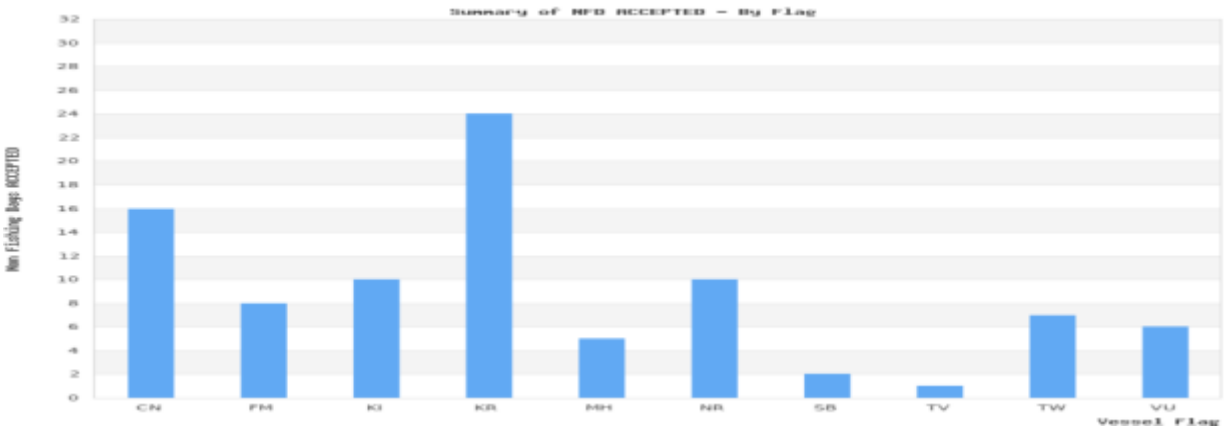


Figure 34: summary of NFD accepted by flag from June – December 2024

6.2.2.5 VDS Revenue:

The purse seine (PS) fishery generated a total revenue of AUD 32,462,379.63 during the reporting period. This impressive figure reflects income exclusively derived from the Vessel Day Scheme (VDS), a system that allocates and regulates fishing days for vessels operating in the EEZ. The VDS continues to play a critical role in ensuring sustainable fisheries management while maximizing economic returns.

Notably, this revenue does not include other significant sources of fisheries revenue, such as licensing, management fees and transshipment levies collected from vessels conducting transshipment activities in port. These additional revenue streams further contribute to the overall economic value of the fisheries sector, highlighting its pivotal role in supporting the national economy and sustainable resource management.

VDS Revenue HEADs	Estimated (AU)	Actual (US)	Actual (AU)
Bilateral	$ 25,871,430.00	$ 24,203,202.88	$24,442,064.29
US Treaty	$ 2,857,140.00	$ 1,446,122.00	$ 2,180,301.33
Traded	$ 785,710.00	$ 641,100.00	$ 273,030.07
FSMA	$ 2,285,710.00	$ 2,907,719.38	$ 2,368,677.68
TK/TV Minipool	$ 539,364.00	$ 374,050.00	$ 539,364.15
Sub Regional Pooling	$ 3,240,000.00	$ 374,050.00	$ 2,658,942.11
Total	**$ 35,579,354.00**	**$ 29,946,244.26**	**$32,462,379.63**

Table 13: Summarizes VDS revenue collected from Jan – Dec 2024

6.2.2.6 Vessel Monitoring System:

The Vessel Monitoring System (VMS) continued to play a pivotal role in providing near real-time data on fishing activities within Tuvalu's jurisdiction during the reporting period. Analysis of data from MTU units installed on vessels operating in the Western and Central Pacific Ocean (WCPO) revealed minimal fishing activity within Tuvalu's Exclusive Economic Zone (EEZ). This decline was attributed to a westward shift in fishing efforts, driven by migratory patterns of fish stocks and strategic decisions by fishing fleets. The effectiveness of the VMS in tracking these trends underscores its importance as a tool for informed fisheries management and strategic decision-making.

Tuvalu's commitment to transparency and compliance was further demonstrated through market state verification requests, a routine function of its monitoring team. These verifications, primarily initiated by the Department of Thailand, focused on ensuring the legal standards of Tuvalu's flagged vessels for international catch exports. Such processes are essential for sustaining global confidence in the country's fisheries operations and maintaining access to international markets. Operational support from the Forum Fisheries Agency (FFA) proved critical during this period, funding upgrades like VSAT dish replacements and specialized communication tools. Additionally, the integration of supplementary monitoring platforms, such as Skylight, Starboard, AIS, and Global Fishing Watch, bolstered the reliability of VMS data and enhanced Tuvalu's overall fisheries management framework.

6.2.2.7 VSAT Operational Status and Future Prospects

The Very Small Aperture Terminal (VSAT) remained fully operational throughout the reporting period, despite facing environmental challenges. The service is currently provided by TS2 Space, a satellite communication company based in Poland, under an arrangement facilitated by the Tuvalu Fisheries Support Program (TFSP). The TFSP's funding of the annual subscription plan ensured uninterrupted satellite communication for the entirety of the reporting period. This partnership has been pivotal in maintaining reliable connectivity, a critical element for efficient operations in remote and maritime environments.

During this period, the VSAT system consistently supported essential communications and operational activities. However, prolonged exposure to harsh marine conditions, such as sea spray, has caused visible damage to the hardware, particularly the satellite dish, feedhorn and BUC. This wear and tear have necessitated plans for replacement to maintain functionality. Despite these challenges, the VSAT system has proven its critical role in supporting both monitoring and administrative functions, underscoring the need for reliable satellite communication in Tuvalu's fisheries management operations.

As the current VSAT system approaches the end of its lifecycle, 2024 is expected to be its final year of operation. Given recurring maintenance issues and aging equipment, transitioning to alternative communication technologies has been identified as a cost-effective and future-oriented solution. Emerging options, such as Starlink or similar satellite services, offer significant advantages, including enhanced connectivity, lower latency, and greater scalability. A proactive approach involving a comprehensive cost-benefit analysis, stakeholder coordination, and forward planning will be essential to ensure a seamless transition. This strategy will secure reliable connectivity, enabling the organisation to sustain its operational and strategic goals in the years ahead.

6.2.2.8 M2 Radar Satellite:

The M2 radar system was established to monitor the movement of small local boats around the designated transshipment area in the port, ensuring they do not approach fishing vessels engaged in transshipment activities. By logging vessel tracks with precise time and positional data, the system aids in identifying unauthorized or suspicious activities. However, during the reporting period, its usage was limited due to a low number of transshipment events at the port, reducing the demand for its full operational capacity.

Despite its advanced features, the M2 system encountered operational challenges, particularly with internet connectivity, which disrupted its ability to provide consistent real-time surveillance through the monitoring interface. These disruptions limited the effectiveness of the radar component, though the Automatic Identification System (AIS), which operates independently, remained fully functional and continued to provide critical vessel tracking data. The AIS-enabled data collection demonstrated the system's resilience, ensuring a continuous flow of valuable information. Addressing connectivity issues and exploring additional applications, such as monitoring illegal activities or environmental violations, could further strengthen the system's contribution to port management and security in the future.

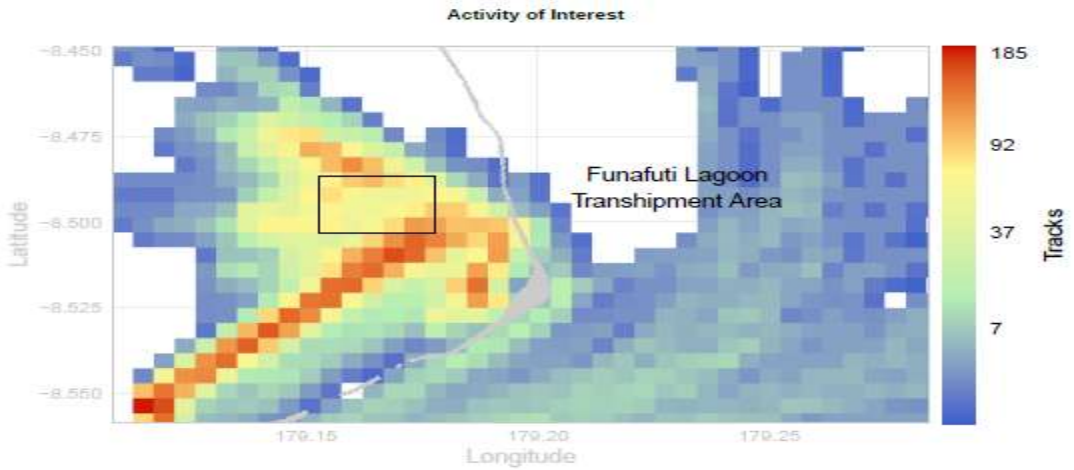
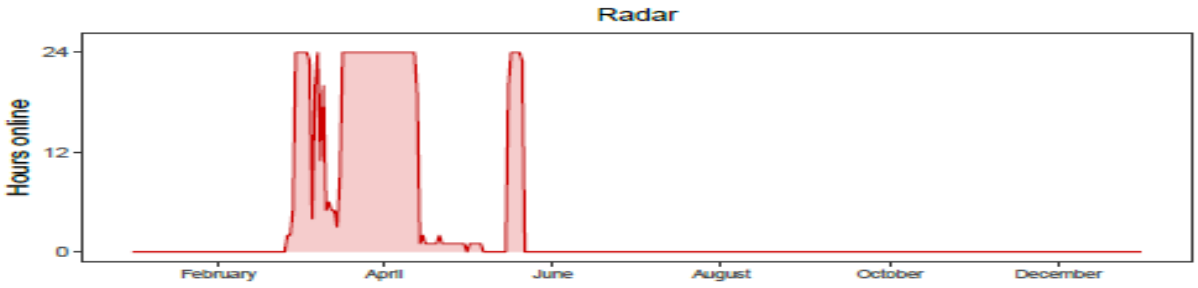


Figure 35: M2 radar activity of interest from June - Dec 2024

The system uptime data shows that the M2 radar system was functional for 37 days, or 10% of the total days, operating 24 hours a day. However, it was offline for 290 days, which accounts for 79% of the total days. Similarly, the AIS system was functional for 59 days (16% of all days), operating continuously throughout the day. On the other hand, the AIS system was offline for 289 days, representing 79% of all days. This highlights a significant period of downtime for both the radar and AIS systems during the observation period.



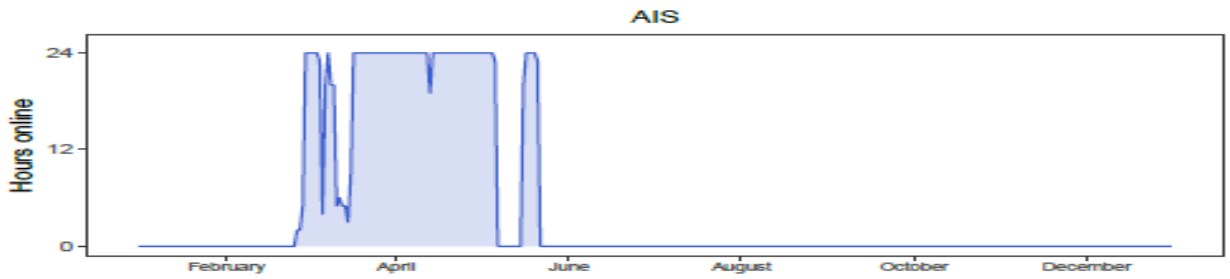


Figure 36: Hours per day that the M2 radar system and AIS, if applicable, were functional. Offline AIS may indicate the absence of AIS vessels.

6.2.2.9 Data Overview

Data were collected from June 1 through December 31 at the Tuvalu M2 site. During this time, there were 37,554 total tracks detected. After removing likely 'false' and insignificant tracks, 1,873 tracks remained for analysis. Radar tracks that duplicate AIS tracks are also removed from this report. Anchoring and activity are monitored in the Transhipment Area.

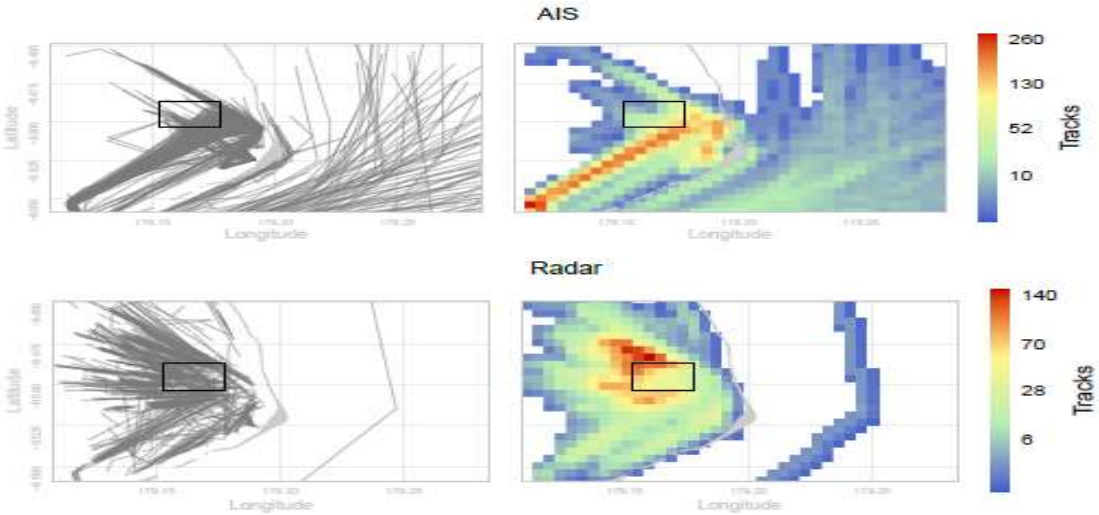


Figure 37: All tracks per area. Some detected tracks may be outside map boundaries June – Dec 2024

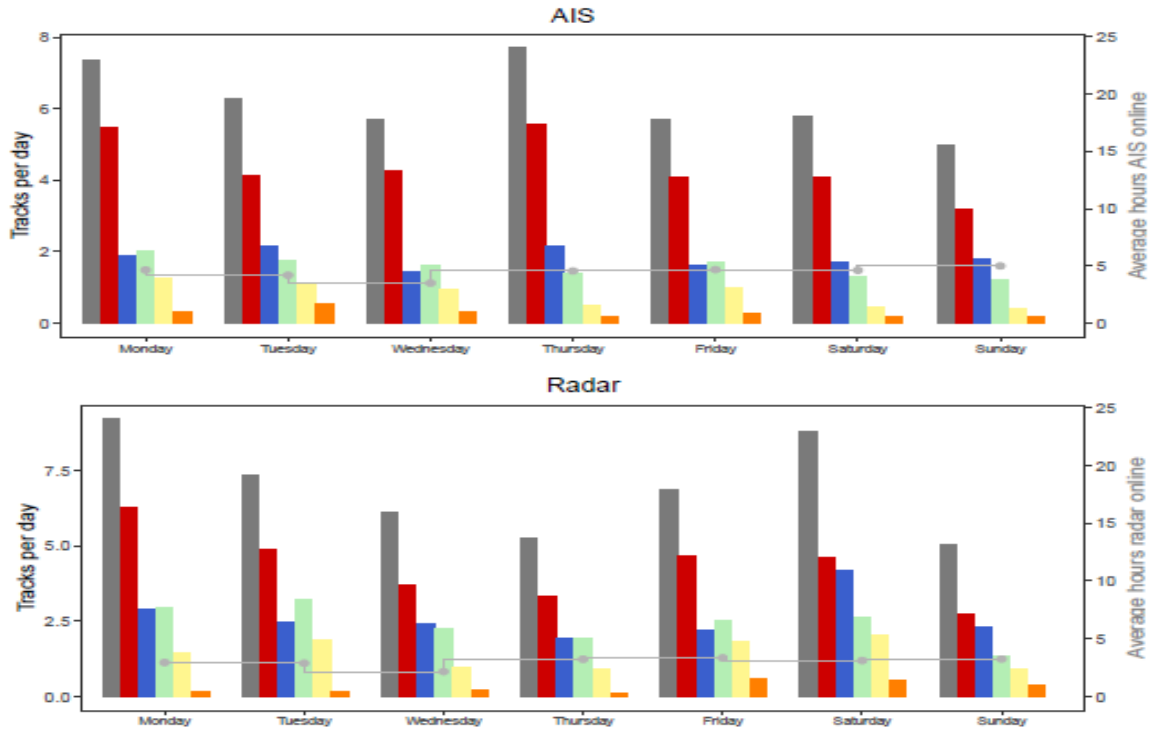


Figure 38: Tracks started per day where grey lines show uptime from Jun-Dec 2024

6.2.2.10 Challenges

1. The unit currently has two staff and there seems to be a load added soon after LL VDS fully implemented. In this regard, there is highly need of an additional staff to minimize the workload shouldered by the two staffs.
2. During the reporting period, delays were experienced in receiving payments for Vessel Day Scheme (VDS) revenue. The primary cause of the delay was a slight lag in the processing of funds from the National Bank to the Treasury Office.

6.3 Compliance and Enforcement

6.3.1 General overview

The Compliance and Enforcement Unit (CEU), staffed by three permanent officers, plays a vital role in ensuring that fishing fleets operating within Tuvalu's jurisdiction adhere to national, regional, and international fisheries laws. Through its Monitoring, Control, and Surveillance (MCS) framework, the CEU aims to combat Illegal, Unregulated, and Unreported (IUU) fishing, which threatens marine conservation and enforcement efforts. In the reporting period, resource constraints, including the unavailability of Te Mataili II, Tuvalu's primary surveillance vessel, and limited aerial surveillance capacity, severely hampered national monitoring operations. As a result, the CEU relied on regional support from the Forum Fisheries Agency (FFA), underscoring the urgent need for investment in operational assets to bolster Tuvalu's enforcement independence.

In-port transshipment operations remained a focal point, with the CEU ensuring adherence to reporting protocols to enhance transparency and deter illicit activities. These efforts not only prevented unauthorized practices but also contributed to revenue generation by validating and documenting transactions for fiscal

accountability. The CEU also engaged actively with the Western and Central Pacific Fisheries Commission (WCPFC) Compliance Case File System to address non-compliance and promote transparency. Despite these achievements, the challenges of limited resources and evolving tactics by IUU operators persist, highlighting the need for continued investment in advanced surveillance technologies, capacity-building programs, and stronger regional partnerships to safeguard Tuvalu's marine resources sustainably.

6.3.1.1 Fisheries Surveillance Operations

Fisheries surveillance operations are critical activities aimed at monitoring, controlling, and surveilling fishing activities to ensure compliance with fisheries regulations and to combat illegal, unreported, and unregulated (IUU) fishing. These operations typically involve a combination of aerial and surface surveillance, vessel monitoring systems (VMS), and dockside inspections. The goal is to protect marine resources, maintain sustainable fish stocks, and support the economic well-being of coastal communities.

6.3.1.2 Surface Surveillance Patrol Operations

Tuvalu's surface surveillance capabilities were significantly hindered due to the Te Mataili 2 being out of commission during the reporting period. This unexpected lack of operational capacity greatly impacted Tuvalu's ability to engage fully in regional surveillance exercises, leading to missed opportunities for collaboration and preparedness. The absence of Te Mataili 2 left Tuvalu's Exclusive Economic Zone (EEZ) vulnerable, particularly as the vessel is central to the nation's surveillance efforts. This setback underscored the challenges of maintaining maritime security in such a vast area with limited resources.

However, in a positive turn of events, the Australian Government stepped in and donated a small vessel in 2023 as a temporary solution to fill the gap while the Te Mataili was under repair. While the gesture was appreciated, the replacement boat's small size proved to be problematic. Despite efforts to utilise it for surveillance tasks, the vessel was deemed unsafe and unsuitable for the mission. These safety concerns ultimately rendered it ineffective for policing Tuvalu's EEZ, a highly demanding task requiring capable and reliable vessels.

Fortunately, late November brought a significant improvement to Tuvalu's surface surveillance capabilities with the arrival of Te Mataili 3. This brand-new vessel replaced the inactive Te Mataili 2 and promised to restore Tuvalu's ability to monitor and protect its vast maritime territory effectively. The arrival of Te Mataili 3 marked a critical milestone in Tuvalu's maritime operations, offering a renewed sense of hope for a more secure and capable surveillance network moving forward.

Despite the challenges presented by vessel limitations, the Tuvalu Fisheries Department (TFD), in collaboration with the Maritime Wing, managed to deploy operatives as secondees for several key operations throughout the year. These included participation in Operation Raibalang 2024 (OPRB24) and Operation Tuimoana 2024 (OPTM24). However, for other operations such as Operation Island Chief 2024 (OPIC24) and Operation Kurukuru (OPKK24), Tuvalu's role was limited to monitoring vessels using available Maritime Domain Awareness (MDA) tools. This situation highlighted the ongoing difficulties faced by Tuvalu in maintaining its maritime security presence and its reliance on technological solutions when physical assets are unavailable.

The table below shows the number of Fisheries and Maritime Wing officials who participated in regional operations, with full funding provided by the FFA.

Name	Organisation	Operation	Duration
Telesita Tusitala	Maritime Wing	Rai Balang	4 March - 15 March
Teaunu Lopati	Fisheries	Tuimoana	13 May - 24 May
Vaselusi Ionatana	Fisheries	Tuimoana	13 May - 24 May
Uatioa O'brien	Maritime Wing	Tuimoana	13 May - 24 May

Table 14: List of Officials from Tuvalu who attended regional operations in 2024

6.3.1.3 Aerial Surveillance Operations

Aerial surveillance capability relies on support from partners, including the FFA and QUAD members (Australia, France, New Zealand, and the United States). The advantage of aerial operations is their ability to cover a vast area within a short period of time. Given the limited surface operations within Tuvalu's Exclusive Economic Zone (EEZ), the Tuvalu Fisheries Department (TFD) sought assistance from the FFA and approved several operations.

Numerous aerial surveillance operations were planned for this reporting period, with the goal of supporting both regional operations and national planning. These operations were set to be carried out with the support of the FFA. However, due to certain logistical issues, not a single operation was executed. The reasons for this included a lack of fuel on the island for the appointed aerial asset and the unavailability of accommodations for the aircrew during the planning period.

To address these challenges, the Tuvalu Fisheries Department (TFD) has taken steps to ensure successful operations in the future. Firstly, the TFD has initiated coordination with the local fuel supplier to secure the provision of fuel for the upcoming regional and national operations in 2025. Additionally, the TFD has begun liaising with the Funafuti Lagoon Hotel to arrange accommodation for the aircrew for the forthcoming operations in 2025. These efforts are aimed at ensuring the successful execution of aerial surveillance operations moving forward.

6.3.1.4 Fishing-related activities in the Exclusive Economic Zone (EEZ) and In Port

During the reporting period, several fishing-related activities were carried out in the Exclusive Economic Zone (EEZ), with bunkering emerging as the most common activity. A total of 260 vessels submitted requests for bunkering approvals, highlighting its importance in supporting fishing operations in the region. In contrast, the least frequent activity was the transfer of fishing gear. Additionally, 70 crew transfer activities were conducted within the EEZ. This aspect of operations has been identified as an area requiring closer examination and monitoring in the coming year, as the unit seeks to ensure that such activities are carried out efficiently and in compliance with regulations. Before granting approval for any of these activities, the team thoroughly evaluates each request. This careful assessment process ensures that all activities align with the EEZ's management policies and maintain operational and environmental integrity. It appears that all vessels have been compliant in submitting their requests prior to the execution of the requested operations in accordance with Article 6.4 of the Access Agreement.

The table below presents the number of fishing-related activities occurring within our Exclusive Economic Zone (EEZ) and at the port for the reporting period.

Activity	1st Half Data					2nd half Data					Annual Total
	LL	PS	RC	BK	TOTAL	LL	PS	RC	BK	TOTAL	
Bunkering	4	108	1	113	**226**	12	3	0	19	**34**	**260**
Cargo	0	1	1	0	**2**	0	0	0	0	**0**	**2**
Consignments	0	26	21	0	**47**	0	0	0	0	**0**	**47**
Crew Transfer	1	54	4	0	**59**	11	0	0	0	**11**	**70**
Engine Part Transfer	2	0	0	0	**2**	0	0	0	0	**0**	**2**
Fishing Gear Transfer	0	1	0	0	**1**	0	0	0	0	**0**	**1**
Food Supplies	2	5	0	0	**7**	2	0	0	0	**2**	**9**
Frozen Bait transfer	4	0	0	0	**4**	6	0	0	0	**6**	**10**
Helicopter Part Transfer	0	2	0	0	**2**	0	0	0	0	**0**	**2**
Helicopter Transfer	0	2	0	0	**2**	0	0	0	0	**0**	**2**
Net Transfer	0	2	2	0	**4**	0	0	0	0	**0**	**4**
Provision Transfer	0	40	9	0	**49**	0	0	0	0	**0**	**49**
Rope Tansfers	0	1	1	0	**2**	0	0	0	0	**0**	**2**
Salt transfer	0	33	24	0	**57**	0	0	0	0	**0**	**57**
Satelite bouys transfer	0	1	1	0	**2**	0	0	0	0	**0**	**2**
Spare Part transfer	0	36	12	0	**48**	20	0	0	0	**20**	**68**
Supplies Transfer	0	1	1	0	**2**	0	0	0	0	**0**	**2**

Table 15: LL longline vessel, PS- Purse Seine vessel, RC- Reefer Carrier vessel, BK- Bunker/Tanker vessel.

The team has encountered challenges in data management, particularly with the use of Microsoft Excel for internal data storage and Google Drive for supplementary storage, as both platforms are vulnerable to hacking and data loss due to computer malfunctions. These issues compromise data security and reliability, creating inefficiencies in managing sensitive information. To address these challenges, implementing a centralized system similar to the e-PSM (Electronic Port State Measures) system by the Pacific Islands Forum Fisheries Agency (FFA) would be highly beneficial. Such a system would ensure secure data storage, protecting it from unauthorized access and technical failures, while allowing officers to access and input data seamlessly at any time, both online and nationally. This solution would significantly enhance operational efficiency, improve collaboration, and support accurate data analysis and informed decision-making across the team.

6.3.1.5 Transshipment operations

Transshipment plays a crucial role in the economic, environmental, and regulatory framework of port states by generating revenue, facilitating resource management, ensuring compliance, collecting critical data, fostering regional cooperation, and promoting sustainable development. For Tuvalu, these operations are integral to the country's fisheries management efforts, balancing economic benefits with environmental stewardship. The Tuvalu Fisheries Department has emphasized the importance of transshipment oversight, particularly through the deployment of observers who play a key role in maintaining operational transparency and adherence to regulatory standards.

Observers are tasked with three primary responsibilities during transshipment operations. First, conducting detailed estimates of tuna transfers, measuring the volume (in metric tons) being loaded onto carrier vessels. Second, monitoring and report any extraordinary events that could hinder or delay transshipment activities. Finally, they ensure vessel compliance with MARPOL standards, as outlined in the Marine Resource Act (2006), by checking for practices such as improper discharge of damaged tuna or rubbish into the lagoon. This structured approach not only safeguards the integrity of transshipment activities but also reinforces Tuvalu's commitment to sustainable and responsible fisheries management.

Transhipment Data

The table below summarizes transshipment activities and revenue received in both halves of the year.

1st Half			2nd Half		
Vessel Type	**Vessel Number**	**Tonnage Transferred**	**Vessel Type**	**Vessel Number**	**Tonnage Transferred**
Purse Seine (PS)	117	118, 642mT	Purse Seine (PS)	3	2950
Reefer Carrier (RC)	28	NA	Reefer Carrier (RC)	3	NA
Revenue Received in the 1st half of 2024:		$ 806,205.11	**Revenue Received in the 2nd half of 2024:**		$ 432,907.94

Table 16: Summary of the transhipment records within the reporting period.

In the reporting period, there was a significant amount of transshipment activity until April. In late November, a few vessels recommenced transshipment within Funafuti port. The revenue received in the first half of 2024 amounted to AUD $806,205.11. In the second half of the year, the Tuvalu government received a total of AUD $432,907.94 around September. It is important to note that revenues received in the second half pertains to some transshipment activities that took place in late 2023 and the first half of 2024. All revenues for transshipment activities occurred in the latter part of 2024, particularly in late November and onwards, will be followed up in early 2025.

The table below summarizes transhipment catch records and total revenue over the past five years. The transhipment catch has shown a consistent year-on-year increase. Revenue has also risen, partly due to the remission of outstanding arrears from previous years (2023) during the reporting period.

Years	Arrivals	Transhipped Catch (mt)	Total Revenue (AUD)
2020	148	127,089.00	$ 1,238,774.00
2021	69	127,089.00	$ 545,430.00
2022	9	62,799.03	$ 49,665.00
2023	46	75,695.00	$ 559,824.00
2024	120	121,592.00	$ 1,239,113.05

Table 17: Records of vessel arrival with transshipped catch and revenue collected 2020 - 2024

6.3.1.6 Milestone Achievement

In the last quarter of the year, the Tuvalu Fisheries Department (TFD) together with the assistance from the FFA initiated a trial implementation of the FFA e-PSM platform. The Electronic Port State Measures (e-PSM) system, developed by the Pacific Islands Forum Fisheries Agency (FFA), represents a significant technological advancement for monitoring, control, and surveillance (MCS) in the fisheries sector. This platform enables real-time data sharing and exchange across member ports, streamlining processes such as vessel registration, risk assessment, and compliance monitoring. The e-PSM system is a critical tool in the fight against illegal, unreported, and unregulated (IUU) fishing and a major step toward sustainable fisheries management in the Pacific region. Starting in 2025, the Tuvalu Fisheries Department plans to fully integrate the e-PSM system into its operations, leveraging electronic scales and systems to enhance efficiency and accountability.

WCPFC Compliance Case File System

The Western and Central Pacific Fisheries Commission (WCPFC) operates an online Compliance Case File System (CCFS) to strengthen monitoring, control, and surveillance (MCS) efforts. The CCFS enables member countries to report and manage compliance cases, ensuring that fishing activities in the Western and Central Pacific Ocean align with established regulations and conservation measures. This digital platform plays a crucial role in promoting accountability and sustainable fishing practices across the region.

Each member of the Tuna Commission can access, review, and amend cases assigned to them through the CCFS. Assignments are based on the member's relationship to a case, such as their role as a flag state, coastal state, or observer provider. System improvements are ongoing, providing members with enhanced capabilities to track the progress of investigations conducted by the flag state. Notably, a significant portion of cases reported reflects the member's role as an observer provider, highlighting the importance of monitoring fishing activities.

Throughout the year, the Compliance and Enforcement Unit (CEU) has been actively updating relevant cases in the system, particularly those related to Tuvalu. These cases stem from Tuvalu's responsibilities as an observer provider, coastal state, and flag state. The cases are categorized into two main classifications: ongoing cases and closed cases. This systematic approach ensures comprehensive oversight and supports the effective resolution of compliance issues.

The table below presents the number of compliance cases on reported in relation to Tuvalu Flagged Vessels.

Ongoing	75
Closed	10
Cases Reported by Observer Program	
Observer Provider	
Ongoing	620
Closed	4
Cases reported that occurred within Tuvalu EEZ	
Coastal State	
Ongoing	87
Closed	52

Table 18: WCPFC Cases on Compliance Case File System (CCFC)

The Compliance and Enforcement Unit (CEU) has made significant progress by successfully closing a total of 10 cases in the reporting period. Additionally, there are 75 ongoing cases, all of which represent active investigations that the team is still working on. Most of these ongoing cases have been recently reported by observers, and the team continues to address them with a dedicated focus.

Furthermore, the Tuvalu Observer Program has reported a number of 620 ongoing cases, which are being managed by the respective vessel flag states. To date, four of these cases have been successfully closed by the corresponding flag states, demonstrating some progress in addressing these issues.

The respective flag states are still diligently working on resolving the 87 ongoing cases. So far, 52 of these cases have been successfully closed, reflecting continued efforts to bring these matters to a close.

Despite these successes, the CEU faces a number of challenges in its operations. One of the primary issues is the loss of a significant amount of Tuvalu observer data from the past five years or more, due to destruction caused by rats. As a result, the CEU is unable to proceed with these cases and recommends their closure, particularly those that date back to the period before the COVID-19 pandemic. Additionally, the task of working within the Compliance Case File System (CCFS) is proving to be labor-intensive. The system requires substantial time and effort to review extensive volumes of observer reports. To improve efficiency, it is clear that new staff members need to be added to the Unit to handle the workload more effectively.

6.3.1.7 Challenges

i. Most of the Tuvalu observer data from the past five years or more are missing due to destruction caused by rats. Consequently, we are unable to proceed with these cases and recommend closing them, particularly those prior to the COVID-19 pandemic.

ii. Working on cases within the Compliance Case File System (CCFS) is challenging as it necessitates significant staff time and effort to meticulously review extensive volumes of observer reports. Therefore, it is necessary to add new staff members to the Unit.

6.4 National Observer Program

6.4.1 General overview:

The Observers Program, operated under the Oceanic Section, plays a pivotal role in monitoring fishing activities out at sea across the Western and Central Pacific Ocean (WCPO). Managed by three permanent staff members, the program's primary objectives are to collect critical data and deploy trained observers to fishing vessels to ensure compliance with international and regional fisheries regulations. Over time, the program has expanded its impact, equipping participants with valuable skills and career opportunities. Notably, many former observers have secured permanent roles within the Government of Tuvalu, underscoring the program's contribution to national capacity building and workforce development.

During the reporting period, the program maintained a roster of 145 observers, though only 85 were actively engaged. This reduction is primarily attributed to the growing popularity of regional labor mobility schemes, particularly in Australia and New Zealand, which offer financial incentives that outcompete the program's remuneration. As a result, many observers have transitioned to alternative employment opportunities abroad, posing a significant challenge to the program's sustainability. The Oceanic Section has recognized this issue as a pressing concern, emphasizing the need for immediate measures to retain trained personnel and sustain the program's operations.

To address this challenge, the program has implemented a strategic increase in daily remuneration rates for active observers deployed to any fishing vessels. This initiative aims to make observer roles more financially competitive, retaining the current workforce while acknowledging their essential contributions to sustainable fisheries management. By strengthening observer retention, the program seeks to maintain compliance with fishing regulations and ensure the ongoing protection of marine resources in the WCPO. Looking ahead, the Oceanic Section must balance workforce retention with opportunities for professional growth, adapting to external factors such as labor mobility schemes. These efforts are critical to sustaining the program's long-term success and its foundational role in promoting sustainable fisheries and national development.

General Program Data Table

Qualifications	**2024**
Total Number of Active Observers	85
Certified Debriefers	17
Trainee Debriefers	8
Debriefer Assessors	7
MSC Certify Observer	63
Cross Endorsement Observers	15
Trainee Trainers	3

Observer Trips and Sea Days

Observer Provider	**Placement**	**Trips**	**Sea Days**
Number of Observer Deployed on Cross-Endorsement Trips (PNA)	4	5	173
Number of Observers deployed on Fish Carrier	13	14	731
Number of Observers deployed on National Trips	65	196	4885
Number of Observers deployed on PNA Trips	38	91	2138
Grand Total	**120**	**306**	**7897**

Table 19: Summary of the number of observer trips from July – December 2024

Observer E-Reporting (ER) Trips

From July to December 2024, a total of 35 (83%) ER trips were conducted. Additionally, 7 (17%) workbook trips were completed within POA trips.

For TVOB trips conducted at the national level, 49 (60%) ER trips and 32 (40%) workbook trips were successfully implemented

Program	Total Number of Trips	Percentage
Number of E-reporting Trips (POA Trips)	35	83%
Number of Workbook Trips (POA Trips)	7	17%
Number of E-reporting Trips (TVOB Trips)	49	60%
Number of Workbook Trips (TVOB Trips)	32	40%

Table 20: Summary of the number of observer e-reporting trips from July – December 2024

6.4.1.1 In-Country Trainings

During the reporting period, the observer program conducted three comprehensive in-country training sessions aimed at enhancing the skills and knowledge of both new and experienced observers.

The first session, focused on Biological Sampling, was led by a specialized trainer from the Pacific Community (SPC). This one-week intensive program involved 21 land-based observers, equipping them with advanced techniques and methodologies for collecting and analyzing biological data crucial to fisheries monitoring.

The second session provided E-Reporting Training, facilitated by Mr. Polani Mae, a specialized and qualified trainer from the Parties to the Nauru Agreement Office (PNAO). This training targeted observers recruited in 2023, familiarizing them with digital reporting tools and protocols to improve data accuracy and reporting efficiency. The week-long course engaged 12 land-based observers, emphasizing the integration of technology into their field operations.

The final training initiative was a five-week Basic Training Course for new observers, conducted by Siosifa Fukafuko, the Observer Regional Training Coordinator from SPC, supported by three Tuvaluan trainee trainers. This wide-ranging training provided foundational skills essential for observer roles, including fisheries management, at-sea safety, and reporting protocols. Fifteen participants successfully completed the training, demonstrating the program's capacity to develop local expertise. The success of this initiative was attributed to effective planning and proper funding.

These training sessions collectively demonstrate the program's commitment to building capacity within Tuvalu's fisheries sector, ensuring that observers are well-prepared to meet the operational and regulatory demands of their roles when onboard fishing vessels

	In-Country Trainings	Start Date	End Date	# Participants	Funds	Venue
1	Biological Sampling	8 July 2024	12 July 2024	21	SPC	TUFHA Conference Rm
2	E-Reporting	24 September 2024	27 September 2024	12	PNA	TFD Conference Room
3	Observer Basic Training	21 October 2024	22 November 2024	15	PROPER II	TFD Conference room

Table 21: list the number of in-country training from July to December 2024

Overseas Training

1. Debriefing Part A – Introduction to Debriefing

In accordance with the ROCW 24 recommendations and the FFA/SPC 2024 training calendar, SPC and FFA invited two Fisheries Observers from the Tuvalu Observer Programme, Mr. Luapese Teaukai and Mr. Pouesi Kofe, to participate in a specialized debriefing techniques training course. Conducted at the SPC headquarters in Nabua, Suva, Fiji, the two-week program focused on refining observer debriefing skills. Upon successful completion of the assessment, both observers were awarded debriefing certificates, bringing the total number of trained debriefers within the Tuvalu Observer Programme to eight (8).

2. Assessor Training

SPC/FFA conducts Assessor training at their headquarters in Nabua, Suva. Feso Panapa and Takapili Keleti participated in this training. The primary focus of this training is to equip assessors with the skills and knowledge to evaluate trainee debriefers, ultimately determining their qualification for certification. Both debriefers were awarded Assessor certificates, increasing the total number of trained assessors within the Tuvalu Observer Programme to seven (7).

	Training	Date	Venue	Funding	Participants
1	Debriefing Part A	18 – 29 Nov 2024	SPC in Suva (Nabua)	SPC / FFA	2
2	Assessor Training	2 – 6 Dec 2024	SPC in Suva (Nabua)	SPC / FFA	2
3	Observer Data Critical Analysis	27 – 30 May 2024	Nadi - Hexagon Conference Room	SPC / FFA	2
4	Sub-Regional Observer Basic Training	8 May – 21 June 2024	Santo, Vanuatu	SPC / FFA	2

Table 22: list the number of overseas training from July to December 2024

Observer Levy

The total amount warranted for the observer levy in 2024 amounted to $769,183.53. Of this, $616,572.56 was generated in the first half of the year, while the remaining $152,610.97 was contributed during the second half. These funds are specifically allocated for the final payments to observers following their deployment. The levy is a mandatory requirement for fishing vessels operating in Tuvalu's waters, ensuring the observer program has the necessary financial resources to maintain its operations.

However, a challenge has emerged due to occasional delays in receiving payment confirmation from the National Bank of Tuvalu. Over time, such delays could potentially affect the timely disbursement of final payments to observers. The finance department is fully aware of this issue and is actively working to resolve it to prevent recurrence in 2025.

Fishing Companies	Sum of Total Payment (USD)	Sum of Total Payment (AUD)	Sum of Final Payment
CKP SHIPPING CO., LTD	$38,795.00	$55,546.07	$55,476.07
DONGWON COMPANY	$5,575.00	$7,933.23	$7,923.23
GREEN WORLD COMPANY	$9,790.00	$14,366.10	$14,356.10
GREEN WORLD COMPANY - HOE	$30,936.00	$45,321.40	$45,281.40
JI SUNG SHIPPING CO., LTD	$5,025.00	$7,492.78	$7,482.78
SUNLOG INVESTMENT	$5,457.00	$7,638.16	$7,628.16
TONE SHIPPING CO., LTD	$9,950.00	$14,482.80	$14,463.23
Grand Total	**$105,528.00**	**$152,780.54**	**$152,610.97**

Table 23: Summarize Observer Fund warranted from the Tuvalu Development Funds from July to December 2024

Meetings and Workshop Attended

The table below shows the program's participation in various regional meeting in the 2nd half of 2024

POA 11	Majuro (PNA Conference Room)
ROCW24	Majuro (PNA Conference Room)
CKMR	Apia
2nd Internship Compliance Workshop	Majuro (PNA Conference Room
Capacity Building to Activate Observer Program in the Pacific Islands	Busan, Korea

6.4.2 Challenges and Issues

1. Misallocation of the observer levy

A common issue arises from the current practice of some companies combining all dues, including fishing licenses, vessel days, and observer levies, into a single payment. This practice, potentially aimed at minimizing bank deductions or charges, often leads to misallocation of funds. Misallocation diverts staff time and attention from critical tasks and can sometimes go unnoticed, resulting in unrecoverable funds, particularly when payment details are unclear. This constitutes a significant loss of observer program revenue.

7 Appendix A - TFSP2

The Project runs on the calendar year, so 2024 corresponds to our annual reporting period. The following were the main activities carried out:

- *Technical Assistance* – The Tuvalu Fisheries Adviser (TFA) and Inshore Fisheries Adviser (IFA) were on duty throughout the period. The TFA was in Tuvalu apart from hoe leave and travel to meetings to support the Tuvalu delegations. The IFA mainly worked remotely but visited Funafuti twice during the year.

- *Fish marketing* – A new refrigeration unit for the NAFICOT cold store was installed by an engineer from Australia in October. Funding assistance was provided to FOFA for the building of their new fish dryer and trials of marketing new products (red toddy).

- *Market Access for Tuna Products* – The Competent Authority Adviser completed his one-year contract under the project at the end of August. He will be engaged for a further year under WB PROPER funding. During the period much of the necessary documentation was put in place and several vessels inspected. Fish samples were collected and delivered to accredited laboratories in Fiji and New Zealand for analysis. Equipment for the CA was ordered and received.

- *Community Fisheries Projects* – The highlight was probably the outboard repair workshop in Nukulalae which repaired all OBMs brought in by local fishermen. Some minor items of equipment were supplied to Nukulaelae and Nanumaga at the request of the CFOs. Personal locator beacons from fishermen in five islands were replaced and the old ones sent for battery replacement in NZ. CFOs were funded up to the end of their contracts, when they transferred to Government funding. New work clothes for all CFOs and CFC staff were provided. An Operation and Development working trip to the central islands for various activities was funded.

- *Support for Coastal Fisheries Management and Development* – A metronome trip to the Southern Islands was supported. TFSP2 funding support and advice from the Inshore Fisheries Adviser contributed to the completion of fisheries management plans for all islands, which were signed into effect in August.

- *Fibreglass boatbuilding* – The boatbuilder repaired four fiberglass boats to a high standard in Funafuti. Fiberglass materials from the project were also used for boat repairs in Niutao.

- *Manaui Repair Programme* – New funding for this work was agreed by letter of Variation and a NZ company engaged. In their first visit, they identified a number of problems. The rudder bearings, propellor shaft bearings, hull fittings, and alternator were shipped to NZ, repaired, and shipped back with other materials and spares. These will be installed by a team from Marine Focus working with TFD staff in February.

- *IT Consultant* – The IT consultant made an in-country visit in March, mainly for work on the Ikasavea coastal data system.

- *Mariculture hatchery* – The final order of equipment for the aeration system arrived and is being installed. The seawater intake pipeline was fixed across the reef. Tanks, pipework and electrical supply were installed. The hatchery is close to being operational.

- *Staff training* – The Fisheries Mechanic attended a two week course on aluminium welding, funded by the project and achieved the NZ trade certificate. Two staff from the Department completed maritime training courses: one for Marine Engineer class 5 ticket at the Marine Training School in

Tarawa; and the other for Master Mariner class 5 at the Fiji Maritime Training Academy in Suva. Both need to do additional short courses to complete the qualifications in early 2025. The lunchtime seminars for TFD staff were re-started. Two extra staff were sponsored to attend a workshop on GIS. Tools and equipment for maintenance of SCUBA gear were ordered and received, ready for a training programme in early 2025.

- *Building Maintenance* –The fuel shed next to the workshop has been completed using materials left over from the Hatchery. The project continues to pay 2 casual workers for routine maintenance. A NZ-based specialist has been working remotely to assess problems with the Fisheries' solar power system and should come to Tuvalu in March 2025 to fix a number of problems. A building maintenance expert has been selected and will come to Tuvalu in February to prepare an asset management plan.

- *Information and awareness* – The project supported the annual World Tuna Day programme in May, and provided prizes for a competition to name the new LLMA strategy. Six form 5 students were selected for a work attachment with Fisheries in Dec/Jan. TFSP2 is also providing prizes for competitions to find Tuvaluan names for Tuna and the new Fisheries Authority and also Tuvalu LMMA Strategy naming competition

- *Project Manager* – The Project Manager was on contract throughout the period but took some outstanding leave in Fiji.

Project Administration – Project reports and claims for payment were submitted on schedule. It took two months to track down the mid-year tranche of funds for the project, but it was finally located by the National Bank in July and credited to the project account.

The New Zealand Foreign Minister visited Fisheries with a large delegation in May and was briefed on project activities. The project governing committee met in November and approved the work plan for 2025. An MFAT project evaluation mission was completed and submitted a very favourable report. Work is now progressing on the design of the next phase of the project – TFSP3.

8 Annex 1 - Competent Authority

8.1 Introduction:

This report outlines performed activities achieved in 2024 by the Tuvalu Competent Authority in order to list Tuvalu as country under EU Approved Export Listing that will enable its Tuvalu flagged vessels to export fish and fishery products to the EU markets. It is anticipated that Tuvalu's entry to the EU market will have an increased potential on the value of licensing of the Tuvalu flagged vessels as more and more market opportunities available for optimizations.

8.1.1 Main Goal: To list Tuvalu to EU by listing six (6) Tuvalu flagged vessels.

Currently, Tuvalu has three (3) foreign companies that have their vessels under Tuvalu flag namely TUDOS Fisheries Co Pty Ltd, QTI and TUSA Fishing Company Ltd.TUDOS Fisheries has four (4) purse seiners while QTI and TUSA has one (1) purse seiner each flagged by Tuvalu Fisheries Department.

8.1.2 Current Approach: To initially list the most compliance vessel first.

This approach is cost effective and less time consuming. Now,CA is working on the listing of three (3) purse seiners which the companies are interested to list for EU. Two (2) vessels for TUDOS Fisheries and one (1) for QTI.

8.2 Key activities achieved 2024:

8.2.1 Endorsement of the Tuvalu National Control Plan, Vessel Standards and Other CA documents.

These documents stipulate processes and procedures on the listing approval requirements for any establishment eligible to export to EU hence provide the principle of equivalence guaranteeing product safety.

8.2.2 Designation of the Accredited laboratories:

EU requires Competent Authority to designate ISO 17025 accredited laboratory for the analysis of key health indicators that satisfy minimum and maximum allowable limits of microbial, chemical and other contaminants permitted under the exporting countries and EU standards.

Currently, Tuvalu has designated IAS laboratory at the University of the South Pacific in Suva and Assure Quality in Wellington, New Zealand.

8.2.3 Endorsement of the CA Budget to cover for Vessel inspection & Sampling:

The Director Fisheries endorsed an operation budget to cover for the vessel inspections and sample collections from the three vessels. The budget includes analysis costs of needed parameters as well as travelling cost of CA officers when inspections and inspections have to be done outside Tuvalu designated ports.

8.2.4 Procurements of CA tools and Equipment:

The CA managed receive CA tools and equipment procured through New Zealand funded project. These tools including sampling equipment and personal protective clothing with temperature thermometers essential to carry out required works effectively.

8.2.5 Capacity building:

Externally funded trainings by FFA continued for CA officers. A total of three training were conducted in Suva.These included an HACCP and GHP training held in April,labelling and traceability training held in August and CA team leaders meeting held in December. PROPER project managed to fund an attachment program in the Solomon Island for a CA officer on vessel inspections.

CA Team leader often conducted inductions to the two CA temporary appointed officers on EU market access requirements.

8.2.6 Vessel Assessments:

The CA managed to conduct five (5) preliminary vessel assessments on the out of the six Tuvalu flagged vessels. Assessment outcomes revealed that none met minimum requirements in order to be eligible to exports.

Key findings were on the absence of HACCP and GHP documents that guarantee the implementations of food safety management system to ensure the safe production of fishery products on board vessels. Absence of automatic temperature recording devices that provide objective evidence on the maintenance of cold chain throughout the supply chain and clear evidence of the dual usage of fish wells.

Assessments reports were sent to vessel owners for the needed corrective actions. Unfortunately, all attempts made for the re-assessments to confirm compliances were futile. Most companies confirmed that they were working on the corrective actions in particular the formulation of HACCP documents.

During the preliminary assessment on vessels, no sampling was yet done since procured sampling equipment were still not received.

8.2.7 Sampling:

The CA managed to conduct only one sampling from FZ Cosmos Kim in 2024.
Total number of samples:27 samples for histamine
: 9 samples for heavy metal (cadmium,lead and mercury)
: 3 samples for PCBs and dioxine alike.

Results of PCBs and dioxin received from Assure Quality lab in Wellington were well below permitted limits. However, no results have been received from IAS lab in Suva. Follow ups are not being successful.

8.2.8 Progressive communication with the Industries:

The CA continued to hold discussions with the Industries on market access on a much more frequent basis. This solidifies the relationship of each entity and foster more understanding for a closer working relationship between the two.

8.2.9 External consultants' visits:

Under the TOR for the CA Technical Officer, he has to work with FFA and the Consultant under PROPER Project for CA. So the Market Access Specialist from FFA visited Tuvalu CA for a performance review in February, 2024.The assessment outcome required the change of approach from the initial listing of the Tuvalu the six flagged vessels to a much more targeted approach where a much more compliant one to be listed first.

The visit by the external CA consultant in July revealed that while the performed activities by far has laid down foundation work for the CA, more vessel inspections and sampling are to be done to ensure compliances.

8.2.10 Other Activities.

The CA also continued to engage in other activities necessitated under the Department of Fisheries.

8.3 Conclusion:

The CA also has it's shared of challenges for 2024.However it will continue to work closely with the Fisheries Department, PROPER funding agency and the Industries to achieve its main goal in listing Tuvalu to EU.