ANNUAL REPORT
(FY2024-2025)

MINISTRY OF AGRICULTURE, FOOD & FORESTS (MAFF)

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FOREWORD FROM MINISTER

PREFACE STATEMENT FROM CHIEF EXECUTIVE OFFICER

EXECUTIVE SUMMARY

1. OVERVIEW OF THE MDA

1.1 INTRODUCTION

The Vision of the Ministry is to be a leading partner in advancing sustainable agricultural practices that enhance rural livelihoods, strengthen food security, build resilience to climate change, and contribute significantly to economic growth. Our Vision is to provide the agriculture sector with effective, efficient and timely stakeholder-focused services that are market-driven and aligned with sustainable practices.

The Ministry contributes to the TSDF Organizational Outcomes by providing particular support to:

Closer Public/Private Partnership for economic growth (1.2)

MAFF will be in close partnership with Exporters like Nishi Trading & MTED in providing technical trainings, advisory services, field trials and monitoring of their watermelon growers to improve their compliance with the watermelon SOP and increase the watermelon exports to New Zealand in the next 3 FYs.

Better access to overseas trade, employment and foreign investment (1.4)

MAFF will continue to expand the range of income-earning opportunities to our people in the next 3 FYs. MAFF will collaborate with the MTED in promoting and increasing the market access for our export commodities such as root crops, kava, coconuts and watermelon through improving the condition and equipment at the MAFF pack-house and ensure its HACCP certification is maintained. MAFF in collaboration with MTED will support application of current exporters to the changed Australian Ministry of Foreign Affairs and Trade Project to fund construction of individual pack-houses.

Improve use of natural resources for long term flow of benefits (5.2)

The Ministry has implemented regulation to ensure the sustainability of natural resources specifically to forests. MAFF has enforced the regulation for sandalwood and Forest Act to sustain usage of forest for long-term flows of benefits. Therefore, the Ministry has implemented a tree planting target of 1 million trees to be planted by 2026 and providing advice in forest management to farmers. MAFF will continuously support to contribute to improve use of forests for long-term flow of benefits.

Improved resilience to natural disasters and impact of climate change (5.4)

Biodiversity of the agriculture resources and ecology is the key to Tonga's resilience and preparedness to

climate change. Therefore, MAFF targets the 1 million trees to be planted by 2026, plus import of new exotic plant species/varieties and livestock breeds to cross with the local genetic resources to provide larger genetic resources against the changing climate, temperatures and rising sea levels. MAFF will also continue to complete its recovery programs from the volcanic eruption during the FY2023/2024.

The Ministry's Corporate Plan 2025/26-2027-28 aligned all its priorities to meet the TSDFII Development Plan and it provides the framework of the roadmap for the whole agriculture sector in Tonga for the next 3 years. This plan, underpinned in partnership by stakeholders and government support, provide powerful tools to propel the agriculture sector forward. The Government support to agriculture started from the order with exemptions of import duties, port and service tax for farm machinery, fertilizer, pesticides, seeds, livestock feeds and day-old layer chicks indicates the value of agriculture. Agriculture is an

important part of our business agenda and is a key element of the Tongan Government's commitment to end poverty and hunger, achieve food security and improved nutrition and promote resilient and sustainable agriculture to ensure ***"A more progressive Tonga supporting a higher quality of life for all." "Ki ha Tonga óku fakalakalaka ange ke ne hiki'i e moúi e kakai kotoa."***

The Ministry also supports the 17 United Nation Sustainable Development Goals and the CP will try and contribute to the regional and global initiatives targeting the achievement of these SDGs: The four major SDG's supported by MAFF in its corporate plan are as follows:

i) SDG1, End poverty in all its forms everywhere;

FAO promotes this goal through inclusive agriculture, food production and off-farm economies, which can create jobs and eliminate hunger in rural areas, giving people a chance to feed their families and live a decent life.

ii) SDG2, zero hunger, achieve food security, and improved nutrition and promote sustainable agriculture;

FAO promotes this goal with a clear target to end hunger by 2030. This can be achieved through ensure sustainable food production systems and implement resilient agricultural practices that increases productivity and production that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

The SAMOA Pathway calls for action on food security. The Global Action Program (GAP) on Food Security and Nutrition in Small Island Developing States (SIDS) had developed to help achieve the SAMOA Pathway;

iii) SDG12, Ensure sustainable consumption and production patterns:

Tonga should be party to the Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants established international frameworks to achieve the environmentally sound management of hazardous wastes, chemicals and persistent organic pollutants;

iv) SDG13, take urgent action to combat climate change and its impact:

COP 23 requested countries to adopt the Koronivia Initiatives as strategies to achieve climate smart agriculture i.e. achieved improved agriculture productivity and incomes while improving biodiversity and reducing greenhouse gas emission;

v) SDG15, Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss:

In the COP 21 in Paris the 4 per 1000 initiative was advanced by the French Government and endorsed by almost 200 countries. This is simply asking countries to increase the soil organic carbon by 0.4% annually and this will fix all carbon released by fossil fuels.

The Ministry's CP is also drawn from the priorities of the Tonga Agriculture Sector Plan II 2025-2035 (TASP)1 which was developed based on significant consultation with key partners of farmers, fishers, communities, diverse civil society organizations, exporters, businesses, government ministries, public enterprises, etc. The CP attempts to improve its service delivery to be more responsive, accurate and relevant to the agriculture sector. It supports 3 strategic Objectives from TASP II:

I. Component 1: Sustainable Rural Livelihood.
II. Component 2: Commercial Agriculture
III. Component 3: Enabling Environment

These strategic objectives are further supported by two cross cutting themes known as, Resilience Sustainability and Social Inclusion. The main outputs of TASP include:

i. Improve incomes and living standards
ii. Enhance food and nutrition security
iii. Strengthen community cohesion
iv. Increase agricultural exports
v. Reduce food Imports
vi. Strengthen value chain integration

1.2 LEGISLATION, MANDATES AND STAKEHOLDERS

1.2.1 Legislation

Agricultural Commodities Export Act (1) 2002

- Animal Disease Act (1) 1979
- Birds and Fish Preservation Act (1) 1915
- Copra Act (1)1926
- Food Act 2020

- Forests Act (1)1961
- Government Act
- Land Act 1927
- Markets Act [1]1976
- Noxious Weeds Act (1) 1917
- Pesticides Act (1) 2002
- Plant Quarantine Act (1) 1982
- Pounds and Animals Act [1]1918
- Rhinoceros Beetle Act [1]1912

1.2.2 Mandates

The Ministry derived its core mandate from the above acts as well as policy decisions, convention and plans. The Ministry is currently responsible for over 12 pieces of legislation. It is envisaged that all the acts specified under the ministerial assignment must be reviewed and be ensured that there is no conflict between policy interpretations of existing acts. It is imperative that the Ministry's acts and legislation are reviewed, updated and combined into a single "Agriculture Act" to enable an effective legal framework to ensure protection of our vulnerable resources from the unsustainable development practices, exotic pest and diseases, agricultural trade and to promote sustainable food security and food safety.

1.2.3 Key Stakeholders

The core business of MAFF is to provide efficient and effective service to public and key stakeholders. The MAFF plays a key partnership role in the sector. The focus is on the rural farmers, aimed at empowering a proportion of the subsistence farmers to be commercial farmers, producers, processors and exporters. MAFF's main customers are listed in table 1 below.

Table 1: MAFF's Stakeholders and their Relationships

Stakeholder	**Received from or provided to MAFF**			
	Customer of MAFF	**Supplier to MAFF**	**Partner with MAFF**	**Oversight of MAFF**
Parliament	Acts, Regulations, Annual Report, Corporate Plan	Decisions	Operating Effectiveness of Government	**Direction**
Cabinet	Advice, Recommendations, and Information	Decisions	Operating Effectiveness of Government	**Direction**
LA	Advice, Recommendations, and Information	Decisions and Legislation	Operating Effectiveness of Government,	**Direction**
MDAs	Advice, Guidance, Instructions, and Information	Information	Operating Effectiveness of Government, Support of the TSDF	**Oversight by PMO, PSC - Policy, Operations**

Public Enterprises	Advice, Guidance, Instructions and Information	Information	Operating Effectiveness of Government, Support of the TSDF	
Businesses	Advice, Guidance, Instructions, Services, and Information	Provide Commercial Goods, Services, Fees and Charges	Support of the TSDF, Economic Development	**Monitor, Petition**
Farmers, Weavers, Producers etc	Advice, Guidance, Instructions, Services and Information	Compliance, Fees and Charges	Support of the TSDF, Economic Development	**Oversight Compliance**
Exporters, Food Traders & general public	Advice, Guidance, Instructions, Services and Information	Goods, Services, Fees and Charges	Support of the TSDF, Economic Development	**Oversight Compliance**
General Public	Advice, Guidance, Instructions, Services and Information	Goods, Services, Fees and Charges	Support of the TSDF	**Vote, Petition**
Development Partners	Advice, Guidance, Instructions, Services and Information	Development Assistance and Advice	Delivery of Aid Funded Programs	**Oversight of the Use of Development Funds, General Performance Management**

1.3 GOVERNANCE AND OPERATIONAL STRUCTURE

The MAFF activities will be executed within the framework of the following core values which will furnish as a driving motto towards achieving the national and organizational outcomes and the Ministry's outputs. The Ministry aims to use the fundamental principles and values of Tongan society in its delivery of service, which should in turn reflect the following work values to increase efficiency and effectiveness in its service delivery:

- Commitment;
- Honesty;
- Respect;
- Trustworthy;
- Humility;
- Accountability and;
- Transparency.

The Ministry of Agriculture, Food and Forests is responsible for:

i. Providing Research and Extension Services in Vegetables/Crops/Fruit-trees, Livestock and Forestry to maintain nutritive and Healthy Food Security
ii. Improve Livelihood by building capacity of Rural Farmers to increase production of commercial crops
iii. Provide Food Safety Services for all food produced or imported for sale
iv. Provide Quarantine Services in preventing foreign weeds, pests and diseases of plants and livestock and also to facilitate export

v. Quick Disaster Relief and Economic Recovery from Preparedness Program on Home-gardening, famine crops, etc.
vi. Sustainable management of Soils, Plant and Livestock Genetic Resources, Ecology and other Sustainable Land Management Practices.

MAFF adopts the structure below in order to deliver the outputs allocated to each division. The Minister provides overall leadership while the CEO provides overall management. Each Deputy Directors (D/Director) manages a division (with its associated sub-program) for the development of Agriculture and Forestry and reporting to the CEO who reports to the Minister

- Ministry's organizational structure.

2. MINISTRY PERFORMANCE

2.1 MINSITRY'S HUMAN RESOURCE MANAGEMENT

The Ministry has a total of 257 employees, 180 permanent staff, 77 daily-paid employees and 25 un-filled vacancies by the end of June 2025. The unfilled vacancies are due to the 6 to 10 months' process of re-filling these vacancies from confirmation of salary budget by the Ministry of Finance to the final approval by the Public Service Commission. The tables below show number of staff employed by the Ministry during the financial year.

Table 2.1.1: MAFF Human Resources

Division	No. Established Post	No. of Staff	No. of Daily Paid	No. of vacant posts	TOTAL (STAFF + DAILY)
CSD	16	14	4	2	18
PPD	14	11	1	3	12
RRDD	22	19	4	3	23
FOOD	14	12	5	2	17
QQMD	28	24	11	4	35
EWD	28	25	6	3	31
LIVD	15	14	10	1	24
FORD	12	10	11	2	21
MP	2	2	0	0	2
VAVA'U	25	22	4	3	26
HAAPAI	12	11	6	1	17
EUA	10	10	6	0	16
NTT	3	2	6	1	8
NFO	4	4	3	0	7
TOTAL	**205**	**180**	**77**	**25**	**257**

Table 2.1.2: Number of Staff Entry and Exit the Ministry

No.	Name	Post	Division	Remarks
1	Rose Vaka	Computer Assistant	CSD	Appointment
2	Patisoni Tuitupou	Computer Programmer	PPD	Appointment
3	Kaloafu Finau	Technical Officer Grade II	Livestock	Appointment
4	Fua Holani	Livestock Assistant	Livestock	Appointment
6	Ana Finau	Clerk Class III	Vava'u	Appointment
7	Amelia Peéi	Agricultural Assistant	NFO	Appointment
8	Desmond Vi	Forestry Assistant	Forestry	Appointment
9	Vili Fa	Driver	Vava'u	Appointment
10	'Uheina Vainikolo	Agricultural Assistant	Vava'u	Appointment
11	Vera Tonga	Agricultural Assistant	RRDD	Appointment
12	Lote Fonohema	Driver	CSD	Appointment
13	Peioneti Lui	Senior Agricultural Officer	QQMD	Promotion
14	Halamehi Latu	Senior Technical Officer	EWD	Promotion

15	Tupou Ótunuku	Technical Officer Grade II	Haápai	Promotion
16	‘Oketi Mailau	Technical Officer Grade 1	EWD	Promotion
17	Dan Savia ‘Atuekaho	Deputy Director	FOOD	Promotion
18	Loleta Fusikata	Agricultural Officer	QQMD	Promotion
19	Simione Militoni	Technical Officer Grade I	QQMD	Promotion
20	Seini ‘Ela Vaipulu	Chief Agricultural Officer	Vava’u	Promotion
21	Futa Lolo	Senior Technical Officer	PPD	Promotion
22	Hepisipa Lavaka	Agricultural Officer	RRDD	Promotion
23	Tevita Taufalele	Senior Technician	Ha’apai	Promotion
24	Petelo Ánitoni	Senior Technical Officer	EWD	Retired
25	Simote Moala	Technical Officer Grade II	Livestock	Retired
26	Lusio Vaka	Senior Technical Officer	EWD	Retired
27	Ketoni Ákauóla	Technical Officer Grade I	QQMD	Retired
35	Graham Mala’efo’ou	Senior Agricultural Officer	QQMD	Resigned
36	Annelise Halafihi	Senior Agricultural Officer	Food	Resigned
37	Sateki Talia	Technical Officer Grade II	Vava’u	Resigned
38	Pelenitina Vao	Technical Officer Grade II	Food	Resigned
50	‘Etika Hola	Technical Officer Grade II	LVD	Scholars
51	Roy J A Curion	Daily Paid	Livestock	Scholars
52	‘Asena Fa’anunu	Agricultural Officer	Food Division	Scholars
53	Semi Hausia	Senior Agricultural Officer	QQMD	Scholars
54	Vea Funaki	Senior Livestock Assistant	Livestock	Scholars
55	Lesieli Hu’ihahau	Agricultural Officer	Senior Business Officer	Promote & Transferred to MTED

2.2 Capacity Development

CSD conducted a total of 13 trainings for current employees during the Financial Year 2024-25. The purpose of this training is to introduce and to guide new recruited daily workers, on relevant policies and code of conducts instructions, remind PSC instructions to all staff and financial matters. Trainings were conducted to all staff from Tongatapu, Vava’u, Ha’apai and ‘Eua. In addition, CSD facilitated Domestic and Overseas approvals of all MAFF staff, and during the financial year.

MAFF has been benefitted from overseas financial assistance through funding of various trainings, workshops, meetings, conferences, seminars and short courses that enable staff to exchange skills and knowledge. During the Financial Year, a total of 13 Overseas travel approvals has been processed and attended by relevant staff of the Ministry. Most of the overseas travels were on trainings and workshops to Fiji, China and Australia funded by FAO, SPC, China and ACIAR, and rest of the meetings were to Rome, Italy.

CSD also facilitated staff on long term trainings and those who were on scholarship during the financial year. Three staff completed their study leave and have been returned to their current stations. 3 new scholars and 2 current scholars targeting to complete at the end of 2025.

3. RESULT MANAGEMENT

3.1CORPORATE SERVICES DIVISION

3.1.1Output

- Effective Policy Advice, legislative enactment and leadership;
- Effective Human Resource Management and Administration;
- More effective, timely and accurate financial management system;
- Effective consulting services on agricultural development;
- Better access to ministry's information systems and databases and to external/other information systems;

3.1.2 Objectives

- To improve coordination of strategic planning, budgeting and development project formulation, implementation, monitoring and evaluation;
- To improve and maintain a professional workforce through recruitment, capacity building and performance management;

3.1.3 Achievements

The Corporate Services Division (CSD) continue to provide the overall coordination and management of MAFF resources (Human, Financial & Capital) for the Financial Year 2024/25. The main responsibility of CSD were carried out through the following sections: Human Resource, Administration and Training Section; Finance, Accounts and Asset Management Section. The division ended the financial year with 14 permanent staff, 4 daily-paid employees and 2 un-filled vacancies, and a total budget of $1,104,737.88 with 43 percent for salary and 57% for operational expenses and 1.1% leftover budget at the end of June 2025.

During the 2024-2025 financial year, the CSD facilitated the Recruitment of 11 new staff, the promotion of 11 staff, the retirement of 4 staff and the resignation of 4 staff. There were 25 vacancies that were unfilled at the end of the financial year mainly due to the pro-long process by the Public Service Commission up to 10 months.

The End of Financial Year 2023-24 PMS was successfully submitted to PSC as well the MYR for this Financial Year 2024-25. The reward for FY2023-24 has been received by staff in the beginning of 2025. For this financial half-year (July-Dec 2024), the CSD processed and submit a total of 182 PMS forms, hoping that by the end of the financial year, PMS results will improve.

Table 3.1: PMS Results

Financial Year (FY)	***MAFF***	***Rating of 1***	***Rating of 2***	***Rating of 3***	***Rating of 4***	***Rating of 5***	**TOTAL**
24/25 FY	Benchmark Results	*2*	*7*	*75*	*50*	*33*	*166*

24/25 FY	Original Submission	*0*	*0*	*17*	*54*	*94*	*166*
23/24 FY	Moderated Results	0	0	71	52	35	158
23/24 FY	Original Results	0	0	14	49	95	158

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Launch Event and Workshop on the Implementation of the OCOP Initiative - China

CSD Head of Division and Focal Point for OCOP project, attended the Launching Event and Workshop on the Implementation of the One Country One Priority Product (OCOP) Initiative for Pacific Island Countries, held in Nanjing, Jiangsu, China, from 16-22 October 2024, successfully brought together about 120 participants from FAO, OCOP focal points and agricultural officials in the Pacific Island countries, and other key stakeholders. The event was co-organized by the FAO OCOP Secretariat, CPIAC, and MAL of Solomon Islands, with JAAS managing the event's logistics and content.

The workshop provided a platform for participants to exchange experiences and knowledge regarding the sustainable development and promotion of SAPs under the OCOP framework. Key discussions centered around improving agricultural production, storage, processing, and marketing to enhance the livelihoods of farmers and food chain actors, while also contributing to food security and nutrition in the Pacific.

Tonga's report on new SAP was well presented and also managed to showcase some sweet yam processed flour at the exhibition during the workshop, hence the event was successfully contributed to the regional and national integration of the OCOP initiative, fostering stronger partnerships, shared knowledge, and a commitment to sustainable agricultural development.

OCOP at the Pacific SIDS Solutions Forum – Fiji

The OCOP Focal Point (Head of CSD) also attended the 2024 Pacific Small Island Developing States (SIDS) Solutions Forum, held from 5 to 8 November in Fiji. It was a high-level platform organized by the Food and Agriculture Organization of the United Nations (FAO) and the Government of Fiji. The forum

aimed to share innovative solutions and showcase their impact and scalability in transforming, how food is produced, distributed, and consumed in the Pacific Islands.

The Forum also offers a unique opportunity to showcase the achievements of the OCOP initiative over the past year, highlighting the SAPs of participating countries and the tangible benefits of their involvement. A Pacific OCOP Plenary session were carried out, where Lord Fohe presented Tonga's presentation on Sweet Yam, and a Pacific OCOP Expo were also held during the forum, where OCOP countries showcase and presented their products and plans, highlight achievements and future goals. Hence, Tonga's booth was outstanding where FAO Director-General visited after the opening ceremony.

4th Pacific Week of Agriculture, Food and Forests

Tonga hosted the 4th PWAF from the 26th – 30th May, 2025 with the theme "Transforming Agriculture and Forestry: more regeneration, more productivity, more resilient". Head of CSD was a member of the PWAF Steering Committee which was chaired by MAFF CEO, and Lead the Logistics and Administration Sub-Committee. The Logistic sub-committee was responsible for identifying suitable meeting venues for the regional meetings, side events, trade shows, logistics and protocols with the Ministerial field visit sites for the ministerial delegations. CSD assisted the Chair in overseeing the planning and drafting of the entire program which includes the side events, agricultural show and the 2 regional meetings. Hence, the staff of CSD also facilitated the arrangement for caterings, entertainment, transportation, decorations and gifts for the PWAF.

HRH Crown Princess Sinaitakala Tuku'aho had officially opened the PWAF at the Tonga High School Indoor Stadium, and she highlighted the vital role of women, youth engagement and inclusive leadership in the future of Pacific Agriculture and Forestry. Agricultural display has been followed, showcasing Tonga's traditional agricultural fresh products such as 'Ofato and Malau from the Niuas, processed products from small businesses, as well as development partner's promotions and display.

A total of 29 side events had been conducted at the Tonga High School auxiliary building and 4 field visits to interested sites such as Nishi processing facilities, 'Utulau piggery farm and Women's tapa making groups at the Eastern side of Tongatapu,

The PWAF was attended by more than 250 participants including Ministers, Development Partners, Farmers, Scientists, Researchers and Innovators from across the Blue Pacific, the forums and meetings had provided an opportunity to collaborate and build regional solutions that reflect both our traditional wisdom and the promise of innovation.

Way forward:

- Internal Policy will help minimize the non-compliance and abusing of Government assets;
- Regular trainings on PSC Instructions to all Divisions and Outer islands;
- Enforce PSC Instructions and HODs to lead working according to policy;
- Look for more training opportunities overseas;
- Request PSC to review the recruiting process;
- Establish SAO post to lead the HR & administration section;
- Provide vehicle for CSD

3.2 POLICY AND PLANNING DIVISIONS

3.2.1 Output

- Deliver effective Policy, Planning and Project Management;
- Reliable Agriculture Statistics;
- Timely Procurement and Assets Management.

3.2.2 Objectives

- To improve policy, planning and development project management;
- To improve collection, analysis and dissemination of agricultural trade data;
- To improve communication and information exchange internally and externally for the effective and efficient management of computer services;
- To improve procurement and assets management

3.2.3 Achievements

The Division continued to coordinate and assists in the review and formulation of the Division's (CP) 2025/26 – 2027/28 Financial Year. The Division has also submitted its CP 2025/26 – 2027/28 Financial Year, both in English and translated into Tongan, to the Head of CSD to be compiled with other Divisions' Corporate Plans.

i. FIT (Fund with Intent) Tonga Training:

This Division assisted The Pacific Community (SPC) in conducting a capacity building programs for more than 20 staffs of the Ministry on GIS Mapping, Drone flying and the utilization of KOBO Toolbox in surveying. The ministry was also fortunate to received 17 new tablets and one drone from SPC to assisted with surveying activities of the Ministry.

ii. Tonga Watermelon Export Taskforce (TWET)

This activity was funded and hosted by the SPC (Secretariat of the Pacific Community) and MAFF Tonga through the Policy and Planning Division. The section assisted SPC with administrative work as well as providing technical and secretariat work during this program on the 22nd and 23rd of May 2025 at the Tanoa International Hotel, Tonga.

iii. Harnessing Research and Development Synergies

This section assisted the Mainstreaming of Rural Development Innovation Tonga Trust (MORDI TT) in the implementation of an event known as the "Harnessing Research and Development Synergies" as a pre-event in preparation for the Pacific Week of Agriculture and Forests, Side Events. The section provided technical assistants as well as conducting the closing remarks on behalf of the Ministry (MAFF).

Sectorial Responsibility

i. Formulation and Publication of Tonga Agricultural Sector Plan II (TASP II)

The first draft of the Sector Plan was submitted to MAFF from the consultant in July 2024 and was then forwarded to all stake holders of the agricultural sector for their appropriate comments and feedback. All comments and feedbacks was forwarded to the Consultant to be incorporated in the TASP II. The final project validation workshop was held in September whereby the attendees of the validation workshop validated the plans and deemed ready for publishing.

This section liaised with the office of the Australian High Commission, seeking technical assistant in graphic design and publishing of the TASP II. The consultation and formulation of the plan was completed in December 2024, with the assistant of a consultant that was funded by the Government of Australia through the DFAT. The Marketing Development Facility (MDF) assisted MAFF with the graphic design and publishing. The graphic design and publishing was completed and delivered to MAFF on the 29th of May 2025.

ii. Tonga Circular Economy System Project (TCESP)

This is an on-going initiative for the Ministry, which this Section is actively participating by assisting Mr. Tom Nakao in facilitating various meetings at MAFF conference room as well as conducting procurement work on project related issues.

iii. TRIP II Supervision Mission

HOD represented the Ministry during the TRIP II Supervision Mission which was held on the 25th of November to 6th December 2024. This is done by visiting all communities that was involved in the TRIP II project to assess the preparation of the completion review process of TRIP II, stocktake lesson learned and assess the progress of the project implementation.

Others

i. Trainings, workshop and seminars

The table below lists high level meetings/workshops/seminars attended during 2024/25 FY.

Table 3.2.1. List of Trainings, workshops and Seminars attended

Training, Seminars and Conferences	Donors	Location
Regional Conference on Sampling Surveys	FAO	Nadi, Fiji
Concretizing Actions for Agri-food systems transformation in Pacific Island Development States	FAO	Nadi, Fiji
Launch of One Country One Priority Product Project	FAO	Nanjing, China
Pacific SIDS Solution Forum	FAO	Tenarau, Fiji

ii. Vaipoa Citrus Orchard Assistant

This section facilitated the need from MAFF Ha'apai to upgrade their Vaipoa Citrus Orchards with equipment. The section assisted and facilitated this process with MORDI TT and now MAFF Ha'apai has just received a equipment valued at TOP$40,000 as an assistant from ACIAR (Australian Centre of International Agricultural Research) that came through MORDI TT. These are;

- 5000L Water Tank (1)
- Solar water pump (1)
- Wheelbarrow (2)
- Pruning equipment (12)
- Drip Irrigation system (1)
- Ladders (3)
- Mist Blower (2)
- Knapsack sprayer (2)
- Chainsaw (2)

LEGAL SECTION

Pesticides Regulations 2024, Quarantine (Fees) (Amendment) Regulations 2024 and Food Regulations 2024.

This regulation was approved by Cabinet, and was further submitted to the Office of the Attorney General for vetting and processing of draft through the Law Committee before resubmitting to Cabinet for final approval before gazetting.

Food Regulation 2025.

This regulation was returned from Cabinet with the direction to be reviewed by the Ministry before re-submission for endorsement. This section is heading the reviewing process which is still on-going and re-submission is set for August 2025. This section led the consultations via public media, TV and radio, in regards to the new Food Regulations.

Plant Quarantine (Fees) Amendment Regulations 2025

This section led the reviewing of this Amendment Regulation together with the Quarantine Division and was re-submitted to the Cabinet on the 23rd of June which was approved on the 26 and was transferred to the Crown Law for vetting and translation purposes

Forest Act.

The section continues to assists and facilitate the amendment of the Forestry Act with assistance from an FAO funded consultant, Ms. Sela Bloomfield.

Other Legal Responsibilities

i. Debt Recovery Activities

This section assisted the Quarantine Division and MAFF's Finance Section in trying to recover unpaid debts to the Ministry from:

a. Services provided to the Fiji Airways.
b. Materials that were paid by MAFF through the procurement process but supplier (Knox Trading Company) failed to deliver.

This section issued warning letter to the Fiji Airway, Tonga office which was delivered on the 24th of February 2025 by the Quarantine Division. The Knox Trading Company issues were submitted to the Attorney General for further legal process by this Section in May 2025.

ii. Drafted Agreements

a. Drafted an agreement between the Forestry Division and an exporter to assist with exporting of forestry products.
b. Drafted another agreement between the Research and Development Division with a Tax Allotment owner from Lapaha to allow the ministry to utilize this Tax allotment for research and crop production purposes for next 4 years.
c. Drafted a Memorandum of Understanding (MOU) between the Quarantine Division and a service provider for providing a particular service (wrapping of consignments) at the Fua'amotu Airport.

Others

- This section represented the Ministry on various in-country meetings as well as attending and participating on behalf of MAFF in the 11th Standing Committee Meeting on the Funding Strategy and Resource Mobilization (SFC-11) of the International Treaty on Plant Genetics Resources (ITPGR) for Food and Agriculture. The meeting which was held in Rome, Italy discussed various funding proposals for submission to the Governing body of the ITPGR for funding purposes.
- Also represented the Ministry during the National Employment Policy consultation whereby, employment challenges were discussed.
- Represented the ministry during the Tonga Health led consultation on the review of NCD related legislation.

DEVELOPMENT PROJECT SECTION

This section is responsible for the facilitation, coordination and managing of MAFF's Development Projects. For report will only highlights the projects that were facilitated and coordinated by this section.

Public Private Partnership Fund.

- A TOP$3million fund was provided by government for the economic development of the Agricultural Sector. To be eligible for this fund, a project proposal is submitted to the CEO which is then submitted by the CEO to this section for their appropriate actions. After this project is vetted, it is then submitted by this section to the Agriculture Sector Growth Committee for final endorsement and decision on whether to be funded or not.
- Once the proposal is approved then this section will develop a grant agreement to be signed by the CEO for MAFF and the beneficiary, then the fund is processed by the Finance section for disbursements to the suppliers or the beneficiaries.
- A total of 68 proposals were received however, only 52 proposals were approved for funding by the ASGC. Table below illustrates the number of proposals per category from each district.

Table 3.2.2 Number of proposals per district under each category

Category	Vahe Hahake	Vahe Hihifo	Vahe Loto	Vahe Motu	Total
Tractors	7	3	5	0	15
Working Capitals	2	2	0	0	4
Infrastructures	7	3	6	1	17
Logistics	2	1	3	1	7
Equipment	2	3	2	2	9
Total	**20**	**12**	**16**	**4**	**52**

MAFF Biogas Project Proposal.

This section design, collate and formulate a project proposal that was submitted to the Ministry of Finance and was later submitted to the Chinese Embassy for funding purposes. The proposal seeks fundings of TOP$17 million for the construction of 150 small piggeries plus a biogas system to be disseminated among farmers of Tonga. The proposal is currently with the Chinese embassy for their internal processes and considerations.

STATISTICS AND ECONOMIC DEVELOPMENT SECTION

This section continued to be responsible for the collation, analysis, formulation and dissemination of agricultural data reports. The weekly data on agricultural produce sold locally at Municipal Markets (Talamahu and Siamelie Markets) and the roadside from Nuku'alofa to Lapaha were collated for the formulation of the Talamahu Market Survey Quarterly Reports.

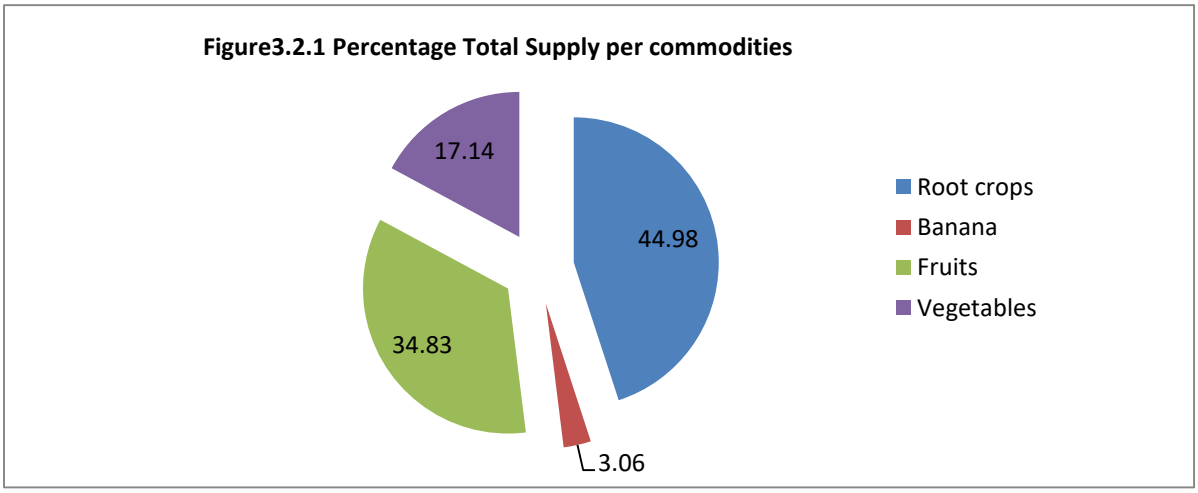
Domestic Market Report

The Talamahu Market Report is formulated from a weekly survey conducted every Friday in which random samples of 5 common trade units (CTU) basket, plastic bags, heaps, and other manners of all commodities (crops, vegetables, fruits, bananas, other items) are weighed and recorded with their respective prices. The Roadside Market Report is formulated from a weekly survey conducted every Saturday in which all volumes of available commodities are recorded using their CTU. The Talamahu Market provides the weekly recorded of supplies for all commodities that is sold at the Market for each week.

The reports on the Talamahu & Roadside Market Survey contains the following information:

i. Monthly and quarterly average weights in kilograms of the common trade units of the available major produces sold and surveyed at the market
ii. Monthly and quarterly average prices of agricultural products sold in the market in price per common trade unit and in price per kilogram
iii. Monthly and total quarterly supplies of agricultural products, in common trade units and in tons.
iv. Key information of the said collected data are processed and circulated to stakeholders.

Figure 3.2.1 Pie Graph of percentage of total supply to Domestic Market per commodity

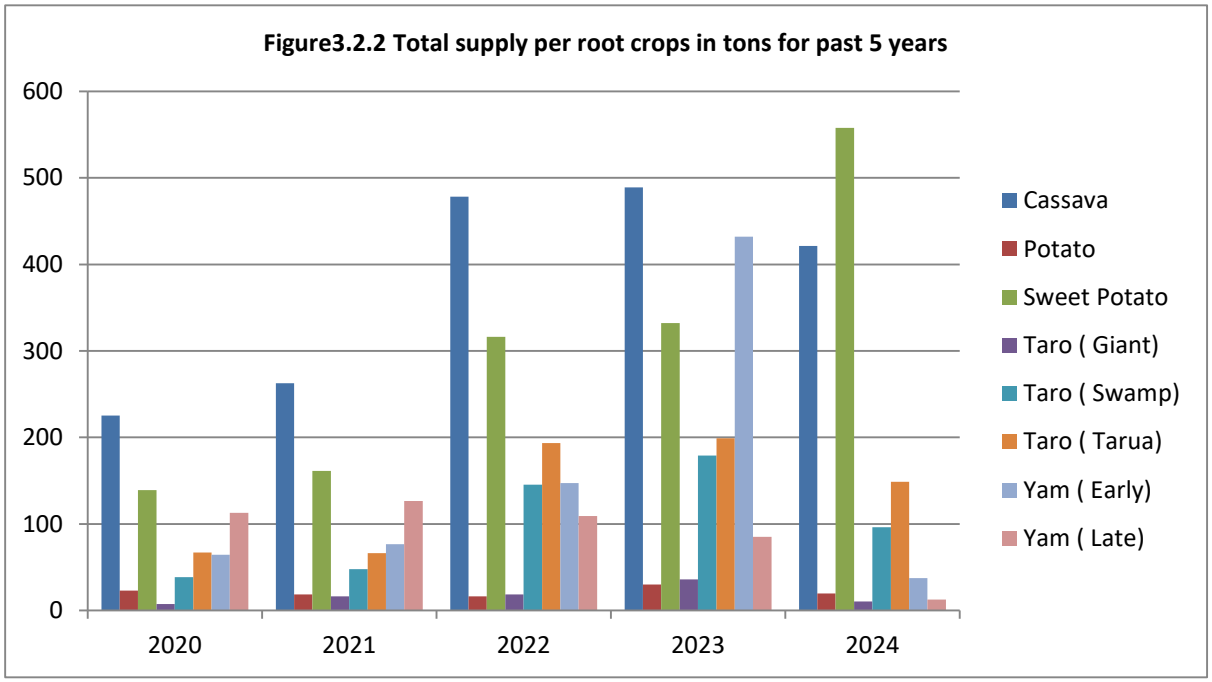


(Source: MAFF Domestic Market Report, 2024)

The graph illustrates the large volume in tonnage of root crops and fruits being sold at the local market. This is due to the bulkiness of these two commodities, eg, Fruits contains, watermelon, pineapple and coconuts while root crops contain cassava and sweet potato that are mostly sold in sacks.

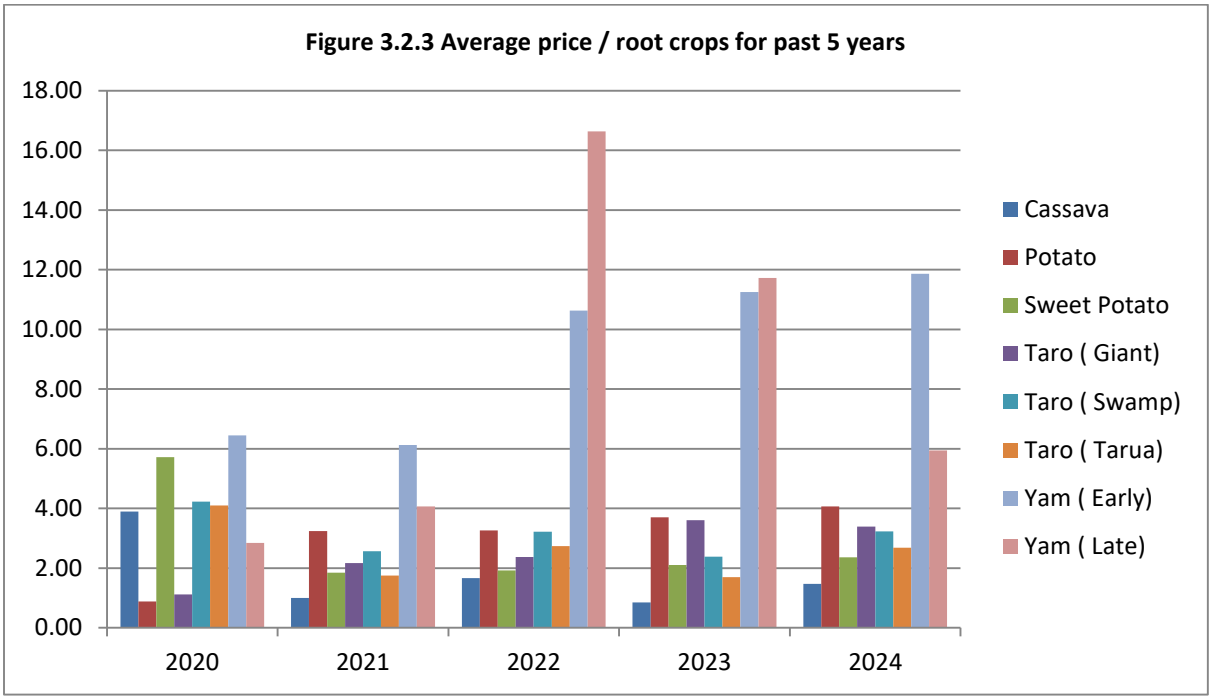
Root Crops

The figure 3.2.2 illustrates the total supply of root crops at the domestic market for the past five years. As it shows, cassava and sweet potatoes are the main root crops being sold at the local market.



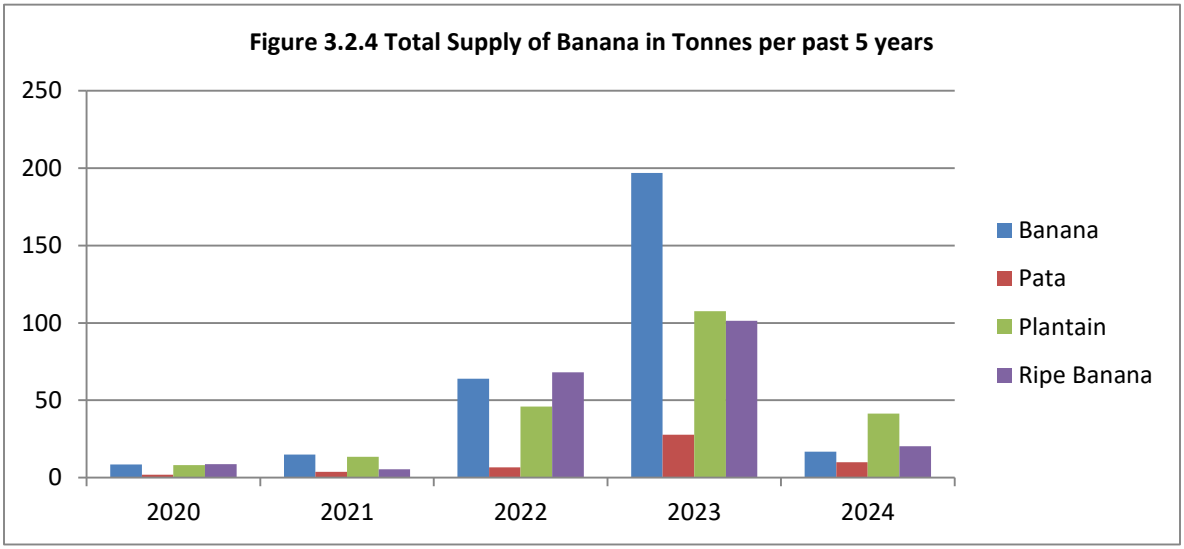
(Source: Domestic Market Survey Report 2020 to 2024)

Figure 3.2.3 illustrate the average price per kg for root crops for the past five years. Early yams still continues to dominate the price with late yams experiencing a volatile effect as it increase exponentially in 2022 but then start dropping down in 2023 and 2024 which correspond to the decrease in supply as shown in Figure 3.2.2.



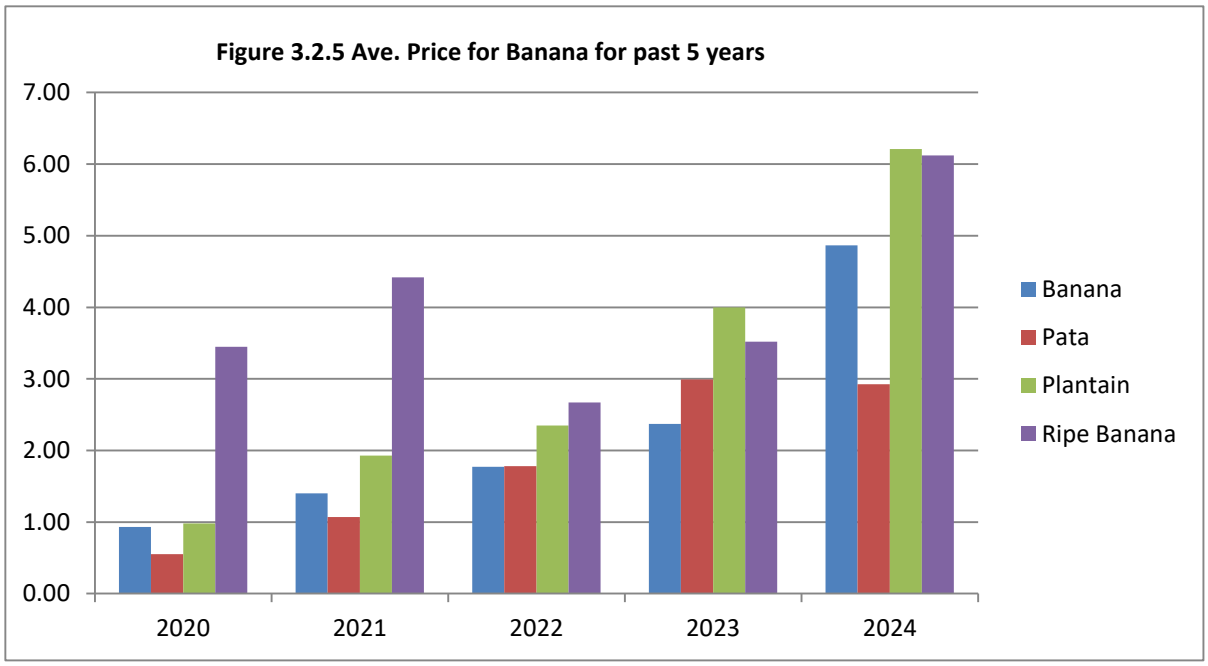
(Source: Domestic Market Survey Report 2020 to 2024)

Banana



(Source: Domestic Market Survey Report 2020 to 2024)

The total supply of bananas at the domestic markets was very low in 2020 and 2021 however in 2022 the volume of banana sold at the domestic market started picking up and in 2023 but 2024, banana supply to local market experienced a slight decrease in total supply.

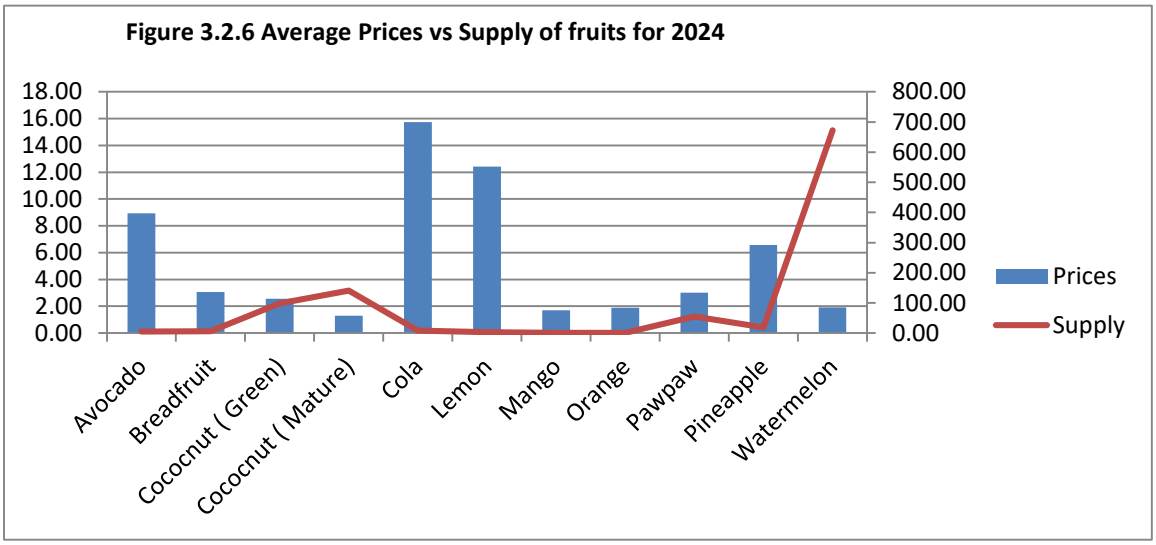


(Source: Domestic Market Survey Report 2020 to 2024)

By comparing the average prices of Bananas for the past five years, it shows that the average prize for each type of banana has slightly increased since 2020 and 2024 illustrates that the average price per kilograms is consistently increasing

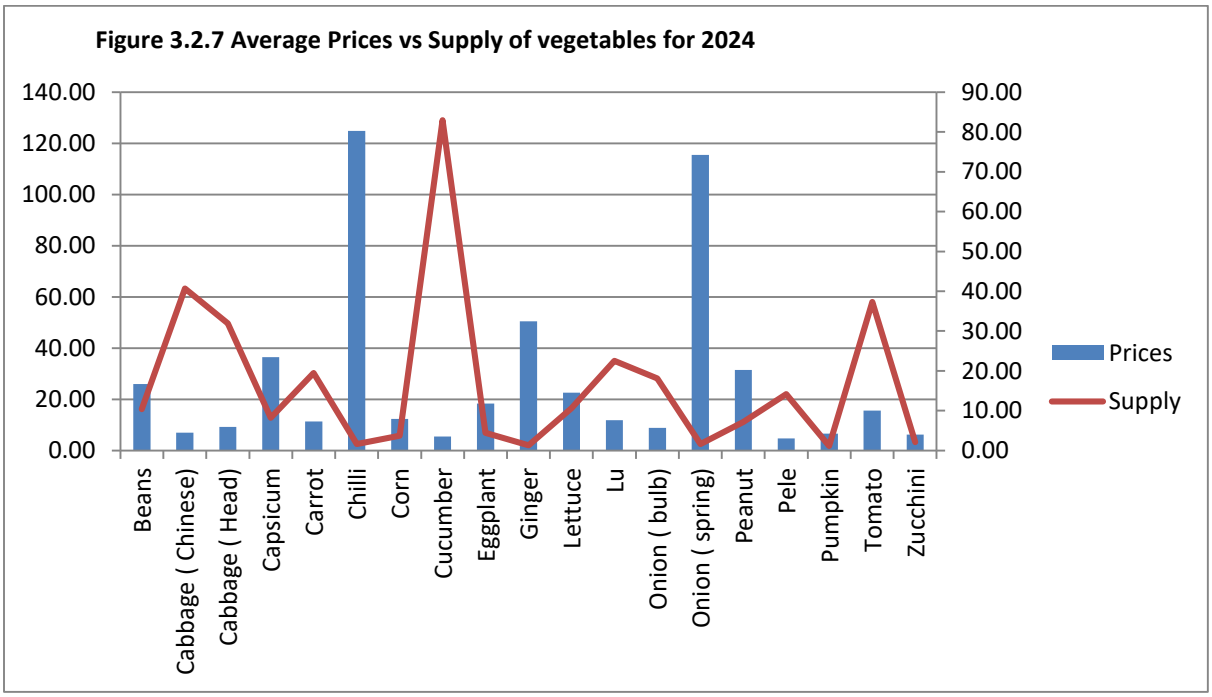
Fruit Crops

The total domestic supply of fruits and the average prices of fruits for the year 2024 is being depicted in the Figure 3.2.6 below. The figure illustrates clearly the relationship of supply and demand as supply increases, the average prices decrease, however, when total supply of fruits decreases, there is an inverse relationship shown on the average prices.



(Source: Domestic Market Report 2024)

Vegetables



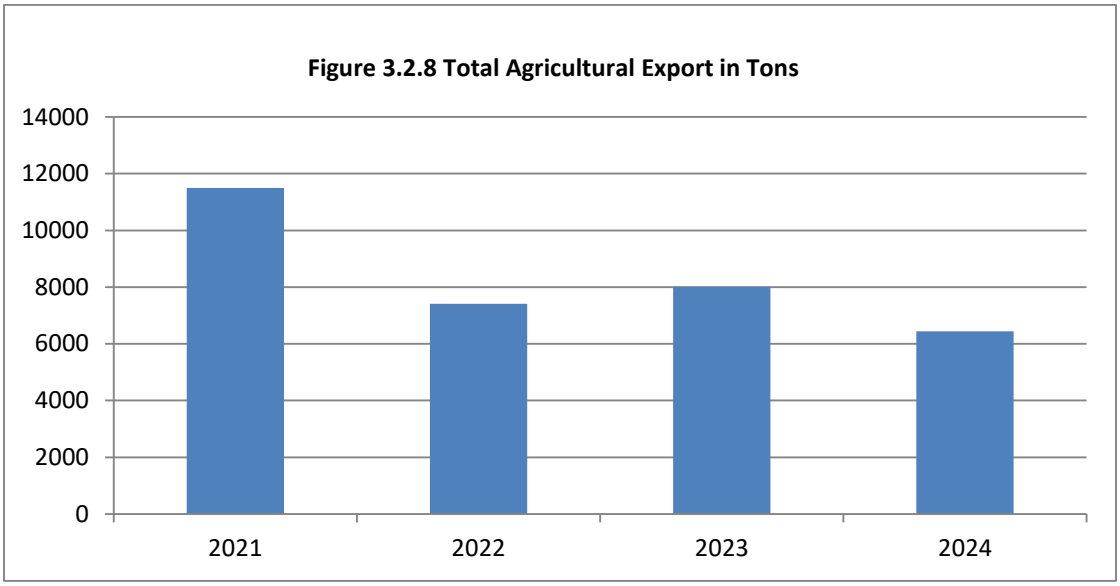
(Source: Domestic Market Report 2024)

The figure 3.2.7 above illustrates clearly the relationship of supply and demand. When supply increases, the average prices decrease, but when supply of vegetables decreases, the prices of vegetables increase.

Agriculture Export

This section continued the collection of export data of all the agricultural commodities, both from the Government Statistic Department and MAFF's Quarantine Division and conduct simple applied statistical analysis that would be easily understood by decision makers.

The following graphs (Figure 3.2.8), depicts the volume of major crops exported in the last 4 years for root crops, squash, watermelon, vanilla, kava, and coconut. Most of our root crops remain as the major crops for export as well as for food security.



(Source: MAFF – Quarantine Division)

3.3 FOOD DIVISION

3.3.1 Output

3.3.2 Objectives

3.3.3 Achievements

Food Administrative Policy and Standards:

The Food Administrative Policy and Standards is an official public regulator responsible to overseeing and regulating various aspects of the food supply chain in the Kingdom to ensure **food safety, quality, and compliance** with national or international standards. It also set of guidelines, rules, and procedures

established by a governing body (such as a national food safety authority) to ensure the safety, quality, and proper labelling of food products.

As of 30 June 2025, the respective units marked the milestone on projects with different donors; Conference & Meeting and Pacific Week of Agriculture.

Projects:

1. Japan Grant Aid for the Social and Economical Development Programme

The Agreement for Japan Grants Aids had signed by the MAFF Chief Executive Officer on April; it was estimated value for the project was **¥300,000,000.00~TOP$4,933,735.29.** The budget will cover the project administration and equipment for food agro-processing listed below:

- 1 Washer
- 2 Dewatering Screw Press Machine
- 2 Slicer
- 1 Industrial Chips Deep Fryer
- 2 Flour Milling Machine
- 2 Packing Machine
- 3 Mesh Screening machine
- 1 Rotary Evaporator
- 1 Forklift
- 2 Weighing scale
- 1 Commercial Centrifuge
- 1 Texture Profile Analyzer
- 1 pickup truck

The JICs Team currently procure some of the equipment and the implementation plan the tender evaluation will be done in October 2025. The installation training for equipment will be conducted on July 2026; follow -up with the installation of all equipment in the factory with in each processing line operation.

FAO (Food and Agriculture Organisation) Technical Cooperation Project (TCP)

TCP Tonga Projects: Codex Trust Fund (CTF2A) & TCP/SAP/4004

The TCP project start at 2024 by conducting workshop awareness seminars to experts on effective participations in Codex work. The workshop featured an interactive session where participants exchanged insights, discussed challenges, and developed strategies for enhancing national participation in Codex initiatives. A practical tour of the Codex Alimentarius website provided participants with guidance on how to access and benefit from its resources effectively.

Beyond being a platform for learning, the workshop fostered collaboration among stakeholders, enhancing understanding of Codex standards and promoting their implementation. The event concluded with a site visit to Nishi Trading Ltd, where participants observed food safety and standards compliance in action among growers, processors, and exporters.

The practical, hands-on approach during the October 2024 workshop. The session not only emphasized theoretical aspects of Codex work but also included an interactive website navigation tutorial and a site visit to Nishi Trading Ltd. This visit provided participants with a firsthand look at food safety practices and Codex standards in action, bridging the gap between theory and practice.

Furthermore, the partnership between the Ministry of Health and the Ministry of Education has been instrumental in aligning efforts and priorities, fostering an integrated approach to Codex initiatives. Stakeholders' feedback from surveys and forms also underscored the workshop's effectiveness, which serves as a foundation for continuous improvement of Codex-related activities. This reporting period reaffirmed the importance of collaboration, practical learning experiences, and stakeholder engagement in successfully advancing Codex work in Tonga.

FOOD INPECTION UNIT:

Border Control is responsible for inspecting all imported food products, including containers, baggage, boxes, cargo, and more, at the border. Since the establishment of the Food Inspection Control at the Border in 2020, the Border Control Section has consistently conducted inspections and submitted monthly reports to the Head of the Food Division. Food Inspectors have been actively involved in inspecting commercial food items in the Red Zone, as well as the Green and Yellow Zones of Customs, and in private warehouses.

Food Inspectors are responsible for monitoring all food businesses and commercial food products in Tonga. We operate under the Food Act 2020 and are committed to developing and updating our enforcement in line with food regulations. The Food Safety Inspection Unit currently consists of only six members, excluding some officers stationed in the outer islands. Our mission is to serve and protect the health and safety of the people of the Kingdom of Tonga. Table 3.3.1 indicate the difference in food inspection's unit area with the details of their type of food business to be responsible.

Table 3.3.1: Food inspection unit's responsibilities in details Food Business into Details

Boarder control	-Every commercial food product that go through customs with GREEN status to inspect at own warehouse.
Red Zone	-Every commercial food product that identify as Red status it'll inspect at Red Zone (Customs)
Food Processing	-Water factory -meat processing (butcheries) -bakery -ice-cream processing -noodles factory -soda factory -egg production -coconut production -all catering -school canteen -all vendors (including fish market) -flea market (fea Tuímatamoana & all)

Shops and Restaurants	-food shops (retail, wholesale, warehouse, storage) -restaurants (dine-in, takeaway, café, pizza, milktea, ice-cream, subs and etc)

RED ZONE SECTION:

Table 3.3.2: Summary of importers, number of countries and total amount of food containers - was imported to Tonga through red Zone from Jan-June 2025

MONTHS	NO. OF IMPORTER	NO. COUNTRY	NO. OF CONTAINER
Jan	5	4	5
Feb	7	3	7
Mar	5	3	13
April	4	3	5
May	4	3	4
June	5	5	6
TOTAL	30	21	40

Table 3.3.2: This data shows that month of March were the only month with lots of food container which was hold at the Red Zone followed by February month. These was the months that my officers at the Red Zone was suffered with lots of non-comply such as incomplete labels and incompletion in requirements.

Table 3.3.3: Number of Countries versus number of containers were imported

	COUNTRIES	% OF CONTAINERS
1	China	25
2	Malaysia	25
3	New Zealand	22.5
4	USA	7.5
5	Fiji	7.5
6	Others	12.5

Table 3.3.3: At the Red Zone inspection, China and Malaysia were the most food importers was hold at the Red Zone with total amount of 25% they provided. New-Zealand was the 3rd country to import food and was hold at the Red Zone due to incomplete in labels & providing of health certificate

Table 3.3.4: Summary of Importers with Number of containers that they imported

	IMPORTERS	% OF CONTAINERS
1	Small Investment Com. Ltd	**20**
2	Mei Bao Mo	**10**
3	Jilong Enterprise Ltd	**7.5**
4	Peng Peng Com Ltd.	**7.5**
5	Sunrise Company	**5**
6	Philadelphia Supplies	**5**
7	Others	**45**

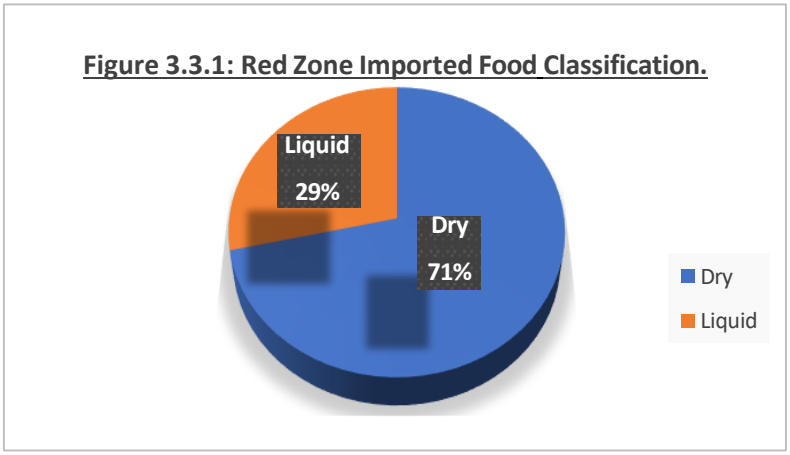
Table 3.3.4: This table indicates the total highest importers with the total numbers of food container they did import through the red zone section. Small Investment Company Limited was the most Importer, followed by Mei Bao Mo and others.

Table 3.3.5: Classification of food type into dry food and liquid

Months	Dry Food (In Tons)	Liquid Food (Kilolitre)	Total Food Import (Tons/Kilolitre)
Jan	51.68	23.68	75.36
Feb	22.65	11.34	33.99
Mar	446.84	233.84	680.68
Apr	169.09	35.6	204.69
May	62.4	-	62.4
June	47.35	14.92	62.27
Total		**1119.39 Tons/KL**	

Table 3.3.5: This table summarizes the classification of foods were imported from Jan-June 2025 through Red Zone inspection. It was total to 1119.39 Tons / Kiloliters was inspected at Jan-June 2025.

Figure 3.3.1: All imported food was inspected at Red Zone, 71% was classify as Dry food and 29% was



classified as Liquid food. Dry food was included all meats and dry food.

BOARDER CONTROL SECTION:

Table 3.3.6: Countries of importers versus % of food containers that they provided

	COUNTRIES	% OF CONTAINERS
1	Australia	8.75
2	Brazil	15
3	Fiji	23.54
4	New-Zealand	24.89
5	USA	7.5
6	Others	20.32

Table 3.3.6: From border control inspection section, New-Zealand was the country who led the importing of food to Tonga with 24.89% and followed by Fiji and then the others. Australia and United States are one of the most food supplier in terms of imported food.

Table 3.3.7: Summary of all importers, Countries and number of food container was imported from Jan-June 2025

MONTHS	NO. OF IMPORTER	NO. COUNTRY	NO. OF CONTAINER
Jan	22	12	129
Feb	20	14	125
Mar	21	13	190
April	19	14	108
May	22	13	168
June	24	12	240
TOTAL	128	78	960

Table 3.3.7: A total of 960 of all food containers was imported to Tonga from Jan-June 2025. This table shows that the month of June was the highly imported food and followed by the month of March.

Table 3.3.8: Summary of all food importers and number of their food containers from Jan- June

	Importers	% of Containers
1	A. Cowley & Sons	**15.83**
2	Jilong Trading Tonga	**22.61**
3	Hualong Ent. Co. ltd	**3.96**
4	Wonderful Trad. Co. Ltd	**2.92**
5	Eastern Raise Ent. Ltd	**2.82**
6	New Era	**6.66**
	Others	**45.20**

Table 3.3.8: This table shows the rank of importers, Maturity of Food Importer, Jilong Trading Tonga was the highest food import which was 22.61%, followed by A. Cowley & Sons was 15.83% and then the others.

Table 3.3.9: Summary of Food Classification as Dry Food and Liquid was imported from Jan- June 2025

Months	Dry Food (In Tons)	Liquid Food (Kilolitre)
Jan	3658.52	93.28
Feb	2076.89	210.89
Mar	14408.84	1023.31
Apr	2509.67	3697.25
May	2938.37	1763.74
June	7802.44	1031.94
TOTAL	41215.14 Tons / Kilolitre	

Figure 3.3.2: Classification of Imported Food through border control

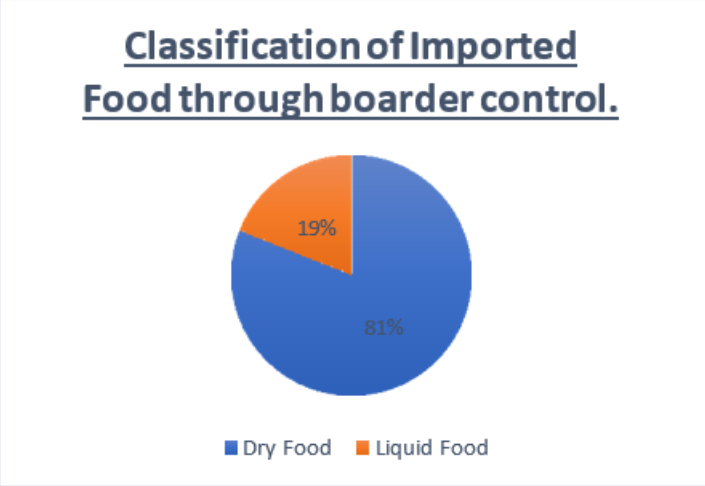


Figure 3.3.2: All food product was imported on Jan-June 2025, 81% was classified as Dry food products including meat, fruits and etc. Only 19% was classified as a Liquid Food product.

Food Business Inspection (FOOD SHOPS, RESTAURANTS, FOOD PROCESSING):

Table 3.3.10: Summary of all food business new registered, re-new permit and other food business matter from Jan-June 2025

All Food Business in Tongatapu	Total
Food Shop	218
Restaurants	71
Catering	9
Vendors	29
School Canteen	104
Bakery	10
Butchery	7
Water Facilities	4
Noodle Factory	1
Ice-Cream	1
Ice-Blocks	3
Sausages Factory	3
Pizza	5
Milk Tea	6
Local Fizzy Drink	1
Oil Facility	1
Food Permit Issued	72
Food complaint	23
TOTAL	**568**

Table 3.3.10: This table indicates the different food business that Food inspect team are in charge to inspect. There are 218 food shops, 71 Restaurants, 104 school canteen, 29 vendors and 52 other food processing. The team manage to issued 72 food permits from Jan-June 2025 and these permits are including: new food business and re-new license for current food business. There was a total of 23 food complaint was record. For Food Shops, restaurants and Food processing section did manage to record a total of 568 food business matter. However, the team was able to inspected only 77% of all food business from Jan-June. The maturity of inspected food business was compiled and few was advice with Written Notice.

Table 3.3.11: Seized Book Summary from Jan-June 2025

Months	Seized Goods Amount
Jan	-
Feb	$13,365.70
Mar	$3,902.90
Apr	$9,532.80
May	$59,715.80
Jun	$3,674.55
Total	$90,191.75

Table 3.3.11: This table shows the total amount of non-comply food products was seized by the team. As it shows, the month of May was the highest amount of seized food product and followed by March and then others. From Jan-June 2025, we seized a non-comply food products was total to $90,191.75.

INSPECTION UNIT RECCOMENDATIONS AND WAY FORWARDS:

In a way to develop and well monitoring of Food Safety here in Tonga, these are the main focuses will help us with our responsibilities.

Section	Challenges	Way forward

Food Inspection Unit	Lack of human resources (vehicles & employees) Lack of resources i.e., data collection tool, transportation, database etc. Food Regulation not being passed yet Capacity building (both food inspectors and Food Business owners) No proper way yet for food discarding process.	Increase staff capacity IT team to train inspection team on kobol tool box (data collection tool) Purchase 2 or more vehicle for inspection unit only Endorse Food business consultations on Food Regulation issues. Need more in-house training for inspection team. Need more regional and international training for food inspectors. Propose a quarterly in-house meeting with all food importers.

Agro-Processing and Product Development (Value Added and Import Substitution):

Export and Pack House Services Section focuses on facilitating the export of agricultural products through ensuring that the HACCP certification of the Pack house facility is maintained annually, monitoring the operations at the pack house facility, overseeing and managing the frozen containers electrical meters and kept records appropriately.

This report underpins all activities that were conducted by the Export and Pack House Services Section for the month of June. Staffs of this section not only undertook activities within the section's core function but also other responsibilities to assist other sections.

Pack house Operations:

Figure 3.3.3: Total Export Agricultural Products processed and packed at the MAFF Packhouse

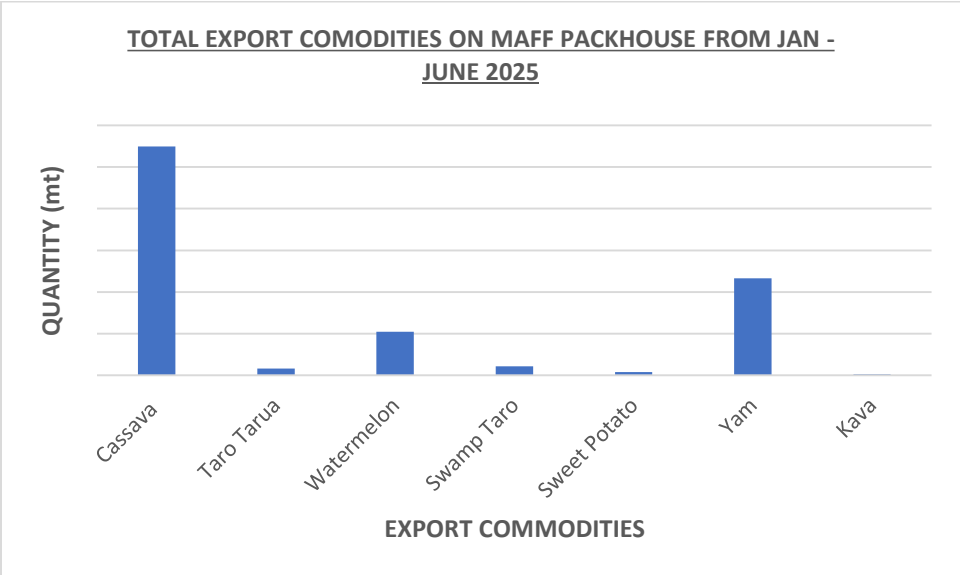


Figure 3.3.3 illustrates the total export commodities packed in the MAFF packhouse between January and June 2025. Cassava recorded the highest production volume at 274.6 metric tons, exported to the formal market in Australia. Yam ranked second, with a production volume of 116.3 metric tons, also exported to the formal market in Australia. In terms of value, the Free on Board (FOB) price for cassava was approximately $1.75/kg, while yam (loose) was around $5.00/kg. This translates to an estimated total export value of $0.48 million for cassava and $0.58 million for yam (loose). Although yam had a smaller production volume, it generated a higher total value than cassava.

IN-KIND ASSISTANCE FROM MINISTRY VOTE TO THE EXPORTER:

Food division still assist the exporter on Overtime; cost of water and electricity used in the packhouse for packing of their products for formal market; th cost detail for the 6 months has been estimated on the table below:

Table 3.3.12: Estimated cost from the Packhouse to assist the Exporter from Jan – June 2025

SERVICE COST	Amount
Overtime	T$9,291.33
Electricity (Washing Machine)	T$158.38
Electricity(light)	T$3,167.50
Water	T$2,411.85
Depreciation Value (Washing Machine and Building)	T$23,500
Total	T$38,529.06

The depreciation value will cover the cost for maintenance of the Packhouse; if the ministry applies a fee to cover that cost it approximately $127.07 for the exporter to pay daily to used the Packhouse.

Product Development and Research Section:

Food Product Development and Research (FPRD) Section focuses on developing new and innovative food especially made from local food materials in Tonga. In that focus, it is also included in its' development understanding certain behaviors of food and how its functions to produce a good and nutritious quality. This refers to testing and research services that can be utilized to understand and know food. At the same time apply food safety regulations relevant to food.

i). Trial on flour product from previous local crops

The flour products produced in the previous month was used to make dumpling (faikakai) and pancakes together with the team trying to make coconut syrup for the purpose of shifting from maple and honey syrup which is imported and to try out locally made syrup. The main idea behind this initiative was to find local delicacies that can be made with locally procured ingredients that will not heavily rely on imported products. We were able to recreate pancakes and dumplings and this was given out as samples during the PWAF conference that was hosted by the Ministry and we got very positive feedback from delegates that were visiting and even locals that attended the meetings.

ii). Food Products for PWAF

Food products such as cassava flour, breadfruit flour, yam flour as well as other types of food products were researched for the upcoming Pacific Week for Agriculture and Forestry. The team was also able to successfully make dumplings as well as pancakes and coconut syrups for the display.

3.4 QUARANTINE &QUALITY MANAGEMENT DIVISION

3.4.1 Output

- Efficient Quarantine and Quality Management services, consistent with international standards for sustainable protection of plant, animal resources and safe movement of products.

3.4.2 Objectives

- To improve national border control capacity and performances of QQMD;
- Increase regional and international partner's engagement in SPS;
- Enhance trade, market access and export through private public stakeholder partnership;
- To expand current capacity of container yard at Export facility;
- To strengthen QQMD management and administration capacities;
- To develop capacities to serve roles pertaining to import and export works.

3.4.3 Achievements

The major challenges faced by the Quarantine and Quality Management Division (QQMD) includes the outdated Legislation, no national biosecurity policy, lack of staff and equipment, capacity building and funding. Some of these challenges were addressed by the Ministry of Agriculture, Food & Forests (MAFF) with the collaborations from Donor partners, either International and Regional Organization or from other Governments Funding Aid Programs. The Food and Agricultural Organization (FAO), International Plant Protection Convention (IPPC), Asia Pacific Plant Protection Convention (APPPC) together with the Plant Protection Organization (PPPO) set the standards and implemented many trainings for MAFF Staff to gain knowledge and skills as to perform their duties and tasks accordingly. Required equipment and necessary trainings were also provided by other regional donor partners including PACER Plus, PHAMA Plus, SPC, SAFE Pacific Project, United Nation Agencies, World Trade Organization (WTO) and the World Bank. The Government of Australia assisted MAFF directly and indirectly through the Department of Agriculture, Forestry and Fisheries (DAFF), PACER Plus and PHAMA Plus. Moreover, the Government of New Zealand assisted MAFF in many ways, especially through the Enhanced Pacific Market Access Partnership (EPMAP) Project and the Enhanced Pacific Biosecurity Partnership (EPBP) Project, and the implementation was executed by the Ministry of Primary Industries.

IMPORTS:

Tonga's main ports of entries are Fua'amotu International Airport, Queen Salote Wharf (QSW), Vuna Wharf and Faua wharf in Tongatapu; Halaevalu Wharf and Lupepau'u airport in Vava'u. However, wharves at Niua Toputapu, Niua Fo`ou, Ha`apai and `Eua can also be the port of entries for yachts.

International Flights:

A total of 1,030 flights arrived Tonga with 658 at Fua'amotu International airport, and 202 flights arrived at Lupepau'u Airport; and 132 and 11 special flights respectively. The increased numbers of flights were mainly in June 2024 due to the high demand of passengers attending the Church Conferences and to participate with the Heilala Week Festival and the King's birthday, as in ***Table 3.4.1*** below.

Table 3.4.1: International flights

Type	Fua'amotu Airport	Lupepau'u Airport	TOTAL
No. of Flight	658	202	887
No. of Special Flight	132	11	143
No. of Passengers	85,566	5,981	91,547
Garbage (kg)	12,020.7	510	12,530.7

International Vessels:

A total of 727 vessels arrived the Kingdom of Tonga Ports from July 2024 until June 2025. A total of 318 vessels arrived at Nuku'alofa with mainly 128 cargo vessels, 15 Cruise ship, 12 Fishing vessel, 1 Local Ferries, 25 gas tankers, 11 Navy ships, 19 Oil, 1 Survey, 1 Tug and 057 Yachts. This is the first time there were more total numbers of vessels that arrived at Vava'u rather than Nuku`alofa. However, Vava`u still received less cargo vessels and containers but increased to 51 cruise ships, as shown below in ***Table 3.4.2.*** From the all the cargo vessels, a total of 6,881 full containers, 963 empty containers and 1,252 vehicles were unloaded. However, only 717 full containers and 7,580 empty containers were loaded; and 266 containers were shifted.

Table 3.4.2: International Vessels and containers

	Type of Vessels									
	Cargo	Cruise	Fishing	Local	Gas	Navy	Oil	Survey	Tug	Yacht
Tongatapu	128	15	12	1	25	11	19	1	1	105
Vava'u	12	51	0	0	12	1	16	0	0	317

	Unloaded					Loaded						
	FCL		Empty		Vehicle	FCL		Empty		Vehicle	Shifted	Garbage
	20"	40"	20"	40"		20"	40"	20"	40"		FCL	

Tongatapu	3831	2822	792	171	1211	539	136	4992	2447	0	266	20,216.0
Vava'u	228	-	-	-	41	42	-	141	-	-	-	-

Quarantine Entry Certificates:

Quarantine Entry (QE) certificates are issued after inspection of accompanied and unaccompanied consignments. The most of the incoming consignments were inspected at the different cargo outlets as shown below in ***Table 3.4.3*** with a total of 40,597 QE certificates for the financial year 2024-2025.

Table 3.4.4: Quarantine Entry Certificates

TOTAL	QSW	Airport	Cargo	Vava'u
40,597	13, 110	10,196	16, 106	1185

Plant Import Permits

A total of 569 plant import permits were issues for fresh fruit and vegetables, timber and seeds for sowing as shown below on ***Table 3.4.5.*** There were also a few plants permits for live plants either ornamental plants or fruit trees brought in for diversification and health promotion.

Table 3.4.5: Plant Import Permits

Permit (Plant)	QSW	Airport	Vava'u
569	361	169	39

Animal Products Import Permits

A total of 12,379 Animal import permits were issued altogether for the financial year 2024/2025 as in ***Table 6***. The majority of the animal permits were for animal products is imported for human consumption, whereby over 91 percent of animal permits were issued at Fua'amotu International Airport. The arriving adult passengers are allowed to bring 20 Kg of animal products from Australia, New Zealand, USA and Vanuatu. However, they have to issue an Animal Permit for every consignment. The Animal Permit for the Commercial Importers are valid for 6 months whereby many consignments can be imported during the period allocated.

Table 6: Animal Import Permits

Permit (Animal)	QSW	Airport	Cargo	Vava'u
12,379	548	11, 342	438	51

Interceptions at the Borders

The interceptions are due to the non-compliance of importing plant products reported from Fua'amotu International Airport, Queen Salote Wharf, the cargo outlets and Vava'u. The majority of the interceptions were reported from Fua'amotu International Airport were fruit and seeds for sowing, and mainly due to not declaring the plants or plant products, no Plant Permit and or no Phytosanitary certificates. The interceptions reported from Queen Salote Wharf were of the same issues and were mostly timber for

construction. A total of 275 interceptions reported from the borders during inspection of accompanied or non-accompanied cargo, as in ***Table 7*** below.

Table 7: Number of Interception reports

Interception reports	QSW	Airport	Cargo	Vava'u
275	88	166	19	2

Plants and Plant Products Imports

The majority of the plant products imported to Tonga were fruit and vegetables from New Zealand, followed by Australia, USA and then China via New Zealand as in ***Table 8a***. The top three fresh fruit imported still remains as apples, pears and oranges, while the top three vegetables were still carrots, onions and potatoes. The majority of the imported live plants were the bare-rooted fruit tree imported by MAFF from Australia. The second were ornamental live plants, such as Orchids and Flamingo flower or Anthurium from New Zealand. The rest of the live plants were ornamentals from Fiji and Thailand. Lastly, a total of 39,605.82 cubic metres of timber was imported, mainly from New Zealand as in ***Table 8b***.

Table 8a: Plants/Plant Products

Produces	NZ	Australia	USA	Fiji	Others	Total (Kg)
Fruits & Vegetables	1,949,495.37	288,278	101,690		34,500	**2,373,963.37**
Seeds (vegetables & flowers)	509.15					**509.15**
Live Plants	620	988		350	265	**2,223**
Fresh cut Flowers	10.0					**10.0**
TOTAL	**1,950, 634.52**	**289,266**	**101,690**	**350**	**34,765**	**2,7376,05.52**

Table 8b: Timber

Item	NZ	Others	Total (Cubic metre)
Timber	**39,551.82**	**54.0**	**39,605.82**

Animals and Animal Products Imports

The day-old chickens were the main live animals imported to Tonga by MAFF as part of the import substitution and food security initiatives, as in ***Table 9***. The main animal products imported for human consumption was mainly chicken from Brazil and USA. Mutton was the second main animal products and was imported from Australia and New Zealand, as in ***Table 10***. The third imported meat products were the hot dogs and sausages from Brazil and USA. Fresh eggs for consumption were only from Fiji and New Zealand.

Table 9: Live Animals

Live Animals	NZ	Australia	Total
Day old chicken	12,240		**12,240**
Live dog	5	2	**7**

Table 10: Animal Products Import

Animal Products	NZ	Australia	USA	Fiji	Brazil	Total
Beef	549,384.60	37,596.23	-	-	-	**586,980.83**
Pork	41,874.72	-	127,830.78	-	-	**169,705.50**
Poultry	248,203.55	723,783.00	4,607,567.21	5,941.00	5,737,417.21	**11,322,911.97**
Hot Dog & sausages	176,483.63	-	28,000.00	-	454,340.64	**658,824.27**
Mutton	63,314.18	2,910,717.93	-	1,011.00	58.00	**2,975,101.11**
Goat Meat	1,622.82	-	-	-	-	**1,622.82**
TOTAL (Kg)	**1,080,883.5**	**3,672,097.16**	**4,763,397.99**	**6,952.00**	**6,191,815.85**	**15,715,146.50**
Fresh Eggs (Trays)	1,115,100	-	-	4,705,470	-	**5,820,570**

Livestock Feed and Fertilizer Imports

The livestock feed was mainly from New Zealand with 1,601 Metric Tonnes and followed by Fiji with 60 Metric Tonnes, as shown below in ***Table 11.*** The imported livestock feed was 1,661 Metric Tons, and still relies on imported livestock feeds due to no local supplier. The fertilizers imported were mainly from New Zealand with 69 Metric Tons and Australia with 27 Metric Tonnes, as shown below in ***Table 12.***

Table 11: Livestock Feeds

FEED	NZ	FIJI	TOTAL (kg)
Poultry Feeds	597,475	21,250	618,725
Pig Feeds	1,004,120	38,925	1,043,045
Others	40		40
TOTAL	**1,601,595**	**60,175**	**1,661,810**

Table 12: Fertilizer

Fertilizer	NZ	Australia	TOTAL (Kg)
NPK	36,698	20,000	**56,689**
Urea	15,000	7,000	**22,000**
Foliar-granulated	6,000	0	**6,000**
Foliar Thrive	1,500	0	**1,500**
Potting Mix	10,000	0	**10,000.00**
TOTAL (Kg)	**69,198**	**27,000**	**96,198**

Pesticides

Herbicide has topped the most pesticide chemical imported into Tonga with nearly 56 Metric Tonnes during the financial year 2024/2025, which is the normal except for the last financial year where the fungicide was the most. The insecticides came second with around 11 metric tons, and the fungicide came third with around 658 Kg. The remaining pesticides imported were molluscicides and rodenticides.

Table 13: Pesticides Chemical

Pesticides	NZ	Australia	Fiji	Others	Total (Kg)
Fungicides	658.65	0	0	0	658.65
Insecticides	2,575.56	2,198	2,198	2,198	11,367.56
Herbicides	27,068	15,000	0	13,600	55,668
Molluscicides	300	0	0	0	300
Rodenticides	132	0	0	0	132
TOTAL	**30,734.21**	**17,198**	**2,198**	**15,798**	**67,467.56**

Export Section

MAFF Quarantine Division continues assisting the Tonga's Export Facilitation with the support from our Stakeholders, Line Ministries and Regional Organizations. In addition, the Enhanced Pacific Market Access Partnership (EPMAP) Project between Tonga MAFF and New Zealand MPI continues with the funding support from the New Zealand Ministry of Foreign Affairs and Trade (MFAT). We received technical support from and funding from NZ MPI, SPC, PFR, Australia DAFF, PHAMA Plus and PACER Plus. The support includes training workshops for farmers, exporters, MAFF staff members, Line Ministries, Shipping and Airline Agencies.

Phytosanitary Certificates

A total of 32,577 Phytosanitary Certificates (PC) were issued during this financial year, mostly from the Fua'amotu International Airport with a total of 18,162, and then from Quarantine main office with a total of 13,945; and lastly from Vava'u with a total of 470 Phytosanitary certificate, as shown in ***Table 14*** below.

Table 14: Number of Phytosanitary Certificates Issued.

QSW			Phytosanitary Certificate		Total
Commercial	ePhyto	Non-Commercial	Fua'amotu Airport	Vava'u	

927	**36**	**12,982**	**18,162**	**470**	**32,577**

Root crops export

The root crops remained top of our export agricultural commodities with a total of 6,119 Metric Tonnes (MT), but the export volume increased by 1,369 MT in comparison with the last financial year. Cassava is still the main root crops exported with 3,505 MT followed by yam with 921 MT. Taro Tarua was the third with 462.8 MT, followed by Swamp with 903 MT, as shown below in ***Table 15***. Our root crops are mainly to New Zealand, followed by Australia and then the United States of America. However, the majority of the fresh yam variety Lose was exported to Australia due to the high demand and good prize from the Importers in Australia. The *"Others"* a destination in **Table** 15 is mainly the frozen root crops exported to Kiribati Islands.

Table 15: Root crops export

Root Crops-fresh/frozen	**NZ**	**Australia**	**USA**	**A/Samoa**	**Fiji**	**Others**	**Total (Kg)**
Cassava	1,65,225.1	1,477,647.2	334,879	0	0	7,993	**3,505,744.3**
Giant Taro	90,314.3	192.9	18,540	387	0	18.5	**109,452.7**
Swamp Taro	623,893.8	203,519.9	66,620	8,984.5	0	0	**903,018.2**
Taro Tarua	150,194.9	98,419	37,917	6,527.6	18.9	40	**293,018.2**
Yam	255,528.9	541,327.7	81,180	37,794.5	1,749.7	4341.5	**921,922.3**
Sweet Yam	7973.8	460.8	320		22.8	0	**8,777.4**
Sweet potato	299,125.5	45,050	21,660	10,626	0	85.2	**376,546.7**
TOTAL	**3,112,256.3**	**2,366,617.5**	**561,116**	**64,319.6**	**1,791.4**	**12,478.2**	**6,118,578.9**

Kava export

Kava export continues decreasing to nearly 125 Metric Tonnes, with the highest volume of just over 62 Metric Tonnes exported to the USA. The next was nearly 30 Metric Tonnes to New Zealand, 27 Metric Tonnes to Australia, and the rest to other countries, as shown in ***Table 16*** below.

Table 16: Kava export

Produce	**NZ**	**Australia**	**USA**	**A/Samoa**	**Samoa**	**Fiji**	**Japan**	**Others**	**Total (Kg)**
Kava Powder	29,726.6	27,286.7	59,572.5	3,832.8	9	304.9	14.5	1,005.4	**267,908.3**

Kava Chips	22	2	3,056	0	0	0	0	0.8	**1,287.9**
Total	**29,748 .60**	**27,288 .70**	**62,628. 60**	**3,832. 80**	**9**	**304.9**	**14.5**	**1,006. 20**	**124,833 .20**

Squash pumpkin export

The squash-pumpkin export continues to decline further with only one exporter and exporting to New Zealand only. There was no squash pumpkin export to Japan and Korea due to high tariff and low prize. The total amount of fresh squash pumpkin exported was only 88 Metric Tonnes, consisting of 31 MT of Buttercup squash, 22 MT of Butternut squash and 35 MT of Crown pumpkin as shown in ***Table 17*** below.

Table 17: Squash export

Commodity	**NZ (MT)**
Buttercup squash pumpkin	31
Butternut squash pumpkin	22
Crowns pumpkin	35
Total Squash	**88**

Fruit, Vegetables and plant products

The fresh watermelon export doubled this financial to 184 Metric Tonnes, as shown in ***Table 18*** below. The pigeon birds eating the watermelon seeds at the plantations remains a problem, it is costly for the farmers and the Exporters to buy more seeds and replant the watermelon again. The main watermelon export was to American Samoa with 74 Metric Tonnes, next was NZ with 65 Metric Tonnes and Samoa was 44.5 Metric Tonnes during this financial year.

The majority of frozen fruit and vegetable exported were mainly Breadfruit, Pineapple, Plantain, Papaya, taro leaves and pacific spinach or pele leaves. The majority of the frozen fruit and vegetables were exported to New Zealand, Australia and the USA.

The fresh mature coconuts were mainly exported to Australia with a total of 79.3 Metric Tonnes and only 23.9 Metric Tonnes to New Zealand. The fresh immature coconuts were mainly exported to the NZ with a total of 92.5 MT, Australia was 5.6 MT and USA 2.9 MT.

Table 18: Fruit and Vegetables export

Commodity	**NZ**	**Australia**	**USA**	**A/Samoa**	**Samoa**	**Fiji**	**Others**	**Total (MT)**
Fresh Watermelon	65	0	0	74	44.5	0	.5	**184**
Frozen leaves & Fruits	901.5	78.1	47.8	0	0	0	0.11	**563**
Vanilla Cured beans	.65	0	0	0	0	0		**0.65**
Mature Coconut	23.8	79.3	.02	0	0	0	0	**100.5**

Immature Coconut	92.5	5.6	2.9	0.02	0	.08	.04	**101.14**

A total of 196 Metric Tonnes of Tongan Handicrafts products were exported with mainly to New Zealand, and secondly to USA and thirdly to Australia as shown in ***Table 19*** below.
There was 55 Metric Tonnes of sandalwood exported to China during the 2024/2025 financial year.

Table 19: Handicraft export

Commodity	**NZ**	**Australia**	**USA**	**A/Samoa**	**Samoa**	**Fiji**	**Korea**	**Japan**	**Others**	**Total (MT)**
Handicrafts	84.8	42	52	2	1.5	8.3	0.0003	0.7	4.6	**196**

Fruit Fly Trapping Surveillance

Tonga's fruit fly trapping surveillance is maintained to ensure that there is no incursion of a new fruit fly species that will jeopardize our export industry.

The highest number of *Bactrocera xanthodes* and *Bactrocera facialis* was found in June 2025, and *Bactrocera kirki* and *Bactrocera distincta* in December 2024 and November 2024 respectively, as shown in ***Table 20*** below. The highest number of fruit fly collected from the traps depends on the weather and the abundance and availability of fruit fly host plants. The *Bactrocera xanthodes* main host fruit are papaya, breadfruit, mango, avocado and tomato. The *Bactrocera facialis* main host fruit are Pacific chestnut, Guava, Pacific lychee, Tropical almond and Capsicum fruit. The *Bactrocera kirki* main host fruit are Guava, Tropical almond, Malay apple and citrus.

There was no fruit fly found in the Tri-Med traps that were placed at Fua'amotu International Airport and Queen Salote Wharf for quarantine surveillance against this fruit fly species. Hence, that is good news for Tonga, which means there is no new fruit fly species such as Mediterranean fruit fly or Melon fruit fly.

Table 20: Tongatapu fruit fly trapping surveillance July 2024 – June 2025

Month	***B. Xanthodes***	***B. facialis***	***B. kirki***	***B. distincta***
July 2024	322	340	55	3
August 2024	30	263	65	5
September 2024	241	224	62	3
October 2024	271	245	27	4
November 2024	271	197	73	47
December 2024	336	188	101	7
January 2025	202	133	38	7

February 2025	235	151	11	43
March 2025	373	218	45	29
April 2025	334	203	22	17
May 2025	508	295	79	19
June 2025	662	377	72	12
TOTAL	**3785**	**2834**	**650**	**196**

Way forward

1. The urgent need for upgrading the Plant Quarantine Act to the Biosecurity Bill and to develop Tonga National Biosecurity Policy are still a priority for MAFF.
2. The crop pest survey for Tonga has now been supported by Australia DAFF and NZ MPI, with funding from the PACER Plus Implementation Unit (PPIU).
3. The lack of staff and the allocated posts need to be reviewed and to recruit degree holders for this Division.
4. The Enhanced Market Access Partnership (EPMAP) and the Enhanced Pacific Biosecurity Partnership (EPBP) Projects with New Zealand MPI has now got funding for a Project Coordinator to work with the Stakeholders and QQMD for 12 months. However, MAFF QQMD will need to continue holding this post for the future.
5. The ePhyto implementation in Tonga is too slow since we started with the Commercial Exporters only. The support from PHAMA PLUS and PACER PLUS continues, but we need to expand to the non-commercial exporters.
6. The new Quarantine Electronic System (QES)was developed and funded by PPIU, which will cater for our imports that is currently running manually. An interactive Quarantine Website was also developed to assist the QES and also to disseminate the Quarantine requirements online.
7. The new 40' fumigation chamber has arrived and installed at the MAFF QQMD Fumigation facility in Tonga, which was co-funded by PHAMA PLUS and PACER PLUS.
8. The Quarantine Division has received 2 incinerators donated by FAO and PACER Plus for Tongatapu and Vava'u to ensure high risk items are disposed appropriately. However, the building of the incinerator sheds are still in progress.
9. The X-ray machine has arrived Tonga, which was donated by the SAFE Pacific Project funded by EU and implemented by SPC. However, clearance is still pending due to high consumption tax.
10. The Quarantine Division is still having the same problem with the lack of vehicles to assist our work especially during the shortage of staff. The way forward is to purchase a new shuttle bus for the airport, so that the car be used by our Import Section for vessel clearance and inspection of containers.

3.5 EXTENSION &WOMEN DEVELOPMENT DIVISION

3.5.1 Output

Effective service delivery and dissemination of appropriate scientific knowledge, information and cultivars/breeds with applied technologies and systems for production and development.

3.5.2 Objectives

- To promote and enhance export of local produce through extension services and to assist farmers with their agricultural needs for income generations;
- To promote food and nutrition security and sustainable income generating activities for the rural communities;
- To collate and disseminate agricultural information and technologies to its clients throughout Tonga in an accurate, reliable and timely manner.

3.5.3 Achievements

The MAFF Extension and Women Development Division delivered a wide range of impactful programs from July 2024 to June 2025, driving community engagement, food security, and agricultural innovation across Tongatapu. The Division operates with a team of 29 permanent staff and 6 daily-paid laborers, recently strengthened by the recruitment of two Agricultural Assistants and a Driver. Staff transitions included the retirement of two long-serving Senior Technical Officers, and the promotion of Mrs. Halamehi Latu and Mrs. ‘Oketi Mailau.

From January to June 2025, total revenue of TOP $17,725 was generated from compensation claims, testimonial references, and vegetable tray sales. The peak revenue month was September with TOP $2,525, supported by strong community engagement, particularly in Kolomotu’a.
The 2024 Royal Agriculture, Fisheries, Tourism, and Trade Show was successfully held on 24 August 2024 at Tonga College ‘Atele, under the theme “The Lifeline Against Natural Disasters and Climate Change.” The Division coordinated 36 of 70 prejudge competitions and played a major role in 86 field events and 128 shed displays, of which 49% were by women, showcasing active community and institutional participation. Kolofo’ou and Kolomotu’a districts won the most first prizes across both Extension and Women’s categories.

Significant progress was made in the vanilla sector, with 784.53 kg of beans graded—741.23 kg as Grade A and 43.3 kg as Grade B. Heilala led with 466.43 kg, and TNYC with 318.1 kg, applying different pricing structures based on grade. Toupili Fifita of Vaini was the top individual contributor with 247.7 kg of Grade A beans.

The Watermelon Export Program registered over 80 growers across seven districts. Twenty-four active growers cultivating 48 acres were monitored, mainly by Ministry of Trade and Economic Development (36 acres) and Nishi Trading Limited (12 acres). Between October and December

2024, 961 field bins were harvested from 22 growers, with Solomone Fukofuka recording the highest yield at 96 bins.

Extension programs included 49 training sessions across seven districts, engaging 264 participants in topics such as crop registration, beekeeping, and mushroom cultivation. The Women's Section led community capacity-building with sewing, cooking, chicken distribution, and plant health training, including outreach to 'Eua and Ha'apai supported by JICA volunteers.

A total of 400 farm visits were conducted over 962.6 acres, focusing on land preparation, crop monitoring, disease surveillance, and assessments of neglected farmlands. Common crops included taro, cassava, yam, sweet potato, vanilla, banana, and kava.

The Women's Section distributed 3,625 trays of vegetable seedlings and 277 seed packs, reaching 1,175 households, 21 women's groups, 18 high schools, and 58 middle schools, enhancing food security and local gardening initiatives.

The Chicken Distribution Program delivered 2,670 chicks (1,110 layers and 1,560 cockerels) to over 100 households, providing access to protein sources and income-generating activities for rural communities.

A total of 48 Extension meetings and 55 Women's meetings were held with 753 and 930 participants respectively, supporting local planning, committee formation, and inter-agency collaboration.

Radio programming remained a strong outreach tool with 16 Extension and 25 Women's Development broadcasts, focusing on training updates, proper use of agro-inputs, and key event promotions. Television broadcasts complemented these efforts, enhancing public advisory services.

The World Food Day was commemorated on 20 October 2024, under the global theme "Water is Life, Water is Food," with the Women's Section facilitating broad community participation.

Finally, 30 household inspections were carried out across five districts, covering 488 households and 8 communities, ensuring compliance with agricultural standards and hygiene practices.

FAO E-Agriculture Strategy

The FAO E-Agriculture Strategy project is an ongoing initiative to integrate digital technologies into Tonga's agriculture sector. It aims to improve access to information, strengthen extension services, and enhance market connections for farmers. Key progress includes stakeholder consultations, needs assessments, and the initial drafting of a national e-agriculture framework. Ongoing collaboration with FAO ensures alignment with broader regional digital agriculture goals.

Bee Keeping On-going monitor program

During the reporting period, six honey bee keepers were monitored across Hihifo district, managing between 6 to 8 hives each. Of the six monitored beekeepers, two maintained healthy, live hives, while four experienced hive inactive and require actions. This monitoring highlights areas for targeted support to improve hive survival and productivity.

Challenges and Lessons Learned

- Limited transportation and logistics in remote areas
- Need for increased extension staff capacity
- Market access barriers for smallholder farmers
- Importance of continuous training and monitoring
- Transportation challenges delayed distribution of inputs in remote areas
- Some women groups lacked financial management skills led to additional training
- More demand than supply for seedlings and chicks
- Monitoring tools improved outcomes when used consistently

Recommendations and Way forward

- Increase budget allocation for women-led agricultural initiatives
- Provide continuous training for growers on crop management
- Strengthen market linkages for vanilla and watermelon exporters
- Establish year-round monitoring frameworks
- Provide a dedicated vehicle for the watermelon team to support field visits and monitoring

3.6 LIVESTOCK DIVISION

3.6.1 Output

Effective development and provision of technical support towards commercial livestock production and management of animal health services.

3.6.2 Objectives

- To carry out animal health services to livestock throughout Tongatapu.
- To promote food security and import substitutions.
- To enhance the performance of the livestock sector and its contribution to food and nutrition security and prosperity.
- To initiate livestock survey as baseline for livestock development only for Tongatapu island.

3.6.3 Achievements

The Livestock Division continued raising pigs and sheep for its development programs, in addition to chicks imported and/or hatched for chicken distribution program on short-term keeping. Sheep and pigs are kept for their life time, and are mated to produce young growers to be distributed/ (sold scheme) to farmers aiming to improve the genetic of their running stocks, or to new emerged farmers to start up their own pig or sheep farming.

As of June 2025, head count for sheep were **49 ewes**, **7 young/lamb sheep** and **16 rams**. The piggery housed breeding stocks of **6 sows** and **2 boars** at the end of this period.

The breeding stock of sheep has been maintained throughout this period despite the lost that are suspected to stealing. It has affected this development program especially with distribution of sheep that planned for the future. Planning is on the way to fix the street light and install surveillance camera at the farm in the very near future. The distribution program for sheep (selling scheme) was ceased for a while to increase the number of breeding stocks. Few rams were given out to sheep farmers for breeding purposes, introducing new line of breed helps avoid inbred issue in their sheep farms. Ongoing breeding program to produce good quality breeds is developing despite challenges of stolen stocks. New line of pure Australian White ram was introduced from New Zealand to the farm for the improved breed activities.

Replacement for sows were done for some passed culled sows and sows during this period were culled due health issue and aging. Average of about at least 60 growing pigs is targeted to be produced for distribution through the selling scheme and to be increasing in the coming years.

Poultry house runs **498 active layer** stock, with various purposes include assisting sources for revenue collection, provide for the increasing demand for fresh eggs in the country, gathering data and information to assist at obtain convincing advice to farmers on poultry management.

Four female cattle were mated and expected to be calving in the next reporting period. It is expected that these cattle would help with the research related program on cattle management and breeding activities. Research on ruminant feed such as silage making that involved the trials on these cattle such as exposing them to these new diets.

Pig & Sheep Selling Scheme Program

A total of **51** growing pigs were given or sold in Tongatapu to **35** recipients during this report period, of which recipients mainly were pig farmers aimed at improving the genetic in their running stock. Some of these outgoing pigs were culled young grower that sold for consumption.

There were **9** recipients of **10** distributed ram sheep in Tongatapu. Most of these sheep were given to farmers with the purpose to introduce new line of breed and avoid inbred of their current running stocks.

There were **19 training sessions** recorded that have conducted for farmers during this period, of which, 3 sessions for chicken management and 16 on Pig management and Artificial Insemination, totalled at about **526 participants** took part in either one of these training joining from all over Tongatapu.

Addition to these set of conducted trainings, ongoing one on one consultation with farmers or animal owners when they are received at the division seeking information or assistance on animal health and production related matters. There were **16** conducted on radio or TV programs were also assisted at delivering of messages and advice to farmers, in which discussion of topics selected, based on requested information and advice-seeker received at the division. Adding to these channels of information reaching out to farmers, printed leaflets with record of over **1000** copies taken by farmers and animal owner when they visit the office for advises, health cases and other means.

Chicken Distribution Program

Chicken distribution is still a high demanding program throughout the country. This program was delaying when the supplying of chicks from New Zealand was temporary banned due to Avian Influenza in bird that detected at some poultry farms. The chicks supplying under the ChinaAID program was also on hold

when the new Phase of their program started toward the end of 2024 and all the layer parent stock must be renewed.

The division were able to distribute only few hundred chicks at the first two quarter of this reporting period from the hatching chicks that managed and operated by the hatching team without the assistance of ChinaAID as they were in their transitional period from Phase VI to Phase VII. Until the last quarter of this period, ChinaAID Phase VII started hatching chicks from the parent stock of layer.

It was recorded a total of **217** recipients of about **3775** chicks in Tongatapu only, none were able to deliver to outer island however planning for the outer island is on the way for the next fiscal year. The number of chicks received per household varied depending on the compliance between farmers, extension division and livestock division. It ranges from **5** to **20** chicks per household averaging **8 layers** and **10 male** chicks per household. These distributed chicks are worth at least $20,000.00TOP considering all the expenses and works associated with hatching and raising them for 2 weeks before distributed.

There were 12,000 layers and 4000 broilers chicks were able to procure but delaying of shipping over from New Zealand due to the temporary ban of importing poultry. They are scheduled to deliver in the next fiscal year.

Artificial Insemination Program

Pig Artificial Insemination (AI) is an ongoing development program provided for pig farmers. There were no AI activities on Cattle and Sheep due to time constraint and prioritizing of other commitments. Pig AI with the assistance of ChinaAID program in providing of training and AI kits for the activities.

The semen for pig AI was extracted from the boars at the Vaini Research Station and Toloa Piggery within 3 hours the most, only when reported by farmers if needed and recipient sow had observed to be on heat. Ongoing training is conducted for pig farmers to be able to identify sows that were on heat.

Pigs AI is an all-year-round activities which recorded a total of **104** sows were able to AI'ed during this reporting period. Monitoring of successful conceived sow and farrowing to be at 70%.

Developing Programs: Feed for Livestock Trial

This program was an ongoing activity of research trial that include preparing and making of silage for ruminant animals. Small scale of silage was produced in few plastic containers of 100 liters volume; test of these feeds was observed at how cattle and sheep response to feed from them. The cattle and sheep were responding well to some particular mixes and would be using to produce silage at large scale.

Feed blocks were also produced under this program, mix and formulation were done and blocks were produced. Some of these blocks were distributed to cattle farm. The blocks would enhance efficient utilization of native pasture and improve appetite and intake of less eaten forage, hence improve productivity of cattle.

Animal Health Services

Animal Health services is an important activity provided by the division for the country. This is an essential service for pet lovers and animal keepers that are seeking for animal health related issue. The division continue to provide clinical veterinary work at the Livestock Division's clinic

FIGURE 1. FEED BLOCKS

where animals can be admitted, and the service are provided in the field for the animals that cannot be brought in to the clinic. It is also an opportunity that people are get to receive advices on animal care and practices that the owner would need to know, in addition, animal husbandry management and good practices can be taught to livestock farmers.

Summary of Animal Health services provided by the Animal Health section of the division listed:

- In clinic health checks, treatment of disease and nutritional advice to Community member's dogs and cats
- In clinic dispensing of Anti-parasitic (Ivermectin) and Antibiotics (Penicillin) for community livestock (pigs & cows)
- Extension group farm visits twice weekly (Tuesday and Thursday) to treat community livestock (mainly sick animals, pig castration and pig AI)
- On farm health and treatment services to MAFF livestock at the MAFF research farm (chickens, sheep, cows and pigs)
- Monitoring of Chinese incubator for chicken egg hatching
- Care for the incoming day-old chicks, looked after for 2-3 weeks before it distributed to community
- Community education training related to chicken care and Pig AI
- Support of SPAW (South Pacific Animal Welfare) Tokomololo visits: providing the building, advertising and staff to help SPAW deliver desexing, health checks including parvo vaccination and consultations for sick dogs and cats.

A total of **10,242** animal patients were treated through this service, consist of livestock and companion animals, about **442** of field visit were recorded during the weekly two days and emergency extension outreach services.

Division also mandated with managed and controlled of importing live animal in collaboration with Quarantine Division. We have made sure that the country is safe from exotic disease in animals, particularly concerned at disease that are present at the near countries such as African Swine Fever, Lumpy Skin Disease and others that are endangered to our livestock and food system. The division were able to coordinate and communicate with international partners and official on matters regarding the Avian Influenza that detected in Australia, New Zealand and Brazil where most of the importing poultry are imported to Tonga.

Livestock Division Partnership Program

The Livestock Division continued its partnership programs with donors, developing partners, stakeholders, farmers and communities. The main parties that are actively partners in form of assistance building staff capacity, providing services and resources are listed:

1. China AID Agro Tech Phase VI Team, provided assistance with chicken distribution program under their parent stock and hatchery program. They also assisted with Pig Artificial Insemination by providing materials for Insemination process. Under this phase, construction of new piggery at Vaini Research Farm is planned and biogas to be installed for some piggery.

2. South Pacific Animal Welfare Society (SPAWS) have provided animal health services during their four visits to Tonga in this period. They also donated some veterinary medicines for the ongoing services of the vet clinic especially health care supplies for Dogs and Cats. In additions to cases done by division, each visit they would treat and do surgery for about 200 plus of animals per trip consisting of mostly dogs and cats. They would always base at the Livestock Division clinic. Dr Geoff, head of SPAWS also assist with ordering of veterinary supplies and guiding the animal health officers on the ground from New Zealand, which had helped to better up the performance of animal health services.
3. Tonga Animal Welfare Society (TAWS) ongoing partner with the division in organizing the visit of SPAWS. They are also seeking around for opportunity of grants and resources to support the animal health services.
4. Ministry of Primary Industry (MPI) of New Zealand, under Pacific Partnership, team led by Mrs. Melaia Louise were always attending to us when we request for technical advice on biosecurity and animal health matters. Plan is ongoing for assistance to improve capacity of services for animal health and production related components.
5. Food Agriculture Organization (FAO) of the United Nation committed TCP for Livestock Policy that inception meeting was done. One TCP for Dairy Development was proposed and approved to be funded which estimated at 500,000 USD.
6. Secretariat of the Pacific Community (SPC) provide and facilitating Para-veterinary course that 28 participants were graduated in October, 2024. MPI Pacific Partnership team joined to carry out the final practices and experts in this field is assistance with tutoring and ongoing tutorial zoom session weekly. The course is run for 15 weeks with some break along the way and expected to held the summer school and final examination in September 2024.
7. Market Development Facility Phase 2 funded by DFAT, Australia shared collaboration and assistance with the Ministry on “Improving Information in Pig farming” where 5 sheds have installed, and data collection on feed and weight will be gathered for analysis.

3.7 FOREST DIVISION

3.7.1 Output

Protection and sustainable management of forests and tree resource in Tonga to maintain the products and essential ecological services provided for the benefit of the current and future generations.

3.7.2 Objectives:

- To implement the new National Forestry Policy 2009 (NFP) for sustainable management of forests and tree resource;
- To provide legal framework required for the implementation of new NFP;
- To implement and enforce the National Forestry Codes of Practice 2009 to ensure that the ecological services provided by the ‘Eua Forestry Plantation is maintained in perpetuity;

- To prepare National forestry Strategic Development Plan;
- To regulate the replanting, harvesting and export of sandalwood;
- To ensure community participation in Forestry development project;
- To legalize the establishment of valuable forests and tree resources on tax allotments;
- To protect and sustainably develop the forest areas with unique conservation values;
- To provide portable sawmill operation for milling of community woodlots;
- To improve forest management through Forestry Research.

3.7.3 Achievements

An opening stock of 207,150 seedlings from Forestry nursery was recorded with a production of 4,360 seedlings during the month of June 2024. These recorded numbers were provided from stocktaking within nursery as well as purchased seedlings from the public.

These seedlings exceeded the annual target and were recorded mainly from fruit and traditional species. This large number shown was due to the purchasing scheme of providing incentives to the public for seedlings or seeds that is provided to Forestry division in order to care, germinate, grow and plant/collect revenue from. This purchasing scheme not only assists with providing income for some families, but also provides forestry team the assistance that is needed in regards to collection of different species for nurseries in order to not only meet the demands of the buyers but to also provide seedlings that is enough for the continuous one million tree planting initiative that is currently on-going within the Ministry.

With these seedlings provided, a large amount of time and effort was put into ensuring seeds were sown and seedlings were transplanted into the planter bags. Soil required timeless manpower to be mixed and potted as well as transferring of these planter bags into the nurseries.

Although a large quantity was recorded, there were also many faults and fall backs that had occurred during the nursing of these seedlings which resulted in a very high mortality rate, many of which was due to handling errors, low capacity and uncontrollable measures.

Although, 20% of mortality was taken from seeds bought, there was a clear low viability of seeds when potted. Pests and diseases were clearly shown during the very dry months of the last 6 months of 2024 in which affected the seedling's growth. Having also a large problem with Forestry's pump for the sprinklers, lack of irrigation was also a main concern. Finally, Seeds that were sown and transferred to the planter bags also experienced "shock" which also highly contributed to the high mortality rate of the seeds that were purchased, sown and transferred in the nurseries. Collection of seeds from public and fruits take time to dry and preparation of soil to sow seeds require more manpower.

By Jan 2025, Forestry team had restocked the nursery, ensuring that each pot was counted and a team was sent out to ensure no duplications and correct stocktaking was taken place, as to avoid the high numbers which may have been due to miscounting. A lower mortality rate was recorded from the nurseries as compared to July-Dec 2024. This data collected will now be used for future stocktaking requirements.

This opening stock was 31,943 seedlings from Forestry nursery and was recorded with a production of 13,576 seedlings by June 2025. This actual stocktaking number is now being used to provide opening stock from Jan-June 2025 to ensure the correct figures and data is continuously recorded. A lot of improvement in management was noticed during this last six months of 2025 and shows through the stocking of seedlings within the Nurseries. Closer work and management was taken into considerations after the high mortality rate that was experienced during the months of July to December 2024 and actual stocktaking of the nurseries are on-going.

Table 3.7.1 Seedling Movement as of June 2025

Species Classification	Opening Stock	Production	Sub-Total	Sales	Research/ Demo	Other/ Distribution	Mortality/Low Seed Viability	Sub-total	Closing Stock
Timber	4,394	0	4,394	26	1,011	700	1,106	2843	1,551
Handicraft	1,250	0	1,250	4	50	82	4	140	1,110
Cultural	5,503	1600	7,103	327	0	682	138	1147	5,956
Ornamental	3,887	800	4,687	427	0	319	31	777	3,910
Medicinal	262	1440	1,702	54	0	192	68	314	1,388
Coastal	2,626	0	2,626	63	0	68	59	190	2,436
Sandalwood	2,271	5100	7,371	1,129	0	199	1036	2364	5,007
Kava	10	0	10	0	0	0	10	10	0
Fruit trees	11,740	4,636	16,376	630	1,390	1,309	316	3645	12,731
TOTAL	31,943	13,576	45,519	2,660	2,451	3,551	2,768	11,430	34,089

As shown in the above table, there were various factors that contributed to the mortality rate from the seedlings and seeds that were purchased from the public, especially from the fruit seedlings. These factors include handling errors, lack of nutrition, selection of seedlings and seeds provided to Forestry Area as well as storage.

As mentioned above, counting errors and estimation of the seedlings within the nursery also played a large factor in stocktaking and figures that are recorded and reported were found to be not as accurate. Pests and diseases continue to bring about large problems within the nursery as well as space that are available within the nursery beds, to hold all the seedlings and planter bags that are brought inside the nursery. Capacity building for nursery maintainance is also a factor that we had seen that contributed to the poor maintainance of hired employees and staff. A concern which we now see is required to train and provide as much knowledge and skills to up the quality of work that is carried out within our nursery compounds. This includes skills in salons to harden off seedlings, Proper stocktaking methods to produce more accurate data, Provide proper work equiptment and tools, changing of soil within planter bags and understanding the timing of transplanting, transferring and collecting of seeds/seedlings. Another major factor is the unknown mother plant in which these seedlings are being collected from, which also includes the maturity of seeds when provided to Forestry Division. Once it is sown into beds, there is a close monitored time in which some seeds germinate while a high a percentage does not. Transplanting from bed to planter bags is also a human error in where many plants are taken from the bed, but not enough planter bags are available, and these are discarded.

Seedling Production

Delivered below is the production of Fruit trees from January-June 2025. Highest production is Tava, followed by breadfruit. Fruit tree production has increased exponentially due to the high quantity demand for plant distribution during the tree planting field days as well as the purchasing of seeds from public during fruiting seasons. Table 6.7 shows further details on the fruit tree variety movement within the nursery. Table 6.8 tabulates the six-month accomplishment of the annual target productions. As shown below, during Jan-Jun 2025, fruit trees exceeded the quarterly target while some species did not meet the target at all. This is largely due to events and other commitments and activities carried out within Forestry and lack of transportation available for collecting of seedlings. Most seedlings were purchased from public and some factors that cause the lack of meeting target is also due low incentive to public in exchange for seeds as well as lack of manpower to undergo the collection of seeds.

Table 3.7.2 Fruit Seedling Movement

Seedlings	Opening stock	New productions	Sub-total	Sales	Research	Other/Distribute	Mortality	Sub-total	Closing stock
Mei	26	2,500	2526	261	88	62	0	411	2115
Moli	254	0	254	2	50	164	0	216	38
Dragonfruit	155	600	755	18	595	61	0	674	81
Tava	2,390	3,000	5390	105	0	289	39	433	4957
Apele	2,024	0	2024	33	21	60	130	244	1780
Avoka	388	2,426	2814	55	233	27	147	462	2352
Mango	619	0	619	12	120	24	0	156	463
Ifi	201	0	201	3	0	0	0	3	198
Vi	668	0	668	42	0	160	0	202	466
Kola	4,904	0	4904	48	230	94	0	372	4532
Others	2,133	0	2133	51	53	368	0	472	1661
Total	13,762	8,526	22,288	630	1,390	1,309	316	3,645	18,643

Table 3.7.3 Annual Targets for FY 24-25

Species Classification	Annual targets	Quarterly targets	Achieved	% Accomplishment Jan-Jun 2025
Timber spp	33,333	8,333	0	0%
Coastal spp			0	0%
TOTAL			**0**	**0%**
Handicraft	**33,333**	8,333	0	0%
Cultural spp			1,600	19.20%
Ornamental spp			800	9.60%
Medicinal plants			1,440	17.28%
TOTAL			**3,840**	**46.08%**
Sandalwood	33,333	8,333	5,100	**61.20%**
Kava	33,333	8,333	0	**0%**
Fruit trees	33,333	8,333	8,526	**102.32%**
Coconut seedlings	33,333	8,333	5,663	**67.96%**
TOTAL	**199,998**	**49,998**	**26,169**	**52.34%**

Coconut Production

Coconut seedlings were collected and propagated for the purpose of distributing for free under the continuous coconut scheme for Farmers. During this financial year, coconut seedlings that were collected focused mainly on the different varieties especially targeting our local coconut seedlings to propagate and continue distribution to parts of the main island of Tongatapu. Varieties were collected from different parts of Tongatapu by the staff as well as purchasing from the public as an incentive to farmers. Propagation of these seedlings is carried out in the coconut nursery. Table 6.7 below shows the number and different variety of seedlings collected. Provided below in Table 6.8, majority of registered farmers are from the Hahake district and a total of 6,957 coconut seedlings were distributed throughout July 2024-June 2025.

Table 3.7.4 Coconut Varieties collected Jan-June 2025

Variety	Quantity Collected and Propagated
Niu Faito'o	11
Niu Ha'amoa	8
Niu Kafa	8
Niu Leka	46
Niu Loholohotaha	21
Niu Malei	12
Niu Taukave	24
Niu Utongau	297
Niu Vai	10
Niu Matafaa	2
Local Niu	5,224
TOTAL	5,663

Table 3.7.5 Coconut Seedlings Distributed to registered farmers from each district in Tongatapu

	Hahake	Hihifo	Vahe Loto	Vahe Kolo	Total
Number of registered farmers	37	9	15	3	64
Number of seedlings	3,138	1,230	2,493	96	6,957

Sinai and Orchid Production

Floriculture Ornamental plants have shown a large interest, especially for women, and are the highest most requested plants from the public. Forestry division continues to make a large effort into floriculture to meet the high demands from the public especially for the orchids.

As shown in table 6.11 below, the floricultural section continues to propagate new seedlings from the current Mother plants. A total of 46 new plants were produced and although the mortality rate is still there, there shows to be a great improvement as compared to previous mortality rate recorded. A total of 633 ornamental plants remain. More orchids are being ordered from this financial year's budget and the details of these are shown in ANNEX 3. Details on current floriculture stock are shown below.

Table 3.7.6 Floriculture Movement

FLORICULTURE STOCKTAKE/MOVEMENT							
Species Classification	Opening Stock	Production	Sub-Total	Distributed	Mortality	Sub-Total	Closing Stock (Actual field count)
Anthuriums	195	28	223	0	5	5	218
Guzmania	86	8	94	0	1	1	93
Orchids	313	10	323	0	1	1	322
TOTAL	594	46	640	0	7	7	633

Mahogany Boundary Planting

Mahogany planting was carried out during the month of January to replace the Pine trees that were utilized to construct the new building. Mahogany trees are known to be a type of tropical hardwood and are well known for its reddish-brown colour and durability. It's highly valued for furniture making, construction, and other woodworking projects.Around 34 new mahogany plants were added to the already 118 mahogany plants that were planted around December 2024. This allows the continuous sustainable practices carried out by Forestry Division. During the month of June 2025, an extra 122 Mahogany seedlings were planted along the far end as boundary fencing for Forestry Compound as well as for harvesting when required in the near future.

Forest Research, Conservation and Extension Activities

Forest Extension Services

Forestry Tree planting Activities

As part of Tonga's National Determined Contribution under the Paris agreement, one million trees have been targeted to be planted around Tonga for the next three years. "MAFF Field Day" was established and started on the 26th of January 2023 after the opening of the "National Tree planting day" in December 2022 and is currently on-going. So far, a total of 14,162 trees have been planted by MAFF from the years 2022 (Dec) – 2025 (Jun) with about 1,729 seedlings planted during Jan-June 2025. Monitoring and Evaluation plans are on-going.

There have also been people who have registered for the planting program, where many of these registered households have individually picked up plants from Tokomololo Nursery Free of Charge under the one million tree planting initiative. A total of 9,520 plants have been distributed for free.

Summarized below is the number of trees planted and plants distributed to individuals within its respected dates and location of these planted trees in Table 6.10

Table 3.7.7 Seedlings planted by MAFF and distributed FOC July-Dec 2024

	TREES PLANTED BY MAFF JUL 2024-JUN 2025						
Area planted	**Fruit Trees**	**Traditional/ Ornamental**	**Coastal**	**Cash Crops**	**Timber**	**Niu**	**Total**
Schools	2,472	861	50	2,177	813	203	6,576
Coastal Area	5	9	1,564	0	0	50	1,628
Api Kolo	329	50	24	375	0	0	778
Tax Allotment	948	35	50	300	1,473	472	3,278
Kautaha	65	65	20	0	0	0	150
Community Land	792	142	260	240	70	60	1,564
Palace Grounds	72	66	0	50	0	0	188
TOTAL	**4,683**	**1,209**	**1,968**	**3,142**	**2,356**	**785**	**14,162**
	DISTRIBUTED TO INDIVIDUALS JULY 2024- JUN 2025						
Total Distributed	**3,153**	**1,466**	**378**	**2,127**	**1,131**	**1,265**	**9,520**
OVERALL TOTAL	**7,836 (294 Grafted)**	**2,694**	**2,346**	**5,269**	**3,487**	**2,050**	**23,682**
TOTAL VALUE (IN-KIND TOP$$)	**$37,710.00**	**$8,082.00**	**$4,692.00**	**$15,807**	**$3,487.00**	**FOC**	**$69,778**

Forestry Dragon Fruit Demo Plot has shown promising fruiting during the months of July 2024-June 2025. With a lot of sunshine during the past dry months, Dragon Fruit Plots have been Fruiting and cuttings have been collected. With a purpose for sourcing of planting materials for propagating more dragonfruit seedlings and research purposes, the Dragon Fruit Plots have been Fruiting and cuttings have been collected accordingly.

Continuous Maintainance of Dragon Fruit Plots are carried out, where pruning and composting of these plants are performed. Over 100 Dragon Fruits have been harvested and each dragon fruit plant has shown to fruit at least twice within the months of January-June, developing at least 5-8 Dragon Fruits per plant. At least 500 cuttings are collected and intercropping with Taro is the usual practice. There is still on-going research plans for this species and will continue to be undertaken and implemented under Forestry plans.

A new Open Dragon Fruit Nursery has also been established with 595 dragon fruit stands in plastic pots to nurse these seedlings until it is ready to be purchased and replanted for the public. Having this open Dragon Fruit “Nursery” allows the Dragon fruits to grow to its full potential under sunlight as well as to produce more yield or higher quantity and better quality of Dragon Fruits. These Dragon Fruits are harvested and distributed to various stakeholders, visitors, CEO’s, Ministers for the purpose of promoting the Dragon Fruit Plant and encourage individuals to grow their own Dragon fruits. The new established dragon fruit nursery is set up in a way which is fit for planting out in the field or for selling and distributing.

Koko Plot

Cocoa is known to be one of the cash crops exported as dry beans here in Tonga. A large number of smallholder farmers, including a significant number of women, are involved in cocoa production, from growing and harvesting to processing.

"In 2023, Tonga exported $73.2k of Cocoa & cocoa preparations, making it the 158th largest exporter of Cocoa & cocoa preparations (out of 205) in the world." The Observatory of Economic Complexity.

During the month of January, a Cocoa plot was established within the Forestry Compound. These Cocoa seedlings were collected and raised in the Nurseries until it was time to plant. A total of 64 Cocoa seedlings were planted for the purpose of propagating, establishing a plot where employees are able to collect and continue propagation from this particular site. Cocoa remains one of the many cash crops that will be looked into and looked after by the Forestry division. This plot also plays a significant role in demonstrating areas where Agro-forestry is practiced. Cocoa seeds are collected from certain areas around Tongatapu, Vava'u and 'Eua, cleaned and propagated and maintained within the Forestry nursery compounds.

Grafted Fruit Trees form Australia

Grafted Citrus Trees are imported from Australia for the purpose of establishing plots within different MAFF stations as well as to select on-farm plots for collection of planting materials to propagate and distribute to local communities. This will be in hopes for better production, more varieties and improvement on supply to the demand of the public.

Different varieties of these grafted fruit trees are ordered from Fitzroy Company, procured and provided to Forestry Division to ensure proper maintaince, care and propagation is carried out when required. Another 2,200 grafted seedlings was cargoed to Tongatapu during the month of May and cared for in the forestry division's nursery. Plants are distributed upon request of the CEO, HOD as well as the Minster.

There has been a high mortality rate of these grafted fruit trees due to man-handling errors such as potting these grafted trees once it had arrived and not providing enough water, sending these seedlings into shock as well as the nursery or area it was in, not having the right amount of shade for these grafted seedlings also caused a lack of survival. Although these mortality rates have occurred, the Forestry team has learnt from this and has implemented possible solutions for this problem and continuous maintaince and care is provided to these important seedlings and of our own rootstock is also being carried out. A new established plot of grafted trees were planted within the Forestry Compound and intercropped with Taro and Sweet Potato.

Details of the new grafted seedlings that were imported into Tonga and cared for at Forestry Compound are shown in ANNEX 2 below. Table 6.13 summarizes the seedlings imported and stocked within our Nursery at Tokomololo, Forestry Division.

Table 3.7.8 Arrival and stock take of Grafted Fruit Trees

Arrival of Grafted Trees to Tonga	**Variety**	**Quantity**	**Distribution Name**	**Quantity**
8th May 2024	Mandarin (4 varieties)	800 seedlings	Sione Tapu	138 seedlings
	Lime	200 seedlings	Forestry Compound	120 seedlings
	Citrus (2 varieties)	400 seedlings	Lord Ma'afu's compound	40 seedlings
	Kumquat	200 seedlings	Distributed (Vava'u-Ovaka)	19 seedlings
			Saia Pekipaki	108 seedlings
Total		**1,600 seedlings**	**425 Planted, 705 in stock, 470 mortality**	
28th May 2025	Mandarin (2 varieties)	200 seedlings		
	Lime	100 seedlings		
	Tangelo Citrus	500 seedlings		
	Kumquat	100 seedlings		
	Mango (6 varieties)	750 seedlings		
	Avocado (4 varieties)	200 seedlings		
	Lychee	200 seedlings		
	Mangtosteen	50 seedlings		
	Durian	50 seedlings		
	Miracle Fruit	50 seedlings		
Total		**2,200 seedlings**	**Not distributed/Planted yet**	

Established Grafted Fruit Tree Demo Plots

Planting at Forestry Compound

During the past 6 months, Forestry had established a Citrus Fruit Tree Block within their compound as a means of Demonstration and Collection purposes for further grafting and marcotting practices. This plot contains 120 seedlings of each Variety that was provided during first shipment in May 2024 and is integrated together with Taro and Sweet Potato Crops. This is used as a small agroforestry demo plot, where Mahogany seedlings are also planted as a boundary within this citrus fruit tree plot. Continuous maintainance and composting is carried out to ensure good growth and qualities of fruits are results from these seedlings in the near future. All seedlings are in a healthy condition.

Planting at ‘Utulau

Forestry Team established a demo plot located at ‘Utulau at Sione Tapu’s Farm. Sione practices Agro-forestry System in where he grows various fruit trees integrated together with his crops as well as owning one of the free-range chicken farms, including pig pens. Forestry team assists with this demo plot by continuously monitoring and provides technical assistance to Sione and his team when required. This demo plot was also part of the field trips during the Pacific Week of Agriculture held here in Tonga to introduce and showcase one of the very few tax allotments here in Tonga who practice Agro-Forestry. There were a total of 138 grafted seedlings planted by Forestry and Sione Tapu’s team within his allotment. This demonstration plot will allow collection of fruits, rootstock as well as utilization of the area as potential site visitations from organizations who wish to visit Agro-forestry areas located in Tonga.

Sione Tapu’s farmland is one of the first demo plots established and has shown promising results since it was established in February 2025.

Planting at Motunuku Island

Another demo plot was established in June 2025 at Folaha village, Motunuku Island. This area is looked after by Mr. Saia Pekipaki. Saia has been included in many other projects with Growth Fed for the purpose of establishing, growing and caring for pawpaw fruit. With the Vision of establishing also, a botanical garden, he has managed to plant various traditional plants, fruit seedlings and crops on his land. Recently, like Sione Tapu, Mr. Pekipaki also had an agreement with Forestry Division to also establish a demo plot with grafted fruit trees from Australia. During the month of June, Forestry Division had a field day to establish a citrus grafted fruit plot at Nuku Island. This plot was composed of 4 different mandarin varieties and 2 Citrus varieties. 108 grafted fruit trees were planted in this area with a measurement of 5.5mx5m apart. This grafted fruit trees were planted, also for the purpose of a demonstration for other farmers to see and hopefully practice. Within the grafted trees, there is an integration of pawpaw plants, sweet potato and coconut palms. It was upon agreement that this plot will also be utilized by the Ministry for further purposes such as seedling, cuttings and demonstration requirements. The agreement was made between Mr. Saia Pekipaki and Head of Forestry, Mr. Heimuli Likiafu. The plot will continually be monitored and technical advice will also be provided as needed and required.

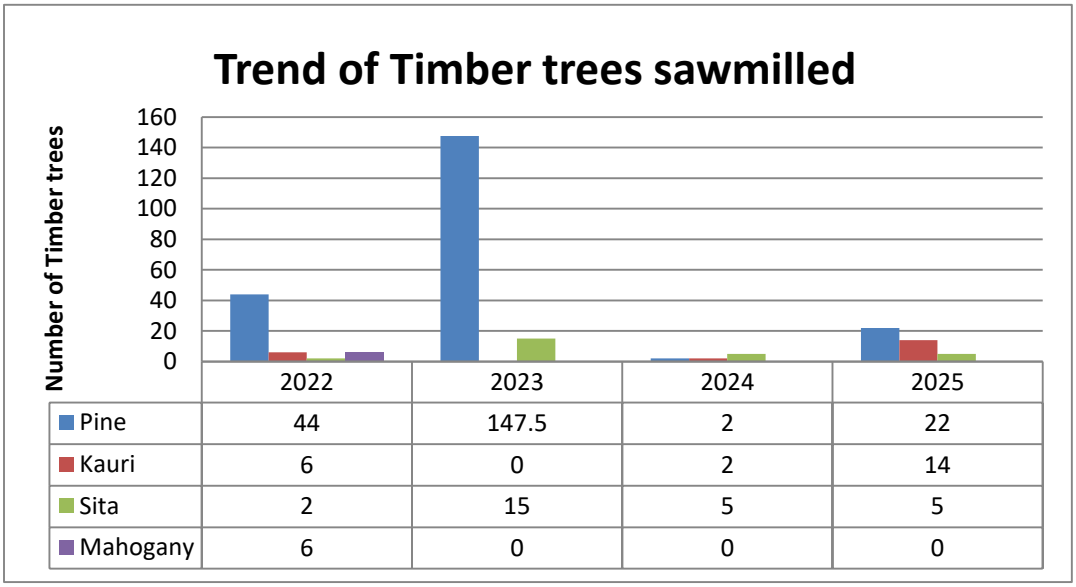
Sawmilling continues to be one of the many services under the Forestry Division provided to assist the farmers and communities whom wish to make use of their timber trees that are harvested. Logs are brought in from respective individuals who wish to mill their tree logs to provide timber for their individual needs. This ensures a more sustainable way of using their natural resources, as well as to provide cheaper means for timber as compared to buying timber from the hardware shops. Sawmilling services

are charged by the diameter of the trees that are brought in. Collection of payments are provided and paid in for revenue collection. As shown in Table 6.13 below, this shows the number of timber trees that was sawmilled from Jan-June 2025. Figure 6.14 shows the Trend throughout the years of timber trees being sawmilled by Forestry Team. As shown below, from the years 2022-2023, more timber trees were sawmilled as most of the work that was carried out was not charged or charged at a lower amount. Most of these charges went to the maintainance and fuel for the sawmill, while coming up to the year 2024-2025, charges were paid into for Forestry revenue. The requirement costs for purchasing of sawmill equiptment for maintainance of sawmill is very high and Forestry continues to face this large problem in trying to purchase parts to ensure sawmilling is running smoothly, safety of the staff is considered as well as to continue assisting the people of Tonga to provide better and more affordable services for them.

Table 3.7.8 Timber sawmill information for Jan-June 2025

Name of Log Owner	Village	Type of timber tree	Number of Logs
Aotearoa Forest Production Ltd	Tokomololo	Pine	6
Vakasiuola Tonga	Veitongo	Kauri	14
Lalie	Tokomololo	Cedar	5
Ministry of Health	Tofoa	Pine	16

Figure 3.7.1 Trend of Timber trees sawmilled



Forestry Development with Partner Organizations

(i) SPC TRAINING ON Q-GIS, KOBO and DRONE

During the month of July, Forestry Division underwent various trainings in preparation of their National Forest Inventory, building capacity on knowledge & skills and tackling invasive species.

a) The first training conducted was capacity building using open-source tools where participants learnt areas of QGIS, KOBO Toolbox and Drones. Five participants from Forestry Division were part of this training which was run by the SPC team (GEM and LRD division) from Suva Fiji. This workshop was held on the 8th -11th July 2024. From this workshop, Forestry team was able to create forms for stocktaking when required as well as a form to utilize during tree planting and registration for coconut farmers. There is however, still a need to train other staff members to utilize this open-source toolbox which will assist with any report requirements and data collection. Plans to assist staff and continue implementation of this training is still on-going. Challenges however, such as teaching technology for older staff may require more time in order to produce habits with working on new technology.

(ii) Follow up on Open-Source Toolbox (SPC)

The second training was also facilitated by SPC team as a follow up to QGIS training as well as using of equipment such as clinometer; diameter tapes and field work out at Toloa College Rainforest. This Training used these open-source tools where each participant from Forestry Division created their own forms with Q-Field that related to their work as well as forms for the National Forestry Inventory and Invasive Plant Mapping using Q Field. This training took place on the 15th -19th of July 2024. Impacts and implementations included creating a form to map out invasive species in certain areas as well as to map out points for trees that have been planted during MAFF Field day.

(iii) GGGI & In-Line Government Ministries

Further training with GGGI and Forestry Division together with GIS Expert Mrs. Halalilika 'Etika from Land Division of MLDNR attended a one day zoom meeting on how data would be collected and seen from Satellites in which Forestry was provided a great opportunity to be involved and allowed access to create a QVX account which allows Forestry Staff to utilize this platform in navigating and using Q-Portal to map and save data collection which will provide a better and more accurate position and records/imagery for the upcoming National Forest Inventory.

There is however, still a need for further training in order to fully understand this new software and how it can be utilized within forestry division for satellite imagery on forest canopies and the different stratifications when mapping out areas, forests, plantations etc. There is still a lot of capacity building that needs to be carried out for more impact and implementation for from Forestry team.

(iv) MORDI TONGA Grafted Fruit Tree Training

The last training for July was facilitated by MORDI. This training involved 4 of Forestry Staff. This training focused on citrus growing in Tonga, mainly grafted citrus from Australia. Participants further increased their knowledge on grafting techniques, how Citrus is managed and grown in Tonga as well as what Citrus resulted in better yield and a more successful outcome (what grew best in Tonga) from when these Citrus was first imported and grown in Tongatapu). On-going lessons learnt from these trainings and constant reminder on the importance of management impacted the team most during this training.

Grafted Fruit Tree Training, Pruning and Marcotting

(i) Forestry In House Training - Tongatapu

Forestry Division has had various trainings conducted with partnering organizations such as SPC and other in line Ministries for capacity building in many different areas with the purpose that established staff may gain greater knowledge on different information that may be required to be utilized during their day to day work. In order for Forestry staff to continue the quality of technical assistance services to the public, head of Forestry division had conducted a two part training program for all un-established as well as established staff in order to continue capacity building for both knowledge and technical skills that will continuously be utilized during Forestry's day to day operations. This training focused on Prunning fruit trees and 'Ahi. This of course is a continuous training from the previous grafting and marcotting training program that was conducted last year. Continuing this basic course training allowed staff to refresh their memory on pruning techniques as well as providing more technical knowledge for un-established and newly trained staff that may not be as aware or may not have knowledge on these proper techniques of pruning trees. Implementation of this training was during the month of February.

After training the trainers (Forestry Staff) for Grafting and Marcotting (by Spencer Hefa) as well as prunning (by Heimuli Likiafu), staff were then required to carry out and conduct the same trainings to the outer islands. This was to show how the trainings had impacted the staff that was trained and how it is implemented by sharing and carrying out similar trainings to the outer islands to continue the capacity building within our Ministry before this technical knowledge and practices are carried out and provided to the public.

The first part of the training by three established staff was conducted on the Island of Ha'apai. Training for Marcotting, Grafting and Prunning of their Citrus plot was carried out during the month of March while training on Vava'u was conducted during the month of May.

(ii) Ha'apai & Vava'u Training

Ha'apai and Vava'u training was conducted for all employees within the two island stations. Continuing the same training techniques, these trainings were carried out successfully and all staff participated with great eagerness and was all involved.

The Citrus Fruit plot that was established around the year 2020 in Ha'apai was fruiting heavily and showed promising signs of continuous fruiting and was in a very healthy state. It was found however that there were occurrences of fruits splitting with the honey marcotting variety as well as some diseases on these citrus trees that may need to be continuously monitored and evaluated. Splitting of fruits also

require the continuous research on reasons as to why this may be occurring on this particular variety of citrus.

There is also a good chance for rootstock to be provided from Ha'apai as it has shown promising success during previous grafting conducted by the staff in Ha'apai. Vaipoa station also requires Phase 3 efforts to restore the pump and irrigation system around the compound as well as to finish the office area in order for forestry staff to utilize completely.

During the Training in Vava'u, Citrus blocks that were established, unfortunately were not well managed and most fruit trees did not survive due to the poor management and monitoring after they were planted. Citrus around Vava'u MAFF compound showed growth but required a lot of prunning. Majority of plants that survived and grew were the Tahitian Lime trees. These require extra manpower to prune and manage well. Clearing of invasive vines on these citrus plants were conducted and prunning of 'Ahi was undertaken.

Equiptment for continuous prunning and grafting is requested from both Islands and highly required to continue the large workload that is needed on the citrus fruit plot on both islands.

Ha'apai 'Ahi Harvesting

Part of Forestry Division's activities is to manage, monitor, evaluate and register 'Ahi or Sandalwood that is being planted around Tongatapu and the outer islands. 'Ahi is planted as a means of economic development and financial stability in the future for the people of Tonga. Known for its valuable oil that is excreted from the 'Ahi plant, it is of high value in the International Markets.

Many of our Tongan people have planted 'Ahi in the hopes to one day harvest and earn income from these plants. These cash crop trees are planted, require large amount of time and effort to ensure they grow larger by trunk size, which is where the oil is obtained from.

Yasiyasi, being one of the highest value species when harvested and Indian 'Ahi or Santalum album are two of the main varieties being planted in Tonga. MAFF compounds also plant 'Ahi for the purpose of seed collections and a demo area in where harvesting of the 'Ahi and managing of the 'Ahi are demonstrated for the public to be aware on its value, how to maintain them and how to harvest to produce an income for the growers.

During the month of April, the Head of Division for Forestry, Tonga and two officers travelled to Ha'apai to harvest the 'Ahi that was planted around Vaipoa station. These 'Ahi were successfully harvested together with the help of the Ha'apai staff and brought back to Tonga to be weighed and sold to the buyers who have a set international buyer.

Towards the end of April (28th April – 2nd May 2025), 32 'Ahi trees were harvested and there is still work in progress for the 'Ahi to be peeled before it is taken for weighing.

Forestry Assistance with Partnering Organizations

(i) Students and Forestry

Forestry Division works together with other stakeholders in regards to capacity building and technical assistance. Such an example is the assistance provided to schools when excursion is requested.

Tupou College Toloa students were able to attend Forestry Division for part of their school curriculum, focusing on the nursery maintainance, seedling productions and management. A total of 20 students visited Forestry compound in the hopes to increase their knowledge on how to run a nursery to assist with their goals and aim to start up their own Nursery.

With the assistance to high school students, Tertiary students are also assisted by Forestry Division through the annual student program by Tonga Institute of Higher Education, or are known now as Tonga National University.

Tertiary students are assigned and attached accordingly to each division within the Ministry for three weeks and are expected to learn and gain skills while being with the divisions.

During Jan-June 2025, we have had 6 practical students assigned to Forestry and within their three weeks of practical work, Forestry team were able to provide various trainings. These trainings include;

1. Coconut replantation programs, allowing them to learn the right measurements for planting depending on tax allotment size

2. Tree planting- focusing on grafted fruit plots for demo purposes

3. Seed Collection, extraction and cleaning

4. Grafting, Budding and Marcotting practices

5. Boundary fencing/planting using Timber species

6. Nursery Maintaince and Management

- Soil sieving, transplanting and potting of germinated seedlings, Nursery Maintainance, Cuttings from Dragonfruit Plots

Forestry continues to provide assistance to partnering organizations upon request.

(ii) Asco Motors

Organizations are also involved with Forestry by requesting technical advice. Asco Motors has been one of forestry's close working organizations being involved with Tree planting in order to decrease or exchange their contribute to the gas emissions being released by the motor vehicles that are being sold to the people.

Having said this, ASCO Motors purchases seedlings from Forestry and also provides funds to assist with our tree planting requirements and seedling production within our Nurseries.

Forestry Project

National Forest Inventory (Part 1)

During the Month of September, a group of 10 people from MAFF travelled to India for capacity training for the National Forest Inventory for Tonga. 2 staff from Extension, 1 from GIS and 7 from Forestry Division. This training was held in the Forest Survey of India Campus and was funded by FAO. Staff of FSI and the Government of India assisted the team with capacity building skills both in the classroom as well as technical skills and knowledge out in the field.

This mission's objective was to learn technologies related to National Forest Inventory, Forest Cover mapping and Climate change at Forest Survey of India, during the 2nd – 6th of September, in Dehradun, India. This Mission would allow the exchange of ideas on NFI in India and Tonga as well as more exposure to how a NFI works abroad and learn more depth into how analysis in India is carried out. Staff were allowed to see how NFI is involved in Climate Change and how Tonga can carry out a method that best suits their Forest Coverage to successfully implement or carry out their own National Forest Inventory.

The training took place for four days and the team successfully carried out field work and were fully exposed to the proper way of how a Forest Inventory is carried out and is ready to take on the challenge in Tonga. Team grasped as much as they could during this short yet very informative and important few days and an agreement between Tonga and India was made for Forest Survey of India team to also travel to Tonga for further trainings once the Forest Inventory begins.

BTO report has been submitted as well as financial acquittal and report on Project has been carried out.

National Forest Inventory (Part 2)

The National Forest Inventory is still an on-going project that is currently being carried out within Forestry Division. This project started its first phase during the year 2024, where forestry team and in-line government ministries, NGO's (GGGI and FAO) had looked into building the capacity of the Forestry staff. This first phase consisted of training out in the field, mapping out points within forest area around Tongatapu .This also allowed the forestry team to look into what methods worked best for Tonga depending on Forest areas so baseline data of forestry coverage will be as accurate as possible. This will also assist in decision making regarding our Forests as well as update the current acts for Forestry.

During this project, Forestry had assistance from both Global Green Institute (GGGI) and Food and Agriculture Organization (FAO) of the United Nations. There was also assistance provided from SPC focusing on capacity building with Open Tool box software such as QGIS.

Forestry team, together with GIS officer and MAFF extension officers also travelled to India during the first phase to see first-hand how Forest Inventories are carried out and possible methodologies that may

also work in Tonga. This was funded by FAO, while GGGI funded an expert to travel to Tonga and provide capacity building in coding of Forest Tree Species and using database software.

Forest Inventories produce vital information about Forest coverage. It is one of the important requirements for Forestry Division as this will assist us in having an idea of what type of forest areas exist here in Tonga, the different types of Forest coverage in Tonga, as well as finding information on the ecosystems, Native Trees present, biodiversity as well as the carbon stock for future reference.

Forestry will continue to work towards the implementation and concluding this Forestry Inventory in the near future.

During the month of July 2024, Forestry Division underwent various trainings in preparation of their National Forest Inventory, building capacity on knowledge & skills and tackling invasive species.

These trainings included QGIS which was the first phase of looking into Invasive species project with SPC. This included mapping of areas and conducting mapping of invasive species, finding methodologies for National Forest Inventory that works with Tonga, and these were conducted within Toloa and ‘Atele Forest Areas.

Phase two of this Invasive species project is now currently on-going for Tonga as well as for Fiji. This second phase is funded by UNCCD (Korea Forests) and implemented through SPC in partnership with Tonga Government, Ministry of Agriculture, Food and Forests, Forestry Division.

This project focuses on Forest Invasive species, mainly on millemia as well as Cordia which is currently one of the main concerns for Forestry areas and is very aggressive, causing many of the native species to be covered and killed by Cordia.

This project allows Forestry and SPC to map out possible sites of Cordia in Tongatapu, Vava’u as well as ‘Eua to provide locations of possible spread. From there, mapping will be conducted and possible management, or if possible, eradication will take place. There is not only the purpose of eradicating all of the Cordia, but studies will also be conducted for possible uses of these invasive species. This includes possible uses for charcoal, livestock feed and carving.

So far, Forestry team as well as SPC team have travelled out to Vava’u and ‘Eua Island during the month of June to carry out plotting of Cordia species on both respective islands to map out possible infected areas and possibly find areas where Cordia is spread out to. A television Broadcasting program was also released so that public may also be aware of the work conducted by MAFF and SPC as well as an Inception workshop for this project which involved Head of Divisions, in-line partnering Government Ministries and representatives from Toloa and ‘Atele College. SPC will continue to work with Forestry on this important project which is contracted for two years.

Forestry/ MAFF Events

International Coconut Day 2024

On September 2024, Forestry Division ensured that the marking of International Coconut Day was celebrated. Due to the lack of funds to celebrate International Coconut Day for 2024, the team from Forestry decided on marking the day by planting 86 ‘Utongau coconut seedlings on Kauvai, where another one of His Majesty’s tax allotment is located. The team managed to ensure spacing and area

was prepared with a spacing of 10mx20m for the purpose of intercropping within these coconut plots before planting the ‘Utongau seedlings.

With a population requiring more than 50 coconut seedlings/trees to be considered to be able to be pure trait, this area that was planted is marked as a demonstration plot to ensure the ‘Utongau Coconut Variety is kept conserved to produce more and maintained well.

There are continuous and future plans (upon request) to provide more coconut seedlings within this area.

TV Programs

At least 5 TV programs and 1 radio program was conducted during the months of Jan-June 2025 for Forestry Division. These programs focused mainly on the work that Forestry was carrying out as well as tree planting activities. Awareness program on the information on purchasing of seedlings, the importance of tree planting and coconut scheme was provided to the public. Information that included PWAF was also broadcasted and the Project on the invasive species, which was carried out by the Head of Forestry Division, One of his senior staff and a representative from SPC, Mr. Jalesi Kumila is currently implementing through SPC this Invasive Species Project.

Recommendations

More training for NFI is required to carry out Forestry work within our Tongan forests and carry out Forest Coverage Survey with Forestry Inventory, QGIS, Python etc...

Promotion of contracted labourers to staff or to professional contract labourers

Need more capacity building on floriculture and managing of pests and diseases

Need more manpower for increase of seedling collection especially for traditional varieties

Sandalwood Act needs to be implemented, licenses looked into and acts and regulations to carry out and act accordingly

All policies, forest acts, harvesting policies and tools used for Forestry requires assistance to be updated

More projects for Forestry need to be looked into, in order to successfully tackle invasive species, Forestry database and coverage for whole of Tonga

More extension service and public outreach and awareness on importance of timber species need to be carried out

More work with Aotearoa Forest needs to be carried out to ensure they are following policies and procedures that were agreed upon

Coconut Varieties need to be looked closely by Forestry Staff and Ministry as a whole. E.g- Pests and Disease, removing of senile palms, coconut products to utilize

Budget utilization especially for contract labours and overtime is a dire need for Forestry and hopefully can be increased due to amount of work taken place within compound

Collection of other possible seeds like timber species (e.g Sita and Pine) to meet the demands of public and grasp more interest for public to plant timber species

Possible work on Coconut baseline inventory/get more baseline data on coconuts in Tonga to carry out

Create a more centralized database for data storage

Forestry Plans

(i) Forestry Administration

PMS

Revenue collection recording and Stocktaking booklet

Fill Vacant Posts

Continue to implement trainings for capacity building

Budget planning to include Forestry events e.g. National Forest day, Tree planting, World Coconut Day etc…

Improve management of Forestry Operations

Leaflets, brochures and guidelines to be submitted/published for farmers and interested parties

(ii) Nursery Operations

More coconut variety seedlings to be collected, especially timber trees

Seedling collection continuous to increase production in species that did not meet annual target especially Timber, Breadfruit and Medicinal species/varieties

Maintainance and Renovation/upgrade of Forestry nurseries

Establish more Agroforestry demo sites

Training on pruning, pests and diseases and marcotting/grafting to be carried out

Training on Floriculture

(iii) Forestry & Agroforestry Resources sustainable Management

Continue Coconut production and distribution to Farmers

Follow up on Forestry projects listed above, and implement new projects

Carry on with tree planting activities

Prepare work plan for Éua Water catchment and monthly monitoring of Éua Forest

Update management tools and follow up on Áhi council

M&E for 1-million trees

Grafting of fruit trees (locally)

Reach out to donor partners for assistance on updating policies/acts etc

Carry out Forest Survey on coverage and invasive spe

3.8 RESEARCH & RURAL DEVELOPMENT DIVISION

3.8.1 Output

Effective generation of appropriate agricultural technologies/scientific research for development and technical support for commercial intensification of crops.

3.8.2 Objectives:

- To improve yields and quality of high value exported crops;
- To conserve and promote crop diversity to enhance food security in a changing climate;
- To develop integrated crop management strategies to support the sustainable intensification of high-value crop production for export and domestic markets;
- To provide specialist diagnostic services and transfer of information to stakeholders.

3.8.3 Achievements:

Renovation of Office Buildings

The replacement of the main office roof was funded from the annual budget. The Soil and Plant Pathology Lab were funded by the China Aids Program, and the Biological Control Lab was funded by the ACIAR's Project: Responding to Emerging Pest and Disease Threats to Horticulture in Pacific.

Second New Parking Shed for Tractors and Implements.

New parking shed for tractors and implements was built toward the end of the reporting FY.

This is an additional parking shed to the one built in the last financial year 2023/2024. It has the same objective to house tractors and implements and minimize exposing to sun and rain that may cause damage effects on both tractors and implements

Field and Laboratory Diagnostic Research Activities

i. **Laboratory Diagnostic Research activities on Vanilla crop**

Summary on Vanilla planifolia pathogens identification

3.3.1.1.1. Identification of fungal species on vanilla stem rot disease in Vava'u.

The research was focusing on identifying fungal species affecting vanilla plants in Tonga particularly those causing rot in stems, leaves and beans (Figure 1). The research was conducted by Dr. Lucia Ramos and the plant pathology team.

Figure 3.8.1 indicated the vanilla diseases caused by fungus

Figure 1. Examples of diseased stem, leaf and bean vanilla tissues exhibiting rot and other related symptoms in July 2023 in vanilla plantations of the Island of Vava'u, the Kingdom of Tonga. Symptoms on stems: A) Stem rot characterised by sunken brown tissue with dark areas surrounded by yellowing tissue, eventually causing abscission of part of the stem. Symptoms on beans: B) Small brown rounded sunken spots typical of anthracnose disease caused by *Colletotrichum* spp. as reported in other plant species. C) Non-normal and irregular change of colour on beans where the ripening process has started. D) Symptoms on leaves: A type of 'tar spot' where a thick black layer resembling tar is covering the lesion.

The most frequently isolated fungi found were from the *Colletotrichum* genus, with some instances of *Fusarium* species.

Pathogenicity assays

Eight *Colletotrichum* fungal isolates were brought to the lab for pathogenicity testing on total of 90 potted vanilla plants. Six of the isolates were tested and none were found to be pathogenic or linked to the rot symptoms observed on vanilla plants.

Further testing in New Zealand with revised methods and more isolates provided new insights, suggesting some fungal species may play a role in vanilla rot disease (Figure 2).

Figure 2. Example of the development of symptoms observed after artificial inoculation with *Colletotrichum* spp. and *Fusarium* spp. isolates in the facilities of The New Zealand Institute for Plant and Food Research Ltd, Mt Albert Research Centre (Auckland). Disease severity rating stems: 0 = no symptoms; 1 = tissue becoming watery/yellowing, necrosis very limited; 2 = necrosis developing; 3 = necrosis advancing (>1cm); 4 = necrosis to middle part of the stem section/entire stem yellowing; 5 = necrosis covering all the stem/whole stem decaying.

However, more research is needed to confirm their role as primary or secondary pathogens. This work marks the first formal study of fungal diseases in vanilla in Tonga.

Identification of Fungal Species Through Molecular Analysis

Results of molecular analysis on 12 fungal isolates, 10 were belong to the genus *Colletotrichum* and 2 of *Fusarium* genus, using PCR to confirm species identity. *Colletotrichum* species isolated from diseased stems, leaves and beans collected and *Fusarium* species isolated from diseased leaves and beans.

Conclusions after preliminary pathogenicity assays and identification of species

Colletotrichum spp.

1. C. *plurivorum* and C. *orchidearum* are closely related and now classified within the *C. orchidearum* species complex.
2. No previous records link these species to vanilla as hosts, although they are known to infect other Orchidaceae family plants.
3. C. *orchidearum* warrants further investigation as a potential vanilla pathogen because:
    - It caused significant stem necrosis in multiple test replicates.
    - It is known to infect other Orchidaceae species.
    - It is genetically distinct from the known vanilla pathogen *C. orchidophilum*.

- Further monitoring and pathogenicity testing needed in Tonga and Research funding is needed to continue these studies.

Fusarium spp.

- F. oxysporum was isolated from a single vanilla leaf with tar spot in Vava'u, so its impact is still unclear.

- Further genetic analysis is needed to confirm if it is the vanilla-specific form (*F. oxysporum* f. sp. *vanillae*).
- Investigation is justified because:
    - Isolates caused necrosis in both wounded and unwounded stems.
    - Related *F. oxysporum* forms are known to cause serious yield losses in vanilla globally

Further monitoring and pathogenicity assays are needed to give further insights into the pathogenicity of these isolates and to draw robust conclusions regarding the primary or secondary role of Fusarium in the expression of stem and bean rot. As for *Colletotrichum* spp., this research requires further funding.

Disease management

As most plant diseases are caused by fungi and this is one of the main factors causing yield losses in vanilla plantations worldwide, considered it of crucial importance to provide growers with basic sanitation management practices for their plantations, in parallel to the research conducted.

Factsheets related to this workshop were ‘Fungal Diseases’ and ‘Disease Management Practices’. These factsheets are also accessible to download from the Tonga Vanilla site.

Vanilla Virus identification in Tonga

The following summary is drawn from the original research report by Dr. Kar Mun Chooi titled "Virus Identification in Tonga”. This research is also part of the "Tonga Vanilla" project (2019–2024), funded by New Zealand’s Ministry of Foreign Affairs and Trade.

The goal was to investigate viruses in vanilla and surrounding plants in Tonga due to ongoing virus-like symptoms observed in vanilla crops. The last major virus study in Tonga vanilla occurred in the 1990s, using now-outdated diagnostic methods (ELISA). That study identified four viruses, but current testing (ELISA and RT-PCR) has struggled to detect these viruses, despite visible symptoms.

To better understand the viral landscape, the researchers from the PFR used High-Throughput Sequencing (HTS), a modern, untargeted method capable of detecting a wide range of pathogens.

Results:

A high-throughput sequencing (HTS) screen identified five viruses in vanilla plants, these include:

- Four RNA viruses:
    - Bean common mosaic virus (BCMV); Cytorhabdovirus lycopersici; Dasheen mosaic virus (DsMV); Vanilla latent virus (VLV)
- One DNA virus:

- Taro bacilliform virus (TaBV)

Notably, three viruses (DsMV, TaBV, and VLV) were also found infecting other plants, including *fiki* (*Jatropha curcas*), which is used as a support tree for vanilla.

Key considerations and recommendations

Key considerations:

New viruses were identified, but no urgent response is needed. No rapid or widespread plant death has been observed. The previously devastating virus WMVVNS was not found and poor plant vigour is likely due to a combination of age, poor nutrition, excess rainfall, fungal infections and suboptimal management, not just viruses.

Existing practices like plantation hygiene, symptomatic plant removal and insect control remain effective. A certification program for virus-free planting material would be a valuable long-term step.

Research has enhanced the industry's ability to make informed, sustainable and economically sound decisions.

Recommendations:

1. Educate farmers about the role of non-vanilla plants as virus hosts. Review and develop pruning and hygiene practices to limit virus spread.

2. Study effects of newly identified viruses on plant health and productivity. Investigate virus co-infections to guide germplasm and disease management.

3. Research how viruses move between vanilla and non-vanilla plants to inform better control protocols.

4. Develop new diagnostic assays to identify viruses in plantations and imports. Create an in-country diagnostic tool as a proof of concept.

5. Conduct a broad survey across Tongan islands to assess virus presence and spread.

6. Share findings with international stakeholders and plant health authorities. Use insights to strengthen biosecurity for plant imports/exports.

Diagnosis of Watermelon Wilt Disease

The following summary is drawn from the original research report by Dr. Bob Fullerton titled "Diagnosing the cause of watermelon wilt in Tonga". This research was funded by PHAMA Plus.

A serious outbreak of watermelon wilt disease has been affecting farms in Tonga for almost 20+ years causing significant crop losses. A comprehensive investigation conducted by Dr. Bob Fullerton together with the team confirmed that the disease is caused by the fungus Fusarium oxysporum f. sp. niveum (Fon).

Field samples from diseased plants were analyzed at the lab and fungal isolates were further studied at the New Zealand Institute for Plant and Food Research, six were identified as Fusarium oxysporum and three as F. solani species complex. Molecular tests confirmed the identity of F. oxysporum f. sp. niveum in two samples.

Biological tests showed that Fon specifically caused wilting and death in watermelon, but not in cucumber or squash. This confirmed Fon as the pathogen responsible for the wilt.

Summary of the recommendations for managing Fusarium wilt of watermelon

1. Fusarium wilt cannot be eradicated once introduced.

Recommendation: Avoid transferring soil from infected to clean fields via vehicles or equipment. Cleaning equipment is ideal but may be difficult on most farms.

2. The fungus survives in soil as resilient spores for up to 10 years.

Recommendation*:* Grow watermelon no more than once every 5 years on contaminated land to reduce disease severity.

3. Fusarium oxysporum f.sp. niveum (Fon) affects only watermelon.

Recommendation*:* Rotate crops with non-host plants (e.g., squash, pumpkin, cassava, tomato, beans) and include watermelon only once every 5 years.

4. Some watermelon varieties show resistance to Fusarium wilt.

Recommendation*:* Test multiple wilt-resistant varieties against the local (e.g., Tongan) strain to identify suitable, market-acceptable options.

5. Fon does not affect other cucurbits, which can be used as rootstocks.

Recommendation*:* Consider grafting watermelon onto wilt-resistant cucurbit rootstocks to grow on contaminated sites.

Watermelon Grafting

The purpose is to evaluate various type of rootstocks that can help the watermelon export varieties to better tolerate wilting disease.

The evaluation started with 4 export varieties (Sugar Belle, Master Blaster, Charleston Hybrid and Empire) and 7 cucurbit varieties including the Hina Tonga variety.

After the first test only 2 cucurbits varieties looked promising including the Hina Tonga variety.
There were problems identified in controlling the temperature and humidity in the tunnel that led to the burning effect on some of the grafted seedlings.

Figure 3.8.2 The Research staff led by the expert Mr.Samisoni Mafi conducting the grafting training with staff.

These problems will be corrected in the second test.

Field Trials

Capsicum Varietal Trial

The objective is to evaluate the performances of 5 varieties of capsicum in terms of marketable yields (number of fruits/plants; fruit size) as a base data for a potential export market.
The 5 varieties are: *Yolo Wonder B; California Wonder; Red Star; F1; and Golden Bell*
The trial was designed as RBD with 5 treatments replicated 4 times. The first harvest was carried out last week.

Cassava Varietal Trial

The objectives are:

1. To evaluate the yield of 13 varieties of cassava in three harvest phases: 6 months old; 12 months; and 18 months old and,
2. To conserve the local varieties which is started to diminish

The 13 varieties are 2 Fijian varieties; 3 Manioke Enga varieties; Lepa; Mataki'eua; Silika; Tano'a; Peru; Colombia and 'Oketi. The trial plot was planted in May

Vanilla Supporting Tree Trial

This an ongoing and a long-term trial. The objective is *to evaluate the effectiveness of two supporting tree species for vanilla cultivation*. The two supporting trees used are: Jatropha curcas (Fiki) and Gliricidia sepium (Legume tree).

The evaluation is based on these characteristics of a good supporting tree:

- Small leaves which allow filtered sunlight
- Branches growing low enough (5-feet, 1.5-1.8m) to the ground for harvesting and hand pollination
- Enough strength to support the vine in a strong wind
- leaves on the tree year round
- propagation from large cuttings for rapid early growth

Mulching will also be assessed. Currently, only coconut husk is used but live mulch grass cover “Vailima” will be added.

Organic Herbicide Trial

Agriculture is the backbone of economy in Tonga and adopting organic herbicides could align with sustainable farming practices and reduce reliance on synthetic herbicides. Notably, herbicides account for approximately 70% of total pesticide usage in Tonga. In this study, we compared the effectiveness of organic herbicides with glyphosate in different weed’s length.

A total of six treatments were applied to assess weed control: Treatment 1 involved cutting weeds without herbicide, Treatment 2 involved cutting and spraying after two weeks with organic herbicide, Treatment 3 involved cutting and spraying after four weeks, Treatment 4 applied organic herbicide without cutting, Treatment 5 had no cutting and spraying or control and Treatment 6 involved no cutting but spraying with glyphosate (Table 4).

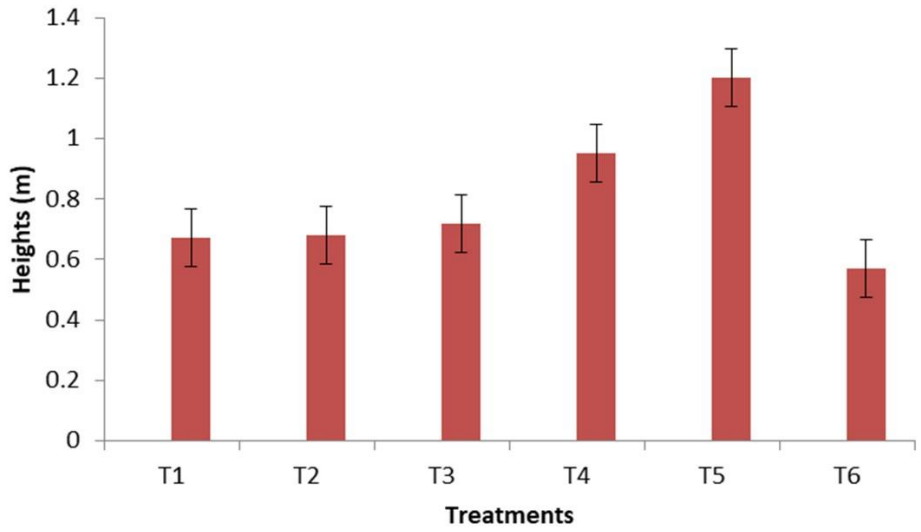
Table 3.8.1 Description of Treatments applied in the Field Trial.

Treatment	Description
Treatment 1(T1)	Cutting only (no herbicide)
Treatment 2(T2)	Cut + organic herbicide after 2 weeks
Treatment 3(T3)	Cut + organic herbicide after 4 weeks
Treatment 4(T4)	Organic herbicide only (no cutting)
Treatment 5(T5)	No cutting, no herbicide (control)
Treatment 6(T6)	Glyphosate only (no cutting)

Results:

Graphs showed (Figure 6) that there were no significant differences between Treatment 1, Treatment 2 and Treatment 3 with organic herbicide applications compared to no treatment control. Treatment 4 and Treatment 5 did not display and significant differences either. Treatment 6 on the other hand was effectively suppressed weed growth with minimal regrowth.

Figure 3.8.3 Level of significance difference of treatments



Challenges identified

The comparison between the two herbicides was inappropriate, as one is systemic and the other is a contact herbicide, meaning they differ fundamentally in their mode of action and plant uptake and also it was difficult to carry out a thorough analysis with only half the information available.

Future plans

To further explore sustainable weed management options, next phase of this research will test alternative organic agents including:

Citric acid solutions, Hawaiian Kava extraction and a contact synthetic herbicides to compare with the organic contact ones.

Crop Conservation, Diversification, Multiplication & Distribution

This is an ongoing activity aiming to collect local & new introduced crop varieties and evaluate, multiply and distribute to farmers and for conservation.

Crop diversification is a sustainable solution to strengthen Tonga's food security and evades climate change threats of food crisis.

Conservation and Multiplication Plots

- Cassava (*Manihot esculenta*): There are currently 2 plots of 1.0 acre each of 2 varieties "Peru" and "Colombia" planted in October 2024 and December 2024 respectively.
- Coconut (*Cocos nucifera*): The main activity is the ongoing maintenance of the existing plot of 5 varieties planted in December, 2019. There are 4 local varieties and 1 introduced variety: Taukave Iiki, Taukave Lalahi, Niu Vai, and Red Dwarf. All varieties are started fruiting.
- Kape (Alocasia spp.): There is an existing plot of 2 local varieties – "Kape Hina" and "Kape Fohenga" ready to harvest. There are about 250+ kape plants. This plot is also be maintain for source of planting materials.
- Talo Tonga (*Colocasia esculenta*): There are existing plots of one variety each ready to harvest. Each plot is 0.25 acre which were planted in October, 2024. Also there is a new of about 1.0 acre planted in May this year. There are a total of 18 varieties of which 5 are new varieties from CePact; 6 varieties were locally cross-bred; and 7 local varieties.
- Sweet Potato (Ipomoea batatus): There is an existing 0.5 acre plot of 5 local varieties planted in March this year for conservation purpose.
- Talo Futuna (Xanthosoma spp.): There is an existing 0.5 acre plot of 2 local varieties (Talo Kula & Mahele'uli) ready to harvest.
- Yam (Variety Lose): There is an existing 0.5 acre plot planted in November 2024 ready to harvest.
- Sweet Yam/Ufilei (Dioscorea esculenta): There are 0.1 existing plot of 9 varieties (*Fieúfi; Ufilei Tonga Molemole; Ufilei Tonga Fulufulu; Ufilei Vai; Ufilei Lotuma; Ufilei Lavilavi; Ufilei Heke Molemole; Ufilei Heke Fulufulu; and Ufilei Kau*) planted in November, 2024.
- There are also 5 plants of "Mahoa'a Tonga" and 5 plants of "Teve". Mahoa'a Tonga is very important traditional source of glue-like substance for making "Ngatu". Teve is a traditional source of famine crop. These two traditional crops are diminishing and need to conserve to protect from extinct.

Seedling Distribution

- 600 bags of 250g (~600 seeds) each were produced during the reporting period and handed over to Extension Division for free distribution to the farmer. It has a money value of TOP 3000.00 at a rate of TOP 5.00/bag.

Fruit Trees and Spices

Dragonfruit (*Hylocereus spps.*)

Dragonfruit is a new fruit crop and adds more choices to our local fruits and also provides a lot of health benefits.

The aim is to promote this new crop to the public by providing training and supplying seedling materials; and to collect data for potential export opportunity.

There are a total of 385 dragon fruits plants growing at the Research farm. The major work during the reporting period is the usual maintenance activities which included: controlling weed; pruning & tying; mounting new seedlings and adding poultry manure.

Orange (*Citrus spps*.)

The major activity is the ongoing maintenance of the existing 1.2 acres plot planted in March 2022. There are 9 orange cultivars, 1 mangosteen cultivar and 1 durian cultivar. There are a total of 136 trees planted in the plot. The trees are started fruiting.

Other fruit trees.

The major activity is the ongoing maintenance of the existing plot of 1.8 acres plot of fruit trees of avocado, kuava, mango and star fruit were established in July 2020. The purpose is to increase fruit tree diversity and for multiplication.

Mucuna Beans.

Mucuna is an important nitrogen-fixing legume which converts atmospheric nitrogen into a form usable by plants thus enriching the soil and assist to reduce the use of synthetic fertilizers.

Its rapid growth makes it an effective cover crop, suppressing weeds, preventing soil erosion and improving soil structure.

A plot was established in 2020 and is still maintained for seed production purpose. A new plot of 1 acre was planted in February for seed production and short fallow purposes.

Development Projects

ACIAR HORT/2016/185: Responding to Emerging Pest and Disease Threats to Horticulture in the Pacific Islands.

Achievements for this reporting period.

- Completed the workshop on ACP & HLB Management Awareness & Capacity Building.
- Completed ACP & FAW surveillance in Tongatapu, Haapai & Vavaú. This is ongoing activity.
- Completed 2 TOT trainings for Extension & Research Staff; and 3 PHC for the the Eastern, Central and Western District in Tongatapu.
- Completed renovation of the Biological Control Lab.
- Able to send leaf samples from symptomatic citrus plants in Tongatapu that showed signs consistent with HLB to the University of Queensland for more comprehensive diagnostic testing.
- Conducted a PHC Side Event during PWAF and also displayed a **PHC Booth** throughout the week at the main Arena (Tonga High School), where visual aids, diagnostics, and advisory materials were presented to farmers and visitors.
- The project was reviewed in February in Sigatoka, Fiji and it was extended to December, 2025 with a SRA (Small Research Agenda) and additional fund allocated for the SRA will be utilized to send 3 MAFF Staff to attend a 3-week short course on PHC at FNU, Fiji.

ANU Solar-driven desalination for food security in Tonga

The salinisation of water and soil in the Pacific Islands demand the urgent identification of salt-tolerant crops to safeguard food security.

There were 2 concurrent field trials conducted at the Vaini Station

1. To determine the effects of saline irrigation on growth and yield of Taro (*Colocasia esculenta).*
2. And to determine the effects of saline irrigation on growth and yield of yam (*Dioscorea alata*).

The Effects of Saline Irrigation on Growth and Yield of Taro (*Colocasia esculenta).*

The objective was to determine the effects of 4 treatments of irrigation water with different salinity on the growth and yield of Taro.

The experiment design was RBD with 4 treatments replicated 5 times. The treatments were applied once a week at a rate of 2 liters per plant.

The 4 treatments:

- Rainfall only/no irrigation;
- Groundwater irrigation (<1 dS/m);
- Low salt (3-4 dS/m);

- High salt (6-7 dS/m)

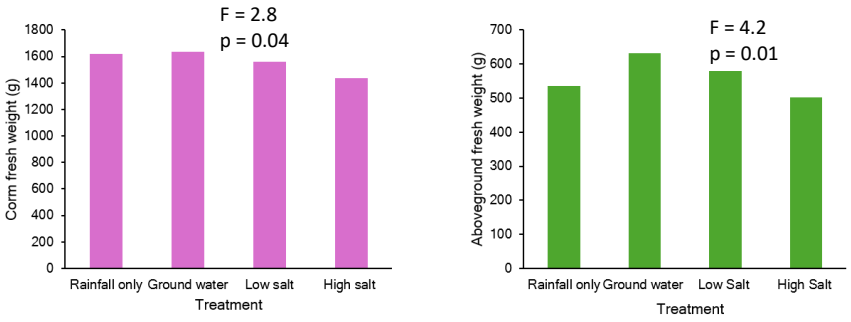
Measurements taken:

- Fresh weights
- Dry matter
- Chlorophyll concentration
- Soil salinity

Results:

- There is no significant effect of high salt treatment on soil salinity (8 months growth, total of 1217 mm rainfall)
- The corm and aboveground fresh weights were significantly affected by treatments
- The high salt plants were smallest, but differences were modest

Figure 3.8.4 Treatments against corm fresh weight and Treatments against aboveground fresh weight.

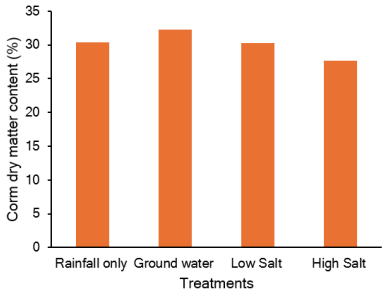


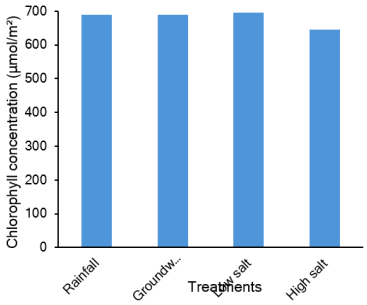
- The high salt treated plants had the highest relative water content and so kess nutritious crop and have mushier texture
- The chlorophyll concentration was also lower in high salt plants

Figure 3.8.5 Treatments against corm dry matter weight and Treatments against Chlorophyll concentration

F = 9.5
p < 0.01

F = 3.4
p = 0.02





Recommendations and Lessons

- Taro is tolerant of moderate salinity and can be irrigated with slightly saline water
- Nutritional value of the crops such as protein and sodium will be measured to determine the effects of salt on nutrition content of Taro.
- More crops need to be tested
- Would be beneficial to conduct more tests in a drought year as the rainfall was high during the period of this trial. First 4 months, the rainfall was 290 mm and the last 4 months, the rainfall was 927 mm.

The Effects of Saline Irrigation on Growth and Yield of Yam (Dioscorea alata)

Two yam varieties were used which were “Kahokaho” and “Lose”

The field trial activities have been completed but data analysis has not yet completed.

Soil management in Pacific Islands: Investigating nutrient dynamics and the utility of soil information for better soil and farming system management.

Achievements for this Reporting Period.

- Completed 1 field trial. This is an on-farm trial.

“Effects of fertilizer on Talo and Maize Yields on a Low Fertile Soil”

There were 3 objectives:

1. To evaluate the benefits of growing taro together with corn to improve soil carbon and nutrient cycling maintenance of soil organic carbon levels through the return of C-rich corn crop residue
2. To determine the optimal fertilisation rate for taro and corn based on a yield-to-N response relationship
3. Introduce multiple harvests and diversifying the farming system.

The trial was implemented in two blocks with Block 1: NPK fertiliser and Block 2: Chicken manure fertilizer, with a total of 22 split-plots at 3 different application rates of NPK fertiliser and chicken manure, plus the control with no applications.

The trial was harvested after 8 months from planting.

Results is not available due to analysis is still in processing.

3.6.4. Strengthening National and Regional Capacities to Reduce the Impact of Invasive Alien Species on Biodiversity in the Pacific.

This project is funded by MFAT and lead by the Department of Environment. The MAFF Research Entomology Section involves in rearing process of the biological control insects, release and monitoring. Three major achievements during the reporting period include:

1. The team revisited Vava'u to assess the spread of the African Tulip Mite 14 months after the initial release. Surveillance confirmed the mite had spread over 4 kilometers from the original site.
2. The third shipment of the African flea beetle (*Paradipolia coerulea*) arrived in May 2025. The beetles are being reared in the Biological Control Laboratory with monitoring underway to determine readiness for field release.
3. Completed the renovation of the Biological Control Lab.

ACIAR HORT/2018/195: Improving root crop resilience and biosecurity in Pacific Island countries and Australia.

Achievements during the Reporting Period.

- Seedbed was first established with sweet potato tubers to produce planting materials to use for the Field Trial
- Field trial established with the objective:

  To compare the tuber yields from 2 types of planting materials (vines): Type 1 from sweet potato tubers' vines raised in seedbed; Type 2 from sweet potato vines from a sweet potato crop (normal practice use by farmers)
- Planting was done on raised beds and there were 8 treatments replicated 3 times

Table 3.8.2 Treatments:

T1	Seedbed vines variety 1, vertically planted
T2	Seedbed vine, variety 1, horizontally planted

T3	Seedbed vine, variety 2, vertically planted
T4	Seedbed vine, variety 2, horizontally planted
T5	Farmer vine, variety 1, vertically planted
T6	Farmer vine, variety 1, horizontally planted
T7	Farmer vine, variety 2, vertically planted
T8	Farmer vine, variety 2, horizontally planted

Figure 3.8.6 Photos of the field trial

- There are 3 harvest phases: 45 days; 90 days; and 180 days
- Measurement at harvest include: weight of individual plant; numbers of tuber/plant; and weight of vine/plant.

Soil Lab Ongoing Refurbishment.

- China Aid Program donated set of Analytical Equipment, consumables, Chemicals and trainings for lab technician.
- The Chinese aid also replaced the roof of the Soil Lab and the Plant Pathology Lab.
- They also agreed to provide electrical stabilizer/voltage stabilizer to protect lab equipment from being damage that might cause by voltage surges or unstable electrical supply and also build a storage cupboard to safely store toxic/poisonous chemicals.
- Two experts will be arriving in July to install the Soil Lab equipment and to train the Soil Lab Technicians.

Way Forward

- Labour Hire vote is being re-created for FY 25/26. This will enable the hiring of “Kautaha Toungaue” to assist especially in maintenance of Field Trial activities (TOP 20,000.00).
- Develop staff expertise through short-term and long-term training by requesting regional partners. Potential staff to apply for master and PhD scholarships to pursue research on soil science, plant protection (Mycology, Nematology, Virology etc).
- Apply for volunteer workers with expertise in soil science, plant protection and agronomy through foreign embassy (New Zealand, Australia, Japan, US) to work at the Research Division. This will assist to develop the capacity of respective staff. Also volunteer workers will be able to request assistance from their respective countries in terms of equipment, scholarship, trainings and so on for the Division’s staff.
- Establish national partnerships to share resources, expertise etc. For example: Hospital Laboratory, TNU, USP etc.
- Replace all electrical wire in the offices and laboratories /llas it is too old (40+ years) and not working well to prevent damages to equipment.
- Seek for donor fund to extend the Soil Laboratory building for more space to be able to house the new equipment and facilitate samples analysis.
- Recruit a young engineer/mechanic to assist in the machinery pool team and also to be trained by the current 2 experienced aging engineers in preparation for their retirement in the next 1-4 years.
- Purchase new vehicle to facilitate to avoid delaying of crucial activities such pest surveillance, farm visits, Annual crop production survey, Agricultural Show, etc.

3.9 OUTER ISLANDS

3.9.1 VAVA’U

CHINA AID AGRICULTURAL TECHNICAL ASSISTANT PROJECT TEAM

China Aid Agricultural Technical Assistant Project Phase V Team were completed their three (3) years Working Contract on April 2025. However, China Aid Agricultural Technical Assistant Project Phase VI Team were arrived and start working at MAFF, Vavaú in last week of April 2025. There were a Total of six (6) Team members and they will be working together with us in Vavaú for the next three (3) years until April 2028.

We are very grateful to welcome Phase VI Team to Vavaú with all expert in different field such as Livestock, Biogas Engineering, Vegetables, Dragon Fruit and Fruit Trees. In addition, they will be

focusing on new Agricultural Technologies, Promotion of Fruit trees especially Dragon Fruit, Promotion of Vegetables and Healthy eating and the importance of Food Security in the Whole communities of Vavaú. More importantly is working closely with MAFF, Vavaú to achieve the objective of the Project at the end of three years working contract.

TRAINING

Table 3.9.1 Overseas Training

HOST COUNTRY	PARTICIPANT	TIME	TOPIC
Beijing, China	Mr. Taani Matalave	15TH – 28TH of May 2025	Modern Breeding and Management of Vegetable Industry in PRI Countries

This is the only opportunity for a participant from MAFF, Vavaú to join overseas training in FY 24/25. There are still more needs for opportunities like this for MAFF, Vavaú Man power skills, knowledge and experience improvement in the next Financial Year.

LOCAL TRAINING & WORKSHOP

Table below shows in detail all the Training Completed participated by our staffs from MAFF, Vavaú in FY 24/25.

Table3.9.2 Training Completed participated by our staffs from MAFF, Vavaú in FY 24/25.

Training Topic	Time and Place	Participant
Workshop on Agricultural Sector Plan 2025 – 2035 Review with Farmers of Vavaú	July 2024 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Kobo Tool Box Training by SPC	July 2024 – Nukuálofa	Mr. Hauófa Siasau Mrs. Toakase Kaufusi
FORI & Pacific Breadfruit Project Introduction of the Importance of Breadfruit in Tonga mainly focus on Pruning and Proper Harvesting	August 2024 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Sewing & Sewing machine Maintenance Training	September 2024 – Communities of Vavaú	Ms. Ánaise Noa Mrs. Toakase Tuímoala
Plant Health Clinic Session 1	September 2024 – Nukuálofa	Mr. Taani Matalave Mr. Hauófa Siasau Mr. Tangaki Áloua
Workshop on the Important and Management of Floriculture in Vavaú	October 2024 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Training on Food Safety Inspection with Team from Food Division, Nukuálofa	October 2024 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs

Plant Health Clinic Session 2 & Fruit Fly in Tonga	November 2024 – Research Farm Station, Vaini	Mr. Taani Matalave Mr. Hauófa Siasau Mr. Tangaki Áloua
Market Survey Training for MAFF, Vavaú Staffs	December 2024 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Invasive Species Project Workshop	February 2025 – Nukuálofa	Mr. Taani Matalave Mr. Hauófa Siasau
Body Mass Indicator (BMI) Training	February 2025 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Pruning and Crafting Workshop	May 2025 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs
Healthy Cooking Training	June 2025 – Fatai Farm Station, MAFF, Vavaú	ALL MAFF Staffs

EXTENSION SERVICES AND FARM

Vanilla Season 24/25

Heilala Vanilla is the only Vanilla Buyer in Vava'u for 24/25 Vanilla Season. However, only one Buyer fully dominate the Market Prize for Green Vanilla Beans in Vava'u. Vanilla season in Vava'u was start in May2025.

Table 3.9.3 The summary of Total Quantity (Kgs) for Vanilla Season in 24/25.

Vanilla Grade	Months				Total Quantity (Kgs) for Individual Grade
	July 2024	August 2024	May 2025	June 2025	
Grade A	188.12	2.52	81.15	36.34	308.13
Grade B	170.13	3.06	28.52	39.7	241.41
Grade C	42.45	1.11	19.9	0	63.46
TOTAL	400.7	6.69	129.57	76.04	613 Kgs

Table above clearly tell us that there is a big fall on Vanilla Production in Vava'u in 2025 in compare to 2024. Not only that but we identified that most of the Vanilla growers were hold their Vanilla beans for Dried process due to very low prize in the Market.

Market prize for Green Vanilla Beans for 24/25 was TOP $45.00 for Grade A, TOP $35.00 for Grade B and TOP $25.00 for Grade C.

Farm

24/25 FY is one of the very challenging year for us at MAFF, Vava'u with our Farming Activities due to wild animals (Pigs / Cattle) damaging and destroy our Farm. We used to planted different crops (Cassava, Sweet potato, Swam taro, Taro tarua) at the Farm multiple times but still not successful due to damaging by wild animals. This is happening because our MAFF, Vava'u boundary fence were very old and easy to breakout by wild animals.

Not only that, but we were spending a lot of time on fixing the fence but still not successful due to not enough budget and not available of good quality materials for good quality fence to protect our Farm. However, all the crops we planted at the Farm were destroy and damaged by wild animals on early stages before mature.

We looking forward to next 25/26 FY to get enough budget of funding to solve this problem as soon as possible. So that we can be able to do more Field Trial Demonstration and planting different varieties of crops at the Farm for the availability of Planting materials to the Communities of Vava'u.

Crop Compensation

This is one of the big issue and problem in Vava'u community, farming area and plantation when it has come to wild animals (Pigs / Cattle) problem in damaging of crops. When Farmers report to the Office, we have to visit the Plantation that were damaged and observe in detail what is the cause and nature of the problem. After that, we go back to the Office and issue Compensation Letter based on the detail observed at the plantation. Sometimes the problem / damages caused by wild animals and sometimes caused by human activities.

There were a Total of 9 Compensation Letter issued from Extension Office for 24/25 FY.

QUARANTINE AND QUALITY MANAGEMENT SECTION

Quarantine and Quality Management role is protecting our borders both at wharf and airport from introducing of foreign pest and disease to the beautiful Island of Vavaú. They also working hard in facilitating of Agricultural Produce Export and Import from and to Vavaú. However, a team with total of six staffs working hard days and night in busy schedule to reach their Target outputs especially International Flight comes in to Lupepauú Airport and International Cargo Vessels at Halaevalu wharf.

Export

Table below shows in detail the summary of Frozen Export Agricultural Commodities from Halaevalu Wharf, Vavaú in 24/25 FY.

						Months							
Export Commodity	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	TOTAL Export Quantity (Kgs)
Cassava	2105	6450	7380	10535	11044	6840	0	11264	11284	17024	40184	25525	149635
Giant Taro	120	425	650	2220	9525	4600	0	8700	2825	2775	4450	1250	37540
Swamp taro	150	760	1630	1105	2032	2652	0	20704	22686	29938	9646	12356	103659
Taro tarua	50	110	115	810	1252	1008	0	672	388	1764	3472	1932	11573
Yam	0	250	735	735	158	30	0	288	824	2080	3666	2002	10768
Sweet Yam	80	300	0	750	0	0	0	0	0	0	23	182	1335
Sweet Potato	0	0	80	0	1243	2116	0	1840	456	1035	1242	0	8012
Plantain	810	1130	1010	1220	4646	3750	0	10086	9434	8235	8831	4645	53797
Breadfruit	0	20	140	3340	2321	410	0	1713	8526	1258	831	110	18669
Coconut	0	30	90	120	280	240	0	60	220	180	90	120	1430
Pineapple	0	0	20	20	6722	12290	0	2302	240	140	0	0	21734
Pele	0	40	25	190	90	145	0	265	192	280	222	108	1557
Lu	10	450	160	630	580	330	0	190	440	510	632	161	4093
Kava	439	1068	2013	3440	3433	424	450	918	720	914	959	825	15603
Handicraft	71	119	204	381	326	163	30	212	86	114	174	105	1985

Total Export Quantity (Kgs) for each Months	3835	11152	14252	25496	43652	34998	480	59214	58321	66247	74422	49321	441390

Vessell Clearance at Halaevalu Wharf, Vavaú

These are all the Vessels we managed to Clear and inspected at Halevalu Wharf from July 2024 to June 2024 detailed in the Table below.

			TYPE OF VESSEL			
Months	Cruise	Gas	Oil	Yatch	Cargo	Total Number of Vessels
Jul-24	0	0	1	51	1	53
Aug-24	3	2	2	60	1	68
Sep-24	2	2	1	73	1	79
Oct-24	3	1	2	31	1	38
Nov-24	3	1	2	6	0	12
Dec-24	1	1	1	1	1	5
Jan-25	1	1	2	0	2	6
Feb-25	0	1	1	0	0	2
Mar-25	0	1	1	0	2	4
Apr-25	1	1	2	4	1	9
May-25	3	1	1	27	1	33
Jun-25	0	1	1	64	1	67
Total	17	13	17	317	12	376

Aircraft landed at Lupepauú Airport in 24/25 FY

Table below shows the total numbers of Aircraft landed at Lupepauú Airport from July 2024 to June 2025.

MONTHS	TOTAL NUMBER OF AIRCRAFTS
Jul-24	22
Aug-24	32
Sep-24	0
Oct-24	18
Nov-24	0
Dec-24	13
Jan-25	14
Feb-25	0
Mar-25	1

Apr-25	9
May-25	8
Jun-25	12
TOTAL	129

WOMEN DEVELOPMENT SECTION

Soil Medium Preparation and Seeds Sowing.

These activities usually done monthly by our Women Development Staffs and sometimes with the help from other staffs when they available. Sieving of Top Soil, preparing of seed beds, filling up trays before sowing seeds were a lot of work but our hard work team managed to do these activities every months.

Two ways we used to sow vegetables seed such as sow directly to the trays especially vegetable seeds need to plant directly to the field and sometimes we sowing seeds into the seedbed before transplanted to the trays a week or two.

These activities were always assisting by our Chinese Project Team in providing seeds, trays and technical advices.

Vegetables Seedling Distribution

Distributed of Vegetable seedling were mostly done every months depends on the availability of seedling at our Nursery. On this activity, we prioritize Women Development Groups from the communities of Vavaú. Purpose of doing this to boost Food Security in Vavaú and the availability of healthy vegetables for cooking at home.

After distribution of vegetables seedling to recipients, our team used to follow up and monitor to make sure that all recipients are planted with good maintenance to get good results. However, technical advices were giving out during monitoring process.

Table below summary our Vegetable seedling distribution for 24/25 FY.

MONTHS	Tomato	Cabbage	Lettuce	Capsicum	Eggplant	Cucumber	Corn	Bean	Total Trays
Jul 24	36			18	18	10			82
Aug 24						18	20	23	63
Sep 24	15	15		15	20				65
Nov 24	20		20	16					56
April 25				12		15	10		37
June 25		20	35	30					85
TOTAL	71	35	55	91	38	33	30	23	388

A total of 388 Trays of different Vegetable seedling were distributed to Women Development groups and communities of Vavaú in from July 2024 to June 2025. Shortage of Staffs affected this important activity but we still manage to get along with this throughout this FY.

Monitoring always comes after distribution of vegetable seedling just to make sure that this activity is effective, and make availability of vegetables for every household healthy menu and healthy cooking. This monitoring task was completed by our team with the support from Chinese Project Team.

Vegetable and Dragon Fruit Harvest and Marketing.

Dragon Fruit Plantation approximately 0.5 Acre from MAFF, Vavaú Dragon Fruit plantation and 1.5 acres from China Project Complex demonstration. Usually dragon fruit fruiting season from October to June every year. Fruits mature and harvest starts from December to July annually. Our Team used to market dragon fruits every months using Cash Sale for collecting of revenue.

Same thing done to vegetables at China Project Green House. However, vegetables were harvested weekly depends on what varieties of vegetables mature and ready to harvest. We used to harvest and marketing vegetables at local market and also used Cash Sale for collecting of revenue.

Market of Dragon Fruit and Vegetable produce has a great contribution to MAFF, Vavaú revenue collection annually.

Women Development Section Training.

These are Training completed by our Team in Vavaú in 24/25 FY.

Training	Trainer	Place & Participants
Sewing & Sewing Machine Maintenance Training (September 2024)	Mrs. Álisi Ákau	Women Development Groups at Taánea, Haálaufuli, Fungamisi, SUTT Neiafu, SOT Neiafu, Talau, Makave, Okoa, Útui, Útulei and Tefisi
Market Survey (November 2024)	Mr. Maikolo Tupou	Fatai Farm Station, All MAFF Staffs
Turmeric Training to Turmeric Farmer in Vavaú	China Project Team	China Complex Area
Healthy Cooking Training (June 2025)	Ms. Mayuko Hotate	MAFF Kitchen, Fatai Farm Station MAFF Staffs and Women Group from Talau, Neiafu

Market Survey.

Market Survey was firstly established and start in Vavaú in February, 2025. This was after the Market Survey Training in Last week of November to first week of December 2024 conducted by Mr. Maikolo Tupou and Mrs. Pelenaise Tafa from Planning and Policy Division, Tongatapu. They also provide us with materials and equipment for doing of Market Survey in Vavaú.

However, our team used to do this Market Survey on every Friday at Útukalongalu Market, Neiafu, Vavaú and Saturday at Road Side Market around Neiafu District. Data collected at this Market Survey program was insert at Microsoft Excel Survey Sheet and send to Survey Team Tongatapu for analysis and report.

Assisting Chinese Project Team Turmeric Promotion Activity and School Training Activity.

Turmeric Promotion Activity was done in Vavaú in October 2024. The purpose of this Activity was to promote to the people and farmers of Vavaú the importance of Turmeric in related to Healthy Issues, how to process turmeric into turmeric powder, new machines and technology used and also how to used turmeric powder in healthy cooks and drinks. Governor of Vavaú, Lord Fakatulolo was the Guest of Honor in this Promotion Activities and many guest from Vavaú community join this program.

Training with Schools in Vavaú were done in introducing new Agricultural Technologies at Chinese Complex Activities to the students such as Green House Vegetable production and Trip Irrigation System, Dragon Fruit Production, Piggery and Biogas Technology and Turmeric Production and Processing. Purpose of this trainings is to Educate our people of Vavaú in younger age so that when they grown up they will have used to this New Agricultural Activities, help them with their school assessment and most importantly this will directly help with shaping their career.

These Training Program was happily support by three High School in Vavaú such as Channel College, Vavaú High School and also Tailulu College. Usually these training running from April to September every year.

FORESTRY SECTION

Main Tasks and Continuous Activities at Forestry Nursery.

These are the main important tasks and continuous activities in monitoring, management and filling up of the nursery. Soil medium sieving, mixing and filling up of pots were usually done every month depends on the need from the nursery and the availability of seedling. Chicken manure and organic compost were used for mixing of Soil.

Watering of seedling at Nursery was a daily activity but depend on the weather, when it’s rain then no need to do watering. Also weeding management and cleaning of the nursery was done monthly by our team.

Seedling collection was usually done every Wednesday, that is the day we are going out to the communities for seedling collection depend on what plant and species available at the time. Some seeds collected were firstly sowed in the bed to germinate before transplanting and move to the Nursery.

Nursery Stock Update in June 2025.

Table below clearly shows in detail the stock update at our Nursery in June 2025.

Species	Opening Stock	Production	Sales	Other/ Distribution	Mortality	Closing Stock
Handicraft	982	100				1082
Cultural	135	100	10			225
Ornamental	1114	1270	51	24	12	2297
Medicinal	66					66
Coastal	15					15
Sandalwood	1393	2400	4	57	50	3682
Fruit trees	173	50	1	62		160
Coconut	1500	-				1500

Training.

In May 2025, we got an opportunity from Forestry Tongatapu Team visited us in Vavaú and running a three days Training with MAFF, Vavaú Staffs especially our Forestry Team. This Training was completed through Presentation and Field demonstration and mainly focused on Pruning of Fruit Trees and Sandalwood and Crafting of Citrus. This was a great opportunity to completed this Training in updated and improve our skills and knowledge.

Team from Forestry Tongatapu also support us by presenting of New equipment for our team continue on with doing of pruning and crafting on our everyday activities at the nursery.

Assisting Smart Farmer Project.

Smart Farmer Project Coordinate and Organizing by Grower Federation of Tonga in Vavaú for two Secondary School of Mailefihi and Siuílikutapu College and Tailulu College. This Project aims at demonstration of 1 acre mixing of Breadfruit and Sandalwood. This will benefit both School in long term investment and a learning site for the students, so that when they finish from School, Smart Farmer will be the best choice for their career.

However, we were assisting this Smart Farmer Project by providing seedling of 50 Breadfruit and 50 Sandalwood a total of 100 seedlings for 1 acre.

Sandalwood Plantation at MAFF, Vavaú.

Sandalwood Plantation at MAFF, Vavaú is approximately 0.6 Acres in Total locate next to our Forestry nursery, Fatai Farm Station, Vavaú. A total of 45 Sandalwood Plant were firstly planted 25 years ago and seem mature to harvest for marketing. These 45 mature sandalwood plants were requested to harvest by the CEO, Dr. Viliami Toalei Manu in April 2025.

The purpose of need to harvest mature sandalwood if to replanted with new sandalwood seedling and to demonstrate to individual farmer and sandalwood growers in Vavaú of how to harvest sandalwood and also how to prepare it and get ready to the market.

FOOD SECTION

Food Safety Inspection

MONTH	# OF SHOPS INSPECTED	DRY FOOD QUANTITY (Kgs)	MEAT QUANTITY (Kgs)	LIQUID FOOD & DRINKS QUANTITY (Kgs)	COMPLAINTS
Jul-24	109	228.77	13	71	0
Aug-24	77	222.1	0	187.5	2
Sep-24	84	148	12	39.7	0
Oct-24	56	321.5	50	23.8	1
Nov-24	65	241.3	18	145	3
Dec-24	43	183	0	124	0
Jan-25	18	109.8	0	88.95	2
Feb-25	110	109.8	0	88.95	3
Mar-25	90	88.1	1	525.8	2
Apr-25	30	109.4	1.2	24.8	0
May-25	36	26.5	0	8	0
Jun-25	40	87	12	108.5	1
TOTAL	758	1875.27	107.2	1436	14

Table above shows in detail the Number of Shops were inspected in Vavaú from July 2024 to June 2025 and the quantity of Food Items were seized from Commercial Food Businesses during this Food Safety Inspection program. There were a total of 114 Shops in Vavaú, Retail and Wholesale and approximately 60% of it in Neiafu District.

Task Force with other Relative Ministries was start in June 2025 after not running for almost two years. Task Force Committee planned to do Task Force Inspection twice in every first week of the Month.

Accreditation of Kava Pounding Facility.

In January 2025, Mr. Siosifa Lousi Kava Pounding Facility were re inspected and renew of Accreditation Certificate for another 1 year. This was part of Kava Export Program to Australia since 2021. Mr. Siosifa Lousi Kava Pounding Facility is the only one accredited facility in Vavaú to date.

School Canteen Inspection and Issuing of Food Permit.

This important task was started in February 2025 when School star. The purpose of doing this to make sure that every food items prepared in every canteen business are healthy, prepared in proper way in a safe place (kitchen) for our children at School. Therefore, we mainly focused on Inspected of every Kitchen where food is prepared for canteen are clean, safe and also food is prepared in safest way. After inspected of the kitchen, everything complies with Food Safety Issues and then we Issued Food Permit for running canteen at School.

Table below are detail of Kitchen Inspected for School Canteen at Vavaú.

Month	Number of Kitchen Inspected
Feb 25	26
Mar 25	27
Apr 25	2
Total	55

LIVESTOCK SECTION

Vet Cases

This is usually daily activities of Livestock Section in Vavaú depend when we receive reports. We can handle vet cases as soon as possible either at the Office of going out to the Field. Come along this reporting period, our team used to experience and handle different Vet cases with related to different Health issues.

Table below are total Vet Cases completed from July 2024 to June 2025.

Month	Number of Vet Cases
Jul 24	33
Aug 24	78
Sep 24	52
Oct 24	48
Nov 24	11
Dec 24	8
Jan 25	6
Feb 25	21
Mar 25	18
Apr 25	25
May 25	6
June 25	14
TOTAL	320

SPAW Vet Clinic.

SPAW Vet Clinic were visited us at MAFF, Vavaú in October 2024 for 1 week. This was a great opportunity for us and the community of Vavaú when the SPAW Vet Team stop by once every year.

Here are summary of every cases handled during SPAW Vet Clinic.

Species	Sickness	Castration	Spay	Total
Cattle				
Horse				
Pigs	1	3		4
Sheep				
Goat				
dog	46		41	87

cat	10		10	20
TOTAL	57	3	51	111

Chicken Distribution.

In September, 2024 in collaboration with Chinese Project Team we been able to distribute chicks to Household at Tefisi, Vavaú. We receive these chick as day old chick, we brooding them at our Brooder House for 8 to 10 weeks before distribution. Since then, this was the last chicken distribution in Vavaú but there are many people on the waiting list already registered in this program. We were giving out a total of 10 chicks per household in a ratio of 6 layers and four roosters. A total of 18 Households got this opportunity with total of 186 chicks of Layers and roosters.

After distribution of Chicken, we used to monitor every month to make sure that every household have good maintenance and get good results from it.

WORKSHOP AND UPDATED VEHICLES LIST

Workshop & Update Vehicle List.

Machinery and Workshop at MAFF, Vavaú is very old and need Good Maintenance as soon as possible. Also there is NO Technician at the Workshop to take care of our vehicles maintenance and fixed when it's broken.

Table below is the Updated Vehicle List in June 2025.

VEHICLE	MODEL & YEAR	LICENSE PLATE	REMARKS
Double cap Van (Blue)	MAZDA – BT 2018	P 2081	Good Condition
Double cap Van (White)	Toyota Hilux – 2017 (ILAMS)	P2206	Good Condition
Double cap Van (White)	Toyota Hilux – MRO 2009	P1555	Broken and need Maintenance
Truck (White)	Toyota Hino – 7865	P1554	Old but Good Condition
Mini Bus Van (Green)	Toyota Hiace – 2000	P1371	Old but still in Operation
Mini Bus Van (Gray)	MITSUBISHI CV5W – 1000225	P1899	Broken and need maintenance
Forklift	Toyota	P1593	Out of Service & Need New tyre
Tractor	MASSEY FERGUSON – 2625	G 569	Broken and need Maintenance
Tractor	LX804-C 58.8KW GBT15370.2 – 2009 (China)	G 574	Good Condition

VESSEL (MAFF Boat)	32 Feet Long – with 90 Suzuki Engine		Complete Maintenance and back to Service

From the Table above, all vehicle highlighted are Broken and out of Service.

WAY FORWARD

Continue on with preparation of Vegetable and Dragon Fruit for distribution and Promotion to the Women Development Groups and Communities of Vavaú. This is aiming to boost the easy access and availability of local fresh organic vegetables and fruits for home consumption and healthy eating at home.

Working on Estimate Costs for New Fence at MAFF, Vavaú. At the same time were seeking Funds to support us in this Important task.

To Fix and solve the problem to the Tractor as soon as possible. This will have a great contribution to our Revenue collection and help in our service to the Farmers around Vavaú.

Also fix other two broken vehicles as soon as possible to help with our work.

Important Training for the Staffs to improve our Man Power skills and knowledge.

3.9.2 HA'APAI

3.9.2.1 Output

3.9.2.2 Objectives

3.9.2.3 Achievements

The following are the notable achievements of the Branch for FY2024-25. The Branch continued to utilize every possible opportunity to enhance and maximize the livelihood of the people of Ha'apai which reflected our core values and contribution to the overall targets of the Ministry in its commitment towards achievement of our national outcomes.

Forestry Division

Vaipoa

In the Vaipoa, two activities were performing and they were; i) seeds collection; and ii) potting. During this financial period, number of activities were successfully performed included planted of new block of ginger and turmeric, growing 750 oranges, grafting of Tongan moli root stocks in Vaipoa. Refer to *Figure 3*.

Furthermore, training of staff on grafting and pruning was conducted by officer from the Forestry Division on Tongatapu in April. Refer to *Figure 4*. However, there was no grafting and pruning equipments in place therefore, the Branch still awaits these equipments for effective performance of grafting and pruning activities.

Table 3.9.2.1 Achievement of the Forestry Division

Outputs	Activity Completed	Challenges	Comments
Output 6: Effective and Sustainable Management of Biodiversity & Forest-based Climate Resilient Environment			
Vaipoa			
Encourage local production of imported commodities for food security, import substitution and health promotion (fruits, vegetables)	Planted new block of ginger and turmeric		Ensure effective monitoring of this new block since the irrigation is now in place.
	Irrigation system successfully installed on June 17th to 20th and funded by MORDI Tonga. Refer to *Figure 4*.	Current water catchment is insufficient for storage.	Required 4 water tanks (10000L) to increase water storage capacity to support the irrigation system established in place.
	Raised 750 orange seedlings		Closely monitor growth of seedlings.
	Orange grafting using moli Tonga root stock.		Increase collection of moli Tonga seeds.
Encourage local production of cash crops for exports (kava, vanilla, coconut, breadfruit, papaya, sandalwood etc.)	One (1) farmer took 100 coconut seedlings for planting.		900 coconut seedlings remained at Vaipoa nursery for distribution.
	Fori Breadfruit Project conducted 1 day workshop and planting of 80 breadfruit seedlings as support the promotion of sustainable agriculture		Monitor progress of this initiative.
Capacity building for staff, exporters and farmers at all levels.	One (1) training on grafting and pruning was successfully completed in April.	Lack of grafting and pruning	

		equipment in place.	
Sikula Farm			
	900 coconut seedlings currently in stocks ready for distribution.		Closely monitor and continue promoting and encouraging local production of cash crops including coconut.
	Planted new block of 65 plan-tain (hopa)		
	Planted new block of 80 banana		
	Planted 2 acres of American taro, swam taro, cassava and sweet potatoes.		
	Distributed planting materials, *ie*. Cassava, sweet potatoes and swam taro to farmers.		

One of the major challenges facing by plotting and raising the nursery at Vaipoa was the lack of irrigation system in place; which resulted to some seedlings died. Fortunately, the Branch received the support of the MORDI Tonga in financing the installation of an irrigation system at Vaipoa to support the ministry in enhancing food production and promotion of sustainable farming practices. This support was requested during a training held in Tongatapu by Mordi Tonga in February 2024.

The Israeli Specialist arrived to Haápai on Tuesday 17th June and performed the installation activity for four (4) days before returning back to Tongatapu on Friday 20th June 2025. Approximately, two hundred (200) meters length of the irrigation line from the water source to agricultural plots. The excavation activity was conducted by a private digger with support of the Branch's rib to expedite the process to complete the whole works withing strict timeline of 4 days. After installing the irrigation system, followed by testing of the line to ensure it is functional. Refer to *Figure 5* for some of the photos taken during the installation activities on site.

The irrigation system has started to improve soil health and revegetate soils in dry area. A little difference in all the plots has started to experience. However, the current water catchment of four (4) tanks in place are not sufficient therefore, four (4) more additional tanks is required to increase capacity of water catchment in order to harness the fullest. At the same time, maintenance cost was well considered to be Branch's commitment to maintain unless if external support is secured.

Additionally, there were 18 rows of oranges planted which 14 plants planted per row with two additional rows of fekika and mangosteen as tabulated in *Table 4*. The issue of irrigation has been resolved therefore,

Table 3.9.2.1 VAIPOA DEMONSTRATION SITE

Variety	Row #	No. of Stock
Washington Navel	1-2	26
Valencia	3-4	25
Mandarin Imperial	5-6	28
Honey Murcott	7-8	28

Ellendale	9-10	28
Mandarin Emperor	11-12	28
Tahitian Lime	13-14	26
Lemon Meyer	15-16	28
Kumquat	17	12
Mangosteen	18	2
Fekika	19	9
Total		**240**

Sikula Farm

During this, the Branch further received the support of the Fori Breadfruit Project. A team from the Fori Breadfruit Project in Tongatapu led by Metui Falesiva, arrived on Tuesday 17th June to conduct workshop and breadfruit planting in Haápai. The program started with breadfruit planting on Wednesday 18th Junen which 90 breadfruit seedlings were planted in Foa. Then followed by a workshop on the second day, Thursday 19th June before the team returned back to Tonga on Friday 20th June 2025. This initiative supports the effort of the Branch and the Ministry in general in promotion of food security as food sources are affected by the brunt of climate change.

Livestock Division

Livestock production is an integral element in income earning for most households and hence offers good development potential through improved husbandry and stock breeds. In past attempts, intensified livestock sector has not met with much success due to high cost of production which reflected the acceleration in price for imported feed. However, improving household and commercial livestock here in Ha'apai for consumption, sale and other traditional functions remain a priority. In *Table 5* tabulated the achievements of this division for FY2024-25.

Table 3.9.2.3 Achievements of the Livestock Division

Outputs	Activity Completed	Challenges	Comments
Output 9: Sustainable Livestock Production Reduced Imports & Better Livestock Veterinary Services			
Encourage local production of imported animals/livestock for food security and import substitution	Raised 96 of layer chicken at the Branch and sold eggs for $30 per tray.		
Implement animal husbandry and livestock best farm practices for adoption by farmers		Free-ranged cattles remained an unresolved issue.	Free-ranged cattles shot to death due to complaints of farmers whose farm were damaged.
Provide effective livestock production advisory services	Performed veterinary services to farmers.		

Provide effective livestock health & veterinary services	One (1) veterinary clinic conducted by the Livestock team from Tongatapu.		Increase promotion and advocacy on livestock health and veterinary services to maximise number of users.
Capacity building for staff, exporters and farmers at all levels.			

The AI Program has been used in livestock for decades, forming routine practice of many livestock breeding enterprises. Traditionally, this program has been used in operations aiming to produce breeding stock with advances in synchronization protocols and genetic technologies. This practice has become more common especially in commercial livestock. This breeding program is considered to be cost effective. Addition to that, this improves feasibility of the implementation of AI on farm.

Moreover, sixteen cows went under the AI program and out of this sixteen, only two were successful. One gave birth to a twin whereas the other one gave birth to only one calf. Therefore, these two cows are given special attention and closely monitored their progress.

Addition to that, the Branch raised 96 layer chickens as part of the promotion and encouraging local production of imported animals. The Branch sold eggs for $30 per tray and it was a great sale for the Branch as reflected in the financial which is competitive against the Chinese suppliers. Besides, the current layer chicken farmers still maintained their chicken farm which deemed beneficial especially during the FWC Church conference held in Haápai in June 24th to 30th. The demand was exceeded the supply but people managed to get their supply from Tongatapu. During this time, the Branch remained available for advisory services when needed. Refer to Figure 7 for the poultry farm currently raising at the Branch.

Poultry farm in Pangai

Furthermore, the Division also recorded nineteen (19) sheep raised during FY2024-25. Three ewes gave birth which two of them gave birth to two each whilst one gave birth to one. At the same time, one lamb died and two ewes were given to one farmer in Holopeka and one from Nomuka. Refer to *Table 7* for the remaining number of sheep in stock.

Table 3.9.2.4 Summary of Sheep

Type	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Ewe	7	7	6	6
Ram	1	1	4	4
Lamb		6	5	5
Total	**8**	**14**	**16**	**16**

Quarantine Division

This division is responsible for ensuring better border control, trade facilitation and quarantine services. Since Haápai is neither an international port nor an international airport, the division focused on yachts that visited the island. During FY2024-25, the division had cleared 9 yachts who berthed at Taufaáhau Port at Pangai, Haápai. The division was targeted to clear at least 1 yacht per month and thus, 9 out 12 or 75% of the total targets was achieved. Notably, there was no issues or violation identified from any of these 9 yachts during clearance activity. This demonstrated the level of compliance of foreigners who visited Tonga. Despite this, the Branch continued its close surveillance.

Table 3.9.2.5 Achievements of Quarantine Division

Outputs	Activity Completed	Challenges	Comments
Output 5: Effective & Better Border Control, Trade Facilitation & Quarantine Services			
Aircraft and vessel clearance at the airport and wharf border compliance	Completed clearance of 9 yachts without any significant issues		
Capacity building for staff, exporters and farmers at all levels.	1 staff attended training on Quarantine held in Tongatapu	Lack of capacity building to enhance capacity for effective performance of quarantine roles.	Requires capacity building for both staff and farmers.

Food Division

The Food Division focused on monitoring compliance of all food vendors against the requirements thereunder Food Act 2020. The monthly compliance audit is a responsibility of a task force consists of 5 ministries, *ie*. MAFF, MOH, MTED, MORC and TFES. The taskforce conducted the compliance audits on a monthly basis and non-conformances were identified included but not limited to food fraud and labelling issue. Such non-conformances resulted in seizure of non-compliant goods as per *Figure 8* showing the destruction of non-compliant goods seized during compliance audits.

Table 3.9.2.6 Achievements of Food Division

Outputs	Activity Completed	Challenges	Comments
Output 8: Effective Food Safety Control System, Better Agro-processing & Trade Facilitation Services			
Coordinate and monitor compliance of *Food Act 2020* requirements	Completed inspection of all stores and food vendors, restaurants including resorts and shops.	Lack of training on statutory requirements and compliance.	Provide training on compliance to all food vendors, restaurants/resorts and shops for better understanding of compliance roles under *Food Act 2020*.

Facilitate Food safety and border compliance	Completed inspection and clearance of 5 yachts with no infringement		Establish a robust food safety management system to ensure full adherence to national standards including – Implementing good hygiene practices Establishing traceability systems Conduct regular visual audits Ensuring staff are properly trained on food safety verification approach
Conduct household and community food security and safety awareness and support		Lack of awareness on food security and safety.	Provide training on food security and safety to food vendors and communities

Extension and Women Development Division

The EWDD focused on cultivation of horticulture and floriculture. In this financial period, number of activities were recorded included cooking training with students from Haápai High School and Taufaáhau College as well women from the communities as seen in *Figure 8*. This followed by a training with the Branch's staff on multiplication of orchid. These trainings have increase knowledge and skill of students and women on cooking healthy and safe handling of food while preparation. And staff capacity on the other hand also improved on multiplication of orchid. This would help women especially those who are planting flowers for commercial purpose, this training would help to improve their financial through good orchid farming practices.

Furthermore, 2 distributions of vegetable seedlings to farmers and stocks were deemed insufficient as the demand was not met. Therefore, the Branch had learned to cultivate more stocks to be able to accommodate demand of farmers.

Table3.9.2.7 Achievements of Extension and Women Development Division

Outputs	Activity Completed	Challenges	Comments
Output 10: Effective and Better Extension Advisory Services, Sustainable Food Security & Livelihood			
Provide efficient and effective Extension and Advisory Services	Attended to 4 grievances and all were paper mulberry damaged by free-ranged cattles.	Free-ranged cattles still an ongoing issue.	Collaborate with communities and relevant key stakeholders in deciding appropriate measure to diagnose the issue.
	The Branch remains committed to the provisioning of extension and advisory services when needed.		
Encourage home vegetables gardening, chicken production and planting of fruit trees to	2 distributions of seedlings were successfully implemented.	Less supply to meet the growers demand	1st Distribution – sufficient to supply for 43 growers which approximate 200 seedlings per

maintain for food security, reduce imports and improve healthy eating lifestyle			vegetable per grower (approx. 800 seedlings/grower) 2nd Distribution – lettuce, head cabbage, pak joy (leaves vegetables only) – approx. 50 each per grower.
	1 cooking training was successfully conducted with the secondary schools on April 15th 2025. 2 schools participated in this training, ie. Haápai High School and Taufaáhau College.		
Conduct household and communities' food security awareness and support program	Successfully completed cooking training with women in communities	Lack of activities implemented to promote women activities apart from the Annual Royal Show.	Design small cooking competition to apply and utilize cooking skills and promotion of using natural ingredients and healthy eating.
		Budget constraint resulted to lack of community awareness.	Enhance financial resources for initiation of community support program and awareness.
Encourage implementation of best farm practices by farmers	One (1) staff (Mr Sila Isitolo) participated at the Modern Breeding and Management of Vegetable, a two-week training in China.		Good opportunity for building capacity of our staff beneficial for the Branch.
Strengthen cottage industry on floriculture, horticulture and value addition projects	One (1) training on multiplication of orchid was successfully conducted in April to staff.		

Stakeholder Engagement

Haápai continues to experience the brunt of climate change which evidently witnessed the coastal erosion due to sea level rise and high tides. Not only, the geographical location of the island has placed the island in a more vulnerable state to seismic event and natural disasters which in fact experience the aftermath of the HTHH unprecedented event in January 2022. Therefore, planting of coastal plants was promoted by relevant authority with support of local NGOs to minimize erosion especially low-lying islands including the Haápai. Such effort tended to build the adaptive capacity of the island to become more resilient.

A coastal plants planting program was initiated by the Peacecorp for Lifuka District in collaboration with the Branch. The peacecorp requested the support of the Branch on provisioning of 700 coastal plants of different kinds to plant along the shoreline of Lifuka. The Branch was fully supported the program by

supplying free 700 coastal plants, sourcing from Vaipoa Nursery. These plants included fotulona, fetaú, pautaukanave, toa and telie as present in Figure 8 and 9.

This program was initiated in June as promotion of combating the brunt of climate change especially on the low-lying atoll such as Haápai which too vulnerable in terms of exposure to any natural disaster. This was evident when the Island experienced the aftermath of HTHH horrendous event.

Way Forward

There were issues identified along which hindered the smooth execution of all activities. However, appropriate recommendations were drawn accordingly to diagnose those issues in order to accomplish the sector's objectives. These drawn recommendations were based on the current situation of agricultural activities designed to maintain food security with the purpose to alleviate hunger problems; maintain and drive efficient and effective national economic performances based on our current limited agricultural resources available.

Effectively carrying out monitoring and evaluation of progresses of all programmes to ensure accessibility, impact and sustainability;

Strengthen partnership with private sectors and other key stakeholders;

Initiate awareness programs in communities and schools and other stakeholders; and

Ongoing capacity building for both staff and farmers.

3.9.3 'EUA

3.9.3.1 Output

3.9.3.2 Objectives

3.9.3.3 Achievements

MAFF 'Eua started in this Financial Year 2024/25 with 10 staff members and 8 daily paid labor but in January 2025 we have an additional of 1 JICA volunteer and 1 Peacecorp volunteer in March, 2025.

Food Section

Up **to 1589** food items with a Total value of **$ 4348.40** were ceased and destroyed during January – June, 2024 store inspection due to expired, deform, rusty, wet and infested by insects

Store Inspection

Food inspection check up

Restaurants examination

Kava exported to Australia with a high- quality expectation will first be examined to certify and award a certificate for those exporters that meet the requirements.

Training with women on Layers broiler

Goods that has been ceased from shops we inspected from July 2024 to June 2025 due to expired, deform, rusty wet and infested by insects has disposed and destroyed.

Women and Youth Section

Work achieved by this Section

Store Inspection

Training on sewing and maintenance of sewing machine

Sowing vegetables

distributing vegetable trays and direct sowing vegetables to women groups and individual as well

Monitoring of vegetables distributed

Training on cooking

Table 3.9.3.1 Vegetable Sowed in the Nursery

Month	Vegetable	Number of Trays
February	Tomato	53 trays
	Lettuce	77 trays
	Capsicum	64 trays
TOTAL		194

During this Financial Year, women section was able to sow and 194 vegetable trays, distributed and supply also direct sowing vegetables such as Cucumber, Carrots, Okra, Eggplant, Zucchini, Onion, Dwarf bean and Pakchoi.

Extension Section

Monitoring Talotonga for the Ministry of Labour & Commerce export

Store Inspection

Transplanting vegetable

General Cleaning up of Molipeli Premises

Table 3.9.3.2 Total kg of vanilla green beans sold to Heilala buyer during June- August (Fua Vanila 2024)

Months	Grade A	Grade B	Rejected	Total KG
June	474.4	32	1	507.4
July	440.3	28	-	468.3
August	143.3	8.6	-	151.9
TOTAL	**914.7**	**68.6**	**1**	**1127.6**

Table 3.9.3.3 Total kg of vanilla green beans sold to Heilala buyer during June- July (Fua Vanila 2025)

Grade A	Grade B	Grade C	Katoa
382.35	**29.2**	**5.9**	**417.45 Kg**

Livestock Section

Animal Clinic

Feed MAFF piggery

Sowing and transplanting vegetables

General cleaning up of Molipeli Premises

Table 3.9.3.4 Cases and Animal Clinic

Number of Cases	Number of Animal
13	**74**

Table 3.9.3.5 Status of the Ministry's Piggery farm

	Production	Sales	Distributed	Average Cost $	Total Cost $	Balance
Piglet	43	35 ($3,675.00)	7 ($735)	$105 /each	$4,410.00	1
Sow	4		2 piglets for replacement			6 (2 replacement)
Boar	1		1 (swap)	$ 1,500.00	$1,500.00	1(young)
Total		**$3,675.00**				

Forestry Section

There are 2 staffs and 2 Unestablished

Activities Achieved by this section

Seed and seedling collection

Maintenance of the Forestry nursery

Transplanting vegetable seedlings

Store Inspection

Table 3.9.3.5 Summary of Seedling Movement

Species	O/Stock	Production	Sales	Distribution	Mortality	C/Stock
Cultural spp	607	360		115	132	**720**
Fruit Trees	570	369		95	108	**736**
Timber spp	210	180				**390**
Sandalwood	1,500	560		500	440	**1,120**
Kava Tonga	2,500	1,100		800	600	**2,000**
TOTAL	**5,387**	**2,569**		**1,510**	**1,280**	

Machinery Pool

Currently, we have a vacant post of a daily paid tractor driver and since June, 2025 the tractor still awaiting its part and for the 4WD pickup (P2243) is still servicing at the Research Division.

Annual Survey 2024

Root Crops Data

Table 3.9.3.6 ROOT Crops Total Acre Summary 2024 Survey

ROOT Crops Total Acre Summary 2024 Survey	
Crops	**TOTAL ACRE 2024**
Cassava	**138.79**
Kahokaho	**39.08**
Kaumeile	**7.33**
Sweet potato	**58**

Talo futuna	**32.73**
Talo tonga	**237.6**
Ufilei	**0.13**
Ufi lose	**39.82**
Ufi others	**10.11**
TOTAL	**563.6**

Table above shows different kinds of root crops cultivated by ‘Eua farmers with its total acre. A total of 563.60acre cultivated with root crops produce. It indicates that most farmers in ‘Eua island cultivated Talo Tonga crops with a total of 237.6 acre out of 563.6 acre. However, least interested shows in cultivating ufilei crops which shows only 0.13 acre ufilei crops.

Figure 3.9.3.1 Root Crops Total Cultivated Acre

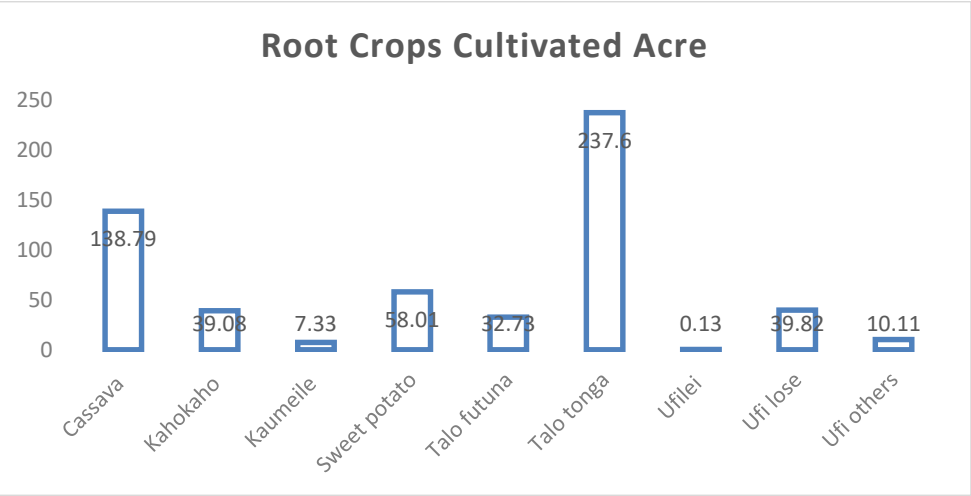


Table 3.9.3.7 Root Crops Status Summary

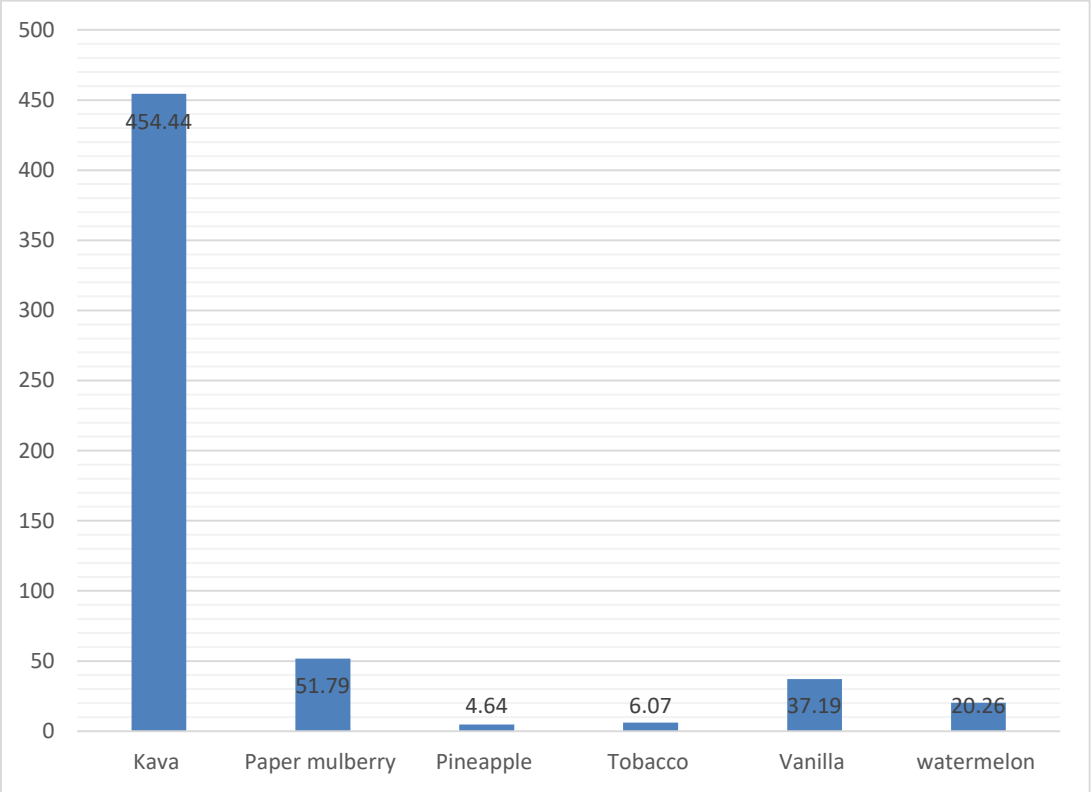
Crops		Acre	TOTAL ACRE
Cassava	Harvestable	**47.11**	
	New planting	**91.68**	**138.79**
Kahokaho	early yam	**5.79**	
	late yam	**9.43**	
	main season	**23.86**	**39.08**
Kaumeile	Commercial	**3.36**	
	Semi-subsistence	**3.46**	
	subsistence	**0.51**	**7.33**
Sweet potato	New planting	44.44	
	Harvestable	13.56	**58**
Talo Futuna	Harvestable	**13.97**	
	New planting	18.76	**32.73**
Talo Tonga	New planting	221.49	
	Harvestable	16.11	**237.6**
Ufi lose	Late yam	20.42	
	main season	19.41	**39.83**
Ufi others	Late yam	5.55	
	main season	4.56	**10.11**
Ufi Lei	Semi-subsistence	0.13	**0.13**
TOTAL ACRE			**563.6**

Commercial Crops Data

Table 3.9.3.8 Commercial Crops Total Acre Summary 2024 Survey

Crops	Total Acre 2024
Kava	**454.44**
Paper mulberry	**51.79**
Pineapple	**4.64**
Tobacco	**6.07**
Vanilla	**37.19**
watermelon	**20.26**
TOTAL	**574.39**

Figure 3.9.3.2 Commercial Crops total Acre Survey 2024



Total 3.9.3.9 Kava Survey 2024

Kava Variety	Crop Stage	Total Acre	TOTAL
Akau kula	lt_1	47.76	
	1_2	65.63	
	gt_2	206.8	**320.19**
Akau hina	lt_1	2.9	
	1_2	3.21	
	gt_2	13.41	**19.52**
Leka hina	lt_1	36.21	
	1_2	29.83	
	gt_2	29.22	**95.26**
Leka kula	lt_1	6.9	
	1_2	0	
	gt_2	12.09	**18.99**
Valu	lt_1	0	

	1_2	0	
	gt_2	0.48	**0.48**
TOTAL			**454.44**

Table above summarize the kava varieties that were surveyed during our annual crop survey 2024 with their current crop stage. A total of 5 varieties (akau kula, akau hina, leka hina, leka kula and valu) planted. Most cultivar cultivated was akau kula with 320.19acre, then leka hina with a total of 95.26 acre. Only 19.52 acre akau hina, 18.99 acre and only 0.48acre was valu.

COMMERCIAL CROPS

Table 3.9.3.10 Total commercial crops area in acre cultivated in 2022 and 2024

Crops	**Total Acre 2024**	**Total Acre 2022**
Kava	454.44	642.23
Paper mulberry	51.79	28.64
Pineapple	4.64	4.53
Tobacco	6.07	16.18
Vanilla	37.19	28.58
watermelon	20.26	21.54
TOTAL	574.39	741.7

Above table indicated total number of land area in acre cultivated in year 2022 and year 2024. A total of 574.39acre of land cultivated with commercial crops in 2024 which greatly decline from the total land area of 741.7 acre cultivated in 2022.

ROOT CROPS

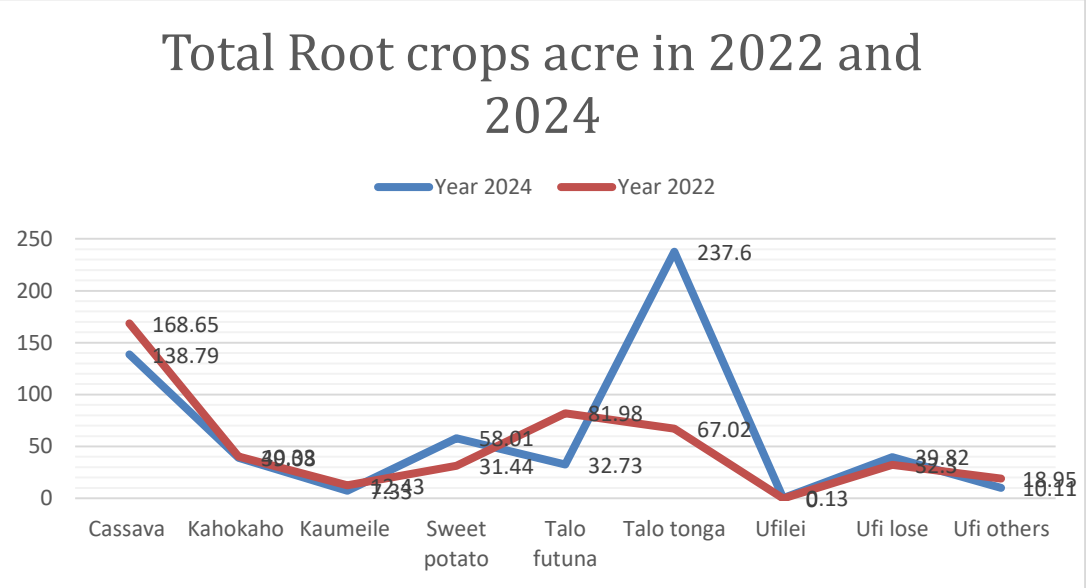
Table 3.9.3.11 Total root crops acre in 2022 comparison with 2024 crop survey

Crops	**TOTAL ACRE 2024**	**TOTAL ACRE 2022**
Cassava	**138.79**	168.65
Kahokaho	**39.08**	40.33
Kaumeile	**7.33**	12.43
Sweet potato	**58.01**	31.44
Talo futuna	**32.73**	81.98
Talo tonga	**237.6**	67.02
Ufilei	**0.13**	0

Ufi lose	**39.82**	32.3
Ufi others	**10.11**	18.95
TOTAL	**563.6**	**453.1**

Above table shows that in 2022 only 453.1 acre or land cultivated with roots crops while in 2024 a total of 563.6 acre cultivated with root crops.

Figure 3.9.3.2 Total root crops acre in 2022 and 2024



Way Forward

Currently we 3 vacant posts and they are:

1 tractor Driver to replace the left

2 Daily paid Nursery maintenance

Looking forward to carry out Training of trainers on:

- Chemicals and Pesticides

- Vegetative propagation i.e. Grafting and Marcotting or air layering

Establishing some demonstration and Trial plots

We would like to if possible to get another tractor to assist the current tractor

We would also like to have another vehicle to assist the current one in accommodating the 7 sections of MAFF in ‘Eua and also how important when the vehicle break down there is always another to carry on.

3.9.4 NIUA TOPUTAPU

3.9.4.1 Output

3.9.4.2 Objectives

3.9.4.3 Achievements

MINISTRY'S FINANCIAL MANAGEMENT

Recurrent BUDGET 2024-2025

The financial year FY 24/25 started off with an overall budget of $12,992,400. Out of the total budget, $5.7m was for salary expenditures which accounted for 45% and the remaining 55% which is $7.0m was for operating expenditures. The $7.0m for operating expenditures, $3m was for the PPP funds, $0.22m was for the Agriculture Show and leaving the remaining balance of $3.8m as the operation budget for the Ministry. With total approved budget of $12.9m, during the financial year, the Ministry received donor funds from Australian High Commission of $43,824 as donor funds to assist with the Niua's needs for maintenance of vehicles and equipment. As we moved toward the end of the financial year, $200k was transfer to Ministry of Finance motor vehicle votes to buy motor vehicles for the Quarantine division. With the in kind donor funds and transfer of funds to Ministry of Finance, that leave us with end of financial year budget of $12,836,224.

However, purchasing of the motor vehicles was not implemented due to late submission of the procurement proposal for the motor vehicles. We then utilized this funds to pay for our outstanding payments for the PWAF. At, the end for the financial year, we have utilized 98.8% of our overall budget leaving 1.2% not utilized. This $153k (1.2%) available funds were basically last minutes transfer to cater

for pending payments but was not allowed by Ministry of Finance to pay as they focus on paying only the materials payments. Overall, we accomplished all the payments for the PWAF, PPP, procurement payments except for one final payment for the renovation of Extension division conference room. Overtime for the PWAF was paid as well for the Quarantine overtime for Mar 25 to 1st half of June.

Table 3.9.4.1 Budget Performance by divisions

Divisions	Budget FY 24/25	Actual	Available Balance	% Available Balance	% Actual
Minister Office	205,747.84	205,171.76	576.08	0.3%	99.7%
CEO office	174,892.58	174,319.54	573.04	0.3%	99.7%
CSD	1,104,737.88	1,092,642.98	12,094.90	1.1%	98.9%
Economic Growth Funds	3,000,000.00	2,999,999.30	0.70	0.0%	100.0%
Agriculture Show	215,639.66	203,713.97	11,925.69	5.5%	94.5%
Policy division	230,907.43	230,526.85	380.58	0.2%	99.8%
Research division	905,676.52	893,189.00	12,487.52	1.4%	98.6%
Quarantine division	1,957,060.46	1,944,886.08	12,174.38	0.6%	99.4%
Forestry division	785,255.00	778,951.90	6,303.10	0.8%	99.2%
Food division	430,918.98	422,510.82	8,408.16	2.0%	98.0%
Livestock division	982,878.99	980,778.27	2,100.72	0.2%	99.8%
Extension division	1,096,970.80	1,087,929.96	9,040.84	0.8%	99.2%
Vava'u	734,703.32	722,633.53	12,069.79	1.6%	98.4%
Haapai	394,365.23	379,816.43	14,548.80	3.7%	96.3%
Eua	409,136.61	382,817.15	26,319.46	6.4%	93.6%
Niuatoputapu	103,985.48	94,708.03	9,277.45	8.9%	91.1%
Niua fo'ou	103,348.00	88,015.70	15,332.30	14.8%	85.2%
			-		
Grand Total	**12,836,224.78**	**12,682,611.27**	**153,613.51**	**1.2%**	**98.8%**

Table 3.9.4.2 Budget Performance by expenditure item

Expenditure Items	Budget	Actual	Available Balance	% Available Balance	% Actual
Salary budget	5,772,175.46	5,740,238.64	31,936.82	0.2%	44.7%
Operating budget	7,064,049.32	6,942,372.63	121,676.69	0.9%	54.1%
Total	**12,836,224.78**	**12,682,611.27**	**153,613.51**	**1.2%**	**98.8%**

The end of year budget of $12.83m, we used 44.7% for salary expenditures and 54.1% for operating expenditures leaving an available balance of $153k which is 1.2% of the budget.

Table 3.9.4.3 Revenue Performance by divisions

Divisions	Budget	Collected Revenue	Uncollected Revenue	% Collected	% Uncollected
Research/Livestock/ Extension	155,900.00	145,349.25	10,550.75	93%	7%
Quarantine	1,236,500.00	1,000,150.95	236,349.05	81%	19%
Forests	13,500.00	14,789.09	- 1,289.09	110%	-10%
Vavau	140,400.00	117,970.44	22,429.56	84%	16%
Haapai	18,000.00	44,619.35	- 26,619.35	248%	-148%
Eua	37,500.00	30,155.13	7,344.87	80%	20%
Niuafo'ou	1,200.00	600.00	600.00	50%	50%
Total	**1,603,000.00**	**1,353,634.21**	**249,365.79**	**84%**	**16%**

The approved revenue target was $1.6m of which the highest revenue budget was for the Quarantine division of 77% followed by the Research revenue targets of 10% and then Vava'u of 9%. As closing of financial year, we have collected 84% of our revenue targets and 16% was uncollected revenue. Forestry and Haapai have over achieved their revenue collection whereas the other divisions have collected more than 80% of their revenue targets. The Quarantine division collected the highest revenue of $1m which is only 81% of their revenue targets followed by Research and Vava'u.

PROCUREMENT PERFORMANCE

MAFF's Procurement Section is actively engaging with the aims of adhering to the Public Procurement Regulation 2015/2019 through maintaining an ethos of continuous improvement for both its current activities and future planned work. Procurement is mainly concerned with reviewing regulated procurements, that involves acquisition of goods, services, works and consultancy services which exceeds TOP20,000 in value. Treasury Checklist Procurement on the other hand, deals with the acquisition of goods, services and initiatives that exceeds TOP12, 000 in value.

This report covers the period of the Financial Year 2024/2025 from 1st July 2024 to 30th June 2025 and it will address performances and achievements in delivering MAFF's organizational procurement strategy in compliance with the Public Procurement Regulation 2015/19.

During this 2024/2025 FY, MAFF submitted a procurement plan which consists of 13 procurement activities and the details are as follows.

Table 3.9.4.4 **MAFF Procurement Plan for 2024/2025 FY**

Division	Category	Description	Budget (TOP)	Completion
LVD	GOODS	Feeds supplies for pigs, layer and brooding of chicks-Livestock division	80,000	30.08.2024
LVD	GOODS	Day old chicks & hatching eggs-Livestock division	100,000	15.10.2024
RRRD	GOODS	Hyralic jack 2tons	20,000	04.11.2024
RRRD	GOODS	Purchase Laboratory equipment - UV spectrometers, oven, weighting balance scale for Research division	50,000	27.12.2024
FRD	GOODS	Importing of Ornamental Plants- Forestry Division	30,000	20.01.2025
MAFF	GOODS	Purchase of 1 new vehicle, 2 used double cap van and 10 motorcycle	300,000	27.06.2025
EWD	WORKS	Renovation of Veitongo : Extension Division	50,000	9.08.2024
EWD	WORKS	New conference office -Vaololoa Extension division	100,000	08.01.2025
LVD	WORKS	Renovate roof for HO Livestock at Tokomololo	180,000	24.01.2025
QQMD	WORKS	Handicraft Inspection shed renovation/ expansion - Quarantine	110,000	15.07.2024
RRRD	WORKS	New roof for HO and the Plant Pathology lab at Research division at Vaini	60,221	06.01.2025
CSD	WORKS	Importation Tool Kit Equipment for Niuafo'ou and Niuatoputapu Islands	32,002	20.01.2025
CSD	TA	Short term consultancy service for Tonga Circular Economy Coordinator.	26,000	20.06.2025

MAFF Procurement performance

Every procurement activity submitted to the Ministry of Finance's Procurement Unit is being vetted based on a set criterion to ensure that each procurement submission complies with the government procurement policies

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Table 3.9.4.5 Procurement performance for 2024-2025 Financial Year.

Time Interval	No. Proposal Submitted	No. Endorsed	No. Compliance	No. Non-Compliance

July to Sept 2024	4	1	1	0
Oct to Dec 2024	5	4	4	0
Jan to Mar 2025	8	4	4	0

MAFF's Annual management for 2024 – 2025 Financial Year was also categorised into four category which are, Materials, Works, Consultancy, and Services

***Table 3.9.4.6* MAFF Procurement activity per category.**

Category	Sum of Procurement Item	Sum of Budget (TOP)
Goods	6	$ 580,000.00
WORKS	6	$ 532,223.00
Consultancy	1	$ 26,000.00
Services	0	$ 0.00
Grand Total	13	1,138,223

Regulated Procurements

MAFF has only a small number of regulated procurements which refers to those procurement activities that exceeds TOP$20,000 in value whilst acquisition of goods and services and works exceeds TOP$12,000 ≤ TOP$19,999.99 in value.

Table 3.9.4.7 MAFF Regulated Procurements.

No.	LOCATION	Tender Particulars	Date of Submit	Date of Endorse	Supplier	Amount $	Comply/ Non

1.	Livestock Division	Feeds supplies for pigs, layer and brooding of chicks	06.08.2024	11.11.2024	LUNA'EVA AND SONS	TOP 70625.00	Comply
2.	Livestock Division	Day old chicks & hatching eggs	19.08.2024	29.11.2024	Golden Coast Commercial	NZD 75,596.75	Comply
3.	Research & Rural Development Division	Purchase Laboratory equipment - UV spectro meters, oven, weighting balance scale for Research division	08.10.2024	27.05.2025	South Austral Pty Ltd	AUD 30905.71	Comply
4.	Forestry Division	Importing of Ornamental Plants- Forestry Division	05.02.2025	18.06.2025	South Sea Orchids	TOP 54164.00	Comply
5.	Extension and Women Division	Renovation of Veitongo	18.03.2024	10.10.2024	Katieli 'o Lau'ikuonga Holoia Construction	TOP 58520	Comply
6.	Extension and Women Division	New conference office -Vaololoa Extension division	03.12.2024	02.02.2025	Katieli 'o Lau'ikuonga Holoia Construction,	TOP 98712.62	Comply
7.	Quarantine Division	Handicraft Inspection shed renovation/ expansion	23.04.2024	22.07.2024	Katieli 'o Lau'ikuonga Holoia Construction,	TOP 108015.75	Comply
8.	Research & Rural Development Division	New roof for HO and the Plant Pathology lab at Research division at Vaini	05.02.2025	03.06.2025	K & H Aso Services & Construction	TOP 58,181.00	Comply
9.	Livestock Division	Renovate roof for HO Livestock at Tokomololo			Cancelled		
10	Research & Rural Development Division	Hydraulic jack 2tons			Cancelled		
11	Cooperative Services Division	Importation Tool Kit Equipment for Niuafo'ou and Niuatoputapu Islands	11.12.2024	02.04.2025	GPC Asia Pacific Limmited	NZD 22088.00	Non comply
12	Cooperative Services Division	Short term consultancy service for Tonga Circular Economy Coordinator.	16.05.2025		Tsutomu Nakao	TOP 26000	Non comply
13	EWD, QQMD, PPD, CSD etc	Purchase of 1 new vehicle, 2 used double cap van and 10 motorcyle	30.05.2025		PENDING	TOP 300000	Pending

3. SIGNIFICANT ISSUES/CHALLENGES

4. CONCLUSION