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Evaluation of the Performance of the Aquatic Animal Health Services

Report

World Organisation for Animal Health

PVS Pathway

PVS EVALUATION

REPORT OF THE AQUATIC ANIMAL HEALTH SERVICES OF

KINGDOM OF TONGA

10 - 18 September 2024

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List of acronyms, abbreviations and/or special terms

Term	Definition
AAD	Aquatic animal diseases
AAH	Aquatic animal health
CEO	Chief Executive Officer
CITES	Convention on International Trade in Endangered Species
FAME	SPC Fisheries, Aquaculture and Marine Ecosystems
FAO	Food Agriculture Organization of the United Nations
FO	Fisheries officer
IRA	Import risk assessment
INFOSAN	International Food Safety Authorities Network
JICA	Japan International Cooperation Agency
MAFF	Ministry of Agriculture, Food and Forests
MEIDECC	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications
MLSPNR	Ministry of Lands, Survey Planning and Natural Resources
MOF	Ministry of Fisheries
MOH	Ministry of Health
MOU	Memorandum of understanding
NDRMO	National Disaster Risk management office
QQMD	Quarantine and Quality Management Division
SMA	Special Management Area
SPC	The South Pacific Community
VS	Veterinary Services
WHO	World Health Organisation
WOAH	World Animal Health Organisation
WTO	World Trade Organisation

Acknowledgements

The WOAH-PVS Evaluation mission team (hereinafter called the “PVS Team”) wishes to express its gratitude to the Government of the Kingdom of Tonga – especially Hon Lord Fohe, Acting Minister for Fisheries and Minister of Agriculture, Food and Forests - for the invitation to perform this WOAH PVS Evaluation and for the warm welcome and help received from all the staff involved in the visit.

In particular, the PVS Team thanks Mr Charles Kato - Head of the Ministry of Agriculture, Food and Forests (MAFF) Livestock Division, Ms Annelise Halafihi - MAFF Food Division Officer, Mr Peioneti Lui - MAFF Quarantine and Quality Management Division Officer, and Ms Meletoli Fa'anunu – Ministry of Fisheries (MOF) Aquatic Biosecurity Officer. They all provided great support, logistical organisation, transparency, and accompanied us in all our site visits.
The PVS Team is also grateful of the many other public and private sector staff and stakeholders for receiving us during site visits, including their hospitality and generous sharing of information about their work.

PART I: EXECUTIVE SUMMARY

I.1 Introduction

Following a request to the WOAH from the Government of the Kingdom of Tonga, an evaluation of the Veterinary Services and the Aquatic Animal Health Services (AAHS) based on the *WOAH PVS (Performance of Veterinary Services)* methodology was conducted from 10 -18 September 2024 by a team of independent WOAH certified PVS evaluators. The results of the PVS Evaluation of the Veterinary Services (terrestrial) are presented in a separate report.

The evaluation began with meetings with the Minister of Agriculture, Food and Forests and Acting Minister of Fisheries, as well as meetings with senior staff from the MAFF and MOF, followed by meetings with officers of the Ministry of Health, Ministry of Lands Survey Planning and Natural Resources, and the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications.

The WOAH PVS Team visited sites and institutions of the public and private sector and held discussions with government officials, public officers, livestock producers, traders, international donors and other stakeholders.

The mission concluded with a closing meeting involving senior MAFF and MOF staff, private stakeholders and WOAH regional staff joining online. At the closing meeting the overall findings of the evaluation were discussed.

Background information is provided in summary in Appendix 3 including a country map, geographical and climate information, human demographic data, aquatic animal production and product trade data and general economic data.

I.2 Key findings of the evaluation

Tongan Aquatic Animal Health Services Context

The focus of the assessment performed during the PVS mission was the performance of the Aquatic Animal Health Services in relation to Aquaculture. Only some aspects related with food safety of wild fishery products were assessed.

Currently the main species cultivated include seaweed, molluscs (Giant clam and Mabe pearl) and echinoderms (Sea cucumbers). The cultivated species production relies on wild broodstock and spat, production volumes are small, and production methods are extensive or semi-intensive. No major WOAH listed diseases were identified but a full assessment of the aquatic animals disease status was never performed.

To support and develop the fisheries and aquaculture sectors, Tonga works with various regional and international agencies, including the Secretariat of the Pacific Community (SPC) and the Food and Agriculture Organization of the United Nations (FAO). These partnerships help provide technical assistance, training, and funding for sustainable development projects.

Aquaculture in Tonga is relatively small but has potential for expansion. The government, with support from international organizations, has been promoting aquaculture to diversify the economy, improve food security, and reduce fishing pressure on wild stocks.

It is important that aquatic animal health is considered to achieve the aquaculture sector goals. In particular, the competent authorities should focus on the control of important risk pathways for disease introduction such as, use of wild broodstock without adequate quarantine, import of live fish, lack of adequate hatchery biosecurity, uncontrolled aquatic animals' movement and

feed safety as well as promoting disease awareness and biosecurity training to officials and producers.

I.2.A Human, physical and financial resources

The competent authority for AAHS is MOF. There are no veterinarians or other aquatic animal health professionals (AAHP) at the MOF or employed by the private sector. In 2022 a section on aquatic biosecurity was created in the MOF with the objective to start planning and implement aquatic biosecurity to support the newly developing Tongan aquaculture sector. Currently the Aquatic Biosecurity team has two positions for fisheries officers, but the staff employed need further qualifications and training otto fulfil the tasks. The VS do not employ any veterinarians. Although the livestock division ensures some animal health clinical services they have no awareness of aquatic diseases. There is no official training within the Tongan government as veterinary paraprofessionals, nor aquaculture training at technical level. Training of fisheries officers is done on the job but is missing an aquatic diseases and a specific food safety component. The Fisheries Science and Extension Division staff have access to an onboarding training program, and continuing education training and development related to their job function are foreseen. The training available is ad hoc and is mostly provided by donors at international or regional level without strategic consideration of national priorities.

Multi-annual plans for aquaculture and the work of the competent authority with clear objectives and key performance indicators (KPIs) are publicly available. Monitoring and reporting of policy implementation is however outdated. The Tonga National Aquaculture Biosecurity Strategy 2017 is mostly focused on aquatic species health management including disease prevention, diagnosis, control, treatment, surveillance and national/international reporting and aquatic species imports and exports. The strategy was not fully costed, not funded, not implemented, and outcomes were largely not achieved.

The focus of the Tonga National Aquaculture Management and Development Plan 2024-2029 is on improving aquaculture for local subsistence. The current aquaculture strategic development plan is missing concrete actions in the area of AAH but does refer to the need to review the Tonga strategy on aquatic biosecurity.

The MAFF food safety division has overall responsibility for all food safety related activities. However, the food act regulation is not yet in place which leads to enforcement difficulties. Responsibilities for food safety of aquatic animal products was delegated to MOF but there is lack of a formal MoU between the two ministries which creates some confusion in producers and importers.

External coordination is necessary for licencing of aquaculture farms between the MOF the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) and the Ministry of Lands, Survey Planning and Natural Resources (MLSPNR)however there is unclear responsibilities regarding land and spatial planning and environmental impact assessment, for example the allocation of Special Management Areas (SMAs) did not involve the MLSPNR. Physical resources and capital investment is largely dependent on external donors but in general the resources are adequate. Operational funding is available directly from the government budget. The aquatic biosecurity team with only 2 staff has approximately 25% of its total budget allocated to salaries, other teams reported 80% on salaries and insufficient operational budget. There is no pre-established emergency funding. It is unclear what would be covered in case the emergency is about AAH.

I.2.B Technical authority and capability

The technical capability of the AAHS to develop aquatic animal diseases prevention, control or eradication programmes is non-existent. There is no laboratory diagnosis capacity in Tonga. In case of need, the AAHS would rely on potential access to laboratory capacity in Australia

and New Zealand via cooperation agreements. However, this is not specifically formalised for laboratories, and is limited by strict requirements and restrictions on the import of biological samples in those countries. There is no testing conducted for antimicrobials or other residues in food or feed.

The MOF has no quarantine division or risk analysis unit. There is no data to support evidence-based import risk analysis. There are no aquatic animal health surveillance programmes and very limited data on which to base any potential risk analysis. Aquaculture units are licenced, and their geographical location is registered. Although required by law there are no registries of aquatic animal movements, production or mortality data. Quarantine and border security is under the responsibility of the MAFF Quarantine and Quality Management Division. The legislative framework for the control of live animals and animal products includes both the Quarantine Act and Animal Diseases Act. Following provisions established in the Food Act, the inspection of imported food products is conducted in collaboration with the Border Control Section of the MAFF Food Division. However, given the current policy of seeking an MOU with the MOF for delegating the enforcement of food safety legislation in fisheries products, most of these imports are currently not subject to control by MAFF Officers. It is unclear if the staff resources and technical competencies are sufficient to ensure effective food safety controls.

There is no list of aquatic animal diseases of concern, no knowledge of the current disease status of the country, no technical resources, and no laboratory diagnostic capacity that would allow Tonga to develop and implement specific measures to prevent, control or eradicate aquatic animal diseases in the country

The Food Act 2020 is the main legislative act regulating food safety in Tonga. MAFF has the responsibility to manage and co-ordinate food safety measures to ensure that food that is imported, manufactured, exported, or sold commercially is fit for human consumption. The Food regulations have been discussed since 2014 but have not been adopted which causes enforcement difficulties. Food safety responsibilities for products of aquatic origin were delegated to MOF although this has yet to be implemented officially. There are no licenced aquaculture fish processing establishments and limited technical capacity in MOF to licence and monitor aquatic products establishments.

There are no manufacturers or importers of veterinary medicines and biologicals for aquatic animals. Use of pharmaceutical drugs is regulated by the Aquaculture Act, anyone intending to use any chemical, piscicide, pharmaceutical, bio-remediation product, or its derivative, for aquaculture must inform the MOF CEO. No evidence of such requests or inspections done by aquaculture officers was found by the PVS team during the field visits. The Therapeutic Goods Act establishes that a prescription is required for veterinary medicines but there is no implementing regulation or enforcement.

Tonga does not have a nationally coordinated AMR surveillance plan under the One Health approach. No residue testing for animal products is currently being undertaken for exports or the local market. Animal feed is not specifically covered by legislation and there is no management or regulation on its manufacture, import and/or use.

Aquaculture establishments are licenced, but control of aquatic animal movements is not done.

There is no national legislation or regulation of the welfare of farmed fish.

I.2.C Interaction with stakeholders

The MOF has formal engagement and communication with stakeholders as well as an extension service with national coverage. MOF has a national website ,which although not frequently updated with recent news, contains links to legislation, policies and reports, contact phone numbers and emails. Dedicated staff in the central offices of MOF are responsible for the Ministry’s communications.

The Advisory Committee established by the Aquaculture Management Act 2020 is composed the MOF Chief Executive Officer (CEO), representatives of the Ministry responsible for the Environment, Ministry responsible for Labour and Commerce and Ministry responsible for Marine and Ports; and three representatives of the aquaculture industry. The aquaculture management regulations also establish consultation procedures with Aquaculture farmers, representatives of aquaculture farmers' associations, fishermen and its representatives.

Tonga MAFF and MOF staff regularly participate in international and regional meetings but reporting back to colleagues is variable.

Tonga is not a member of WOAH, however, they have been invited and participated in regional workshops delivered to the Pacific Islands.

The MOF has good collaboration with fishing and aquaculture communities, examples of joint initiatives are the landing/fridge facilities in Vava'u and the project for a new workshop for pearl farmers.

There are no aquatic animal health management or clinical services provided by either the public or private sector.

I.2.D Access to markets

Tonga legislation covers all aspects of the AAH domain from the functioning of the public services including financial and staff matters as well as aquaculture and fisheries management. The lack of implementing regulations hampers the applicability of i.e. the Animal Diseases Act and the Food Act. Consultation with stakeholders on the developing of legislation has been done recently but it is not mandatory.

As there are no AAH programmes related to prevention, control or eradication of diseases, there is no inspection, communication, or specific awareness activity in this field. There are also no enforcement activities in the fields of veterinary medicines, feed and animal welfare.

Food safety legislation was developed in line with international Codex Alimentarius standards.

The MAFF has the authority to issue international certificates using international standards. Through the Livestock Division it has agreed bilateral arrangements with Australia and New Zealand for the certification of aquatic products. In any case, the certificates are not completed with understanding of the disease/health status.

Tonga is not a member of WOAH and has no notification obligations. Nevertheless, it regularly provides updates for both terrestrial and aquatic animals. New food regulations were notified according to the WTO SPS Agreement obligations in 2022.

Table 1: Summary results of the PVS Evaluation of the AAHS

	Result
I. HUMAN, PHYSICAL AND FINANCIAL RESOURCES	
I-1.A. Staffing: Veterinarians or aquatic animal health professionals	**1**
I-1.B. Staffing: AAH technical personnel and veterinary paraprofessionals	**2**
I-2.A. Competencies and education of veterinarians or AAH professionals	**N/A**
I-2.B. Competencies and education of AAH technical personnel, veterinary paraprofessionals	**1**
I-3. Continuing education	**2**
I-4. Technical independence	**2**
I-5. Planning, sustainability and management of policies and programmes	**3**
I-6.A. Internal coordination (chain of command)	**2**
I-6.B. External coordination (including the One Health approach)	**2**
I-7. Physical resources and capital investment	**2**
I-8. Operational funding	**3**
I-9. Emergency funding	**3**
II. TECHNICAL AUTHORITY AND CAPABILITY	
II-1.A. Access to laboratory diagnosis	**1**
II-1.B. Suitability of the national laboratory system	**N/A**
II-1.C. Laboratory quality management systems (QMS)	**N/A**
II-2. Risk analysis and epidemiology	**2**
II-3. Quarantine and border security	**3**
II-4.A. Passive surveillance	**1**
II-4.B. Active surveillance and monitoring	**1**
II-5. Emergency preparedness and response	**1**
II-6.A. Disease prevention	**1**
II-6.B. Disease control or eradication	**1**
II-7.A. Regulation, inspection, authorisation and supervision of establishments	**2**
II-7.B.Inspection of collection/slaughter, processing and distribution of aquatic animal products	**2**
II-8. Veterinary medicines and biologicals	**2**
II-9. Antimicrobial resistance (AMR) and antimicrobial use (AMU)	**2**
II-10. Residue testing, monitoring and management	**1**
II-11. Aquatic animal feed safety	**1**
II-12.A. Aquaculture establishment identification, batch and aquatic animal movement control	**2**
II-12.B. Identification, traceability and control of aquatic animal products	**2**
II-13. Welfare of farmed fish	**1**
III. INTERACTION WITH STAKEHOLDERS	
III-1. Communication	**3**
III-2. Consultation with stakeholders	**3**
III-3. Official representation and international collaboration	**2**
III-4. Accreditation/authorisation/delegation	**1**
III-5.A. VSB: Veterinarians working in aquatic animal health	**1**
III-5.B. VSB: Aquatic animal health professionals (non-veterinarians)	**1**
III-6. Participation of producers and other stakeholders in joint programmes	**3**
III-7. Aquatic animal health management and clinical services	**1**
IV. ACCESS TO MARKETS	
IV-1.A. Legal quality and coverage of aquatic animal health legislation	**2**
IV-1.B. Implementation and compliance of aquatic animal health legislation	**2**
IV-2. International harmonisation	**2**
IV-3. International certification	**2**
IV-4. Equivalence and other types of sanitary agreements	**3**
IV-5. Transparency	**1**
IV-6. Zoning	**1**
IV-7. Compartmentalisation	**1**

I.3 Key recommendations

I.3.A Human, physical and financial resources

- Considering the incipient development stage of the aquaculture sector it is unrealistic to consider the hiring of AAHPs or veterinarians by the MOF at this stage. Instead take advantage of existing initiatives at regional level to review training needs and priorities, and build basic AAH capacity of existing staff, including via MOF onboarding training.
- The use of international expertise for training and advice where available is recommended.
- Collaborate with MOH and MAFF to provide training to Fisheries Officers (FOs) responsible for food safety of aquatic products and establishments.
- Review the national agricultural college curriculum and seek expertise to include basic aquatic biosecurity and aquaculture health management, including epidemiology.
- Finalise the ongoing review, with support from SPC-FAME, of the aquatic biosecurity strategy with an implementation plan based on the needs identified by the aquaculture management and development plan.
- Develop formal internal coordination mechanisms and a clear and effective chain of command for different activities, including public health and aquatic diseases, including a One Health approach for formal, documented coordination between MOF, MOH, MAFF and MNRE).
- Work with MAFF and MOH to develop AAH priorities, define budget requirements, including for essential upgrades of existing facilities and equipment and their effective use.
- Consider Public-Private Partnerships as a means for developing future essential AAHS and related infrastructure for the aquaculture sector e.g. hatcheries, feed mills, laboratory access.
- Define emergency aquatic animal disease priorities and establish financial arrangements to accompany contingency plans.

I.3.B Technical authority and capability

- Consider coordination and collaborative efforts between competent authorities (MAFF, MOF, MOH) as well as regional opportunities (SPC, NZ MPI etc) for joint provision of laboratory services and related capacity building in aquatic animal health and food safety.
- According to defined priorities, explore possibilities for procurement of rapid tests for basic primary diagnosis of diseases that can be performed at field level and train staff on their use.
- Develop competencies to undertake simple risk assessments and progressively develop risk analysis skills, including import and food safety risk analysis. Consider combining with other competent authorities using risk analysis such as MAFF and MOH) for scale, and engaging external partners such as WOAH, SPC, JICA, etc for specific training on risk analysis, for example, jointly updating existing risk assessments.
- Explore the development of basic data capture, storage and digitalisation/systematization capacity, that allows the analysis of information and serves as a foundation for risk based decision-making. Include an IT database system for QQMD that is interoperable with existing ones for Customs.
- Develop capacity and tools for risk communication, as part of risk analysis.

- Establish criteria and an updated list of aquatic diseases of national concern, and the obligation to notify, through reviewing existing policies and legislation (Animal Diseases Act).
- Until then, adopt by default the WOAH Aquatic Code, Chapter 1.3, Diseases Listed by WOAH, and develop policy for the listing/delisting of aquatic animal diseases of environmental and economic concern.
- Promote stakeholder and public awareness of the need/importance of reporting suspected diseases and mortality.
- Seek opportunities to ensure staff and farmer training on aquatic disease recognition and sampling, potentially in partnership with SPC FAME.
- Consider initiating a collaborative effort between MOF and international partners to conduct surveillance designed to produce baseline national aquatic animal health disease data.
- Seek from regional partners' support to develop guidelines and contingency planning and build capacity for the declaration and response to aquatic animal health emergencies.
- Work with regional partners in developing and implementing regional collaborative networks for emergency preparedness and response (i.e. PHOVAPS).
- Once priorities are defined, surveillance surveys are completed and there is enough knowledge on the animal disease status of the country, consider working with international/regional partners to develop specific prevention programmes for highly prioritised diseases, including at the border.
- It is important to focus on important risk pathways for disease introduction such as, use of wild broodstock without adequate quarantine, import of live fish, lack of adequate hatchery biosecurity, uncontrolled aquatic animals' movement and feed safety.
- Adopt the Food Act regulations and budget MOF resources for its implementation, including hiring and/or training aquatic animal products inspectors, and developing laboratory access for product testing.
- Include controls on the use of veterinary medicines as part of the regular inspections to aquaculture farms.
- Update and adopt the Tonga AMR plan and implement basic AMR awareness and surveillance activity.
- Develop regulatory requirements to control the import and use of aquatic animal feed.
- Regulate the movement/distribution of live aquatic animals and encourage record keeping of all movements e.g. to other locations for on-growing.
- Ensure collaboration between MAFF food division and MOF to initiate whole-of-chain traceability of aquatic animal products.
- Consider assessing practices to measure alignment with the WOAH international standards for the welfare of farmed fish, as published in the Aquatic Code.

I.3.C Interaction with stakeholders

- Review and update stakeholder communication materials on a regular basis.
- Schedule regular consultation meetings with stakeholders and keep documented records of agenda/agreements.
- Consider formal procedures for reporting back to colleagues after international meetings.

- Evaluate the value of potential WOAH membership.
- Consider granting ‘official status’ to potential private veterinarians and/or aquatic animal health professionals that arrive in the country to undertake official tasks and programmes.
- Consider the possibility of working on a regional approach such as through SPC to develop regulations, including professional standards, for the veterinary profession, veterinary paraprofessionals and AAHPs.

I.3.D Access to markets

- Prioritise activities relating to aquaculture and biosecurity legislation and regulations, to complement the aquaculture management and development plan and the review of the aquatic biosecurity strategy, and in alignment with international standards. technical competencies, should be permitted to certify live aquatic animals and products.

PART II: CONDUCT OF THE EVALUATION

II.1 *PVS Tool - Aquatic*: method, objectives and scope of the evaluation

To assist countries to establish their current level of performance, form a shared vision, establish priorities and carry out strategic initiatives, WOAH has developed an evaluation tool called the *WOAH Tool for the Evaluation of Performance of Aquatic Animal Health Services* (*PVS Tool - Aquatic*) which comprises four fundamental components:

- Human, physical and financial resources
- Technical authority and capability
- Interaction with stakeholders
- Access to markets.

These four fundamental components encompass 47 critical competencies, for each of which five qualitative levels of advancement are described. For each critical competency, a list of suggested indicators was used by the WOAH Evaluation Team to help determine the level of advancement.

The report follows the structure of the *PVS Tool - Aquatic*. The objective and scope of the Aquatic PVS evaluation includes all aspects relevant to the WOAH Aquatic and Terrestrial Animal Health Codes. In addition, the scope and objectives were clarified before the mission (see Appendix 6) as appropriate to the mandate and context of the AAHS in this country.

II.2 Context of the evaluation

II.2.A Availability of data relevant to the evaluation

A list of documents received by the Team before and during the Aquatic PVS Evaluation mission is provided in Appendix 5.

All documents listed in Appendix 5 are referenced to relevant critical competencies to demonstrate the levels. Documents and pictures are also referenced to relevant critical competencies to support the related findings.

The following table provides an overview of the availability of the main categories of documents or data needed for the evaluation, taking into account the information requirements set out in the WOAH Aquatic and Terrestrial Animal Health Codes.

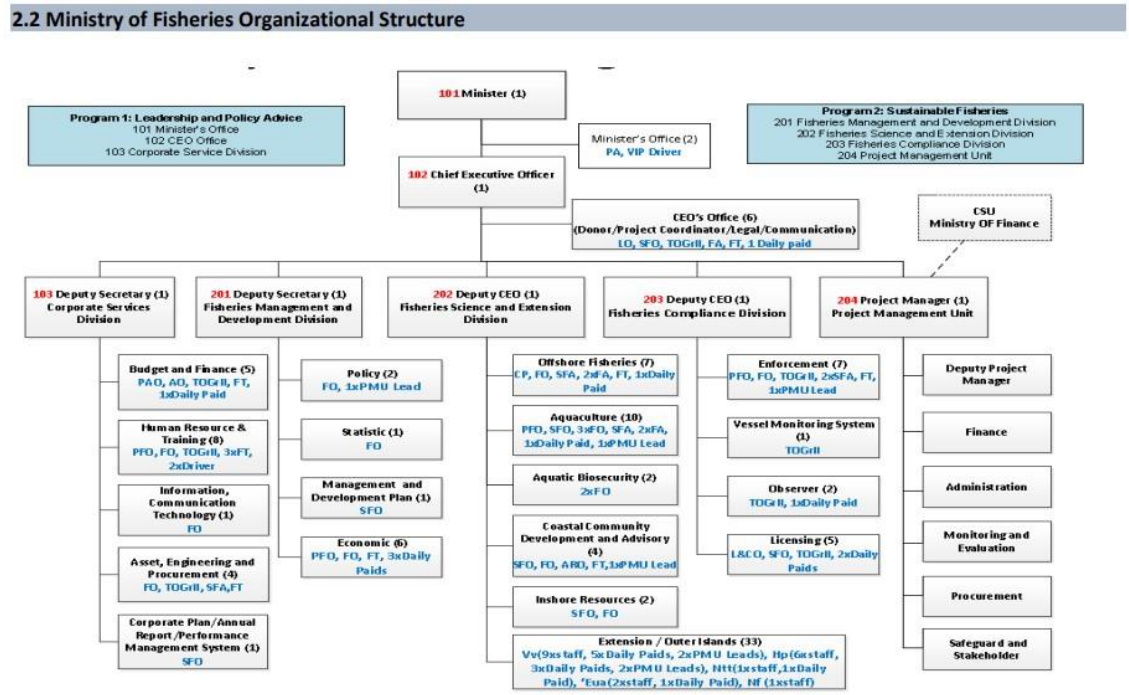
Table 2: Summary of data available for evaluation

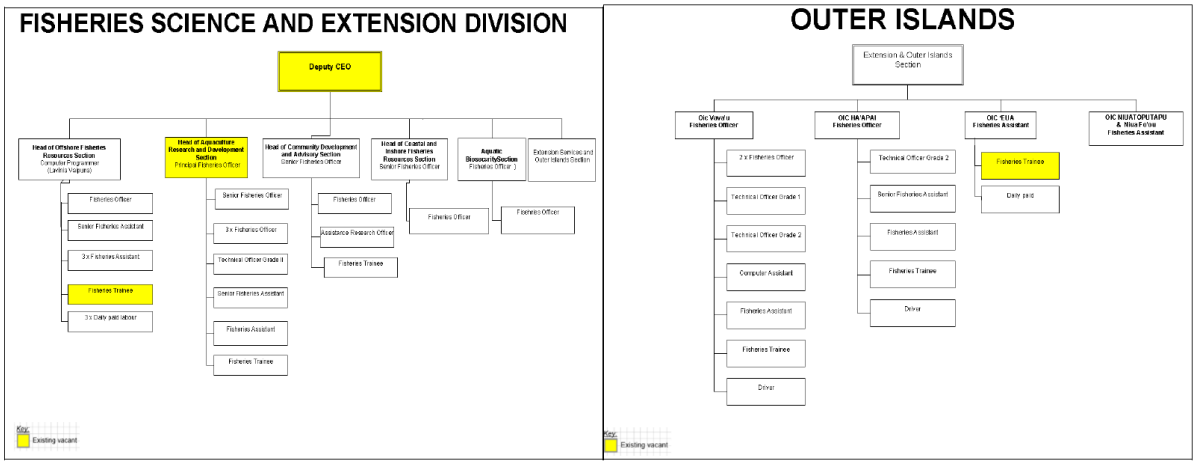
Main document categories	Data available in the public domain	Data accessible only on site or on request	Data not available
→ **Aquatic Animal census:**			
○ at 1st administrative level (Central level)		X	
○ at 2nd administrative level (outer islands)		X	
○ at 3rd administrative level			N/A
○ per animal species		X	
○ per production systems		X	
→ **Organisations charts**			
○ Central level of the AAHS (Central level)		X	
○ 2nd level of the AAHS			X
○ 3rd level of the AAHS			N/A
→ **Job descriptions in the AAHS**			
○ Central levels of the AAHS		X	
○ 2nd level of the AAHS			X
○ 3rd level of the AAHS			X
→ **Legislations, regulations, decrees …**			
○ Aquatic animal health and public health	X		
○ Veterinary practice			N/A
○ Veterinary statutory body			N/A
○ Other professional authorities			N/A
○ Veterinary medicines and biologicals	X		
○ Official delegation			N/A
→ **Veterinary census**			
○ Global (public, private, veterinary, aquatic animal health professional, technical personnel)			N/A
○ Per level			N/A
○ Per function			N/A
→ **Census of logistics and infrastructures**			
→ **Activity reports**		X	
→ **Financial reports**		X	
→ **Aquatic animal health status reports**			X
→ **Evaluation reports**			
→ **Procedures, registers, records, letters …**		X	
→			

II.2.B General organisation of the Aquatic Animal Health Services

The Kingdom of Tonga Aquatic Animal Health Services (AAHS) are limited to 2 staff in the aquatic biosecurity team and staff responsible for aquaculture and aquatic animal processing licencing and monitoring of food safety. The Ministry of Fisheries (MOF) is responsible for the conservation, management, sustainable utilization and development of fisheries resources including aquaculture. The fisheries officials (2) of the sector of aquatic biosecurity in the Fisheries Science and Extension Division have the mission of administering, coordinating and supervising the biosecurity standards and compliance mainly relevant to aquaculture activities and non-aquaculture work that involves biosecurity protocol advice(s) in Tonga's fisheries sector. The aquaculture section is responsible for planning, managing and monitoring of Tonga aquaculture activities. The MOF is responsible for licencing and monitoring of fishing vessels,

aquaculture facilities and fisheries products establishments. Import and export inspection and certification of fishery products are done by MOF in collaboration with MAFF. Extension services are present in the main islands of the three groups Tongatapu, Ha'apai and Vava'u and constitute the second administrative level of the services.





For the purposes of this evaluation, the competent authority of the Aquatic Animal Health Services is the Ministry of Fisheries. The Veterinary Services include the Ministry of Agriculture, Food and Forests and certain aspects of the Ministry of Health. The description of the organization of the VS is in a separate report.

II.2.C Aquatic animal disease occurrence

No up to date information is available for the occurrence of diseases in the country. However, despite not being a WOAH member, the MOF submits periodical reports on the disease status of the country. The WOAH – WAHIS Standard report for Tonga (8/04/24) is shown below:

Animal Health Situation

Diseases for which at least one exceptional event is ongoing:

Outbreaks of all ongoing disease events in the country

Reporting History for the past two years

Number of Immediate Notifications submitted: 0

Average time elapsed from start of event to its confirmation (days): 0

Average time elapsed from confirmation of event to submission of IN (days): 0

Ongoing Events

Submitted Six-Monthly Reports

	SEM01 2022	SEM02 2022	SEM01 2023	SEM02 2023
Terrestrial	Submitted	Pending	Submitted	Pending
Aquatic	Submitted	Submitted	Submitted	Submitted

II.3 Organisation of the evaluation

II.3.A Timetable of the mission

Appendix 2 provides the timetable of the mission and details of the facilities and locations visited by the WOAH Aquatic PVS Team and Appendix 3 provides the international air travel itinerary of team members.

II.3.B Categories of sites and sampling for the evaluation

Table 4 lists the categories of site relevant to the evaluation and the number of each category of site in the country. It indicates how many of the sites were visited, in comparison with the suggested sampling framework (“ideal” sampling) recommended in WOAH PVS Manuals.

Table 4: Site sampling

	Terminology or names used in the country	Number of sites	"Ideal" sampling	Actual sampling
GEOGRAPHICAL ZONES OF THE COUNTRY				
Climatic zone				
Topographical zone				
Agro-ecological zone				
ADMINISTRATIVE ORGANISATION OF THE COUNTRY				
1st administrative level	*Tongatapu*	1		1
2nd administrative level	*Outer islands*	2		1
VETERINARY SERVICES OR AQUATIC ANIMAL HEALTH SERVICES ORGANISATION AND STRUCTURE				
Central (Federal/National) AAHS	*Tongatapu*	1		1
2nd level of the AAHS	*Outer islands*	2		1
FIELD AQUATIC ANIMAL HEALTH NETWORK				
Field level of the AAHS (aquatic animal health)	N/A			
Private veterinary sector	N/A			
Other sites	N/A			
VETERINARY MEDICINES & BIOLOGICALS				
Production sector	N/A			
Import and wholesale sector	N/A			
Retail sector	N/A			
Other partners involved	Aquaculture/exporters ornamental	5		1
LABORATORIES				
National laboratories				
Regional and local laboratories				
Associated, accredited and other laboratories				
AQUATIC ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL				
Bordering countries	N/A			
Airports and ports border posts		6	6	1
Main terrestrial border posts	N/A			
Minor terrestrial border posts	N/A			
Quarantine stations for import	N/A			
Internal check points	N/A			
Live aquatic animal markets	N/A			
Zones, compartments, export quarantines	N/A			
PUBLIC HEALTH INSPECTION OF AQUATIC ANIMALS AND AQUATIC ANIMAL PRODUCTS				
Export processing plants		2		1
National market processing plants				
Local market processing plants				
On farm processing sites				
Processing sites				
Retail outlets (shops, restaurants)				1
TRAINING AND RESEARCH ORGANISATIONS				
Veterinary university	N/A			
AAH professional training schools	N/A			
Fisheries, aquaculture and veterinary research organisations	N/A			
STAKEHOLDERS' ORGANISATIONS				
Agricultural Chamber / organisation	N/A			
National aquaculture farmers organisations				1
Local aquaculture farmers organisations				
Other stakeholder organisations				
Consumer organisations				

PART III: RESULTS OF THE EVALUATION & GENERAL RECOMMENDATIONS

This evaluation identifies the strengths and weaknesses of the Aquatic Animal Health Services, and makes general recommendations.

FUNDAMENTAL COMPONENTS	
1.	HUMAN PHYSICAL AND FINANCIAL RESOURCES
2.	TECHNICAL AUTHORITY AND CAPABILITY
3	INTERACTION WITH STAKEHOLDERS
4.	ACCESS TO MARKETS

The activities of the Veterinary Services and Aquatic Animal Health Services are recognised by the international community and by WOAH Members as a '**global public good**'. Accordingly, it is essential that each country acknowledges the importance of its role and responsibilities and gives them the human and financial resources needed to fulfil their responsibilities.

PVS Evaluations examined each critical competency under the 4 fundamental components, listed strengths and weaknesses where applicable, and established a current level of advancement for each critical competency. Evidences supporting this level are listed in Appendix 5. General recommendations were provided where relevant.

The current level of advancement for each critical competency is shown in cells shadowed in grey (15%) in the table and indicated in the line **LEVELS OF ADVANCEMENT - x**.

III.1 Fundamental component I: Human, physical and financial resources

This component of the evaluation concerns the institutional and financial sustainability of the AAHS as evidenced by the level of professional/technical and financial resources available and the capacity to mobilize these resources. It comprises twelve Critical Competencies:

Critical Competencies:

Section I-1	**Professional and technical staffing of the Aquatic Animal Health Services (AAHS)** **A. Veterinarians or aquatic animal health professionals (university qualification)** **B. Aquatic animal health technical personnel, including veterinary paraprofessionals**
Section I-2	**Competencies of education of veterinarians or aquatic animal health professionals, and technical personnel** **A. Veterinarians and aquatic animal health professionals (university qualification) including the WOAH Day 1 competencies for veterinarians** **B. Aquatic animal health technical personnel, including veterinary paraprofessionals**
Section I-3	**Continuing education (CE)**
Section I-4	**Technical independence**
Section I-5	**Planning, sustainability and management of policies and programmes**
Section I-6	**Coordination capability of the AAHS** **A. Internal coordination (chain of command)** **B. External coordination (including the One Health approach)**
Section I-7	**Physical resources and capital investment**
Section I-8	**Operational funding**
Section I-9	**Emergency funding**

Aquatic Code references:

- Points 1-7, 9, 11 and 14 of Article 3.1.2. on Fundamental principles of quality: Professional judgement/Independence/Impartiality/Integrity/Objectivity/Aquatic animal health legislation and regulations/General organisation/Documentation/Procedures and standards/Human and financial resources.

Terrestrial Code references:

- Article 3.2.1. on General considerations.
- Article 3.2.2. on Fundamental operating principles.
- Article 3.2.3. on Policy and management.
- Article 3.2.4. on Personnel and resources.
- Article 3.2.5. on The veterinary profession.
- Article 3.2.6. on Stakeholders.
- Article 3.2.10. on Laboratories.
- Article 3.2.12. on International trade.
- Chapter 3.5. on Communication.

Terrestrial Manual reference:

- Chapter 1.1.1. on Management of veterinary diagnostic laboratories.

I-1. PROFESSIONAL AND TECHNICAL STAFFING OF THE AQUATIC ANIMAL HEALTH SERVICES (AAHS)

DEFINITION
The appropriate staffing of the AAHS to allow for veterinary and *aquatic animal health professional* functions to be undertaken efficiently and effectively.
A. *Veterinarians* or *aquatic animal health professionals* (university qualification)
LEVELS OF ADVANCEMENT- 1
1. The majority of positions requiring veterinary and *aquatic animal health professional* skills are not occupied by appropriately qualified personnel.
2. The majority of positions requiring veterinary and *aquatic animal health professional* skills are occupied by appropriately qualified personnel at central and state/provincial levels.
3. The majority of positions requiring veterinary and *aquatic animal health professional* skills are occupied by appropriately qualified personnel at local (field) levels.
4. There is a systematic approach to defining job descriptions and formal, merit-based appointment and promotion procedures for *veterinarians* and *aquatic animal health professionals*.
5. There are effective procedures for formal performance assessment and performance management of *veterinarians* and *aquatic animal health professionals*.

I-1.A.a. Findings:

There are no veterinarians or other AAHPs at the MOF or employed by the private sector. In 2022 a section on aquatic biosecurity was created in the MOF with the objective to develop and implement aquatic biosecurity in collaboration with SPC to support aquaculture development.

Currently the aquatic biosecurity team has two positions for fisheries officers but one is absent in long term training. The mandatory qualifications and experience for the position of fishery officer at the Aquatic biosecurity team are a relevant degree/diploma/certificate/trade/technical qualification and working experience. Although the post objectives are to lead in carrying out tasks related explicitly to aquatic health management and providing technical assistance to the MOF and MAFF (Livestock Division) and the aquaculture industry (individual farmers and farmers associations) on aquatic animal diseases diagnosis, prevention, control and treatment, the staff employed need further qualifications and training to fulfil the tasks.

The VS do not employ any veterinarians. Although the livestock division ensures some animal health clinical services are provided, there is no awareness regarding aquatic diseases.

I-1.A.b. Strengths:

- Dedicated aquatic biosecurity staff are employed.

I-1.A.c. Weaknesses:

- Inadequate numbers of aquatic animal health staff employed by the MOF, with a lack of aquatic animal health skills .

I-1.A.d. Recommendations:

- Considering the incipient development stage of the aquaculture sector it is unrealistic to consider the hiring of AAHPs or veterinarians by the MOF. Instead to taking full advantage

of existing initiatives at regional level such as with SPC, and the use of international expertise is recommended.

I-1.A.e. Evidence (as listed in Appendix 5): 28, 29, 30, 34

I-1. PROFESSIONAL AND TECHNICAL STAFFING OF THE AQUATIC ANIMAL HEALTH SERVICES (AAHS)

DEFINITION
The appropriate staffing of the AAHS to allow for veterinary and *aquatic animal health professional* functions to be undertaken efficiently and effectively.
B*. Aquatic animal* health technical personnel, including *veterinary paraprofessionals*
The appropriate level of staffing of the AAHS to enable *aquatic animal health professional* functions to be undertaken efficiently and effectively. This covers *aquatic animal* health technical personnel trained at dedicated educational institutions with formal qualifications which are recognised by the government or the *Veterinary Statutory Body* or other official body for veterinary specialisation.
LEVELS OF ADVANCEMENT- 2
1. The majority of positions requiring *aquatic animal* health technical skills are not occupied by personnel holding appropriate qualifications.
2. Some positions requiring technical skills are occupied by personnel holding appropriate qualifications. There is little or no veterinary or *aquatic animal health professional* (university-level qualification) supervision.
3. The majority of positions requiring technical skills are occupied by personnel holding appropriate qualifications. There is a variable level of veterinary or *aquatic animal health professional* (university- level qualification) supervision.
4. The majority of technical positions are effectively supervised on a regular basis by *veterinarians* or *aquatic animal health professionals* (university-level qualification).
5. There are effective management procedures for formal appointment and promotion, as well as performance assessment and performance management of technical positions (non-university-level qualification).

I-1.B.a. Findings:

Technical staff with agricultural training and other graduates such as with chemistry and biology backgrounds are employed in the various divisions of the MOF. However, the training on aquatic animal health and food safety aspects is insufficient and there is no veterinary or AAHP supervision.

Table X: MOF staff by category and section of the Fisheries Science and Extension Division

	Computer programmer /Principal Fisheries Officer	*Senior Fisheries Officer*	*Fisheries Officer*	*Senior Fisheries Assistant*	*Fisheries Assistant*	*Fisheries Trainee*	*other*
Off shore fisheries	*1*		*1*		*2*	*1*	*1*
Aquaculture	*1*	*1*	*3*	*1*	*2*		*2*
Aquatic biosecurity			*2*				
Coastal community development and advisory		*1*	*2*				*2*

Inshore resources		*1*	*1*				
Extension/outer islands			*4*	*1*	*4*	*3*	*21*

I-1.B.b. Strengths:

- The Tonga national strategy on aquatic biosecurity includes objectives on training for technical staff employed by the MOF.

I-1.B.c. Weaknesses:

- No training is offered to agriculture graduates on AAD.

I-1.B.d. Recommendations:

- Take advantage of existing initiatives at regional level and use of international expertise to provide training to MOF staff providing extension services regarding AAD
- Collaborate with MoH and MAFF to provide training to FOs responsible for food safety of aquatic products and establishments.
- Review the national agricultural college curriculum to include aquatic biosecurity and aquaculture health management.

I-1.B.e. Evidence (as listed in Appendix 5): 26, 28, 29, 30, 34

I-2. COMPETENCIES AND EDUCATION OF VETERINARIANS OR AQUATIC ANIMAL HEALTH PROFESSIONALS, AND TECHNICAL PERSONNEL

DEFINITION
The capability of the AAHS to effectively carry out their veterinary or *aquatic animal health professional* practices and technical functions, as indicated by the level and quality of the qualifications of their personnel in veterinary or *aquatic animal health professional* positions.
A . *Veterinarians* and *aquatic animal health professionals* (university qualification) including the WOAH Day 1 competencies for *veterinarians*
This references the WOAH recommendations on the Competencies of Graduating *Veterinarians* (Day 1 Graduates) and the WOAH Guidelines on Veterinary Education Core Curriculum. Specific competencies in *aquatic animal* health should also be considered.
LEVELS OF ADVANCEMENT- N/A
1. The knowledge, skills and practices of *veterinarians* or *aquatic animal health professionals* are of a variable standard that allow for elementary clinical and administrative activities of the AAHS.
2. The knowledge, skills and practices of *veterinarians* or *aquatic animal health professionals* are of a uniform standard sufficient for accurate and appropriate clinical and administrative activities of the AAHS.
3. The knowledge, skills and practices of *veterinarians* or *aquatic animal health professionals* are sufficient for all professional/technical activities of the AAHS (e.g. *surveillance*, treatment and control of *aquatic animal disease*, including conditions of public health significance).
4. The knowledge, skills and practices of *veterinarians* or *aquatic animal health professionals* are sufficient for recognized activities (e.g. higher-level epidemiological analysis, *disease* modelling, *animal welfare* science) as may be needed by the AAHS, supported by post-graduate-level training.
5. The knowledge, skills and practices of *veterinarians* or *aquatic animal health professionals* are subject to regular updating, and are internationally recognized, for example through formal evaluation and/or the granting of international equivalence with other recognized veterinary or AAH membership qualifications.

I-2.A.a. Findings:

Not applicable. There are no veterinarians or AAHP in Tonga, and no university is providing such qualifications.

I-2.A.b. Strengths:

- N/A

I-2.A.c. Weaknesses:

- N/A

I-2.A.d. Recommendations:

- N/A

I-2.A.e. Evidence (as listed in Appendix 5):

I-2. COMPETENCIES AND EDUCATION OF VETERINARIANS OR AQUATIC ANIMAL HEALTH PROFESSIONALS, AND TECHNICAL PERSONNEL

DEFINITION
The capability of the AAHS to effectively carry out their veterinary or *aquatic animal health professional* practices and technical functions, as indicated by the level and quality of the qualifications of their personnel in veterinary or *aquatic animal health professional* positions.
B. *Aquatic animal* health technical personnel, including *veterinary paraprofessionals*
LEVELS OF ADVANCEMENT- 1
1. Positions requiring technical personnel skills are generally occupied by those having no formal training or qualifications from dedicated educational institutions.
2. The training and qualifications of those in positions requiring technical personnel skills are of a variable standard and allow for the development of only basic competencies.
3. The training and qualifications of technical personnel are of a fairly uniform standard that allows the development of some specific competencies (e.g. supervised treatment administration on farms, *aquatic animal product* hygiene control, basic *laboratory* tests).
4. The training and qualifications of technical personnel are of a uniform standard that allows the development of more advanced competencies (e.g. tissue sample collection on farms, supervised aquatic *animal product* inspection, complex *laboratory* testing).
5. The training and qualifications of technical personnel are of a uniform standard and are subject to regular evaluation and/or updating.

I-2.B.a. Findings:

There is no official training for veterinary paraprofessionals. The Tonga National University provides a degree on agricultural science (3 years) and diploma studies of 1 year. In 2025 the university will also offer a certificate in animal care. The degree is new and there are no graduates yet, 10 students have completed the 2nd year (14 started).

The curriculum includes 2 courses in animal health in the second and third year. The curriculum was discussed with MAFF. The course is mostly about agricultural production including some courses on animal production with limited practical training. Basic concepts of disease diagnostics and therapeutics are taught by MAFF livestock division non veterinarian staff. Zoonosis conditions are part of the curriculum but no training on meat inspection or other food safety aspects is included. No training is available about aquatic species but a course on aquaculture is planned and there is are ongoing discussions with MOF about a possible aquaculture degree/diploma.

The Tonga National University is working with a New Zealand university to develop a curriculum which could open doors as a pre-requisite for access to the veterinary school in NZ.

A College of agriculture in one of the outer island offers a degree on crop and livestock production.

I-2.B.b. Strengths:

- The Tonga National University provides training with courses on livestock production

I-2.B.c. Weaknesses:

- No education training is available for aquaculture or AAH

I-2.B.d. Recommendations:

- Review AAH training needs and explore AAH training opportunities offered throughout the region.
- Reinforce onboarding training for MOF staff to cover the needs of AAH and food safety of aquatic animal health products

I-2.B.e. Evidence (as listed in Appendix 5): 26, 27

Tonga university – courses https://tnu.edu.to/school-of-agriculture-course-description/

I-3. CONTINUING EDUCATION (CE)

DEFINITION
The capability of the AAHS to maintain, update and improve the knowledge, attitudes and skills of their personnel, through an ongoing staff training and development programme assessed on a regular basis for relevance and targeted skills development.
LEVELS OF ADVANCEMENT- 2
1. The AAHS have no access to veterinary, professional or technical CE.
2. The AAHS have access to CE (internal and/or external training and development programmes) on an irregular basis but it does not take needs into account, or new information, or understanding.
3. The AAHS have access to CE that is reviewed and sometimes updated, but it is implemented only for some categories of the relevant personnel.
4. The AAHS have access to CE that is reviewed annually and updated as necessary, and is implemented for all categories of the relevant personnel.
5. The AAHS have up-to-date CE that is implemented or is a requirement for all relevant personnel and is subject to dedicated planning and regular evaluation of effectiveness.

I-3.a. Findings:

The Fisheries Science and Extension Division staff have access to an onboarding training program, continuing education and development are foreseen. The training is mostly provided by donors at international or regional level without a strategic consideration of national priorities. There has been no specific training on AAH but the aquatic biosecurity officer was part of meetings/workshops on aquatic biosecurity organised by WOAH and SPC.

The MOF fisheries corporate plan include objectives on training for staff at central level and extension officers as well as farmers and other stakeholders but there is no provision for training on aquatic biosecurity.

MOF has particularly close ties with two regional agencies, the Forum Fisheries Agency (FFA) and the South Pacific Community (SPC), and regularly attends workshops, training events, and meetings.

MAFF and MoH have specific onboarding and continuing education training for hygiene standards and food safety of animal products.

I-3.b. Strengths:

- Onboarding training is provided to new staff at MOF.
- The MOF support the participation of staff/FO to regional and international trainings taking advantage of existing donor funding.

I-3.c. Weaknesses:

- No training on aquatic biosecurity is available for extension services staff.

I-3.d. Recommendations:

- Review AAH training needs and explore access to AAH training opportunities offered throughout the region.
- Establish a training program that covers all aspects of food safety of products of animal origin including fishery products.

I-3.e. Evidence (as listed in Appendix 5): 28, 29, 30, 34

I-4. TECHNICAL INDEPENDENCE

DEFINITION
The capability of the AAHS to carry out their duties with autonomy and without undue commercial, financial, hierarchical and political influences that may affect technical decisions in a manner contrary to the provisions of WOAH (and of the WTO SPS Agreement, where applicable).
LEVELS OF ADVANCEMENT- 2
1. The technical decisions made by the AAHS are generally not based on scientific considerations.
2. The technical decisions consider the scientific evidence but are routinely modified to conform to non- scientific considerations.
3. The technical decisions are based on scientific evidence but are subject to review and possible modification based on non-scientific considerations.
4. The technical decisions are made and generally implemented in accordance with the country's WOAH obligations (and with the country's WTO SPS Agreement obligations, where applicable).
5. The technical decisions are based on a high level of scientific evidence, which is both nationally relevant and internationally respected, and are not unduly changed to meet non-scientific considerations.

I-4.a. Findings:

The MOF operations are based on a comprehensive legislative framework. Multi-annual plans with clear objectives and KPIs are publicly available. A anti-corruption team reports directly to the Ombudsman. Monitoring and reporting of policy implementation is outdated, the latest report is from 2021-2022.

The Public Service Commission Act regulates the functioning of public services and staff. The Public Service Commission is responsible for recruitment. Positions are advertised, staff are evaluated and aeappointed in an independent manner. . Public servants can have other activities (renumerated or not) as long as these do not overlap with public functions. Declarations of interest and potential conflict are not required.

Salaries are low (approximately 30000 TOP/yr for a FO) and more qualified professionals often look for opportunities abroad. No direct political or economic influence on decision making was observed but insufficient technical competencies limit the capacity for technical independence.Reliance on donor funding can compromise independence.

I-4.b. Strengths:

- Clear legislative framework, independent recruitment processes and generally independent decision-making observed.

I-4.c. Weaknesses:

- Lack of technical competencies on AAH limits capacity for technical independency
- Low salaries threaten; a) retention and succession of knowledgeable staff, and b) technical independence.

I-4.d. Recommendations:

- Define priorities for AAHS and ensure the right technical competencies are made available to provide scientific evidence to decision making.

- Consider introducing mandatory declarations of real or perceived conflicts of interest, particularly in relation to any secondary employment of government staff.

I-4.e. Evidence (as listed in Appendix 5): 15, 16, 26, 29

I-5. PLANNING, SUSTAINABILITY AND MANAGEMENT OF POLICIES AND PROGRAMMES

DEFINITION
The capability of the AAHS leadership and organisation to develop, document and sustain strategic policies and programmes, and to report on, review and evolve them, as appropriate over time.
LEVELS OF ADVANCEMENT- 3
1. Policies and programmes are insufficiently developed and documented. Substantial changes to the organisational structure and/or leadership of the public sector of the AAHS frequently occur (e.g. annually), resulting in a lack of sustainability of policies and programmes.
2. Some basic policy and programme development and documentation exist, with some reporting on implementation. Sustainability of policies and programmes is negatively impacted by changes in the political leadership or other changes affecting the structure and leadership of the AAHS.
3. There is well-developed and stable policy and programme documentation covering most relevant areas. Reports on programme implementation are available. Sustainability of policies and programmes is generally maintained during changes in the political leadership and/or changes to the structure and leadership of the AAHS.
4. Policies or programmes are sustained, but also reviewed (using data collection and analysis) and updated appropriately over time, through formal national strategic planning cycles, to improve effectiveness and address emerging concerns. Planning cycles continue despite changes in the political leadership and/or changes to the structure and leadership of the AAHS.
5. Effective policies and programmes are sustained over time and the structure and leadership of the AAHS is strong and stable. Modifications to strategic and operational planning are based on a robust evaluation or audit process, using evidence, to support the continual improvement of policies and programmes over time.

I-5.a. Findings:

There are several strategic planning documents for the development of fisheries and aquaculture. The primary strategic document is the Kingdom of Tonga National Aquaculture Management and Development Plan 2024-2029, prepared by the MOF with assistance from SPC and the Ministry of Primary industries, NZ. The plan is a update from the previous 2018-2022 version. A corporate report of MOF activities is also available for 2021-2022.

Currently aquaculture activity in the country is limited to production of sea weed, sea cucumber and pearl oysters. Exports are of dry cucumber, tuna fish (fresh and frozen) and wild caught ornamental fish.

The Tonga National Aquaculture Biosecurity Strategy 2017 was prepared with support from SPC FAME and it is currently under review. The strategy is mostly focused on aquatic species health management including disease diagnosis, prevention, control, treatment, surveillance and national/international reporting and aquatic species import and export. The strategy was not fully costed, not funded, not implemented, and outcomes were largely not achieved.

The focus of the Tonga National Aquaculture Management and Development Plan 2024-2029 is on improving aquaculture for local subsistence. The current aquaculture strategic development plans are missing concrete actions in the area of AAH but refers to the need to review the Tonga National Aquaculture Biosecurity Strategy.

I-5.b. Strengths:

- There are strategies plans in place that undergo periodic review and updating

I-5.c. Weaknesses:

- Plans and strategies are ambitious but miss concrete implementation. Currently there is no technical capacity to effectively implement AAHS plans and strategies.
- Strategies have no concrete implementation plans and budgeting.
- Reports on programme implementation are available but outdated.

I-5.d. Recommendations:

- Finalise the ongoing review of Aquaculture Biosecurity Strategy with a implementation plan based on the needs identified by the Aquaculture Management and Development Plan.

I-5.e. Evidence (as listed in Appendix 5): 15, 28, 29, 30, 34

I-6. COORDINATION CAPABILITY OF THE AAHS

DEFINITION
A. Internal coordination (chain of command)
The capability of the *Competent Authority* to coordinate its mandated activities with a clear chain of command, from the central level (the Chief Veterinary Officer or equivalent) to the field level of the AAHS, as relevant to the WOAH *Aquatic Code* (i.e. surveillance, disease control, eradication, food, emergency preparedness and response).
LEVELS OF ADVANCEMENT- 2
1. There is no formal internal coordination and the chain of command is not clear.
2. There are internal coordination mechanisms for some activities, but the chain of command is not clear.
3. There are internal coordination mechanisms and a clear and effective chain of command for some activities, such as export certification, border control and/or emergency response.
4. There are formal, internal coordination mechanisms and a clear and effective chain of command for most activities, including *surveillance* (and reporting) and *disease* control programmes.
5. There are formal, documented, internal coordination mechanisms and a clear and effective chain of command for all activities, and these are periodically reviewed/audited and updated to re-define roles and optimise efficiency, as necessary.

I-6.A.a. Findings:

The MOF is organised at central level in Nuku'alofa with extension services at various outer islands locations. AAHS activities are limited to border control, certification for export of live ornamental fish and aquatic products of fisheries and aquaculture. There are no activities targeting aquatic animal disease surveillance or control.

Licencing of aquaculture sites and processing establishments is made at central level while monitoring of operation is done by the extension services but the chain of command and information is not always clear.

Food safety competencies for aquatic products inspection have been delegated from MAFF to MOF but there is still some lack of clarity on roles and responsibilities.

I-6.A.b. Strengths:

- The MOF have internal coordination mechanisms for border control and health certification.

I-6.A.c. Weaknesses:

- The chain of command and information flow is not always clear between central and extension services.
- Roles and responsibilities between MAFF, MOF and MOH on food safety aspects are still unclear.

I-6.A.d. Recommendations:

- Develop formal internal coordination mechanisms and a clear and effective chain of command for different activities, including public health and aquatic disease management.

I-6.A.e. Evidence (as listed in Appendix 5): 16, 30, 31, 34

I-6. COORDINATION CAPABILITY OF THE AAHS

DEFINITION
B. External coordination (including the One Health approach)
The capability of the *Competent Authority* to coordinate its resources and activities at all levels with other relevant government authorities with responsibilities within the AAH domain, in order to implement all national activities relevant to the WOAH *Aquatic Code*, especially those not under the direct line authority of the Chief Veterinary Officer (or equivalent). Relevant authorities include other Ministries and *Competent Authorities*, such as government partners in public health (e.g. zoonoses, food safety, drug regulation and antimicrobial resistance), environment (e.g. wildlife health), Customs and border police (e.g. border security), Defence/Intelligence (e.g. bio-threats), or municipalities/local councils.
LEVELS OF ADVANCEMENT- 2
1. There is no external coordination with other government authorities.
2. There are informal external coordination mechanisms for some activities at national level, but the procedures are not clear and/or external coordination occurs irregularly.
3. There are formal, external coordination mechanisms with clearly described procedures or agreements (e.g. Memoranda of Understanding) for some activities and/or sectors at the national level.
4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities (such as for One Health), and these are uniformly implemented throughout the country, including at state/provincial level.
5. There are national external coordination mechanisms for all activities, from national to field, and these are periodically reviewed and updated to re-clarify roles and optimise efficiency.

I-6.B.a. Findings:

The MAFF Food Safety Division is responsible for all food safety activities including licencing of processing establishments and inspection and export certification of animal products since the implementation of the 2014 Food Act. However, the food act regulation is not yet in place which leads to enforcement difficulties. The MOH no longer is responsible for food safety of products of animal origin but is still responsible for occupational health and food processing workers health certification.

Responsibilities for food safety of aquatic animal products was delegated to MOF but there is lack of a formal MOU between the two Ministries which creates some confusion for producers and importers.

External coordination is necessary for licencing of aquaculture farms between the MOF the MLSPNR and the MEIDECC however there is unclear responsibilities regarding land and spatial planning and environmental impact assessment, for example the allocation of SMA did not involve the MLSPNR.

Emergency response coordination is done by MEIDECC with representation of all ministries in the various clusters. There has never been an emergency response initiated by MOF.

There are no activities under One Health approach with the MOH, MOF is not included in the National AMR committee.

I-6.B.b. Strengths:

- Delegation of food safety activities related to aquatic animal products from MAFF to MOF.
- Emergency preparedness planning utilises a 'whole of government' approach.

I-6.B.c. Weaknesses:

- Absence of formal agreement related to food safety and certification and clear communication to producers and importers.
- No involvement on One Health activities including AMR.

I-6.B.d. Recommendations:

- Establish formal collaboration and coordination on a One Health Approach between Public Health, Animal Health as well as Environment Ministries (MOH, MAFF, MNRE)
- Develop an agreed list of priority notifiable zoonoses.
- Formalise, document and report external communication and coordination engagements (meetings and committees).
- Develop formal agreements and procedures for responsibilities between MOF, MAFF and MOH.

I-6.B.e. Evidence (as listed in Appendix 5): 9, 11, 13, 16, 18, 19, 22, 24, 30, 31, 34

I-7. PHYSICAL RESOURCES AND CAPITAL INVESTMENT

DEFINITION
The access of the AAHS to functional and well-maintained resources, including buildings, transport, information technology (e.g. Internet access), cold chains, and other necessary equipment or structures. This includes whether major capital investment is available.
LEVELS OF ADVANCEMENT- 2
1. The AAHS have no or unsuitable physical resources at almost all levels, and maintenance of existing infrastructure is poor or non-existent.
2. The AAHS have suitable physical resources at the national (central) level and at some regional levels, and maintenance and replacement of obsolete items occur only occasionally.
3. The AAHS have suitable physical resources at national, regional and some state/provincial levels, but maintenance, as well as replacement of obsolete items, occurs rarely.
4. The AAHS have suitable physical resources at all levels and these are regularly maintained. Major capital investments occur occasionally to improve the AAHS operational infrastructure over time.
5. The AAHS have suitable physical resources at all levels (national, state/provincial and local) and these are regularly maintained and updated as more advanced items become available. Major capital investments occur regularly to improve the AAHS operational capability and infrastructure.

I-7.a. Findings:

The MOF central services offices are adequate and well maintained. The team only visited the regional office of the Vava'u fisheries services which was in good condition. The extension services of Vava'u also have cars and boats available.

The MOF hatchery in Nuku'alofa and the Pearls Centre (offices and workshop) in Neiafu, Vava'u are currently under reconstruction. Both projects are funded by donors (Tonga - Pathway to Sustainable Oceans Project - World Bank). The MOF have a small laboratory as part of the Nuku'alofa hatchery.

The MAFF food safety division has a laboratory for chemical testing and a microbiological laboratory exists at the general hospitalin Nukuloafa.

The MAFF quarantine and the MOF extension services officers reported a lack of vehicles and computers.

The overall budget of the MOF is small and capital investments on physical resources depend on donors-projects.

I-7.b. Strengths:

- Suitable office space at central level.
- Major investments are being done to reconstruct the main hatchery and pearl centre.

I-7.c. Weaknesses:

- Insufficient vehicles in some of MOF divisions

I-7.d. Recommendations:

- Work with MAFF and MOH to upgrade existing facilities and ensure these are used effectively

- Consider Public-Private Partnerships as a means for developing future essential AAHS and related infrastructure for the aquaculture sector e.g. building biosecure hatcheries, feed mills, a AAH laboratory.

I-7.e. Evidence (as listed in Appendix 5): 30, 32, 34

I-8. OPERATIONAL FUNDING

DEFINITION
The ability of the AAHS to access financial resources adequate for their planned and continued activities (e.g. salaries, contracts, fuel, vaccines, diagnostic reagents, personal protective equipment, per diem or allowances for field work).
LEVELS OF ADVANCEMENT- x
1. Operational funding for the AAHS is neither stable nor clearly defined but depends on the irregular allocation of resources.
2. Operational funding for the AAHS is clearly defined and regular but is inadequate for their required baseline operations (i.e. *disease surveillance, disease* control and/or public health).
3. Operational funding for the AAHS is clearly defined and regular, and is adequate for their baseline operations, but there is no provision for new or expanded operations.
4. Operational funding for new or expanded operations is on a case-by-case basis, and not always based on *risk analysis* and/or cost–benefit analysis.
5. Operational funding for all aspects of AAHS activities is adequate. All funding, including for new or expanded operations, is provided via a transparent process that allows technical independence, based on *risk analysis* and/or cost−benefit analysis.

I-8.a. Findings:

Operational funding is available directly from the government budget. The aquatic biosecurity team with only 2 staff has approximately 25% of its total budget allocated to salaries, other teams reported 80% on salaries. MAFF Food Safety and Quarantine divisions claimed that operational funding was not sufficient to cover all expenses and certain tasks such as regular visits to exporters are not made. Licencing and export fees are not retained in the Ministry-division providing the service.

Aquatic Biosecurity Section - Budget

Item Description	Location	Funding Source	Cash/ Inkind	Budget Estimate 2024/25
Salaries	1	00	0	29,700
Overtime	1	00	0	2,000
Government Contribution to Retirement Fund	1	00	0	2,900
Domestic Travel	1	00	0	4,000
Freight	1	00	0	5,000
Office Supplies	1	00	0	6,000
Printing	1	00	0	1,000
Uniforms	1	00	0	1,500
Catering/Refreshment	1	00	0	2,000
Community Development Programs	1	00	0	3,000
Computer Supplies	1	00	0	3,000
Laboratory Supplies	1	00	0	6,000
New Office Equipment	1	00	0	3,000
Technical Equipment	1	00	0	3,000

I-8.b. Strengths:

- Operational budget is available from government funding.

I-8.c. Weaknesses:

- Certain areas of the AAHS reported insufficient operational funding for their activities to be performed effectively.

I-8.d. Recommendations:

- Planning and prioritization of the different activities of the AAHS needs to be done to define budget requirements for AAHS.

I-8.e. Evidence (as listed in Appendix 5): 16, 30, 34

I-9. EMERGENCY FUNDING

DEFINITION
The capability of the AAHS to access extraordinary financial resources in order to respond to emergency situations or emerging *aquatic animal* health issues, as measured by the ease with which contingency and related funding (e.g. arrangements for compensation to producers in emergency situations, disposal of dead animals, etc.) can rapidly be made available when required.
LEVELS OF ADVANCEMENT- x
1. No emergency funding arrangements exist.
2. Emergency funding arrangements with limited resources have been established, but these are inadequate for likely emergency situations (including newly emerging issues).
3. Emergency funding arrangements with limited resources have been established; additional resources may be approved but approval is through a political process.
4. Emergency funding arrangements with adequate resources have been established; their provision must be agreed through a non-political process on a case-by-case basis.
5. Emergency funding arrangements with adequate resources have been established and their rules of operation documented and agreed with stakeholders.

I-9.a. Findings:

Emergency procedures are regulated by the Disaster and Risk Management Act (2021) and coordinated by MEIDEC. The procedures involve 11 clusters where all ministries including MOF and MAFF are involved. An emergency state can be initiated by any of the clusters and a decision is made by the committee composed of the different clusters. The emergency response structure model (SIMEX) and all procedures are coordinated by National Disaster Risk Management Office (NDRMO). Trainings are available for the different clusters but a specific procedure for AAD does not exist. There is no pre-established emergency funding, but this could be requested in case of a declared state of emergency. It is unclear what would be available in case the emergency concerns AAH.

The Animal Disease Act establishes the principles for declaring an animal disease emergency and also compensation for “first schedule diseases”. There is no list of notifiable “first schedule” aquatic diseases.

I-9.b. Strengths:

- A National Disaster Risk Management Office with participation of all relevant Tongan Ministries.
- The Disaster and Risk Management Act includes a procedure for requesting emergency funding.

I-9.c. Weaknesses:

- There is no pre-established emergency funding. It is unclear what would be covered in case the emergency concerns AAH.

I-9.d. Recommendations:

- Define AAD priorities and establish contingency plans with associated financial arrangements to better ensure funding availability.

I-9.e. Evidence (as listed in Appendix 5): 8, 9, 18,

III.2 Fundamental component II: Technical authority and capability

This component of the evaluation concerns the authority and capability of the AAHS to develop and apply sanitary measures and science-based procedures supporting those measures. It comprises nineteen Critical Competencies

Critical competencies:

Section II-1	**Laboratory diagnosis**
	A. Access to laboratory diagnosis
	B. Suitability of national laboratory system
	C. Laboratory quality management system (QMS)
Section II-2	**Risk analysis and epidemiology**
Section II-3	**Quarantine and border security**
Section II-4	**Surveillance and early detection**
	A. Passive surveillance
	B. Active surveillance and monitoring
Section II-5	**Emergency preparedness and response**
Section II-6	**Disease prevention, control and eradication**
	A. Disease prevention
	B. Disease control or eradication
Section II-7	**Aquatic animal production food safety**
	A. Regulation, inspection (including audits), authorisation and supervision of establishments for the production and processing of aquatic animal products
	B. Inspection of collection/slaughter, processing and distribution of aquatic animal products
Section II-8	**Veterinary medicines and biologicals for aquatic animals**
Section II-9	**Antimicrobial resistance (AMR) and antimicrobial use (AMU)**
Section II-10	**Residue testing, monitoring and management**
Section II-11	**Aquatic animal feed safety**
Section II-12	**Identification, traceability and movement control**
	A. Aquaculture establishment identification, batch and aquatic animal movement control
	B. Identification, traceability and control of aquatic animal products
Section II-13	**Welfare of farmed fish**

Aquatic Code references:

- Chapter 1.4. on Aquatic animal health surveillance.
- Section 2. on Risk analysis.
- Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Aquatic animal health legislation and regulations/General organisation/Procedures and standards.
- Chapter 4.1. on Biosecurity for aquaculture establishments.
- Chapter 4.4. on Disinfection of aquaculture establishments and equipment.
- Chapter 4.5. on Recommendations for surface disinfection of salmonid eggs.
- Chapter 4.6. on Contingency planning.
- Chapter 4.7. on Fallowing in aquaculture.
- Chapter 4.8. on Handling, disposal and treatment of aquatic animal waste.
- Chapter 4.9. on Control of pathogenic agents in aquatic animal feed.
- Section 5. on Trade measures, importation/exportation procedures and health certification.
- Section 6. on Antimicrobial use in aquatic animals.
- Section 7. on Welfare of farmed fish.

Terrestrial Code references:

- Chapter 2.2. on Criteria applied by WOAH for assessing the safety of commodities.
- Article 3.2.3. on Policy and management.
- Article 3.2.4. on Personnel and resources.
- Article 3.2.7. on Animal Health.

- Article 3.2.8. on Animal production food safety.
- Article 3.2.9. on Veterinary medicinal products.
- Article 3.2.10. on Laboratories.
- Article 3.2.11. on Animal welfare.
- Article 3.2.12. on International trade.
- Article 3.4.12. on Human food production chain.
- Chapter 6.2. on The role of Veterinary Services in food safety systems.
- Chapter 6.3. on Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.
- Chapter 6.7. on Introduction to the recommendations for controlling antimicrobial resistance.
- Chapter 6.8. on Harmonisation of national antimicrobial resistance surveillance and monitoring programmes.
- Chapter 6.9. on Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals.
- Chapter 6.10. on Responsible and prudent use of antimicrobial agents in veterinary medicine.
- Chapter 6.11. on Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in animals.

References to Codex Alimentarius Commission Standards:

- Code of Hygienic Practice for Meat (CAC/RCP 58-2005).
- Code of Hygienic Practice for Milk and Milk Products (CAC/RCP/ 57-2004).
- General Principles of Food Hygiene (CAC/RCP 1-1969; amended 1999. Revisions 1997 and 2003).
- Guidelines for Risk Analysis of Foodborne Antimicrobial Resistance (CAC/GL 77-2011).
- Code of Practice to Minimize and Contain Antimicrobial Resistance (CAC/RCP 61-2005).
- Guidelines for the Design and Implementation of National Regulatory Food Safety Assurance Programmes Associated with the Use of Veterinary Drugs in Food Producing Animals (CAC/GL 71-2009).
- Glossary of Terms and Definitions (Residues of Veterinary Drugs in Foods) (CAC/MISC 5-1993).
- Maximum Residue Limits (MRLs) and Risk Management Recommendations (RMRs) for Residues of Veterinary Drugs in Foods (CAC/MRL 2).
- General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995).
- Code of Practice Concerning Source Directed Measures to Reduce Contamination of Foods with Chemicals (CAC/RCP 49-2001).
- Code of Practice for Fish and Fishery Products (CAC/RCP 52-2003)

Aquatic Manual references:

- Chapters 1.1.1. to 1.1.2. on Quality management in veterinary testing laboratories/Principles and methods of validation of diagnostic assays for infectious diseases.
- Part 2. on Recommendations applicable to specific diseases.
- Part 3. On WOAH expertise.

Terrestrial Manual references:

- Chapters 1.1.1. to 1.1.7. on Management of veterinary diagnostic laboratories/Collection, submission and storage of diagnostic specimens/Transport of biological materials/Biosafety and biosecurity: Standards for managing biological risk in the veterinary laboratory and animal facilities/Quality management in veterinary laboratories/Principles and methods of validation of diagnostic assays for infectious diseases/Standards for high throughput sequencing, bioinformatics and computational genomics.
- Chapter 2.1.3. on Managing biorisk: examples of aligning risk management strategies with assessed biorisks.
- Section 2.2. on Validation of diagnostic tests.

II-1. LABORATORY DIAGNOSIS

DEFINITION
The authority and capability of the AAHS to effectively and efficiently use accurate *laboratory* diagnosis to support their aquatic animal and public health activities.
A. Access to *laboratory* diagnosis
The authority and capability of the AAHS to have access to *laboratory* diagnosis to identify and record *pathogenic agent*s, including those relevant for public health, that can adversely affect *aquatic animal*s and *aquatic animal products*.
LEVELS OF ADVANCEMENT- 1
1. *Disease* diagnosis is almost always conducted by clinical means only, with no access to or little use of a *laboratory* to obtain a correct diagnosis.
2. For major *aquatic animal diseases* of national economic importance or potential zoonotic importance, and for the food safety of *aquatic animal products*, the AAHS have access to and use a *laboratory* to obtain a correct diagnosis.
3. For *aquatic animal diseases* (and potential zoonoses) present in the country, and for *feed* safety and veterinary AMR *surveillance*, the AAHS have access to and use a *laboratory* to obtain a correct diagnosis.
4. For *aquatic animal diseases* of economic or zoonotic importance not present in the country, but known to exist in the region and/or that could enter the country, the AAHS have access to and use a *laboratory* to obtain a correct diagnosis.
5. In the case of *emerging diseases* in the region or worldwide, the AAHS have access to and use a network of national or international reference *laboratories* (e.g. an WOAH or FAO Reference *Laboratory*) to obtain a correct diagnosis.

II-1.A.a. Findings:

There is no laboratory diagnostic capacity in Tonga. There is also a lack of technical capacity to preliminarily diagnose aquatic animal diseases based on clinical observation. A small laboratory facility exists in the MOF hatchery in Nuku'alofa with microscopes and other equipment but is currently not in use. The team was informed the hatchery renovation will include the creation of a new small laboratory.

In case of need, the AAHS would rely on potential access to laboratory capacity in Australia and/or New Zealand via cooperation agreements. However, this is not specifically formalised for laboratories, and is limited by strict requirements and restrictions on the import of biological samples in those countries.

MAFF has a small laboratory facility used by the Food Division for chemical composition testing. In terms of food safety, there has been limited collaboration between the MAFF Food Division and the MOH for microbiological diagnosis of samples at the MOH laboratory. However, this collaboration is only on an informal and non-permanent basis. The responsibility for aquatic product food safety controls lies with MOF and there was no evidence of any laboratory testing being done.

There is no testing conducted for antimicrobials or other residues in food or feed. A JICA-funded project provided High Performance Liquid Chromatography. equipment a number of years ago for pesticides residues analyses. However, no further training on its use or funding for maintenance/use of the equipment was provided.

II-1.A.b. Strengths:

- None

II-1.A.c. Weaknesses:

- No capacity for permanent access to veterinary laboratory diagnosis.
- No access to food safety laboratory capacity.

II-1.A.d. Recommendations:

- Consider coordination and collaborative efforts between competent authorities (MAFF, MOF, MOH) for joint provision of laboratory services in animal health and food safety.
- Review and explore regional opportunities (SPC, NZ-MPI, etc.) related to access to laboratory diagnostic and capacity building activities.
- According to defined priorities, explore possibilities for procurement of rapid tests for basic primary diagnosis of diseases that can be performed at field level and train staff on their use.

II-1.A.e. Evidence (as listed in Appendix 5):

II-1. LABORATORY DIAGNOSIS

DEFINITION
The authority and capability of the AAHS to effectively and efficiently use accurate *laboratory* diagnosis to support their aquatic animal and public health activities.
B. Suitability of the national *laboratory* system
The sustainability, effectiveness, safety and efficiency of the national (public and private) *laboratory* system (or network), including infrastructure, equipment, maintenance, consumables, personnel and sample throughput, to service the needs of the AAHS.
LEVELS OF ADVANCEMENT- N/A
1. The national *laboratory* system does not meet the needs of the AAHS.
2. The national *laboratory* system partially meets the needs of the AAHS, but is not sustainable, as the management and maintenance of resources and infrastructure are ineffective and/or inefficient. *Laboratory* biosafety and *biosecurity* measures do not exist or are very limited.
3. The national *laboratory* system generally meets the needs of the AAHS. Resources and organisation are managed effectively and efficiently, but funding is insufficient for a sustainable system, and limits throughput. Some *laboratory* biosafety and *biosecurity* measures are in place.
4. The national *laboratory* system generally meets the needs of the AAHS, including for *laboratory* biosafety and *biosecurity*. There is sufficient sample throughput across the range of *laboratory* testing requirements. Occasionally, it is limited by delayed investment in certain aspects (e.g. personnel, maintenance or consumables).
5. The national *laboratory* system meets the needs of the AAHS, has appropriate levels of *laboratory* biosafety and *biosecurity*, and is efficient and sustainable with a good throughput of samples. The *laboratory* system is regularly reviewed, audited and updated as necessary.

II-1.B.a. Findings:

A level of advancement was not assigned for this CC. The AAHS do not have a functional laboratory system or laboratory facilities.

There was evidence of laboratory equipment funded by international partners and donors that was not taken advantage of due to lack of training for staff and lack of funding for its proper use (see CC II-1.A).

II-1.B.b. Strengths:

- N/A

II-1.B.c. Weaknesses:

- N/A

II-1.B.d. Recommendations:

- See CC II-1.A

II-1.B.e. Evidence (as listed in Appendix 5):

II-1. LABORATORY DIAGNOSIS

DEFINITION
The authority and capability of the AAHS to effectively and efficiently use accurate *laboratory* diagnosis to support their aquatic animal and public health activities.
C. *Laboratory* quality management systems (QMS)
The quality and reliability of *laboratory* testing that services the public-sector AAHS, as assessed using formal QMS, e.g. having a dedicated quality manager and quality manual. This includes, but is not limited to, attainment of ISO 17025 accreditation and participation in proficiency-testing programmes.
LEVELS OF ADVANCEMENT- N/A
1. No *laboratories* used by the public-sector AAHS are using formal QMS.
2. One or more *laboratories* servicing the public-sector AAHS, including the major national *aquatic animal* health reference *laboratory,* are using formal QMS.
3. Most major *laboratories* servicing the public-sector AAHS are using formal QMS.
4. All the *laboratories* servicing the public-sector AAHS are using formal QMS, with regular use of multi-*laboratory* proficiency-testing programmes.
5. All the *laboratories* servicing the public-sector AAHS are using formal QMS systems, which are regularly assessed via national, regional or international proficiency-testing programmes.

II-1.C.a. Findings:

A level of advancement was not assigned for this CC. The AAHS do not have functional laboratory facilities.

II-1.C.b. Strengths:

- N/A

II-1.C.c. Weaknesses:

- N/A

II-1.C.d. Recommendations:

- N/A

II-1.C.e. Evidence (as listed in Appendix 5):

II-2. RISK ANALYSIS AND EPIDEMIOLOGY

DEFINITION
The authority and capability of the AAHS to base their *risk management* and *risk communication* measures on *risk assessment*, incorporating sound epidemiological principles.
LEVELS OF ADVANCEMENT- 2
1. *Risk management* and *risk communication* measures are not usually supported by *risk assessment*.
2. The AAHS compile and maintain data but do not have the capability to carry out *risk analysis*. Some *risk management* and *risk communication* measures are based on *risk assessment* and some epidemiological principles.
3. The AAHS compile and maintain data, and have the policy and capability to carry out *risk analysis*, incorporating epidemiological principles. The majority of *risk management* and *risk communication* measures are based on *risk assessment*.
4. The AAHS conduct *risk analysis* in compliance with the relevant WOAH standards and sound epidemiological principles and base their *risk management* and *risk communication* measures on the outcomes of *risk assessment*. There is a legislative basis (e.g. legal instrument) that supports the use of *risk analysis*.
5. The AAHS are consistent and transparent in basing *aquatic animal* health and *sanitary measures* on *risk assessment* and best practice epidemiology, and in communicating and/or publishing their scientific procedures and outcomes internationally.

II-2.a. Findings:

MOF has no Quarantine Division or Risk Analysis Unit.

There are no aquatic animal health surveillance programmes and very limited data on which to base any potential risk analysis. Aquaculture units are licenced, and their geographical location is registered. Although required by law there are no registries of aquatic animal movements, production or mortality data. The import and introduction of live aquatic organisms is regulated by the aquaculture management regulations 2020 and an IRA is required. There is no record of live aquatic animals introduction.

Risk assessments for animal products are done on a case-by-case basis when an application for an import permit is received. The MAFF Livestock Division (mainly the Head of Division) undertakes risk management for the imports of live animals and in the case of animal products, the risk assessment is conducted in coordination with the Quarantine and Quality Management Division. Generic health certifications are required for animals and animal products.

Animal product imports are authorised from Australia, New Zealand, Fiji, Samoa, Vanuatu, Brazil, Canada, the EU and the US. No evidence was provided on aquatic product imports.

In the case of food safety, the MAFF Food Division classifies food establishments according to risk (red-orange-green) and plans inspections accordingly, with establishments designated as orange and red being inspected more frequently. Since the transfer of responsibilities from MAFF to MOF regarding aquatic products processing establishments it is unclear if the same system has been maintained.

II-2.b. Strengths:

- The import and introduction of live aquatic organisms is regulated by the Aquaculture management regulations 2020 and a IRA is required for imports.
- The Animal Diseases Act contains provisions that allow restrictions of imports based on risk analysis.

- MAFF Food Division uses risk assessment principles to classify food producing establishments and conduct inspections accordingly but it is unclear if the same processes are used by MOF.

II-2.c. Weaknesses:

- No epidemiology or risk analysis competencies in the AAHS to support aquatic animal and public health policies and risk analysis.

II-2.d. Recommendations:

- Develop competencies to undertake simple risk assessments and progressively develop risk analysis skills. Consider engagement with external partners such as WOAH, SPC, JICA, etc for specific training on risk analysis.
- Explore the development of future data capture, storage and digitalisation/systematization capacity that allows the analysis of information and serves as foundation for risk based decision-making.
- Update current risk assessments according to emerging animal aquatic disease information as it becomes available.
- Consider discussing the potential benefits of a joint regional approach for import risk assessments. For example, at Pacific Heads of Veterinary and Production Services (PHOVAPS) level.
- Consider coordination and collaborative efforts between competent authorities (MAFF, MOF, MOH) for addressing the needs for risk analysis and epidemiology in addressing aquatic animal health and food safety.
- Develop capacity and tools for risk communication measures following risk assessment and risk management results.

II-2.e. Evidence (as listed in Appendix 5): 8, 9, 20, 21, 22, 23, 36

II-3. QUARANTINE AND BORDER SECURITY

DEFINITION
The authority and capability of the AAHS to prevent the entry and spread of *diseases* and other *hazards* of *aquatic animals*, *aquatic animal products* and veterinary products into their country.
LEVELS OF ADVANCEMENT- 3
1. The AAHS cannot apply any type of *quarantine* or border security procedures for *aquatic animals*, *aquatic animal products* or veterinary products with their neighbouring countries or trading partners.
2. The AAHS can establish and apply minimal *quarantine* and border security procedures, or the AAHS can only apply *quarantine* and border security procedures effectively at some official entry points via *border posts*.
3. The AAHS can establish and apply *quarantine* and border security procedures based on import protocols and international standards at all official entry points via *border posts*, but the procedures do not systematically address illegal activities relating to the import of *aquatic animals*, *aquatic animal products* and veterinary products.
4. The AAHS can establish and apply *quarantine* and border security procedures, which systematically address legal pathways and illegal activities (e.g. through effective partnerships with national Customs and border police).
5. The AAHS can establish, apply and audit *quarantine* and border security procedures which systematically address all *risks* identified, including through collaboration with their neighbouring countries and trading partners.

II-3.a. Findings:

Quarantine and border security is under the responsibility of the MAFF Quarantine and Quality Management Division (QQMD).

The legislative framework for the control of live animals and animal products includes both the Quarantine Act and Animal Diseases Act. Following provisions established in the Food Act, the inspection of imported food products is conducted in collaboration with the Border Control Section of the MAFF Food Division. However, given the current policy of seeking an MOU with the MOF for delegating the enforcement of food safety legislation for fisheries products, most of these imports are currently not subject to control by MAFF Officers. It is unclear if the staff resources and technical competencies are sufficient to ensure effective food safety controls. The role of fisheries officers at the ports of entry is mainly to control and inspect documentation.

The QQMD is made up of 3 sections (Import, Export and Support Services) and currently has 36 staff members (5 holding a university degree), including 5 staff stationed in Vava'u. Inspectors working in Tongatapu are rotated on a 6 monthly basis between Headquarters, Queen Salote Wharf, Customs Offices, 13 Licensed Cargo Outlets and Fua'amotu International Airport.

Tonga has 6 main ports of entry, which are Fua'amotu International Airport, Queen Salote Wharf, Vuna Wharf and Faua Wharf in Tongatapu; Halaevalu Wharf and Lupepau'u airport in Vava'u.

The QQMD has developed an operations manual and SOPs that are routinely followed by its inspectors. The border control IT system in Tonga is managed by the Customs Service, and it is not connected with the QQMD (data is shared by Customs upon request). This means that the imports/exports documentation system for permits and sanitary certification of animals and animal products is paper-based and there is no dedicated database.

The PVS Team was informed that the QQMD is currently seeking funding from international partners to develop an IT system, initially to establish a database of imports.

The QQMD has only 2 cars available in Tongatapu; 1 at headquarters and the other at the airport office.

A new incinerator for Fua'amotu International Airport has recently arrived in the country and is expected to be operational soon. On the other hand, even though the QQMD had requested the purchase of X-ray machines to assist with clearance of imported goods in Tongatapu and Vava'u, pre-approved funding for 2024 was re-allocated by the central government administration.

Imports of fishery products require a permit which is issued based on generic import conditions.

Consignments are inspected according to a risk management framework, classification (red/yellow/green) based on country of origin, type of food and importer history. The classification is reviewed every 6 months.

II-3.b. Strengths:

- Border control procedures – mainly documentary but with some consignment inspections - are in place and functional at the designated international points of entry.

II-3.c. Weaknesses:

- Paper-based documentation records system for permits and sanitary certification of aquatic animal products.
- No evidence of specific training for MOF staff in risks associated with imports of aquatic animals and animal products.
- Lack of adequate facilities at the airport QQMD office and lack of quarantine capacities for live aquatic animals.
- Lack of vehicles for QQMD staff, particularly for inspection of vessels.
- Lack of implementing regulations for the Food Act and MOU with the MOF leaves areas with no clear delineation of responsibilities between CAs.

II-3.d. Recommendations:

- Develop an IT database system for the QQMD. Ensure that systems are interoperable with other existing ones such as Customs.
- Train MAFF and MOF staff specifically on risks associated with imports of animal and animals products and ensure access to periodical refresher trainings.
- Provide sufficient number of vehicles for QQMD to improve mobility for performing quarantine and border security.
- Review legislative framework in place to address the overall risk of introduction of animal diseases, including aquatic animals and animal feed.
- Ensure addressing the risk of illegal and unsupervised activities that are an important pathway for disease introduction in the country. Increase operational capacity and cooperation with other competent authorities, such as Customs and the Police.
- See also recommendations for CC II-2.

II-3.e. Evidence (as listed in Appendix 5): 8, 9, 14, 20, 22

II-4. SURVEILLANCE AND EARLY DETECTION

DEFINITION
The authority and capability of the AAHS to determine, verify and report on the sanitary status of *aquatic animal* populations, including wild *aquatic animal* populations, in a timely manner.
A . Passive *surveillance*
A *surveillance* system based on a field *aquatic animal* health network, capable of reliably detecting (by clinical or post-mortem signs), diagnosing, reporting and investigating legally *notifiable diseases* and *emerging diseases* in a timely manner.
LEVELS OF ADVANCEMENT- 1
1. The AAHS have very limited passive *surveillance* capacity, with no formal *disease* list, little training/ awareness and/or inadequate national coverage. *Disease outbreaks* are not reported, or reporting is delayed.
2. The AAHS have basic passive *surveillance* authority and capacity. There is a formal *aquatic animal disease* list with some training/awareness and some national coverage. The speed of detection and level of investigation are variable. *Disease outbreak* reports are available for some species and *diseases*.
3. The AAHS conduct some passive *surveillance* with some sample collection and *laboratory* testing. There is a list of notifiable *diseases* with trained field staff covering most areas. The speed of reporting and investigation is timely in most production systems. *Disease outbreak* investigation reports are available for most species and diseases.
4. The AAHS have effective passive *surveillance*, with routine *laboratory* confirmation and epidemiological *disease* investigation (including tracing and *pathogenic agent* characterisation), in most sectors, covering wild *aquatic animal* populations, producers, markets and processing establishments. There are high levels of awareness and compliance with the need for prompt reporting from all *aquatic animal* producers/farmers and the field AAHS.
5. The AAHS have comprehensive passive *surveillance* nationwide, providing confidence in the country's notifiable *disease* status in real time. The AAHS routinely report *surveillance* information to producers, the industry and other stakeholders. Full epidemiological *disease* investigations are undertaken in all relevant cases with tracing and active follow up of at-*risk* establishments.

II-4.A.a. Findings:

Even though the Animal Diseases Act contains provisions for disease control and a list of notifiable terrestrial diseases (taken from the old "*List A and List B*" classification of notifiable diseases to the OIE (WOAH)) - in practice - there is no enforcement of said regulation, with no knowledge of the current animal disease status of the country, and limited passive surveillance capacity that is capable of early detection of outbreaks or emerging diseases. Fish, molluscs and crustacean diseases fit in the second schedule of the Act. A list of aquatic notifiable diseases does not exist neither the obligation for notification on the case of mortality or observation of clinical disease.

There is no awareness on relevant disease detection or reporting, and there are no records/evidence of investigation of disease suspicions or occurrence.

The Tonga national strategy on aquatic biosecurity 2018-2022, currently under review, includes nine activities on aquatic species health management. No reports on the status of implementation of the different activities are available.

II-4.A.b. Strengths:

- Aquatic species health management is a component of the Tonga National Strategy on Aquatic Biosecurity. The Strategy is being revised.

II-4.A.c. Weaknesses:

- No list of notifiable animal diseases of concern.
- No knowledge of the current disease status of the country.
- No awareness of the importance of notifying animal diseases.
- No laboratory diagnostic capacity for potential disease suspicion/confirmation.
- No veterinary/epidemiology support for fisheries extension services.

II-4.A.d. Recommendations:

- Review current legislation and ministerial policies to modify the Animal Diseases Act establishing an updated list of diseases and the obligation to notify, including aquatic diseases. Consider developing criteria for listing aquatic animal diseases of national concern.
- Adopt by default the WOAH Aquatic Code, Chapter 1.3, Diseases Listed by WOAH, and develop policy for the listing/delisting of aquatic animal diseases of environmental and economic concern.
- Continue efforts and collaboration with SPC-FAME to review the Tonga National Strategy on Aquatic Biosecurity, ensuring sufficient coverage of surveillance, early detection and reporting.
- Promote public awareness of the need/importance of reporting suspected diseases and mortality.
- Use collaboration with regional partners to address lack of professionals specialised in veterinary epidemiology, and ensure there is capacity for diagnostic support (video, photograph and laboratory) if a suspicious clinical manifestation is detected in aquatic animals.
- Seek opportunities to ensure training of on disease recognition and sampling.
- Consider coordination and collaborative efforts between competent authorities to ensure access to laboratory diagnostic capacity (See CC II-1.A) .

II-4.A.e. Evidence (as listed in Appendix 5): 8, 9, 28

II-4. SURVEILLANCE AND EARLY DETECTION

DEFINITION
The authority and capability of the AAHS to determine, verify and report on the sanitary status of *aquatic animal* populations, including wild *aquatic animal* populations, in a timely manner.
B. Active *surveillance* and monitoring
Surveillance targeting a specific *disease* or *hazard* to determine its prevalence, measure progress in *disease control*, or support the demonstration of *disease* freedom (combined with passive *surveillance*), most often in the form of pre-planned surveys with structured sampling and *laboratory* testing.
LEVELS OF ADVANCEMENT- 1
1. The AAHS have no active *surveillance* programme.
2. The AAHS conduct active *surveillance* for one or a few *diseases* or *hazard*s of economic, environmental or zoonotic importance, but the *surveillance* is not representative of the population and the *surveillance* methodology is not revised regularly. The results are reported with limited analysis.
3. The AAHS conduct active *surveillance* using scientific principles and WOAH standards for some *diseases* or *hazard*s, but it is not representative of the susceptible populations and/or is not updated regularly. The results are analysed and reported to stakeholders.
4. The AAHS conduct active *surveillance* in compliance with scientific principles and WOAH standards for some relevant *diseases* or *hazard*s, which is representative of all susceptible populations, including wild populations, and is updated regularly. Results are routinely analysed, reported and used to guide further *surveillance* activities, *disease* control priorities, etc.
5. The AAHS conduct ongoing active *surveillance* for most significant *diseases* and *hazards* and apply it to all susceptible populations, including wild populations. The results are routinely analysed and used to guide *disease* control and other activities. The active *surveillance* programmes are regularly reviewed and updated to ensure that they meet country needs and WOAH reporting obligations.

II-4.B.a. Findings:

There is no official active surveillance programme in Tonga for AAH. The MOF does not have the resources or technical capacity to design and implement it.

The only survey carried out was some testing done for Perkinsus spp. in giant clams and a screening exercise for WOAH pathogens affecting farmed aquatic species conducted in March 2017. Results were not available.

II-4.B.b. Strengths:

- Aquatic species health management is a component of the Tonga National strategy on Aquatic Biosecurity. The Strategy is being revised.

II-4.B.c. Weaknesses:

- No current technical capacity or resources to design and implement an active surveillance programme.
- No knowledge of the current disease status of the country.
- No laboratory diagnostic capacity.

II-4.B.d. Recommendations:

- Continue efforts and collaboration with SPC-FAME Tto review the Tonga National Strategy on Aquatic Biosecurity to cover consideration of active surveillance.
- Consider initiating a collaborative effort between MOF and international partners to conduct surveillance designed to produce baseline national aquatic animal health disease data. This data should be used as a basis for evidence-based decision-making for the coordination and establishment of AAHS.
- Develop technical capacity of MOF staff on sampling collection for surveillance programmes. Consider initiating a collaborative program with SPC FAME for the provision of AAH training of MOF staff and fish farmers.
- Seek international opportunities and partners to develop technical capacity on basic principles of epidemiology to design and implement disease surveillance.
- Consider coordination and collaborative efforts between competent authorities to ensure access to laboratory diagnostic capacity (See CC II-1.A).

II-4.B.e. Evidence (as listed in Appendix 5): 8, 9, 28

II-5. EMERGENCY PREPAREDNESS AND RESPONSE

DEFINITION
The authority and capability of the AAHS to be prepared and respond rapidly to a sanitary emergency threat (such as a significant *aquatic animal disease outbreak* or food safety emergency).
LEVELS OF ADVANCEMENT- 1
1. The AAHS have no field network or established procedure to determine whether a sanitary emergency exists, nor the authority to declare such an emergency and respond appropriately.
2. The AAHS have a field network and an established procedure to determine whether a sanitary emergency exists, but lack the legal and financial support to respond appropriately. The AAHS may have basic emergency management planning, but this usually targets one or a few *diseases* and may not reflect the national capacity to respond.
3. The AAHS have the legal framework and financial support to respond rapidly to sanitary emergency threats, but the response is not well coordinated through an effective chain of command. They may have national c*ontingency plans* for some *aquatic animal diseases* of concern, but they are not updated/tested.
4. The AAHS have an established procedure to make timely decisions on whether a sanitary emergency exists. The AAHS have the legal framework and financial support to respond rapidly to sanitary emergencies through an effective chain of command. They have national emergency management plans for major *aquatic animal diseases* of concern, but they are not updated/tested.
5. The AAHS have national emergency management plans for all *aquatic animal diseases* of concern, (and possible *emerging diseases*), that include coordination with national disaster agencies, relevant *Competent Authorities*, producers and other non-government stakeholders. Emergency management planning and response capacity is regularly tested, audited and updated, for example through simulation exercises that test the response at all levels. Following emergency events, the AAHS have a formal 'After-Action Review' process as part of their continuous improvement.

II-5.a. Findings:

Emergency procedures are regulated by the Disaster and Risk Management Act (2021) and coordinated by MEIDEC. The procedures involve 11 clusters where all Ministries including MOF and MAFF are involved. An emergency state can be initiated by any of the clusters and a decision is made by the committee composed of the different clusters. The emergency response structure model (SIMEX) and all procedures are coordinated by the National Disaster Risk Management Office (NDRMO). Trainings are available for the different clusters but a specific procedure for AAD does not exist.

The Animal Diseases Act establishes provisions for the CA to declare animal disease emergencies and adopt measures. However, there is no implementing regulation that makes the provisions in the Act operational. There are no procedures in place to determine whether a sanitary emergency threat exists, and no field network with competencies to identify and manage disease outbreaks.

Under the Disaster Risk Management Act (2021), the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) has the power to declare a state of emergency due to a natural hazard or for public health reasons. In that scenario, the MEIDECC has a coordination role through the establishment of a National Disaster Risk Management Committee. Operational aspects of emergencies are managed by "clusters", with the MAFF being responsible for the *food security and livelihoods* cluster, and the MOH for the *health and nutrition, water sanitation and hygiene* cluster. Clusters would be responsible for elaborating emergency response plans and, if

needed, for requesting the release of emergency funding through the National Disaster Risk Management Committee and the Prime Minister.

The MOF do not currently have an emergency response plan, guidelines or SOPs for handling AAD outbreaks.

II-5.b. Strengths:

- Legal provisions in place to declare animal disease emergencies and adopt measures.
- MEIDECC provides a central government platform, structure and coordination system for national emergency responses.

II-5.c. Weaknesses:

- No emergency response plan, guidelines or SOPs for aquatic animal diseases outbreaks.
- No technical capacity within the MOF to identify, declare and manage animal disease outbreaks.

II-5.d. Recommendations:

- Consider regional partners for support to develop guidelines and SOPs for the declaration and management of aquatic animal health emergencies.
- Develop technical capacity and capabilities of the VS staff in emergency management and response.
- Work with regional partners in developing and implementing regional networks for emergency response (i.e. PHOVAPS).

II-5.e. Evidence (as listed in Appendix 5): 8, 9, 18

II-6. DISEASE PREVENTION, CONTROL AND ERADICATION

DEFINITION
A. *Disease* prevention
The authority and capability of the AAHS to prevent the spread of *aquatic animal diseases* through a combination of official controls and practices that reduce the *risk* of *pathogenic agent* exposure or transmission, including *biosecurity*.
LEVELS OF ADVANCEMENT- 1
1. The AAHS have no capability to implement *aquatic animal disease* prevention programmes.
2. The AAHS have established general prevention programmes including basic *biosecurity* measures but no verification of implementation and/or compliance.
3. The AAHS have established prevention programmes and selected *disease*-specific programmes, including basic *biosecurity* and a method of verification for high-*risk* activities only, but no enforcement of the programmes or evaluation of the effectiveness of the practices. Industry practices generally do not exceed basic *biosecurity* practices.
4. The AAHS have established general and *disease*-specific prevention programmes for many *diseases* based on their informally assessed potential impact, including basic and advanced *biosecurity* practices consistent with WOAH international standards. A method of verification for unacceptable *risk* activities and ongoing evaluation of the effectiveness of practices are in place. Industry practices generally exceed regulated minimal *biosecurity* practices.
5. *Disease* prevention programmes are effective.

II-6.A.a. Findings:

There is no list of aquatic animal diseases of concern, no knowledge of the current disease status of the country, no technical resources, and no laboratory diagnostic capacity that would allow Tonga to develop and implement specific measures to prevent, control or eradicate animal diseases in the country (see CC II-4.A, II-4.B, II-5).

Aquaculture in Tonga is reduced to a few species and very low levels of production. It is too early in the development of the aquaculture sector to evaluate disease prevention controls and practices.

As the aquaculture industry grows AAHS should be planned to scale and support the industry as required. The Tonga National Strategy on Aquatic Biosecurity 2018-2022, is currently under review. It is important to focus on important risk pathways for disease introduction such as, use of wild broodstock without adequate quarantine, import of live fish, lack of adequate hatchery biosecurity, uncontrolled aquatic animals movement and feed safety.

II-6.b. Strengths:

- None.

II-6.c. Weaknesses:

- No experience or technical capacity in designing or implementing disease control programmes.
- No knowledge of current animal disease status on which to develop prevention, control or eradication programmes.

II-6.d. Recommendations:

- Once priorities are defined, surveillance surveys are completed and there is enough knowledge on the animal disease status of the country, consider working with international/regional partners to develop specific prevention programmes for highly prioritised diseases.

II-6.e. Evidence (as listed in Appendix 5): 8, 9, 16, 28

II-6. DISEASE PREVENTION, CONTROL AND ERADICATION

DEFINITION
B. *Disease* control or eradication
The authority and capability of the AAHS to control or eradicate nationally important *aquatic animal diseases* present in the country; for example through a combination of *treatments*, domestic movement control, establishment of containment *zones*, *biosecurity* measures, isolation and/or killing and emergency slaughtering/stamping out.
LEVELS OF ADVANCEMENT- 1
1. The AAHS have no capability to implement *aquatic animal disease* control or eradication programmes.
2. The AAHS implement control or eradication programmes for some *aquatic animal diseases* and/or in some areas or populations, but with little or no epidemiological, *risk*-based planning or evaluation of their effectiveness.
3. The AAHS implement control or eradication programmes for some priority *aquatic animal* diseases in some areas or populations. There is variable, epidemiological, *risk*-based planning and evaluation of effectiveness, with limited progress towards programme goals.
4. The AAHS implement nationwide control or eradication programmes for priority *aquatic animal diseases* with a high degree of epidemiological, *risk*-based planning, and continual evaluation of programme effectiveness. They have or are progressing towards programmes to self-declare freedom from relevant WOAH-*listed diseases*. They can demonstrate some progress towards programme goals in reducing prevalence or eradicating *disease*.
5. The AAHS implement control or eradication programmes for all priority *aquatic animal diseases*, with scientific evaluation of their effectiveness consistent with the relevant WOAH international standards. They can demonstrate clear progress towards programme goals in reducing prevalence or eradicating *disease*, including achieving or progressing towards official recognition of freedom from relevant *diseases*.

II-6.B.a. Findings:

There is no list of aquatic animal diseases of concern, no AAHS, no knowledge of aquatic animal disease status.

The AAHS have no aquatic animal disease control/eradication programs.

II-6.B.b. Strengths:

- None

II-6.B.c. Weaknesses:

- No AAHS experience in designing disease control and eradication programs

II-6.B.d. Recommendations:

- Once priorities are defined, surveillance surveys are completed and there is enough knowledge on the disease status of the country, consider working with international/regional partners to develop specific control programmes for prioritised diseases, if detected.

II-6.B.e. Evidence (as listed in Appendix 5): 8, 9, 16, 28

II-7. AQUATIC ANIMAL PRODUCTION FOOD SAFETY

DEFINITION
The authority and capability of the AAHS to assure the safety of *aquatic animal products* for domestic and export markets.
A. Regulation, inspection (including audits), authorisation and supervision of establishments for the production and processing of *aquatic animal products*
The authority and capability of the AAHS to establish and enforce sanitary and food hygiene standards for establishments that produce, process and distribute *aquatic animal products*. Includes the regulation and initial authorisation of establishments, and the ongoing inspection of establishments and processes, including the identification of and response to non-compliance, based on Hazard Analysis and Critical Control Point (HACCP) principles. It also includes external coordination between *Competent Authorities*, as may be required.
LEVELS OF ADVANCEMENT- 2
1. Regulation, authorisation and inspection of relevant establishments are generally not undertaken in conformity with international standards.
2. Regulation, authorisation and inspection of relevant establishments and processes are undertaken in conformity with international standards at some selected premises (e.g. export premises).
3. Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards at large premises that supply major cities and/or the national market.
4. Regulation, authorisation and inspection of relevant establishments and processes (and coordination, as required) are undertaken in conformity with international standards for premises supplying national and local markets. There are some reports of dealing with non-compliance.
5. Regulation, authorisation, inspection and audits of relevant establishments and processes (and coordination, as required) are undertaken in conformity with international standards at all premises. There are documented cases of the identification of and effective response to non-compliance.

II-7.A.a. Findings:

The Food Act 2020 is the main legislative act regulating food safety in Tonga. MAFF has the responsibility to manage and implement the Act to ensure that food that is imported, manufactured, exported, or sold commercially is fit for human consumption. The Act also provides the mandate for the MAFF Food Division and the National Food Authority. Subsidiary food regulations have been discussed since 2014 but have not been adopted which causes enforcement difficulties. There are no records of offences or penalties. The Minister can delegate responsibilities or functions to other Ministries. Food safety responsibilities for products of aquatic origin were informally delegated to MOF although not yet officially. There were no inspection records at the tuna export processing plant visited by the team. Health certificates for export were issued by MOF.

All food processing establishments must be registered and can only operate when licenced. Licences are renewed annually by the Ministry of Trade with a permit issued by the Food Division and medical certificates for staff issued by the Ministry of Health.

There are about 50 food processing establishments, 80 restaurants and 120 food vendors

MAFF is responsible for the monitoring/inspections of registered establishments, but staff numbers are not sufficient and there is only one car. The schedule of inspections is defined yearly and frequency of inspections depends on the associated risk categories. The Food Division of Tongatapu does about 300 inspection/year. In Vava' u there is only one food safety inspector.

The aquaculture management regulations establish the procedures for application and issuance of licences for aquaculture fish processing establishments. A HACCP plan may be required, and must be based on a food-safety hazard analysis of the fish intended for processing.

There are no licenced aquaculture fish processing establishments and limited technical capacity in MOF to licence and monitor aquatic products establishments. The team was informed that dry sea cucumber is processed on farm but there are no records of inspections.

II-7.A.b. Strengths:

- The regulation, authorisation and licencing of establishments is well defined and the competent authority is the MAFF for all animal products while MOF is responsible for aquatic animal products.
- The inspection of establishments and processes is based on Hazard Analysis and Critical Control Point (HACCP) principles which are required for licencing.

II-7.A.c. Weaknesses:

- The Food Act implementation regulations are not yet adopted.
- Resources for inspection of establishments are insufficient.
- There are no reports of dealing with non-compliance.
- The responsibility for the authorization and inspection of establishments for aquatic animal products was delegated to MOF which has neither the resources nor the technical competencies to implement it.
- Only some establishments of aquatic animal products for export are licenced and regularly inspected.

II-7.A.d. Recommendations:

- Adopt the Food Act regulations and budget resources for their implementation.
- The lack of regulations create difficulties and a lack of clarity about the responsibilities of the MAFF, MOF and MOH.
- Hire and/or train food inspectors for aquatic animal products.
- Ensure the access to laboratories for testing of operators health status and facilities hygiene.

II-7.A.e. Evidence (as listed in Appendix 5): 12, 13, 16, 20, 21, 23

II-7. AQUATIC ANIMAL PRODUCTION FOOD SAFETY

DEFINITION
The authority and capability of the AAHS to assure the safety of *aquatic animal products* for domestic and export markets.
B. Inspection of collection/ slaughter, processing and distribution of *aquatic animal products*
The authority and capability of the AAHS to inspect, manage, implement and coordinate *aquatic animal* production and food safety in relation to the collection, slaughter, processing and distribution of *aquatic animal products*.
LEVELS OF ADVANCEMENT- 2
1. Inspection, management, implementation and coordination (as appropriate) are generally not undertaken in conformity with international standards, including collection of *disease* information.
2. Inspection, management, implementation and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes, including the collection of *disease* information.
3. Inspection, management, implementation and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes and for *aquatic animal products* that are distributed throughout the national market, including the collection of *disease* information.
4. Inspection, management, implementation and coordination (as appropriate) are generally undertaken in conformity with international standards for export purposes and for *aquatic animal products* that are distributed throughout the national and local markets, including the collection of *disease* information.
5. Inspection, management, implementation and coordination (as appropriate) are undertaken in full conformity with international standards for *aquatic animal products* at all levels of distribution (including national and local markets and direct sales), including the collection of *disease* information.

II-7.B.a. Findings:

According to the regulations all aquaculture fish and aquaculture fish products exported from Tonga must have an export permit issued by the CEO, a CITES permit, as applicable; a sanitary or phytosanitary certificate, as applicable; a food safety clearance for fish and fish products intended for human consumption; and any other documentation required by the importing country.

Inspection of aquatic animal products is visual with no laboratorial testing for any product. Certificates are issued for export fishery products.

There is no requirement for using ice and in general, hygiene conditions on landing sites and fish selling stalls are deficient.

The only aquaculture products export is of dry sea cucumber, there was no evidence at MOF or the company visited of export certificates or licencing inspections.

II-7.B.b. Strengths:

- Certificates are issued for export fishery products attesting quality and food hygiene.
- Ice factories are licenced, and controls made by MOH

II-7.B.c. Weaknesses:

- The Food Act implementation regulations are not yet adopted.
- Resources for inspection of establishments and products are insufficient.
- There are no reports of dealing with non-compliance.
- The responsibility for the inspection of aquatic animal products was delegated to MOF which has neither the resources nor the technical competencies to implement it.
- Only aquatic animal products for export are inspected and no laboratory testing is conducted.
- There is no requirement for using ice and in general, hygiene conditions on landing sites and fish selling stalls are deficient.

II-7.B.d. Recommendations:

- Adopt the Food Act regulations and budget resources for their implementation.
- The lack of regulations creates difficulties and a lack of clarity about the responsibilities of the MAFF, MOF and MOH.
- Hire and/or train food inspectors for aquatic animal products.
- Ensure the access to laboratories for testing of products for export certification requirements and local market assurance.

II-7.B.e. Evidence (as listed in Appendix 5): 13

II-8. VETERINARY MEDICINES AND BIOLOGICALS FOR AQUATIC ANIMALS

DEFINITION
The authority and capability of the AAHS to regulate veterinary medicines and biologicals, to ensure their quality and safety, as well as their responsible and prudent use, including as medicated *feed*. This includes the marketing authorisation/registration, import, manufacture, quality control, export, labelling, advertising, distribution, sale (includes dispensing) and use (includes prescribing) of these products.
LEVELS OF ADVANCEMENT- 2
1. The AAHS cannot regulate veterinary medicines and biologicals for *aquatic animals*.
2. The AAHS have some capability to exercise regulatory and administrative control over the import, manufacture and market authorisation (registration) of veterinary medicines and veterinary biologicals to ensure their quality and safety, but cannot ensure their responsible and prudent use for *aquatic animals* in the field.
3. The AAHS exercise effective regulatory and administrative control over the market authorisation of veterinary medicines and biologicals and have some capacity to regulate these to ensure their responsible and prudent use for *aquatic animals* in the field, including reducing the *risk* from illegal imports.
4. The AAHS exercise comprehensive and effective regulatory and administrative control of veterinary medicines and biologicals, including market authorisation, responsible and prudent use for *aquatic animals* in the field, and reducing the *risks* of illegal distribution and use.
5. The control systems for veterinary medicines and biologicals for *aquatic animals* are regularly audited, tested and updated when necessary, including via an effective pharmacovigilance programme.

II-8.a. Findings:

There are no manufacturers or importers of veterinary medicines and biologicals for aquatic animals. General use disinfectants were imported directly by the ornamental fish exporter and used regularly to treat fish before transport. Any medicines which are registered in the EU, USA, AU and NZ can be imported directly by farmers. The sea cucumber farm also had a stock of products which were used for animal treatment, but labelling was only in Chinese and it was not possible to document its use. The MOF has no registry of imports.

Use of pharmaceutical drugs is regulated by the Aquaculture Act, anyone intending to use any chemical, piscicide, pharmaceutical, bio-remediation product, or its derivative, for aquaculture must inform the CEO. No evidence of such request or inspections done by aquaculture officers was found by the PVS team during the field visits.

The Therapeutic Goods Act establishes that a prescription is required for veterinary medicines but there is no implementing regulations or enforcement.

II-8.b. Strengths:

- The use of pharmaceutical drugs is regulated by the Aquaculture Act

II-8.c. Weaknesses:

- There is no enforcement of the regulatory requirements on the use of veterinary medicines.
- No registry of private imports is available.

II-8.d. Recommendations:

- Include controls on the use of veterinary medicines as part of the regular inspections to aquaculture farms.

II-8.e. Evidence (as listed in Appendix 5): 10, 16, 24, 33

II-9. ANTIMICROBIAL RESISTANCE (AMR) AND ANTIMICROBIAL USE (AMU)

DEFINITION
The authority and capability of the AAHS to manage AMU and AMR, and to undertake *surveillance* and control of the development and spread of AMR pathogens in *aquatic animal* production and *aquatic animal products*, as well as *aquatic animal* production environments, via a One Health approach.
LEVELS OF ADVANCEMENT- 2
1. The AAHS cannot regulate AMU and AMR and have not developed or contributed to an AMR action plan covering the *aquatic animal* health domain.
2. The AAHS are contributing or have contributed to a national AMR action plan. The action plan has initiated some activities to collect AMU/AMR data or control AMR, e.g. awareness campaigns targeting *veterinarians/aquatic animal health professionals* or farmers on the prudent use of *antimicrobial agents* in *aquatic animals*. The use of antimicrobials for growth promotion and indiscriminate prophylaxis for *disease* prevention is discouraged.
3. The AAHS have defined a national AMR action plan in coordination with the public health authorities and other stakeholders and are implementing some AMU/AMR *surveillance* and regulations. The use of *antimicrobial agents* for growth promotion and indiscriminate prophylaxis for disease prevention is prohibited.
4. The AAHS are implementing a comprehensive AMR action plan based on *risk*, including AMR *surveillance* of the most important *pathogenic agents* for *aquatic animal* health or foodborne *diseases*, the *monitoring* of AMU, and the prudent use of *antimicrobial agents* in *aquatic animals* (especially the use of critically important antimicrobials). The use of *antimicrobial agents* for growth promotion and indiscriminate prophylaxis for *disease* prevention does not occur.
5. An effective national AMR action plan covering the *aquatic animal* health domain is regularly audited, reviewed and updated by the AAHS with public health authorities and other stakeholders, using the results of AMU/AMR *surveillance*. The scale and type of antimicrobial use in *aquatic animals* poses minimal *risk* of AMR and alternative solutions for the control of *diseases* in *aquatic animals* are being implemented.

II-9.a. Findings:

A Kingdom of Tonga AMR multi-sectorial plan 2017-2022 was drafted with stakeholders from the MOH, MAFF, Environment, Education and including private sector and civil societies and the support of WHO. The plan was never formally adopted by MOH and MAFF and is currently being revised with the coordination by the MOH.

The Kingdom of Tonga does not have national AMR surveillance and no dedicated AMR unit to coordinate the AMR surveillance for both human and animal health. MOH has a functional clinical laboratory within the capital hospital with limited numbers of staff and limited funding.

Initial surveys on hospital samples indicated the rate of Methicillin-resistant Staphylococcus aureus in Tonga was high (42%) in 2016 compared to New Zealand (10%), the Cook Islands (12%) and Australia (26%) but low compared to Samoa (48% in 2016) and the USA (50-60%).

The draft plan includes a series of actions on AMR governance, surveillance, diagnostic capacity, research, awareness; reducing incidence of AMR through effective infection prevention and control measures, food safety and hygiene and optimisation of the use of antimicrobial medicines in human and animal health.

MOF is not part of the committee revising the AMR plan.

Medicines registered in other countries can be imported but there is no registry of imports of antimicrobials for aquatic animals. There is no system in place to effectively control the use of antimicrobials in animals (aquatics and terrestrials).

II-9.b. Strengths:

- A draft national multi-sectorial AMR plan was prepared in 2016 and is currently being revised.
- A small clinical laboratory exists at the central hospital to support surveillance of AMR.

II-9.c. Weaknesses:

- No implementation of AMR plan control and other activities.
- Limited awareness about AMR and incorrect use of AM.
- No veterinary supervision of the prescription and use of AM.

II-9.d. Recommendations:

- Update the AMR plan.
- Develop implementation activities focusing on surveillance, and awareness.

II-9.e. Evidence (as listed in Appendix 5): 10, 24, 33

II-10. RESIDUE TESTING, MONITORING AND MANAGEMENT

DEFINITION
The capability of the AAHS to undertake residue testing and *monitoring* programmes for veterinary medicines (e.g. *antimicrobials* and hormones), chemicals, pesticides, radionuclides, heavy metals, toxins, etc. and respond appropriately to adverse findings.
LEVELS OF ADVANCEMENT- 1
1. No residue testing for *aquatic animal products* is being undertaken.
2. Some residue testing is being undertaken, such as for research or pilot purposes, and/or is conducted only on specific *aquatic animal products* for export.
3. A comprehensive residue monitoring programme is conducted for all *aquatic animal products* for export and some for domestic consumption, based on limited *risk analysis*. Documented protocols exist for preventing residue *risks* (e.g. withholding periods for veterinary drugs) and for responding to breaches of Maximum Residue Limits.
4. A comprehensive residue *monitoring* programme is conducted for all *aquatic animal products* for export and domestic consumption based on *risk analysis*. Effective protocols both reduce residue *risks* and respond to breaches of Maximum Residue Limits, including traceback and follow up.
5. The residue *monitoring* and *risk management* programme is subject to routine quality assurance and regular evaluation/audit.

II-10.a. Findings:

No residue testing is being done on aquatic products for export or the local market. An investigation on ciguatera environmental prevalence was conducted with the support of JICA but no surveillance is in place for fish or shellfish contaminants such as veterinary medicines (e.g. antimicrobials and hormones), chemical contaminants such as pesticides, heavy metals, or toxins (e.g. Aflatoxin, HABS, PSP, ciguatera).

A JICA-funded project provided HPLC equipment a number of years ago for pesticide residues analyses. However, no further training on its use or funding for maintenance/use of the equipment was provided.

The MOH has a small laboratory with equipment for residues testing and HPLC equipment was donated to the MOF hatchery laboratory.

II-10.b. Strengths:

- There is laboratory capacity for some residue testing.

II-10.c. Weaknesses:

- No residue testing for aquatic animal products and aquatic animal feed, either local or imported.

II-10.d. Recommendations:

- A plan should be developed for residue testing and priority programs implemented, based on the assessment of public health risks.

II-10.e. Evidence (as listed in Appendix 5): 24

II-11. AQUATIC ANIMAL FEED SAFETY

DEFINITION
The authority and capability of the AAHS to regulate *aquatic animal feed* safety, e.g. processing, handling, storage, distribution and use of both commercial and on- farm produced *aquatic animal feed* and *feed* ingredients. This includes *feed* safety *risks* such as: feeding by-products, live *feed*, *feed* bans, the use of *antimicrobial agents* in *feed*, and managing *risks* of microbial, physical and toxin contamination of *feed*.
LEVELS OF ADVANCEMENT- 1
1. The AAHS cannot regulate *aquatic animal feed* safety.
2. The AAHS have some capability to exercise regulatory and administrative control over *aquatic animal feed* safety.
3. The AAHS exercise regulatory and administrative control for most aspects of *aquatic animal feed* safety.
4. The AAHS exercise comprehensive and effective regulatory and administrative control of *aquatic animal feed* safety.
5. The control systems are regularly audited, tested and updated when necessary.

II-11.a. Findings:

The Aquaculture Management Act (2003) mentions that the Minister for Fisheries may make regulations for the control over the quantity and quality of feed used in aquaculture. However, aquatic animal feed is not covered by legislation and there is no management or regulation of aquatic animal feed safety.

The team had the opportunity to see a stock of aquatic feed during the visit to the sea urchin farm. All feed was stored in a adequate storage facility but there were no records of import certificates or any controls by MOF. The MOF hatchery is currently under renovation and only a few stock was kept in a grow out tank. The feed used was obtained from the private sea cucumber farm. Considering the limited production of aquatic animals it is unlikely that Tonga will have its own aquatic feed production facilities but import and use should be controlled. Access to a stable supply of safe aquatic animal feed is an essential component of aquatic animal health.

II-11.b. Strengths:

- None

II-11.c. Weaknesses:

- There is no regulatory and administrative control over aquatic animal feed safety. nly imported feeds are available, importation is done without risk assessment, health certification, manufacturers declaration, or any residue and feed safety testing

II-11.d. Recommendations:

- Develop regulatory requirements to control the import and use of aquatic animal feed.

II-11.e. Evidence (as listed in Appendix 5): 8, 9, 11

II-12. IDENTIFICATION, TRACEABILITY AND MOVEMENT CONTROL

DEFINITION
A . *Aquaculture establishment* identification, batch and *aquatic animal* movement control
The authority and capability of the AAHS, in coordination with producers and other stakeholders, to regulate the identification of *aquatic animals*, to trace their history and location(s), and to control domestic movements for the purpose of *aquatic animal disease* control, food safety, trade or other legal requirements under the AAHS mandate.
LEVELS OF ADVANCEMENT- 2
1. The AAHS do not have the authority or the capability to regulate the identification of *aquatic animals*, either by batch or by *aquaculture establishment*, or to trace and control their movements.
2. The AAHS can identify some *aquatic animals* by *aquaculture establishments* or location, and control some movements, using traditional methods, and can demonstrate the ability to deal with a specific problem (e.g. to trace sampled or vaccinated *aquatic animals* for follow up, or to prevent theft).
3. The AAHS implement a system for *aquatic animal* traceability and movement control for specific animal subpopulations (e.g. for export, at borders, in specified *zones* or markets), as required for traceability and/or *disease* control, in accordance with international standards.
4. The AAHS implement appropriate and effective *aquatic animal* traceability and movement control procedures for some *aquatic animal* species at national level, in accordance with international standards.
5. The AAHS carry out periodic audits of the effectiveness of their traceability and movement control systems. These systems have been demonstrated as effective in dealing with a problem (e.g. tracing a *disease outbreak*, residue or other food safety incident).

II-12.A.a. Findings:

The aquaculture of Tonga is limited to four on-growing sites of sea cucumber, 10 of giant clams and 50 of Mabe pearls. The total number of ornamental fish exporters is five, all fish is collected in the wild.

All aquaculture farmers are registered and information on location of the farms is available. Some farmers are located in the special management areas (SMA) and are managed by communities while others are private licences.

The MOF hatchery of sea cucumber and pearls is not operating. A private hatchery supplies sea cucumber juveniles while pearl oyster spat is collected from the wild.

Movement of live fish or aquaculture products is regulated by the Aquaculture Management Act for imports into Tonga facilities or marine waters as well as from aquaculture premises into the waters of the Kingdom, such movements require prior authorization from MOF.

Aquaculture farmers and aquaculture fish processors and exporters have the duty to keep production, processing and export records. At least, records of annual production volume; annual production value; annual mortality; annual feed consumption; annual processing volume and value; and annual export volume and value, including market of destination must be kept. Records should be available for monitoring by the MOF, if requested. All aquaculture products originating from an aquaculture fish processing establishment should be appropriately coded for traceability purposes.

Such documentation was not observed during the visits done by the team at the sea cucumber farm, pearl farm and ornamental fish exporter.

II-12.A.b. Strengths:

- Aquaculture establishment identification, batch and aquatic animal movement control are regulated by the Aquaculture Management Act.
- Ongrowing sites are regularly monitored by MOF and licencing renewal is annual.

II-12.A.c. Weaknesses:

- There is no data collected regarding movement of aquatic animals except for when they are first delivered to the farmer.
- There are no official controls or programs in place to record animal movements e.g. to other farms for on-growing, relocation, or holding facilities.

II-12.A.d. Recommendations:

- Regulate the movement/distribution of live aquatic animals and encourage record keeping of all movements e.g. to other locations for on-growing.

II-12.A.e. Evidence (as listed in Appendix 5): 16, 28, 31

II-12. IDENTIFICATION, TRACEABILITY AND MOVEMENT CONTROL

DEFINITION
B. Identification, traceability and control of *aquatic animal products*
The authority and capability of the AAHS, in coordination with other *Competent Authorities* (such as food safety authorities) and other stakeholders, as appropriate, to achieve whole-of-chain traceability, including the identification, tracing and control of *aquatic animal products* for the purpose of food safety, *aquatic animal* health or trade.
LEVELS OF ADVANCEMENT- x
1. The AAHS do not have the capability or access to information to identify or trace *aquatic animal products*.
2. The AAHS can identify and trace some *aquatic animal products* through coordination between *Competent Authorities*, to deal with a specific problem (e.g. high-*risk* products traced back to premises of origin).
3. The AAHS have implemented procedures to identify and trace some *aquatic animal products*, in cooperation with *Competent Authorities*, for food safety, *aquatic animal* health and trade purposes, in accordance with international standards.
4. The AAHS have implemented national programmes enabling them to identify and trace all *aquatic animal products* and respond to threats, in coordination with *Competent Authorities* and in accordance with international standards.
5. The AAHS periodically audit the effectiveness of their identification and traceability procedures, in coordination with *Competent Authorities*. The procedures have been demonstrated as being effective for traceback and response to a relevant food safety incident (e.g. foodborne zoonoses or residue incidents).

II-12.B.a. Findings:

Wild caught tuna destined for export markets can be effectively traced by MOF to the licenced fishing vessel and/or processing establishment. Wild caught aquatic animals distributed locally are not recorded.

Imports of aquatic products such as tinned fish can be traced, and the MAFF Food Division reported a recall following a notification by INFOSAN.

Since the responsibility of all aquatic animal products was transferred from MAFF to MOF it is unclear if the services would have the ability to respond promptly and effectively to food safety issues (contamination with residues, bacteria, etc).

Labelling and traceability requirements for food products are defined in the food regulations which are not yet adopted.

II-12.B.b. Strengths:

- Wild caught tuna destined for the export market can be effectively traced by MOF.

II-12.B.c. Weaknesses:

- There are no labelling requirements or official controls or programs in place to record animal product movements.
- The lack of Food Act regulations hampers the implementation of measures to effectively monitor and control whole-of-chain traceability.

II-12.B.d. Recommendations:

- Approve and implement the food regulations.
- Ensure collaboration between MAFF Food Division and MOF to effectively monitor and control whole-of-chain traceability of aquatic animal products.

II-12.B.e. Evidence (as listed in Appendix 5): 19

II-13. WELFARE OF FARMED FISH

DEFINITION
The authority and capability of the AAHS to legislate and implement the WOAH international standards for the *welfare* of farmed fish, as published in the *Aquatic Code*. This requires consultation and coordination with *Competent Authorities*, non-governmental organisations and other stakeholders, as appropriate.
LEVELS OF ADVANCEMENT- x
1. There is no national legislation or regulation of the *welfare* of farmed fish.
2. There is national legislation or regulation of the *welfare* of farmed fish that covers some of the WOAH international standards, with limited stakeholder or public awareness.
3. The national legislation and regulations on the *welfare* of farmed fish cover most of the WOAH international standards, with some awareness programmes and implementation, but are in conformity with international standards in only some sectors (e.g. for the export sector).
4. *Welfare* of farmed fish programmes, supported by suitable legislation and regulations, are being implemented in conformity with relevant international standards and are applied to most sectors and species with stakeholder and public awareness. Documented compliance programmes, including consequences for non-compliance, are available.
5. *Welfare* of farmed fish programmes, supported by suitable legislation and regulations, are being implemented in conformity with relevant international standards. Comprehensive national programmes are applied to all sectors and species with the active involvement of stakeholders. *Welfare* of farmed fish programmes, including non-compliance issues, are subject to regular audit and review, with documented cases of responding effectively to non-compliance.

II-13.a. Findings:

There is no legislation or regulation of the welfare of farmed fish.

Tonga aquaculture production is limited to molluscs and echinoderms.

II-13.b. Strengths:

- None

II-13.c. Weaknesses:

- There is no legislation or regulation of the welfare of farmed fish.

II-13.d. Recommendations:

- Consider the adoption of WOAH international standards for the welfare of farmed fish, as published in the Aquatic Code.

II-13.e. Evidence (as listed in Appendix 5):

III.3 Fundamental component III: Interaction with stakeholders

This component of the evaluation concerns the capability of the AAHS to collaborate with and involve non-governmental stakeholders in the implementation of programmes and activities. It comprises eight Critical Competencies

Critical competencies:

Section III-1	**Communication**
Section III-2	**Consultation with stakeholders**
Section III-3	**Official representation and international collaboration**
Section III-4	**Accreditation/authorisation/delegation**
Section III-5	**Veterinary Statutory Body (VSB)**
	A. Veterinarians working in aquatic animal health
	B. Aquatic animal health professionals (non-veterinarians)
Section III-6	**Participation of producers and other stakeholders in joint programmes**
Section III-7	**Aquatic animal health management and clinical services**

Aquatic Code references:

- Points 6, 7, 9, and 13 of Article 3.1.2. on Fundamental principles of quality: Aquatic animal health legislation and regulations/General organisation/Procedures and standards/Communication.
- Chapter 3.2. on Communication.

Terrestrial Code references:

- Chapter 1.4. on Animal health surveillance.
- Article 3.2.3. on Policy and management.
- Article 3.2.4. on Personnel and resources.
- Article 3.2.5. on The veterinary profession.
- Article 3.2.6. on Stakeholders.
- Article 3.2.7. on Animal Health.
- Article 3.2.8. on Animal production food safety.
- Article 3.2.9. on Veterinary medicinal products.
- Article 3.2.11. on Animal welfare.
- Article 3.2.12. on International trade.
- Point 4 of Article 3.4.3. on General principles: Consultation.
- Article 3.4.5. on Competent Authorities.
- Article 3.4.6. on Veterinarians and veterinary paraprofessionals.
- Chapter 3.5. on Communication.

III-1. COMMUNICATION

DEFINITION
The capability of the AAHS to keep non- governmental stakeholders aware and informed, in a transparent, effective and timely manner, of AAHS activities and programmes, and of developments in *aquatic animal* health, *welfare* of farmed fish and public health. This Competency includes communication with all non-government stakeholders, including farmers, *aquaculture establishments*, and trading groups, as well as relevant NGOs and the general public, for example through communication campaigns and the media, including social media.
LEVELS OF ADVANCEMENT- 3
1. The AAHS do not inform stakeholders of AAHS activities and programmes.
2. The AAHS have informal communication mechanisms with some stakeholders, e.g. with the larger commercial *aquaculture* or related companies.
3. The AAHS maintain a dedicated and specialist communications function which communicates with stakeholders occasionally, but it is not always up to date or pro-active in providing information.
4. The AAHS contact point for communication provides up-to-date information to most relevant stakeholders. This information is aligned with a well-developed communications plan, and accessible through the Internet and other appropriate channels targeted to the audience, and covers relevant events, activities and programmes, including during crises.
5. The AAHS have a well-developed communication plan, and regularly provides information to all relevant stakeholders, well targeted to the audience, via the full range of communications media, including social media. The AAHS regularly evaluate and revise their communications plan.

III-1.a. Findings:

MOF has a national website[1], which although not frequently updated with recent news, contains links to legislation policies and reports, a contact phone number and email. A specific website is available for the World Bank project on Tonga's pathway for sustainable oceans. Staff in the central offices of MOF are responsible for the Ministry's communication. There is no formal communications programme dedicated to aquatic animal or public health topics. Communication with fisheries communities is ensured by the MOF extension/outer islands staff.

The MAFF main website[2] was not functional at the time of the PVS mission. Later access shows that it is difficult to access, contains little information, and it is not updated. The Ministry also has a weekly radio programme where different Divisions can contribute with content, as well as a TV space when needed. Most of the regular communications content in these channels is provided by the MAFF Extension Division and content on animal or public health issues is not considered on a regular basis.

The MAFF Food Division has a Facebook page managed by the Division's technical staff which they try to keep as active as possible. It has dedicated content promoting food safety awareness and announcements for the general public. Some printed communication materials were available for promoting food safety awareness.

The Tongan government maintains a Trade Portal[3] with information on general regulations and procedures for imports and exports of different commodities. This portal has information on

[1] https://www.tongafish.gov.to/index.php/homepage
[2] www.maff.gov.to
[3] https://tonga.tradeportal.org/?l=en

exports of live and frozen fish, but no information on other type of live animals or animal products.

III-1.b. Strengths:

- MOF website provides somethinformation and a public contact email and phone is available.
- MAFF access to radio and TV programmes that provide ample coverage if needed, especially to smaller islands.
- Active informal communication with main stakeholders on a permanent basis.

III-1.c. Weaknesses:

- Little use of social media for communications.

III-1.d. Recommendations:

- Review and update communication materials on a regular basis.

III-1.e. Evidence (as listed in Appendix 5): 22, 32

III-2. CONSULTATION WITH STAKEHOLDERS

DEFINITION
The capability of the AAHS to consult effectively with non-government stakeholders on AAHS activities and programmes, and on developments in aquatic animal health and food safety. This Competency includes consultation with all non-government stakeholders, including farmers, the *aquaculture* sector, and trading groups or associations, as well as interested NGOs and members of the public. Unlike communication (CCIII-1), consultation is two-way and should involve mechanisms that not only inform but actively seek the views of consulted parties, for consideration and response.
LEVELS OF ADVANCEMENT- 3
1. The AAHS have no mechanisms for consultation with non-government stakeholders.
2. The AAHS maintain informal channels of consultation with some non-government stakeholders (e.g. only the larger commercial *aquaculture* or related companies).
3. The AAHS hold formal consultations with non-government stakeholders, usually represented by industry groups or associations.
4. The AAHS regularly hold workshops and meetings with non-government stakeholders, who are organised to have broad representation, such as through elected, self-financed industry groups or associations. Consultation outcomes are documented, and the views of stakeholders are considered and occasionally incorporated.
5. The AAHS actively consult with non-government stakeholders, including representatives of smaller producers, on current and proposed activities and programmes, developments in *aquatic animal* health and food safety, and proposed interventions at WOAH, Codex Alimentarius Commission, WTO SPS Committee, etc. The consultation results in improved, better-adapted activities and greater stakeholder support.

III-2.a. Findings:

The Advisory Committee established by the Aquaculture Management Act 2020 is composed the MOF CEO, representatives of the Ministry responsible for the Environment, Ministry responsible for Labour and Commerce and Ministry responsible for Marine and Ports; and three representatives of the aquaculture industry. The aquaculture management regulations also establish consultation procedures with Aquaculture farmers, representatives of aquaculture farmers' associations, fishermen and their representatives.

Informal contact between MOF and groups such as Association of Pearl farmers is fluid and on a permanent basis.

III-2.b. Strengths:

- A advisory committee was established by the Aquaculture Management Act 2020.
- MOF maintain active informal communication channels with different stakeholders groups.

III-2.c. Weaknesses:

- There is no plan for consultation on the review of the Tonga National strategy on aquatic biosecurity

III-2.d. Recommendations:

- Schedule regular meetings with stakeholders and keep documented records of agenda/agreements.
- Include as many private sector stakeholder as possible in formal consultation procedures.

III-2.e. Evidence (as listed in Appendix 5): 16, 24, 36

III-3. OFFICIAL REPRESENTATION AND INTERNATIONAL COLLABORATION

DEFINITION
The capability of the AAHS to regularly and actively participate in, coordinate with and provide follow-up on relevant meetings and activities of regional and international organisations, including WOAH, Codex Alimentarius Commission, WTO SPS Committee, World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO) and Regional Economic Communities.
LEVELS OF ADVANCEMENT- 2
1. The AAHS do not participate in or follow up on relevant meetings or activities of regional or international organisations.
2. The AAHS sporadically participate in relevant meetings or activities and/or make a limited contribution.
3. The AAHS actively participate in the majority of relevant meetings and activities and provide some feedback to national colleagues.
4. The AAHS consult with non-government stakeholders and take into consideration their opinions when developing papers and making interventions in relevant meetings and in following up on meeting outcomes at the national or regional level.
5. The AAHS consult with non-government stakeholders to provide leadership, to ensure that strategic issues are identified, and to ensure coordination among national delegations as part of their participation in relevant meetings, including following up on meeting outcomes at national and/or regional levels. The AAHS collaborate internationally by sharing information and assisting to build capacity where appropriate.

III-3.a. Findings:

Tonga MAFF staff regularly participate in international and regional meetings and reporting back to colleagues is normally conducted. No formal reports are being provided.

Staff from the Food Division regularly participate in regional CODEX conferences and workshops. They also form part of electronic working groups to discuss specific technical draft norms at regional level.

The MAFF CEO attends relevant FAO meetings. The country is also a member of WTO, WHO and the SPC, where staff from different Ministries regularly participate.

The VS are represented in the Pacific Heads of Veterinary and Animal Production Services (PHOVAPS) network.

Tonga is a party to the Convention on Biological Diversity (CBD), accessed the Cartegena Protocol on Biosafety in 2003, the Kyoto Protocol in 2008 and became a member of the World Trade Organization (WTO) in 2007. Tonga is a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 2016.

Tonga is not currently a member of WOAH, however, they have been invited and participated in regional workshops targeting Pacific Islands, such as the PVS Pathway Orientation Training Workshop held in Fiji in 2023. The WOAH contact point for Tonga is a staff member from the aquatic biosecurity team in MOF.

III-3.b. Strengths:

- Regular participation in relevant regional and international meetings.
- Participation in regional instances provide opportunities for networking and exploring support initiatives for access to training, laboratory capacity, joint programmes, etc.

III-3.c. Weaknesses:

- No formal, structured reporting or follow-up after relevant meetings.
- No formal coordination between CAs attending different meetings for sharing of information.

III-3.d. Recommendations:

- Consider formal procedures for reporting back to colleagues after international meetings.
- Evaluate convenience of potential WOAH membership.

III-3.e. Evidence (as listed in Appendix 5): 34

III-4. ACCREDITATION/AUTHORISATION/DELEGATION

DEFINITION
The authority and capability of the public sector of the AAHS to accredit/authorise/delegate to private sector or NGO expertise (e.g. private *veterinarians*, *aquatic animal health professionals* and *laboratories*, NGOs), to carry out official tasks on its behalf, usually via a formal agreement (i.e. public−private partnership).
LEVELS OF ADVANCEMENT- 1
1. The public sector of the AAHS has neither the authority nor the capability to accredit/authorise/ delegate official tasks to the private sector or NGOs.
2. The public sector of the AAHS has the authority and capability to accredit/authorise/delegate official tasks to the private sector or NGOs, but there are currently no accreditation/authorisation/delegation activities.
3. The public sector of the AAHS develops accreditation/authorisation/delegation programmes for certain tasks using formal agreements, but these activities are not routinely reviewed.
4. The public sector of the AAHS develops and implements accreditation/authorisation/delegation programmes using formal agreements, and these activities are routinely reviewed to maintain standards and manage performance.
5. The public sector of the AAHS carries out audits of its accreditation/ authorisation/delegation programmes, to maintain the trust of its trading partners and other stakeholders.

III-4.a. Findings:

The VS/AAHS have no clear legal authority or capability to accredit/authorise/delegate any official tasks to the private sector.

III-4.b. Strengths:

- None

III-4.c. Weaknesses:

- No clear legal mandate to accredit/authorise/delegate official tasks to the private sector.

III-4.d. Recommendations:

- Consider any granting ‘official status’ to potential private sector veterinarians and/or aquatic animal health professionals that arrive in the country to undertake official tasks and programmes.

III-4.e. Evidence (as listed in Appendix 5): 12

III-5. VETERINARY STATUTORY BODY (VSB)

DEFINITION
Regulation and professional standards for *veterinarians* and other *aquatic animal health professionals* working in *aquatic animal* health.
A. *Veterinarians* working in *aquatic animal* health
The authority and capacity of the VSB to effectively and independently maintain educational and professional standards for *veterinarians* working in *aquatic animal* health. Regulation includes licensing or registration of those *veterinarians* who meet educational standards, and the ongoing oversight of their professional competence and conduct.
LEVELS OF ADVANCEMENT- 1
1. There is no VSB.
2. The VSB exists, but does not register or regulate any *veterinarians* working in *aquatic animal* health.
3. The VSB registers and regulates *veterinarians* working in *aquatic animal* health, but they are subject only to generic veterinary educational and professional standards.
4. The VSB or other official body for veterinary specialisation (e.g. College membership/fellowship system) has introduced some *aquatic-animal*-health-specific educational or professional standards applicable to *veterinarians* working in *aquatic animal* health.
5. The VSB regulates and applies disciplinary measures to *veterinarians* working in *aquatic animal* health. *Veterinarians* working in *aquatic animal* health are required to undertake continuing education to maintain their professional registration.

III-5.A.a. Findings:

There are no veterinarians currently in Tonga. There is no VSB, or any regulation of veterinarians or veterinary paraprofessionals.

III-5.b. Strengths:

- None

III-5.c. Weaknesses:

- None

III-5.d. Recommendations:

- Consider the possibility of working on a regional approach to develop regulations for the veterinary profession and veterinary paraprofessionals.

III-5.A.e. Evidence (as listed in Appendix 5):

III-5. VETERINARY STATUTORY BODY (VSB)

DEFINITION
Regulation and professional standards for *veterinarians* and other *aquatic animal health professionals* working in *aquatic animal* health.
B. *Aquatic animal health professionals* (non-*veterinarians*)
The authority and capacity of an independent body (VSB or other body) to effectively maintain educational and professional standards for *aquatic animal health professionals* (non-*veterinarians*). Regulation includes licensing or registration of those *aquatic animal health professionals* who meet educational standards, and the ongoing oversight of their professional competence and conduct.
LEVELS OF ADVANCEMENT- 1
1. There is no professional, regulatory body or informal system maintaining educational or professional standards for *aquatic animal health professionals* (non-veterinarians).
2. There is no professional regulatory body registering *aquatic animal health professionals*, but an informal system, such as specialised post-graduate courses with aligned government or private-sector career pathways, does maintain a level of educational standards for *aquatic animal health professionals*.
3. A professional regulatory body (either the VSB or other body) registers *aquatic animal health professionals* to maintain educational standards.
4. A professional, regulatory body (either the VSB or other body) has the authority to maintain ongoing professional standards, but there have been no disciplinary measures applied to *aquatic animal health professionals*.
5. A professional regulatory body (either the VSB or other body) applies disciplinary measures and requires that *aquatic animal health professionals* undertake continuing education to maintain their professional registration.

III-5.B.a. Findings:

There are no aquatic animal health professionals (non-veterinarians). currently in Tonga.

III-5.B.b. Strengths:

- None

III-5.B.c. Weaknesses:

- None

III-5.B.d. Recommendations:

- Consider the possibility of working on a regional approach to support and regulate professional standards for AAHP.

III-5.B.e. Evidence (as listed in Appendix 5):

III-6. PARTICIPATION OF PRODUCERS AND OTHER STAKEHOLDERS IN JOINT PROGRAMMES

DEFINITION
The capability of the AAHS to develop joint programmes (public−private partnerships) with regard to *aquatic animal* health, and food safety and/or *welfare* of farmed fish outcomes.
LEVELS OF ADVANCEMENT- x
1. Producers and other non-government stakeholders may comply with, but do not actively participate in, programmes.
2. Producers and other non-government stakeholders are informed of programmes and informally assist the AAHS in programme delivery in the field (e.g. industry groups helping to communicate the programme to their membership).
3. Producers and other non-government stakeholders formally participate with the AAHS in the delivery of joint programmes and advise of needed changes and improvements.
4. Representatives of producers and other non-government stakeholders actively partner with the AAHS to plan, manage and implement joint programmes.
5. Producers and other non-government stakeholders contribute resources and may lead the development and delivery of effective joint programmes with the AAHS. They also actively participate in their regular review, audit and revision.

III-6.a. Findings:

The MAFF has established successful joint programmes with stakeholders – in particular with the Tonga Livestock Farmers Council.

The MOF has good collaboration with fishermen and aquaculture communities, examples of joint initiatives are the landing/fridge facilities in Vava'u and the project for a new workshop for pearl farmers.

There are no programs in the area of AAH.

III-6.b. Strengths:

- Successful examples of instances where stakeholders formally participate with the AAHS in the delivery of joint programmes.

III-6.c. Weaknesses:

- Resources for these type of initiatives are limited and not always available.

III-6.d. Recommendations:

- Use these collaboration instances to promote aquatic animal health awareness among farmers (i.e., biosecurity, reporting diseases, contingency plans for emergencies, etc.).
- Continue working on similar initiatives and expand them to other stakeholders/groups.

III-6.e. Evidence (as listed in Appendix 5): 25, 28, 29, 32

III-7. AQUATIC ANIMAL HEALTH MANAGEMENT AND CLINICAL SERVICES

DEFINITION
The availability and quality of *aquatic animal* health management and clinical services to meet the needs of *aquaculture establishments*, including their access to *aquatic animal disease* diagnosis, treatment and prevention.
LEVELS OF ADVANCEMENT- 1
1. There are no/few *aquatic animal* health management or clinical services provided by either the public or private sector.
2. *Aquatic animal* health management or clinical services are available to *aquaculture establishments* in some areas, but the quality and coverage are highly variable.
3. *Aquatic animal* health management or clinical services are available to most *aquaculture establishments* from the public and/or private sector. In some areas there may be limited access or limited services.
4. *Aquatic animal* health management or clinical services are available to all *aquaculture establishments* via an efficient network of qualified *veterinarians*/*aquatic animal health professionals* assisted by *veterinary paraprofessionals/aquatic animal* health technical personnel. Diagnoses are generally made before treatment, with supporting *laboratory* tests where appropriate, and professional standards are maintained by a well-functioning VSB or other professional authorities.
5. *Aquatic animal* health management or clinical services are available to all *aquaculture establishments* through qualified *veterinarians*/*aquatic animal health professionals*, with appropriate diagnostic capability, treatments and the opportunity for specialist support if required.

III-7.a. Findings:

There are no aquatic animal health management or clinical services provided by either the public or private sector.

There are no AAHPs or AAHS to support clinical services.

III-7.b. Strengths:

- None

III-7.c. Weaknesses:

- None

III-7.d. Recommendations:

- Consider engaging with SPC to provide basic AAH training to MOF staff Fisheries and fish farmers
- Review AAH training needs and AAH training courses offered at regional and international level

III-7.e. Evidence (as listed in Appendix 5):

III.4 Fundamental component IV: Access to markets

This component of the evaluation concerns the authority and capability of the AAHS to provide support in order to access, expand and retain regional and international markets for animals and animal products. It comprises eight Critical Competencies.

Critical competencies:

Section IV-1	**Aquatic Animal Health legislation** **A. Legal quality and coverage** **B. Implementation and compliance**
Section IV-2	**International harmonisation**
Section IV-3	**International certification**
Section IV-4	**Equivalence and other types of sanitary agreements**
Section IV-5	**Transparency**
Section IV-6	**Zoning**
Section IV-7	**Compartmentalisation**

Aquatic Code references:

- Points 6, 7 and 9 of Article 3.1.2. on Fundamental principles of quality: Aquatic animal health legislation and regulations/General organisation/Procedures and standards.
- Chapter 4.1. on Biosecurity for aquaculture establishments.
- Chapter 4.2. on Zoning and compartmentalisation.
- Chapter 4.3. on Application of compartmentalisation.
- Chapter 5.1. on General obligations related to certification.
- Chapter 5.2. on Certification procedures.
- Chapter 5.3. on WOAH procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.
- Chapter 5.11. on Model health certificates for international trade in live aquatic animals and products of aquatic animal origin.

Terrestrial Code references:

- Chapter 3.4. on Veterinary legislation.
- Article 3.2.3. on Policy and management.
- Article 3.2.4. on Personnel and resources.
- Article 3.2.7. on Animal Health.
- Article 3.2.8. on Animal production food safety.
- Article 3.2.9. on Veterinary medicinal products.
- Article 3.2.11. on Animal welfare.
- Article 3.2.12. on International trade.

IV-1. AQUATIC ANIMAL HEALTH LEGISLATION

DEFINITION
The effectiveness of AAH legislation and regulations.
A. Legal quality and coverage
The authority and capability of the AAHS to develop or update AAH legislation to ensure its quality and coverage of the AAH domain. This Competency covers the quality of legislation, considering the principles of legal drafting, its impact, and suitability for implementation. This Competency includes formal collaboration with other legal drafting professionals, other relevant Ministries and *Competent Authorities*, national agencies and decentralised institutions that share authority or have a mutual interest in relevant areas of the AAH domain. It also covers stakeholder consultation relevant to AAH legislation.
LEVELS OF ADVANCEMENT- 2
1. *Aquatic animal* health legislation is lacking, outdated or of poor quality. The AAHS do not have the authority or capability to develop and update AAH legislation.
2. *Aquatic animal* health legislation covers some fields of the AAH domain. The AAHS, working occasionally with expert legal drafters and lawyers, have some authority and capability to develop and update AAH legislation.
3. *Aquatic animal* health legislation covers most fields of the AAH domain, including those fields under other *Competent Authorities*. The AAHS, working in formal partnership with expert legal drafters and lawyers, have the authority and capability to develop and update national AAH legislation, including through consultation with stakeholders, to ensure its legal quality and applicability.
4. *Aquatic animal* health legislation covers the entire AAH domain. The AAHS have the authority and capability to develop and update AAH legislation at the national (and sub-national where relevant) level, using a formal methodology which considers international standards, other relevant existing national legislation, consultation with stakeholders, legal quality and applicability, and regulatory impact.
5. AAH legislation comprehensively covers the entire AAH domain. The AAHS regularly evaluate and update AAH legislation at the national (and sub-national where relevant) level, with reference to ongoing effectiveness and changing international standards and science.

IV-1.A.a. Findings:

Tonga legislation covers all aspects of the AAH domain from the functioning of the public services including financial and staff matters as well as aquaculture and fisheries management. Food safety is regulated by Food Safety Act, but the corresponding implementating regulation is not yet in place and no official delegation was made from MAFF to MOF.

The fisheries management processing and export regulation includes the regulatory framework for import and export of live fish including ornamentals.

The Tonga Biosecurity Strategy is currently under review, the review should include regulatory matters to include missing provisions, for example although a national pathogen list was developed there is no legislative obligations for notification and/or control.

The MOF employs legal staff that work in collaboration with the government legal services (Attorney General) who provide assistance in drafting and interpretation.
Consultation of stakeholders such as farmers or aquatic food processors on legislation and regulations is not always done.

Annex 2: Key legislation, policy decision, and plans

Documents Contributing to the Ministry of Fisheries Mandate

The mandate is established by the following:

General

- The Constitution of Tonga
- Government Priority Agenda
- Tonga Strategic Development Framework II
- Government Act
- Public Finance Management Act
- Public Audit Act
- Public Service Act
- Code of Ethics and Conduct
- Social Media Guidelines for Tonga's Public Service
- Public Services (Grievance and dispute procedures) Regulations
- Public Service (Disciplinary procedures) Regulations
- Remuneration Act
- Procurement Regulations
- Public Revenue Regulations
- Internal Audit Charter

Specific to the Ministry of Fisheries

- Tonga Fisheries Sector Plan 2016
- Aquaculture Management Act 2003
- Aquaculture Management (Amendment) Act 2005
- Aquaculture Management (Amendment) Act 2009
- Fisheries Management Act 2002
- Fisheries Management (Amendment) Act 2009
- Maritime Zone Act 2009
- Tonga Defence Services (Amendment) Act 2013
- Fisheries Management (Processing and Export) Regulations 2008
- Fisheries Management (Conservation) Regulations 2008
- Fisheries Management (Conservation) (Amendment) Regulations 2013
- Fisheries Management (Processing and Export) (Amendment) Regulations 2010
- Fisheries (Local Fishing) Regulations 2009
- Aquaculture Management Regulations 2008
- Fisheries Management Act 2002 Special Management Area Order (GS 20 of 2004)
- Fisheries Regulations 1992
- Fisheries (Vessel Monitoring System) Regulations 2009
- Fisheries (Coastal Communities) Regulations 2009
- Fisheries (LimuTanga'u) Regulations 2009
- Special Management Area Order No.25/2013
- Stowage of Gear Regulations

IV-1.A.b. Strengths:

- Comprehensive legislative framework covering most areas of AAHS.
- The Aquatic Biosecurity Strategy revision proposes a review of existing legislation.

IV-1.A.c. Weaknesses:

- Lack of specific legislation or regulations covering aquatic diseases, surveillance, prevention and control.
- Lack of implementing regulation and technical /financial capacity to enforce legislation.
- Aquaculture management and development plan 2024-2029 is missing AAH considerations and priorities.

IV-1.A.d. Recommendations:

- Finalise the Aquatic Biosecurity Strategy review.
- Develop a complete suite of implementing regulations.
- Prioritise activities relating to aquaculture and biosecurity legislation to complement the aquaculture management and development plan and the review of the aquatic biosecurity strategy.

IV-1.A.e. Evidence (as listed in Appendix 5): 8, 9, 11, 12, 13, 14, 15, 16

IV-1. AQUATIC ANIMAL HEALTH LEGISLATION

DEFINITION
The effectiveness of AAH legislation and regulations.
B. Implementation and compliance
The authority and capability of the AAHS to ensure implementation of and compliance with AAH legislation across the AAH domain through communications, compliance and inspection activities. This Competency includes formal collaboration with other relevant Ministries and *Competent Authorities*, national agencies and decentralised institutions that share responsibility for implementation or have a mutual interest in relevant areas.
LEVELS OF ADVANCEMENT- 2
1. *Aquatic animal* health legislation is not implemented or is poorly implemented, and is not supported by communication, compliance or inspection activities.
2. *Aquatic animal* health legislation is implemented through some communication and awareness- raising activities concerning stakeholders' legal obligations, but few compliance and inspection activities are conducted.
3. *Aquatic animal* health legislation is implemented through a programme of communication and awareness-raising, and through formal, documented compliance and inspection activities. The AAHS undertake some legal action (e.g. administrative fines or prosecution) in instances of non-compliance in most relevant fields of activity.
4. *Aquatic animal* health legislation is implemented across the entire AAH domain and is consistently applied. The AAHS work to minimise instances of non-compliance through multiple means, including through targeted communications, incentives and appropriate legal processes. They have documented reports of responding to non-compliance.
5. *Aquatic animal* health legislation compliance programmes are regularly subjected to audit and review by the AAHS or external agencies.

IV-1.B.a. Findings:

Except for licencing of farms and establishments there is a lack of regulations that provide specific details on the compliance required and any penalties for failing to comply. No evidence was found of inspection records, penalties and follow up of recommendations in the sites visited (processing establishment, clam farm, ornamentals farm).

The relevant legislation is publicly available at the MOF website but there is still some confusion about responsibilities for the food safety aspects of aquatic animal products.

IV-1.B.b. Strengths:

- Implementing regulations and procedures are in place for licencing of aquaculture farms and aquatic animal product establishments.

IV-1.B.c. Weaknesses:

- Lack of specific legislation covering aquatic diseases, surveillance, prevention and control.
- Lack of implementing regulation and technical/financial capacity to enforce legislation.

IV-1.B.d. Recommendations:

- Develop regulations and prioritise implementation activities relating to aquaculture biosecurity and AAH.

IV-1.B.e. Evidence (as listed in Appendix 5): 8, 9, 11, 12, 13, 14, 15, 16

IV-2. INTERNATIONAL HARMONISATION

DEFINITION
The authority and capability of the AAHS to be active in the harmonisation of national AAH legislation and *sanitary measures* to ensure that they take into account international standards, and/or related regional directives or guidelines.
LEVELS OF ADVANCEMENT- 2
1. National AAH legislation and *sanitary measures* under the mandate of the AAHS do not take international standards into account.
2. The AAHS are aware of gaps, inconsistencies or non-conformities in national AAH legislation and *sanitary measures*, as compared to international standards, but do not have the capability or authority to rectify the problems.
3. The AAHS monitor the establishment of new and revised international standards, and periodically review national AAH legislation and s*anitary measures* accordingly.
4. The AAHS harmonise AAH legislation and *sanitary measures* and can demonstrate a level of alignment with changing international standards. The AAHS also review and comment on the draft standards of relevant intergovernmental organisations, and work through regional organisations, where available, to ensure better harmonisation with international standards.
5. The AAHS actively and regularly participate at the international level in the formulation, negotiation and adoption of international standards, and use these standards to harmonise national AAH legislation and *sanitary measures*.

IV-2.a. Findings:

The AAHS legislation is not in conformity with international standards in the aspects related to aquatic animal diseases.

The AAHS fish processing regulation regarding sanitary measures is in alignment with international food safety standards for the export of wild caught fish (tuna) for human consumption but MOF staff do not have the technical competences to issue certification for absence of aquatic diseases.

IV-2.b. Strengths:

- The AAHS can provide health certification and meet their trading partner food safety standards for import of wild caught fish.

IV-2.c. Weaknesses:

- There are gaps in national AAH legislation and *sanitary measures*, as compared to international standards.

IV-2.d. Recommendations:

- In developing AHS legislation and sanitary measures the AAHS, together with the legal drafting team, should review international and regional standards and best practices.

IV-2.e. Evidence (as listed in Appendix 5): 8, 11, 12, 13, 14

IV-3. INTERNATIONAL CERTIFICATION

DEFINITION
The authority and capability of the AAHS to certify *aquatic animals*, *aquatic animal products*, services and processes under their mandate for export, in accordance with the national AAH legislation and regulations, international standards, and the requirements of the importing country. This refers to the country's AAH export certification processes. Issues such as the legislative basis, format and content of AAH certificates; who signs certificates and the confidence they have in what they are certifying; and the outcome in terms of meeting international standards and/or importing country requirements to facilitate exportation should all be considered.
LEVELS OF ADVANCEMENT- 2
1. The AAHS have neither the authority nor the capability to certify *aquatic animals* and *aquatic animal products* for export.
2. The AAHS have the authority to certify certain *aquatic animals* and *aquatic animal products* but are not always in compliance with the national AAH legislation and regulations, and international standards.
3. The AAHS develop and carry out certification programmes for certain *aquatic animals*, *aquatic animal products*, services and processes under their mandate in compliance with international standards.
4. The AAHS develop and carry out all relevant certification programmes for all *aquatic animals*, *aquatic animal products*, services and processes for export under their mandate in compliance with international standards.
5. The AAHS carry out audits of their certification programmes to maintain national and international confidence in their system.

IV-3.a. Findings:

The MOF certify the following commodities for export: fresh wild tuna, fresh or frozen catch fish for personal consumption, and live wild ornamental fish. These certificates are signed by the MOF CEO being completed by unqualified staff, and without an understanding of the major aquatic diseases that could threaten the shipment.

All export requirements should be listed in the Tonga Trade portal[4] but the site is no longer updated. Regarding exports of sea cucumber to China the only documentation required is a CITES permit which is issued by the Aquatic Biosecurity division. Live ornamental fish is packed in the presence of a FO who issues the export permit and CITES certificate. If countries require a health certificate this is issued by MAF. A database of exports is maintained by the MOF compliance enforcement team.

IV-3.b. Strengths:

- Health certificates are issued by MOF according to importer requirements.

IV-3.c. Weaknesses:

- Non-veterinarians/AAHP are completing the certificates with limited knowledge of the obligations and requirements for international health certificates.

[4] https://tonga.tradeportal.org/

IV-3.d. Recommendations:

- Ideally, only veterinarians/AAHP, or those officers with official delegation and adequate technical competencies, should be permitted to certify live aquatic animals and products.
- In the absence of a veterinarian or AAHP on site, border inspectors should have pre-arranged access to one for expert advice in investigating suspicious clinical signs such as via video link or via sending photos to veterinarians or AAHPS from Fiji, New Zealand or Australia.

IV-3.e. Evidence (as listed in Appendix 5): 8, 35

IV-4. EQUIVALENCE AND OTHER TYPES OF SANITARY AGREEMENTS

DEFINITION
The authority and capability of the AAHS to apply flexibility in negotiating, implementing and maintaining equivalence and other types of sanitary agreements with trading partners. As a reference, Article 4 of the WTO SPS Agreement states: 'Member Countries shall accept the sanitary or phytosanitary measures of other Member Countries as equivalent, even if these measures differ from their own or from those used by other Member Countries trading in the same product, if the exporting Member Country objectively demonstrates to the importing Member Country that its measures achieve the importing Member Country's appropriate level of sanitary or phytosanitary protection. For this purpose, reasonable access shall be given, upon request, to the importing Member Country for inspection, testing and other relevant procedures.'
LEVELS OF ADVANCEMENT- 3
1. The AAHS have neither the authority nor the capability to negotiate or approve equivalence or other types of sanitary agreements with other countries.
2. The AAHS have the authority to negotiate and approve equivalence and other types of sanitary agreements with trading partners, but no such agreements have been implemented.
3. The AAHS have implemented equivalence and other types of sanitary agreements with trading partners on selected *aquatic animals*, *aquatic animal products* and processes.
4. The AAHS actively pursue the development, implementation and maintenance of equivalence and other types of sanitary agreements with trading partners on all matters relevant to *aquatic animals*, *aquatic animal products* and processes under their mandate. They publish their existing sanitary agreements in the public domain.
5. The AAHS actively work with stakeholders and take account of developments in international standards in pursuing equivalence and other types of sanitary agreements with trading partners.

IV-4.a. Findings:

The MAFF and MOF have established agreements with New Zealand and Australia that allow the export for personal consumption of meat and fish. The export products are transported with passengers luggage and a certificate guaranteeing the products sanitary conditions is issued either by MAFF or MOF following visual inspection at the airport border inspection post. Fish is either fresh or frozen and visual inspection is limited. No laboratory analytical tests are made.

Tonga currently has very limited export of aquatic animals and products.

IV-4.b. Strengths:

- A sanitary agreement with NZ and AU was established for the export of animal products for personal consumption.

IV-4.c. Weaknesses:

- Export checks consist of limited visual inspection

IV-4.d. Recommendations:

- None

IV-4.e. Evidence (as listed in Appendix 5): 8, 15

IV-5. TRANSPARENCY

DEFINITION
The authority and capability of the AAHS to notify WOAH, WTO, trading partners and other relevant organisations of their *disease* status, regulations and *sanitary measures* and systems, in accordance with established procedures, as applicable to *international trade.*
LEVELS OF ADVANCEMENT- 2
1. The AAHS do not notify.
2. The AAHS occasionally notify.
3. The AAHS notify in compliance with the procedures established by these organisations.
4. The AAHS regularly inform interested parties of changes in *disease* status, regulations and *sanitary measures* and systems, as applicable to *international trade*.
5. The AAHS, in cooperation with their stakeholders, carry out audits of their *notification* procedures.

IV-5.a. Findings:

The Kingdom of Tonga is not a WOAH member and has no notification obligation. A staff member of the MOF is the WOAH contact point and regularly provides updates on behalf of MAFF and MOF. No disease outbreaks or surveillance reports were ever notified to WOAH.

Tonga is a party to the Convention on Biological Diversity (CBD), accessed the Cartegena Protocol on Biosafety in 2003, the Kyoto Protocol in 2008 and became a member of the World Trade Organization (WTO) in 2007. Tonga is a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 2016.

IV-5.b. Strengths:

- Although not a WOAH member a Tonga contact point was appointed.

IV-5.c. Weaknesses:

- There is no capacity in surveillance of aquatic diseases.

IV-5.d. Recommendations:

- Develop systems for surveillance and monitoring and information management of aquatic diseases of relevance at national and regional level.

IV-5.e. Evidence (as listed in Appendix 5):

IV-6. ZONING

DEFINITION
The authority and capability of the AAHS to establish and maintain *disease*-free *zones*, as necessary and in accordance with the criteria established by WOAH (and by the WTO SPS Agreement, where applicable).
LEVELS OF ADVANCEMENT- 1
1. The AAHS do not have the authority or capability to initiate the establishment of *disease*-free *zones*.
2. The AAHS have identified a geographical *aquatic animal* subpopulation or subpopulations as candidates to target for a specific health status, suitable for zoning.
3. The AAHS are implementing *biosecurity* and *sanitary measures* with the intention of establishing a *disease*-free *zone* for selected *aquatic animals* and *aquatic animal products.*
4. The AAHS have established at least one *disease*-free *zone* of selected *aquatic animals* and *aquatic animal products* with collaboration from producers and other stakeholders in alignment with WOAH international standards.
5. The AAHS can demonstrate the scientific basis for any *disease*-free *zone* and have gained recognition by trading partners that they meet the criteria established by WOAH (and by the WTO SPS Agreement, where applicable).

IV-6.a. Findings:

Zoning of aquaculture for disease-freedom is not required, however, zoning principles could be considered for the aquaculture management and development plan.

IV-6.b. Strengths:

- None

IV-6.c. Weaknesses:

- None

IV-6.d. Recommendations:

- Ensure zoning principles and legislation are considered in plans and strategies regarding the establishment and development of aquaculture.

IV-6.e. Evidence (as listed in Appendix 5):

IV-7. COMPARTMENTALISATION

DEFINITION
The authority and capability of the AAHS to establish and maintain *disease*-free *compartments* as necessary, and in accordance with the criteria established by WOAH.
LEVELS OF ADVANCEMENT- 1
1. The AAHS do not have the authority or capability to initiate the establishment of a*quatic animal disease*-free *compartments*.
2. The AAHS can identify *aquatic animal* subpopulations as candidate establishments with a specific health status suitable for compartmentalisation, in partnership with interested stakeholders.
3. The AAHS, working in close partnership with interested stakeholders, ensure that planned *biosecurity* measures to be implemented will enable the establishment and maintenance of *disease*-free *compartments* for selected *aquatic animals* and *aquatic animal products.*
4. The AAHS collaborate with producers and other stakeholders to define responsibilities and undertake actions that enable the *aquaculture establishment* to maintain *disease*-free *compartments* for selected *aquatic animals* and *aquatic animal products*, approved and regulated by the *Competent Authority*.
5. The AAHS can demonstrate the scientific basis for *disease*-free *compartments* and have gained recognition by other countries that they meet the criteria established by WOAH (and by the WTO SPS Agreement, where applicable).

IV-7.a. Findings:

Compartmentalisation of aquaculture is not undertaken, however, compartmentalisation as an aquatic animal health management principle should be given due consideration for the Tonga Aquaculture Management and Development Plan, especially for the development of hatcheries.

IV-7.b. Strengths:

- None

IV-7.c. Weaknesses:

- None

IV-7.d. Recommendations:

- Ensure WOAH compartmentalisation principles and legislation are considered in plans and strategies regarding the establishment and growth of aquaculture in Tonga.

IV-7.e. Evidence (as listed in Appendix 5):

PART IV: APPENDICES

Appendix 1: Country information (geography, administration, agriculture and livestock)

The Kingdom of Tonga is an archipelago of 172 coral and volcanic islands, of which 36 are inhabited, spread over 360,000 square kilometres in the South Pacific Ocean. Most of the islands are very small in size, ranging from those of only a few hectares, to Tongatapu, the largest island, with an area of 265 square kilometres.

The total land area is 747 square kilometres, made up of the four main island groups of Tongatapu and 'Eua (370 Km^2), Ha'apai (119 Km^2), Vava'u (143 Km^2) and the two Niuas (71 Km^2).

Tonga has a semitropical climate except in the northernmost islands, where truly tropical conditions prevail. Temperatures range between 16 and 21°C in June and July and reach 27°C in December and January. The islands are mostly made up of coral and volcanic land, with the highest elevation being Mount Kao on the island of Kao at 1,033 meters. The country lies east of the Fiji Islands and is part of the Pacific Ring of Fire, prone to earthquakes and volcanic activity.

Tonga's population is about 106,000 people, with a predominantly Polynesian ethnic background. The official languages are Tongan and English, and Christianity is the predominant religion, with most of the population adhering to various Christian denominations.

Regular international air service to New Zealand, Fiji, Australia, Samoa, American Samoa, Niue, and Hawaii is available from Fua'amotu International Airport on Tongatapu. Domestic flights are serviced by airports on 'Eua, Ha'apai, Vava'u, Niuafo'ou, and Niuatoputapu. An undersea fibre-optic cable linking Tonga with a Fiji-based regional telecommunications network provides high-speed Internet access.

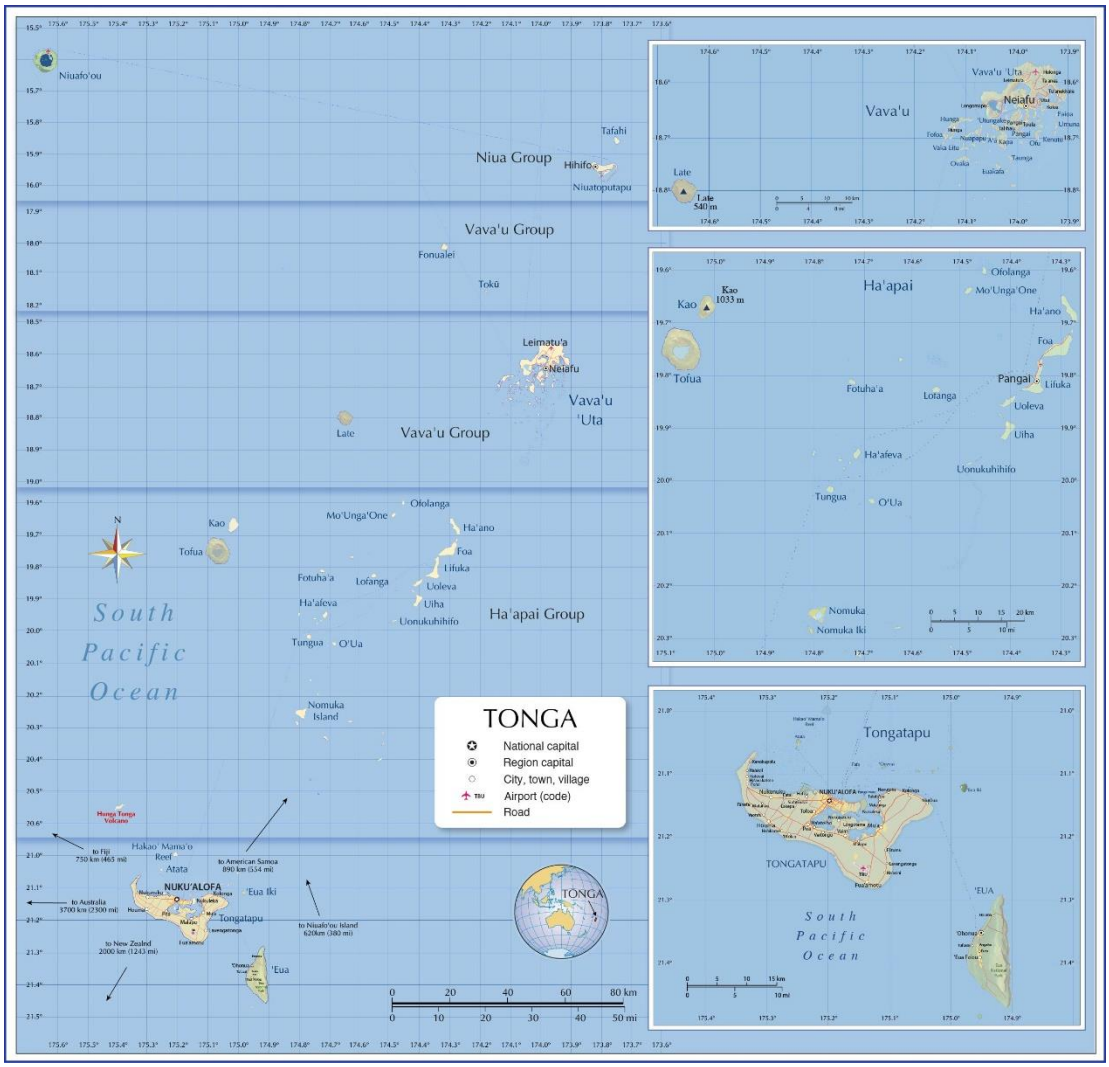
Tonga is a constitutional monarchy, currently led by King Tupou VI. The country has a parliamentary system, and while the monarch has some influence, the day-to-day affairs are handled by the elected Prime Minister and the Cabinet. The parliament consists of nobles elected by their peers and representatives elected by the public. All land is essentially owned by the Tongan monarchy, but large estates have been divided among the country's nobles. Land is parcelled out to proprietors: traditionally, every male age 16 or over was entitled to an allotment of 3 hectares of land for cultivation; more recently, population growth has reduced the size of actual allotments in many places.

Tonga's economy is relatively small and somewhat vulnerable due to its geographic isolation and exposure to natural disasters. However, it has seen steady growth in recent years. Key economic indicators include[5]:

- GDP: Approximately USD 518 million (2022 estimate).
- GDP per capita: Around $4,900 (2022 estimate).
- Inflation rate: 6.4% annual (2023 estimate).
- Unemployment rate: 2.3% total labour force (2023 estimate).Remittances from Tongans living abroad, particularly in Australia, New Zealand, and the United States, play a significant role in the economy. Tourism is also an important industry, with the country's natural beauty attracting visitors from around the world.

[5] World Bank: https://data.worldbank.org/country/tonga

Map of the Kingdom of Tonga



Fisheries and aquaculture

Fisheries and aquaculture are crucial components of Tonga's economy, providing food security, employment, and export revenue. Situated in the South Pacific, Tonga's Exclusive Economic Zone (EEZ) covers approximately 700,000 square kilometers .

The fishing industry in Tonga can be divided into three main sectors: subsistence, artisanal, and commercial. The commercial sector is aimed at both the domestic market and export. Tuna is the main target species for commercial operations, with albacore, bigeye, and yellowfin tuna being the most valuable catches. Tonga sells fishing licenses to foreign fleets, mainly from Japan, South Korea, Taiwan, and the United States, to fish in its waters, which is a significant source of government revenue.

The fisheries sector in Tonga faces several challenges, including overfishing, climate change, and the need for sustainable management. Illegal, unreported, and unregulated (IUU) fishing is a concern that can affect stock sustainability and economic returns. Tonga is a member of the Pacific Islands Forum Fisheries Agency (FFA), which helps Pacific countries manage their fisheries resources.

Aquaculture in Tonga is relatively small but has potential for expansion. The government, with support from international organizations, has been promoting aquaculture as a means to diversify the economy, improve food security, and reduce fishing pressure on wild stocks. The main species cultivated include:

Seaweed: Seaweed farming, particularly of the species Eucheuma and Kappaphycus. These seaweeds are used in the production of carrageenan, a thickening agent used in the food industry. *Cladosiphon sp* “Limu Tanga’u” is collected from wild. There is 1 license and 1 exporter.

Molluscs: Giant clams (Tridacna spp.), which are popular in the aquarium trade and Wing Pearl oysters form mabe pearls

Echinoderms: Sea cucumbers

To support and develop the fisheries and aquaculture sectors, Tonga works with various regional and international agencies, including the Secretariat of the Pacific Community (SPC) and the Food and Agriculture Organization of the United Nations (FAO). These partnerships help provide technical assistance, training, and funding for sustainable development projects.

Number of hatcheries per Species /Region (2022-2023)

Region	Fish		Molluscs	
	Species	No.	Species	No.
Tongatapu	Sea cucumber	1	Giant clam	1
			Mabe pearl	
TOTAL		1		1

Number of on-growing sites per Species/State/Region (2023)

Region	Fish		Molluscs	
	Species	No.	Species	No.
Tongatapu	Sea cucumber	1	Giant clams	3
			Mabe pearl	2
Vava'u	Sea cucumber	3	Mabe pearl	34
Haapai			Giant clam	7
			Mabe pearl	14
TOTAL		4		60

Hatchery production 2023

Region	Fish		Molluscs	
	Species	pcs	Species	
Tongatapu	Sea cucumber	1335459 pcs	Giant clams (maxima)	10-15M
	Sea cucumber	29124 pcs	Mabe pearl	30M
Vava'u	Sea cucumber	1700 pcs	Mabe pearl (spat collector)	pcs spat 250

Hatchery production 2022

Region	Fish		Molluscs	
	Species	Kg	Species	Kg
Tongatapu	Sea cucumber (spawning)	70M	Giant clams (derasa) - spawning	9.8M
	Sea cucumber	388375pcs	Mabe pearl – spawning	3.2M
Vava'u			Giant clams (SMAs) - derasa	124 pcs
			Giant clams (SMAs) - maxima	234 pcs

Fisheries related activities 2023

Region	No. Landing sites	No. Fishing vessels		Total catch	No. of Ice factories
		Drop Line	Longline		
Tonga	1	15	13	68.215 mt (snapper – drop line)	1
				2501.71 mt (tuna - longline)	

Numbers of registered aquatic animal products establishments per region (2023)

Region	Processing	Distribution	Fish markets/ roadside stall(s)
Tonga	6	Hawaii, Aust, Taiwan, Fiji, Canada, HK, Malaysia, Japan, Singapore, USA etc.	6 fish markets/ 24 vendor roadside
Haapai			1 vendor roadside stall
Vava'u			1 fish market/ 11 vendor roadside
TOTAL			

Aquatic animals and products exports 2022-2023

Species/products	Quantity	Countries of destination
Sea cucumber (dry)	350 pcs	Australia
	12985 pcs	Hong Kong
	10954 pcs	Sydney, Australia
Tuna (frozen)	3030.46Ton	Hawaii, USA, Aust, Taiwan, Fiji, Canada etc.
Aquarium fish (live)	184348 pcs	HK, Malaysia, Japan, Singapore,USA etc.

Aquatic animals and products imports _____(year)

Species/products	Quantity[2]	Countries of origin	Ports of entry

Appendix 2: Timetable of the mission; sites / facilities visited

Event Time & Location	Focus	Event Description & Organization
9/9/24 Mon/pm	***Joint***	***Meet with contact point for final agenda review***
10/9/24 Tue		**Tongatapu group - Tongatapu - Nuku'alofa**
Courtesy visit **9.00- 10.00 am** *Location:* **Hon. Minister Office**	Joint	**Courtesy visit to Minister** of Agriculture, Food and Forest and Minister of Fishery – Hon. Lord Fohe ***Topic: Purpose of the mission***
Opening meeting **10.00 - 13.00 am** *Location:* **Ancient Tonga**	Joint	**Opening meeting with Headquarters staff and representatives** of all interested parties. • **Ministry of Agriculture, Food and Forests** • **Ministry of Fisheries** • **Ministry of Health** • **MEIDECC - NEMO** • **Ministry for Lands and Natural Resources** • **Ministry of Health** • **Industry associations:** ○ **Livestock producers' association – *Livestock Council*** ○ ***Tonga Animal Welfare Society*** ○ **Aquatic producers' association** • **Regional partners: *FAO, SPC, WHO, ADB, World Bank, USAID, JICA, Australia High Commission, New Zealand High Commission*** ***Topic: Purpose of the mission, objective and target outcomes and output***
Competent Authority **2:00 pm** *Location:* **MAFF Conference Room**	Joint	Discussion about documents sent before the Mission: ***Participants: PVS Mission & Stakeholders (Livestock Division, Food, Quarantine and Ministry of Fishery)***
Competent authority **3:00 pm** Location: **MAFF Conference Room**	Joint	Meet with Corporate Services ***Participants: PVS Mission, MAFF & MOF Corporate Service*** ***Topic: Budgets, corporate policies for livestock and aquatic AH projects, activities***
Competent authority **3:30 pm** Location: **MAFF Conference Room**	Terrestrial	Meet with Livestock Division & relevant parties • **Mr Charles Kato and 4 other staff** • **Food Division** • **Quarantine Division** ***Topic: Closer discussion on the documents on livestock***
Competent authority	Aquatic	Meet with Fisheries Department /Fisheries research

3:30pm Location: **MOF Conference Room**		
11/9/24 Wed		**Tongatapu - Nuku'alofa**
Regional Partners Meeting ***9:00 am – 10:30am***		**Regional partners: *FAO, SPC, WHO, ADB, World Bank, USAID, JICA, Australia High Commission, New Zealand High Commission***
Site Visit: Animal Health Physical Capacity **10:30 am – 12:30 pm** *(Location as in the Description box)*	Joint	• *Location #1: Ministry of Agriculture Food Lab, Nuku'alofa* • *Location #2: Livestock Division Office* • *Location #3: Ministry of Fisheries*
Educational Institute **2:00 pm**	Joint	Educational or professional training facilities • ***Tonga National University – School of Agriculture***
Environment & Emergency Response **3:00 pm**	Joint	Ministry for Lands and Natural Resources. *Shared activities such as authorization of farms or environmental impact monitoring* MEIDECC *National Emergency Management Office (NEMO)*
Biosecurity Border control **4:00 pm**	Joint	• Airport & Seaport customs • Biosecurity (Quarantine & Livestock Division)
Feed	Joint	Animal Feed importer/retailer – Nishi Trading, Chinese shops, Poultry farm (Tisi Vete) Aquatics – only relevant for fisheries
12/9/24 Thu		**Tongatapu - Nuku'alofa**
Field visits **09:00am** Location: **Main Office in Sopu**	Aquatic	Fish hatchery • **Aquaculture Hatchery** • **Vast Ocean Hatchery (sea cucumber)**
Field visits **10:00am** Location: **Sopu**	Aquatic	Fish farm • **Fisheries fish pond**
Field visits **10:50am** Location: **Sopu/ Hofoa/ Patangata**	Aquatic	Fish market • **Roadside stall(s)**
Field visits **11:30am** Location: **Faua Wharf/ Tuimatamoana**	Aquatic	Fish landing site • **Faua Wharf**
Field visits **12:00-13:00pm**	Aquatic	Fish processor- Export • **Atlantis Fisheries (tuna export)** • **Sea weed export (Mozuku)**

Location: **Tuimatamoana, Sopu**		
Field visits **14:00-15:30pm** **Location: Halaleva, Vaini**	Aquatic	Ornamental fish exporter • **Eco Reef Farm International Ltd.** • **JLE International**
Field visits **9:00am** Location: **Livestock Division office or TAWS office**	Terrestrial	• South Pacific Animal Welfare Society (TAWS) • Tonga Animal Welfare Society
Field visits **10:30am** Location: **Livestock Division Office**	Terrestrial	• **Tonga Livestock Council Incorporate** • **Other interested Farmers**
Field visits **11:30am** *Location:* **Farms all over Tongatapu**	Terrestrial	Livestock farm • ***Livestock stations of MAFF - Vaini*** • ***Poultry Farm, Piggery Farm, Sheep Farm & Cattle Farm*** • ***Toloa College Dairy Milk production***
Field visits **2:00pm** *Location:* **Butcher all over Tongatapu**	Terrestrial	Informal Slaughterhouse/ Butcher • **Beef Butcher Shop - TBC** • **Pork Butcher Shop – 42 Evergreen Restaurant** • **Poultry Farm – Tisi Vete**
Field visits	Terrestrial	• *Possible pharmacy that may be selling animal drugs*
13/9/24 Fri		**Tongatapu - Nuku'alofa**
Human Health meeting 9:00am – 11:00am	Joint	**Consultation Meeting with MOH and site visit to the facilities – Public Health, Laboratory, Environment Health, Pharmacy**
14/9/24 Sat		**Vava'u group**
Field visits	Aquatic	Main pearl oyster farm in Vava'u
		Return from Vav'au
15/9/24 Sun		**PVS Mission team discussion day**
16/9/24 Mon		**Tongatapu - Nuku'alofa**
Stakeholders	Terrestrial	*To be confirmed based on gaps identified from the visits*
Stakeholders	Aquatic	Fisherman association
Stakeholders	Joint	Other stakeholder organisations
PVS mission Team	Joint	Afternoon preparation for the closing meeting
17/9/24 Tues		**PVS team Discussion (Public Holiday)**
18/9/24 Wed		**Tongatapu - Nuku'alofa**
Closing meeting **9:00am – 11:00am**	Joint	**Closing meeting with Headquarters staff and representatives** of all interested parties. • **Ministry of Agriculture, Food and Forests** • **Ministry of Fisheries**

Location: **Ancient Tonga**		• **Ministry of Health** • **MEIDECC** • **Ministry for Lands and Natural Resources** • **Ministry of Health** • **Industry associations & Non-Government Organization:** ○ **Livestock producers' association – *Livestock Council*** ○ ***Tonga Animal Welfare Society*** ○ **Aquatic producers' association** • **Regional partners: *FAO, SPC, WHO, ADB, World Bank, USAID, JICA, Australia High Commission, New Zealand High Commission*** ***Topic: <u>Thank all participants, present preliminary observations and conclusions, discuss recommendations</u>***

Appendix 3: Air travel itinerary

ASSESSOR	DATE	From	To	Flight No.	Departure	Arrival
Ana Afonso	7/9/24	Lisbon	Madrid	IB8871	8:25	11:05
	7/9/24	Madrid	Doha	QR150	16:20	00:05
	8/9/24	Doha	Auckland	QR920	3:50	04:45
	9/9/24	Auckland	Tonga	NZ970	07:25	11:20
	18/9/24	Tonga	Auckland	NZ971	13:50	15:50
	21/9/24	Auckland	Dubai	EK449	20.30	5.35
	22/9/24	Doha	Milan	EK2140	7.20	12.15
Pablo Belmar	07 Sept	Amsterdam	Doha	QR 274	16.15	23.30
	08 Sept	Doha	Auckland	QR 920	03.50	04.45
	09 Sept	Auckland	Nuku'alofa	NZ 970	07.25	11.20
	18 Sept	Nuku'alofa	Auckland	NZ 971	13.50	15.50
	18 Sept	Auckland	Dubai	EK 449	20.30	05.35
	19 Sept	Dubai	Amsterdam	EK 147	08.05	13.15

Appendix 4: Public-Private Partnerships in the Kingdom of Tonga

WOAH defines Public-Private Partnerships (PPPs) as a joint approach in which the public and private sectors agree on responsibilities and share resources and risks to achieve common objectives. The establishment of PPPs contributes to a more efficient and effective use of both public and private sector resources and enables each sector to focus on activities most central to their respective responsibilities and capabilities.

There are multiple ways to establish effective PPPs. These collaborations can take several forms according to the type of private partners involved, the funding source, and the governance mechanisms. They can be classified under three main typologies; however, each new PPP can comprise elements from several typologies:

- *Transactional* : government procurement of specific animal health or sanitary services from private veterinary service providers.
- *Collaborative*: joint commitment between the public sector and end-beneficiaries to deliver mutually agreed policies or outcomes.
- *Transformative*: establishment of sustainable capabilities to deliver otherwise unattainable major programmes.

Pathway to sustainable oceans – Tongafish[6] is a multiannual project for the development of Tonga aquaculture and a more sustainable fisheries management.

The project is financed by the World Bank and includes several components that are public private partnerships between the MOF and island communities. Special management areas were created in the different outer islands giving responsibilities to the local communities for management of aquaculture areas, collection of wild spat and juveniles and fisheries stock management. Within the project is included the support to the Tonga pearl farmers association with provision of boats, farming equipment and a new office and workshop.

The project has the objective to empower the ministry and farmers and fishermen but it is dependent on donor funding.

[6] http://pathway.tongafish.gov.to/

Appendix 5: List of documents used in the PVS AAHS evaluation

E = Electronic version H = Hard copy version P= Digital picture

Ref	PRE-MISSION DOCUMENTS	Related CCs
1	Baseline Documents provided by MAFF / MOF	All
2	SPC. (2022). Tonga. Statistics for Development Division https://sdd.spc.int/to	
3	Secretariat of the Pacific Community (SPC): Policy Brief. https://pafpnet.spc.int/attachments/article/142/pafpnet_policybrief%20number%209%20web.pdf	
4	Implementing recommendations to strengthen and enhance Tonga's special management area programme towards better managed coastal fisheries resources and empowered food secure communities (FAO 2023) https://openknowledge.fao.org/items/e73052f6-2113-4d45-b7ad-3b2002bb3f00	
5	Fisheries of the Pacific Islands -Regional and national information (FAO 2018)	
6	Assessment of the Aquaculture needs, priorities and future direction in the Pacific Islands Region - Integrated Aquatic Solutions (IAS)- (SPC 2022) https://www.spc.int/DigitalLibrary/Doc/FAME/Meetings/RTMCF/5/RTMCFA5_BP2_Assessment_aquaculture_needs.html	
7	Regional framework on aquatic biosecurity - (SPC FAME 2020) https://www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_20_RegionalFrameworkAquaticBiosecurity.html	
Ref	**MISSION DOCUMENTS**	**Related CCs**
8	Animal Diseases Act 1988	I-9, II-2, II-3, II-4A, II-4B, II-5, II-6, II-11, IV-1A, IV-1B
9	Animal Diseases Act Revised 2020	I-6B, I-9, II-2, II-3, II-4A, II-4B, II-5, II-6, II-11, IV-1A, IV-1B, IV-2, IV-3, IV-4
10	Therapeutic Goods Act 2020	III-8, II-9
11	Biosafety Act 2009	II-11, IV-1A, IV-1B
12	Food Act 2020	I-6B, II-7A, III-4, IV-1A, IV-1B, IV-2
13	Public Health Act 2020	I-6B, II-7A, II-7B, III-2, IV-1A, IV-1B, IV-2
14	Quarantine Act 1988	II-6B, II-3, IV-1A, IV-1B, IV-2
15	Public Service Act 2020	I-4, I-5, III-4, IV-1A,
16	Aquaculture Management Act 2020	I 6 A, II6 A, II 6 B, II 7 A, II 12 A, IV-1A, IV-1B , IV 3
17	Agricultural Commodities Exports Act 2002	IV-1A, IV-1B, IV-3, IV-4
18	Disaster Risk Management Act 2021	I-6B, I-9, II-5, IV-1A, IV-1B
19	Consumer Protection Act 2000	I-6B, II-12B, IV-1A, IV-1B
20	Food Import Requirements	II-2, II-3, II-7A, IV-2
21	Food Processing Inspection Checklist	II-2, II-7A,
22	Quarantine and Quality Management Division Annual Report_2023	I-6B, II-2, II-3, III-1, IV-1B, IV-3, IV-4
23	Food Business Inspection Section Workplan- 2024	II-2, II-7A
24	National Plan on AMR 2017-2022	I-6B, II-8, II-9, II-10
25	List of SMA communities	III 6

26	Job Description_MOF_Example	I1 B
27	Tonga university – courses: https://tnu.edu.to/school-of-agriculture-course-description/	I-2B, I-3
28	Tonga National strategy on aquatic biosecurity	II-4 A, II-4 B, II-6 A, II-6 B, II-12 A, III-6
29	Kingdom of Tonga National Aquaculture management and development plan 2024-2029	I-5, III 6
30	Corporate Plan Ministry of Fisheries_CP_FY2024-25	I-5, I-6 A, I-6 B
31	Aquaculture management regulations	II-12A
32	Tonga - Pathway to Sustainable Oceans Project World bank https://documents.worldbank.org/en/publication/documents-reports/documentdetail/309511555812077778/tonga-pathway-to-sustainable-	III-6
33	Import Procedures for Vaccines, Medicines and Medical Products-Kingdom of Tonga	II-8, II-9
34	MOF Annual report – Financial year 2021-2022	I-1 A, I-1 B, I-3, I-5, I-7, I-8, III-3
35	Export Certificate Fish_MOF	IV-3
Ref	**MISSION PICTURES**	**Related CCs**
36	Domestic Fish Market_ 1-2 -3	II-7 B
37	Domestic Fish landing site	II-7 A, II-7 B
38	Food safety division -MAFF – laboratory	II-1 A
39	Food safety poster	III-1
40	Fishery products import licence by QQD – MAFF	II-3
41	Australian Government fishery products export certificate	II-3
42	MOF hatchery laboratory 1	II-1 A
43	MOF hatchery laboratory 2 – ciguatera research	II-1 A
44	Fresh Tuna export certificate – MOF 1-2	Iv-3
45	Aquatic product processing licence MOF	II-7A
46	Aquatic product processing licence renewal MOF	II-7A
47	Tuna fisheries export facility landing 1-2	II-7A
48	Tuna fisheries export facility inspection	II-7A
49	Tuna fisheries export facility cutting	II-7A, II-7B
50	Tuna fisheries facility sales point for local market	II-7A, II-7B
51	Sulfa -TMP at ornamental exporter	II-8
52	Ornamental fish exporter facilities 1-2	IV-3
53	Airport quarantine 1-2 -3 -4	II-3
54	Quarantine fees – airport	II-3
55	Vava'u quarantine	II-3
56	Fisheries landing site Vava'u	II-7 A
57	Pearl lines Vava'u	II-12 A
58	Export certificate MOF fisheries products below 10KG	IV-3, IV-4

Appendix 6: Organisation of the PVS Evaluation of the AAHS of the Kingdom of Tonga

Assessors Team	
Team leader:	Dr Ana Afonso
Technical expert:	Dr Pablo Belmar Kretschmann
Observer/Facilitator:	Dr Kevin Ellard
Information of the mission	
Contact point in the country:	Mr Charles Kato - MAFF
Contact point in the country:	Ms Meletoli Fa'anunu - MOF
Dates:	10 - 18 September 2024
Subject of the evaluation	AAHS as defined in the Aquatic Animal Health Code Joint evaluation including terrestrial animals – Separate report Inclusive of other institutions / ministries responsible for activities of AAHS
Evaluation	
References and Guidelines:	○ Aquatic Animal Health Code (especially Section 3) ○ Terrestrial Animal Health Code ○ Tool for the Evaluation of Performance of AAHS → Human, physical and financial resources → Technical authority and capability → Interaction with stakeholders → Access to markets
Activities assessed:	**All activities related to animal and veterinary public health** ○ Field activities: ▪ Aquatic animal health (epidemiological surveillance, early detection, disease control, etc) quarantine (all country borders) ▪ veterinary public health (food safety, veterinary medicines and biological, residues, etc) ▪ control and inspection ▪ others ○ Data and communication ○ Laboratory diagnostic ○ Research ○ Initial and continuous training ○ Organisation and finance ○ Other to be determined
Procedure:	○ Consultation of data and documents ○ Comprehensive field trips ○ Interviews and meetings with VS/AAHS staff and stakeholders ○ Analyse of practical processes

End of Report